

**Environmental Subsurface Investigation
Prairie Line Trail Phases 2A and 2B**

Hood Street-South 25th Street to South 21st Street
Tacoma, Washington

for
BCRA, Inc.

September 18, 2015



GEOENGINEERS 
Earth Science + Technology

**Environmental Subsurface Investigation
Prairie Line Trail Phases 2A and 2B**

Hood Street-South 25th Street to South 21st Street
Tacoma, Washington

for

BCRA, Inc.

September 18, 2015



1101 South Fawcett Avenue, Suite 200
Tacoma, Washington 98402
253.383.4940

**Environmental Subsurface Investigation
Prairie Line Trail Phases 2A and 2B**

**Hood Street-South 25th Street to South 21st Street
Tacoma, Washington**

File No. 0570-133-02

September 18, 2015

Prepared for:

BCRA, Inc.
2106 Pacific Avenue, #300
Tacoma, Washington 98402

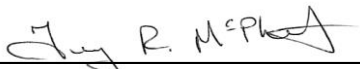
Attention: Alan McWain

Prepared by:

GeoEngineers, Inc.
1101 South Fawcett Avenue, Suite 200
Tacoma, Washington 98402
253.383.4940



Tricia S. DeOme, LG
Geologist



Terry R. McPhetridge, LG, LHG
Associate

TSD:TRM:tt:ch

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

Table of Contents

1.0 INTRODUCTION	1
2.0 BACKGROUND.....	1
3.0 SUBSURFACE INVESTIGATION.....	2
3.1. Soil Borings	2
3.2. Groundwater Seep Samples	2
3.3. Site Conditions	3
3.3.1. Surface Conditions	3
3.3.2. Soil Conditions	3
3.3.3. Groundwater Conditions	4
3.3.4. Field Screening Results.....	4
4.0 CHEMICAL ANALYTICAL PROGRAM	4
4.1. General	4
4.2. Criteria	4
4.3. Soil Chemical Analytical Results	5
4.3.1. Total Petroleum Hydrocarbons	5
4.3.2. Metals	7
4.3.3. VOCs	10
4.3.4. PAHs/SVOCs	11
4.4. Groundwater Seep Chemical Analytical Results	12
4.4.1. Total Petroleum Hydrocarbons	12
4.4.2. Dissolved Metals	12
4.4.3. VOCs	12
5.0 CONCLUSIONS	13
5.1. Soil	13
5.2. Groundwater Seeps	14
6.0 RECOMMENDATIONS	14
6.1. Soil Management.....	14
6.1.1. CPAH, Metal or Petroleum Hydrocarbon-Contaminated Soil	15
6.1.2. CPAH, Metal or Petroleum Hydrocarbon-Impacted Soil	15
6.1.3. Soil With PCE or TCE Detections.....	15
6.1.4. Non-Impacted Soil	16
6.2. Groundwater Management	16
7.0 LIMITATIONS	16

LIST OF FIGURES

Figure 1. Vicinity Map

Figures 2A and 2B. Subsurface Explorations and Seep Locations

APPENDICES

Appendix A. Field Exploration Program

Figure A-1 – Key to Exploration Logs

Figure A-2 through A-12 – Log of Borings

Appendix B. Chemical Analytical Program

Appendix C. Report Limitations and Guidelines for Use

1.0 INTRODUCTION

This report summarizes the results of the environmental services for the Phase 2A portion of the City of Tacoma Prairie Line Trail project. The overall City of Tacoma Prairie Line Trail project extends along Hood Street between South 17th Street and South 15th Street and between South 21st Street and South 25th Street in Tacoma, Washington. These two trail segments are connected by the University of Washington campus trail in Tacoma, Washington (UWT).

This project for this study consists of the trail alignment between South 21st Street and South 26th Street. A Site Plan of the project area is included as Figure 1. There are two phases for this project, Phases 2A and 2B. Phase 2A consists of the area surrounding the existing railroad track on the west side of the trail alignment. Phase 2B consists of the remainder of the right-of-way on the east side of the trail alignment. The project limits of each phase are outlined on our Site Plan, Figures 2A and 2B. We understand the City of Tacoma has access rights and funding to design and implement Phase 2A. Phase 2B will be designed to a 30 percent level at this time, but will be placed on hold until access rights and funding become available to evaluate soil and groundwater conditions within the Phase 2B area.

Our understanding of the project is based on discussions with the project team and our review of provided conceptual site plans including a CAD drawing titled “Hood Street Callout Plan” and dated July 22, 2015. We understand that the City of Tacoma plans to redevelop and grade the former rail alignment as a trail for pedestrian and bicycle use. The new trail will likely be paved with concrete or paving units. New light poles and landscaping will be installed along the eastern edge of the trail to create a buffer between Hood Street and the pedestrian trail. As part of the improvements, Hood Street will be repaved and new parking spaces will be delineated. A new retaining wall may be constructed along the toe of the existing slope to define the western edge of the new trail between South 23rd Street and South 25th Street. We understand that stormwater infiltration facilities may be incorporated into the final design.

2.0 BACKGROUND

An existing rail line present within the site was in operation between 1885 and 1969. Another rail line with multiple rail spurs was mapped within the site on the Sanborn Fire Insurance Maps dated between 1888 and 1969. The second rail line was located east of the existing rail alignment. General operations on adjacent properties between 1885 and the present included the following:

- Coal and oil storage
- Automobile repair shops and service stations
- Brewery and associated refrigeration facility
- Maintenance yard with spray painting
- Dry cleaner
- Iron works

- Rail spurs with adjacent platforms to buildings
- Former rail tunnel along Jefferson Avenue south of South 23rd Street

Groundwater seeps have been observed between South 23rd Street and South 25th Street. The groundwater seeps may be associated with the former rail tunnel or the shallow groundwater in the area. The groundwater seeps drain to a ditch situated adjacent and west of the existing rail alignment.

3.0 SUBSURFACE INVESTIGATION

3.1. Soil Borings

Eleven environmental soil borings (P2A-HA1 and P2A-B1 through P2A-B10) were completed at the site on July 7 and 8, 2015. Nine of the soil borings were advanced to depths of approximately 4 feet below ground surface (bgs) with the exception of borings P2A-HA1 (advanced to 1 foot bgs) and P2A-B1 (advanced to 2 feet bgs). The majority of the borings were completed using direct-push drilling methods except borings P2A-HA1, P2A-B3 and P2A-B6 which were completed using a manual hand auger. Subsurface exploration logs and the field exploration program are included in Appendix A. Subsurface exploration locations are shown on Figures 2A and 2B.

The boring locations and depths were selected to reflect areas where soil excavation will occur based on the most current design and preliminary discussions with the design team. Eight of the soil borings (P2A-B1, P2A-B2, P2A-B4, P2A-B5 and P2A-B7 to P2A-B10) were advanced along the east side of the existing rail alignment between South 21st Street and South 25th Street. Two soil borings (P2A-B3 and P2A-B6) were advanced on the hillslope west of the groundwater seep ditch between South 23rd Street and South 25th Street. One soil boring (P2A-HA1) was advanced within the drainage ditch north of the intersection of Hood Street and South 25th Street.

Soil samples were collected within fill and native soils, if encountered, in each of the 11 explorations to the full depth explored. The samples collected from the 11 environmental soil borings were identified using the following identification system: P2A-B#- start depth-end depth, where P2A indicates project Phase 2A, B# is the environmental boring number and start depth-end depth is the depth interval of specific sample (e.g., P2A-B1-0-1 was collected from the Phase 2A area from boring B1 from 0 to 1 foot bgs).

The subsurface explorations were monitored by a representative of GeoEngineers who visually classified and performed field screening tests on soil samples collected from the subsurface explorations for evidence of petroleum hydrocarbons and photoionizable vapors. Subsurface conditions and field screening results are shown on the subsurface exploration logs presented in Appendix A. The borings were abandoned in accordance with Washington State Department of Ecology (Ecology) regulations.

3.2. Groundwater Seep Samples

Three water samples were collected from groundwater seeps (P2A-S1, P2A-S2 and P2A-S3) located at the site on July 7, 2015. The water samples were placed directly into laboratory-supplied bottles. Seep sample P2A-S1 was collected from the groundwater seep situated on the vegetated hillslope at the southwest corner of the City of Tacoma construction yard located west of the site. Seep samples P2A-S2 and P2A-S3 were collected from the drainage ditch between South 23rd Street and South 25th Street. The field exploration program is included in Appendix A. Groundwater seep locations are shown on Figure 2A.

One set of field parameters were collected prior to sample collection using a multi-parameter water quality meter at sample locations P2A-S2 and P2A-S3. Field parameters were not recorded at seep P2A-S1 because water at this location was observed to contain organic debris and soil material that may potentially be damaging to field instruments.

The samples collected from the three groundwater seeps were identified using the following identification system: P2A-S#-yymmdd, where P2A indicates project Phase 2A, S# is the groundwater seep number and yymmdd is the date on which the sample was collected (e.g., P2A-S1-150707 was collected from groundwater seep S1 located within the Phase 2A area on July 7, 2015).

3.3. Site Conditions

3.3.1. Surface Conditions

The project site is located on Hood Street in a commercial and industrial area of Downtown Tacoma. The project boundary is defined by South 21st Street to the north and South 25th Street to the south. Hood Street is an asphalt and gravel surfaced roadway with unimproved gravel shoulders, which are used for on-street parking. The existing railroad line is located along the west side of Hood Street and generally defines the outer western edge of the roadway shoulder.

The east and west sides of Hood Street are defined by commercial properties between South 21st Street and South 23rd Street. There are access driveways and loading docks to the properties along Hood Street.

Commercial buildings are present on the east side of Hood Street between South 23rd Street and South 25th Street. The west side of Hood Street between South 23rd Street and South 25th Street is defined by an approximately 2- to 5-foot tall slope. The slope appears to be at a gradient of about 1.5H:1V (horizontal: vertical). The slope is vegetated with blackberry bushes, grasses and shrubs. A construction equipment storage yard is located at the top of the slope. There is a ditch at the base of the slope. The bottom of the ditch is about 2 feet lower than the elevation of Hood Street. We observed flowing surface water in the ditch during our field investigation. The depth of the water was observed to be about 1 foot. We understand that the sources of the water are from a culvert that continually discharges collected water near South 25th Street and from water seeps coming from the slope face north of the culvert. We were not able to accurately determine the exact location of the seeps due to the dense vegetation on the slope.

3.3.2. Soil Conditions

Borings P2A-B1, P2A-B2, P2A-B9 and P2A-B10 were advanced through about 1 to 2 inches of asphalt concrete. Borings P2A-B4, P2A-B5, P2A-B7 and P2A-B8 were advanced through the gravel surface cover present on Hood Street. Fill material was generally encountered about 1 to 3.75 feet bgs below the asphalt or gravel roadway surfacing in the push probe explorations. Native soils were observed beneath the fill material. Fill material in the direct-push explorations generally consisted of medium dense gravels, medium dense sand with silt, and loose silty sands. We observed occasional debris in some of the fill soils. With the exception of the gravels and sand with silt, the fill material was generally observed to be dark brown to black in color. Native soils below the fill soils in the push probe explorations generally consisted of very soft to medium stiff silts and medium dense silty sands. All of the push probe explorations were terminated within the native soils.

Fill material was observed in the hand auger explorations P2A-B3, P2A-B6 and P2A-HA1, Fill material generally consisted of loose dark brown to black silty sand. The hand auger explorations were terminated within the fill material.

We encountered cobbles in boring P2A-B8. It is our experience that cobbles and boulders can be present in the native soils at the project vicinity although not encountered in the other explorations during this investigation.

3.3.3. Groundwater Conditions

Groundwater was encountered between 1.5 and 2.5 feet bgs during drilling of explorations P2A-B1, P2A-B2, P2A-B3, P2A-B5 and P2A-B7. We anticipate that the observed groundwater is likely “perched” groundwater and not a part of the regional groundwater table based on our experience in the area. Perched groundwater could be encountered in excavations deeper than about 1 foot deep at the project site. It is also common for groundwater to migrate through the fill and perch upon the native soil. The likelihood of encountering groundwater and the amount of groundwater if encountered in excavations will likely be greatest in the areas near the ditch south of South 23rd Street where we observed surface water and water seeps during our exploration activities. Groundwater and seepage conditions should be expected to vary as a result of seasons and precipitation.

3.3.4. Field Screening Results

The following field screening results were observed in the soil samples collected during this investigation:

- Concentrations of photoionizable vapors greater than 10 parts per million (ppm) were observed from 1 to 2 feet bgs in boring P2A-B9 (340 ppm).
- Evidence of slight to moderate sheen was observed in boring P2A-B2 from approximately 1 to 3 feet bgs and in boring P2A-B10 from approximately 0 to 2 feet bgs.

Field screening results are shown on the subsurface exploration logs presented in Appendix A.

4.0 CHEMICAL ANALYTICAL PROGRAM

4.1. General

Soil and groundwater seep samples were submitted to OnSite Laboratories, in Redmond, Washington for chemical analysis. The chemical analytical data for the soil samples are summarized in Table 1. The chemical analytical data for the groundwater seep samples are summarized in Table 2. Chemicals that were not detected at or greater than the laboratory reporting limits in the analyzed samples are typically not included in the tables. Copies of the laboratory reports are presented in Appendix B.

4.2. Criteria

The chemical analytical data are described below relative to the Model Toxics Control Act (MTCA) Method A cleanup levels for each chemical of concern. Method B unrestricted land use (ULU) criteria were used for comparison of barium, selenium and silver and specific polycyclic aromatic hydrocarbons (PAHs) and volatile organic compounds (VOCs) because Method A cleanup levels have not been established for these compounds. The soil chemical analytical data were also compared to the 2011 Ecology Guidance for

Remediation of Petroleum Contaminated Sites (Ecology Guidance) regarding reuse of soil as commercial fill.

Soil has been characterized as either being contaminated soil or impacted soil in this report. The description for each is discussed further in the following list including the typical disposal criteria.

- Contaminated soil is defined as the chemical of concern detected at a concentration greater than the respective MTCA Method A ULU cleanup level. Contaminated soil is required to be disposed at a permitted Subtitle D landfill under State and federal regulations.
- Impacted soil is defined below by the chemical of concern identified during this study.
 - Petroleum-impacted soil is defined as the chemical of concern detected at a concentration less than the MTCA Method A ULU cleanup level but greater than the soil reuse criteria (Ecology, 2011). Petroleum-impacted soil will need to be managed appropriately if excavated, and/or disposed off-site. Soil with chemical of concern detected at concentrations less than the impacted soil criteria is not considered impacted per the Ecology Petroleum Guidance.
 - Tetrachloroethene (PCE) or trichloroethene (TCE) impacted soil is defined as PCE or TCE detected at a concentration less than the MTCA Method A ULU cleanup level. PCE/TCE-impacted soil is required to be disposed at a permitted Subtitle D landfill under State and federal regulations.
 - CPAH-impacted soil is defined as cPAHs detected at a concentration less than the MTCA Method A ULU cleanup level but are detected at a concentration greater than the laboratory reporting limit. Soil disposal facilities will generally not accept soil with cPAH detections based on our experience cPAH-impacted soil is typically disposed at a Subtitle D landfill or treatment facility. CPAH-impacted soil can be reused on site as fill.
 - Metal-impacted soil is defined as arsenic, cadmium and mercury detected at concentrations greater than the respective Puget Sound background levels (Ecology, 1994) but less than the respective MTCA Method A cleanup levels or MTCA Method B criteria. Chromium was not compared to the Puget Sound background levels in soil because chromium is typically not a prevalent chemical of concern near railroads. Disposal facilities in the area have mixed permit requirements in regards to metal-impacted soil.

4.3. Soil Chemical Analytical Results

Soil samples were submitted for chemical analysis of petroleum hydrocarbon identification by Ecology-approved method NWTPH-HCID (16 soil samples) with appropriate follow-up of gasoline-range petroleum hydrocarbons by Ecology-approved method NWTPH-Gx (three samples), diesel- and lube oil-range petroleum hydrocarbons by Ecology-approved method NWTPH-Dx (13 samples), RCRA metals by Environmental Protection Agency (EPA) method 6000/7000 series (16 samples), VOCs by EPA method 8260 (19 samples), SVOCs by EPA method 8270SIM (2 samples) and PAHs by EPA method 8270SIM (21 samples). The chemical analytical results are described below.

4.3.1. Total Petroleum Hydrocarbons

Total petroleum hydrocarbons consists of lube oil-, diesel- and gasoline-range petroleum hydrocarbons as discussed in the following sections.

Lube Oil-Range Petroleum

Lube oil-range petroleum hydrocarbons were detected at concentrations greater than the MTCA Method A ULU cleanup level (2,000 milligrams per kilogram [mg/kg]) in one soil sample. Lube oil-contaminated soil was identified in the following boring/soil sample.

- **Boring P2A-B3.** Soil sample P2A-B3-1-2 (2,100 mg/kg) collected from 1 to 2 feet bgs. Lube-oil range petroleum hydrocarbons were detected at concentrations less than the MTCA Method A ULU cleanup level but greater than the soil reuse criteria (200 mg/kg) in the next two underlying samples P2A-B3-2-3 (880 mg/kg) collected from 2 to 3 feet bgs and P2A-B3-3-4 (360 mg/kg) collected from 3 to 4 feet bgs. Lube oil-contaminated soil in the area of boring P2A-B3 appears to be limited to a depth of 2 feet bgs. Lube-oil impacted soil appears to exist in the area of boring P2A-B3 from approximately 2 to at least 4 feet bgs (anticipated depth of the proposed excavation).

Lube oil-range petroleum hydrocarbons were detected at concentrations less than the MTCA Method A ULU cleanup level but greater than the soil reuse criteria (200 mg/kg) in 11 soil samples. Lube oil-impacted soil was identified in the following borings/soil samples (not including boring P2A-B3 discussed above).

- **Boring P2A-B1.** Soil sample P2A-B1-0-1 (1,600 mg/kg) collected from the ground surface to 1 foot bgs. Lube oil was not detected in the next underlying sample collected from 1 to 2 feet bgs (P2A-B1-1-2). The lube oil-impacted soil in the area of boring P2A-B1 appears to be limited to 1 foot bgs.
- **Boring P2A-B2.** Soil sample P2A-B2-1-2 (690 mg/kg) collected from 1 to 2 feet bgs. Underlying soil samples collected from boring P2A-B1 were not analyzed for lube oil. Soil in the area of boring P2A-B1 appears to be impacted with lube oil from the ground surface to at least 1 foot bgs, and may be impacted to a greater depth.
- **Boring P2A-B4.** Soil sample P2A-B4-0-1 (1,800 mg/kg) collected from the ground surface to 1 foot bgs. Lube oil was not detected in the next underlying sample collected from 1 to 2 feet bgs (P2A-B4-1-2). The lube oil-impacted soil in the area of boring P2A-B4 appears to be limited to 1 foot bgs.
- **Boring P2A-B5.** Soil sample P2A-B5-1-2 (220 mg/kg) collected from 1 to 2 feet bgs. Underlying soil samples collected from boring P2A-B5 were not analyzed for lube oil. Soil in the area of boring P2A-B5 appears to be impacted with lube oil from the ground surface to at least 1 foot bgs, and may be impacted to a greater depth.
- **Boring P2A-B6.** Soil samples P2A-B6-0-1 (1,300 mg/kg) collected from 0 to 1 foot bgs and P2A-B6-2-3 (380 mg/kg) collected from 2 to 3 feet bgs. Underlying soil samples collected from boring P2A-B6 were not analyzed for lube oil. Soil in the area of boring P2A-B6 appears to be impacted with lube oil from the ground surface to at least 3 feet bgs, and may be impacted to a greater depth.
- **Boring P2A-B7.** Soil sample P2A-B7-1-2 (510 mg/kg) collected from 1 to 2 feet bgs. Underlying soil samples collected from boring P2A-B7 were not analyzed for lube oil. Soil in the area of boring P2A-B7 appears to be impacted with lube oil from 1 to at least 2 feet bgs, and may be impacted to a greater depth.
- **Boring P2A-B9.** Soil sample P2A-B9-1-2 (350 mg/kg) collected from 1 to 2 feet bgs. Underlying soil samples collected from boring P2A-B9 were not analyzed for lube oil. Soil in the area of boring P2A-B9 appears to be impacted with lube oil from 1 to at least 2 feet bgs, and may be impacted to a greater depth.

- **Boring P2A-HA1.** Soil sample P2A-HA1-0-1 (310 mg/kg) collected from 0 to 1 feet bgs. Underlying soil samples were not collected from boring P2A-HA1 because the hand auger extended to 1 foot bgs. Soil in the area of boring P2A-HA1 appears to be impacted with lube oil from 0 to at least 1 feet bgs, and may be impacted to a greater depth.

Lube oil-range petroleum hydrocarbons were either not detected or were detected at concentrations less than the respective MTCA Method A ULU cleanup levels and soil reuse criteria in the remaining analyzed soil samples.

Diesel- Range Petroleum

Diesel-range petroleum hydrocarbons were detected at concentrations greater than the soil reuse criteria (200 mg/kg) but less than the MTCA Method A ULU cleanup level in 12 soil samples. Diesel-impacted soil was identified in the following borings/soil samples.

- **Boring P2A-B2.** Soil sample P2A-B2-1-2 (220 mg/kg) collected from 1 to 2 feet bgs. Underlying soil samples collected from boring P2A-B2 were not analyzed for diesel. Soil in the area of boring P2A-B2 appears to be impacted with diesel from 1 to at least 2 feet bgs, and may be impacted to a greater depth.
- **Boring P2A-B3.** Soil sample P2A-B3-1-2 (310 mg/kg) collected from 1 to 2 feet bgs. Diesel was detected at concentrations less than the impacted-soil criteria in the next two underlying samples collected from 2 to 3 feet bgs (P2A-B3-2-3) and 3 to 4 feet bgs (P2A-B3-3-4). The diesel-impacted soil in the area of boring P2A-B3 appears to be limited to 2 feet bgs.
- **Boring P2A-B4.** Soil sample P2A-B1-0-1 (310 mg/kg) collected from the ground surface to 1 foot bgs. Diesel was not detected in the next underlying sample collected from 1 to 2 feet bgs (P2A-B4-1-2). The diesel-impacted soil in the area of boring P2A-B4 appears to be limited to 1 foot bgs.
- **Boring P2A-B6.** Soil sample P2A-B6-0-1 (360 mg/kg) collected from the ground surface to 1 foot bgs. Diesel was detected at concentrations less than the impacted-soil criteria in the next underlying samples collected from 2 to 3 feet bgs (P2A-B6-2-3). The diesel-impacted soil in the area of boring P2A-B3 appears to be limited to 1 foot bgs.

Diesel-range petroleum hydrocarbons were either not detected or were detected at concentrations less than the MTCA Method A ULU cleanup level and petroleum reuse criteria in the remaining analyzed soil samples.

Gasoline Range Petroleum

Gasoline-range petroleum hydrocarbons were not detected in the analyzed soil samples.

4.3.2. Metals

Arsenic

Arsenic was detected at concentrations greater than the MTCA Method A ULU cleanup level (20 mg/kg) in six soil samples. Arsenic-contaminated soil was identified in the following borings/soil samples.

- **Boring P2A-B3.** Soil samples P2A-B3-1-2 (70 mg/kg) collected from 1 to 2 feet bgs and P2A-B3-3-4 (46 mg/kg) collected from 3 to 4 feet bgs. Soil in the area of boring P2A-B3 appears to be contaminated with arsenic from the ground surface to at least 4 feet bgs (anticipated depth of the proposed excavation).

- **Boring P2A-B6.** Soil samples P2A-B6-0-1 (74 mg/kg) collected from 0 to 1 feet bgs, P2A-B6-2-3 (37 mg/kg) collected from 2 to 3 feet bgs and P2A-B6-3-4 (36 mg/kg) collected from 3 to 4 feet bgs. Soil in the area of boring P2A-B6 appears to be contaminated with arsenic from the ground surface to at least 4 feet bgs (anticipated depth of the proposed excavation).
- **Boring P2A-HA1.** Soil sample P2A-HA1-0-1 (190 mg/kg) collected from 0 to 1 feet bgs. Underlying soil samples were not collected from boring P2A-HA1 because the hand auger extended to 1 foot bgs. Soil in the area of boring P2A-HA1 appears to be contaminated with arsenic from the ground surface to at least 1 foot bgs.

Arsenic was detected at concentrations less than the MTCA Method A ULU cleanup level but greater than the Puget Sound background level (7 mg/kg) in two soil samples. Arsenic-impacted soil was identified in the following borings/soil samples.

- **Boring P2A-B1.** Soil sample P2A-B1-0-1 (15 mg/kg) collected from 0 to 1 feet bgs. Arsenic was not detected in the next underlying sample collected from 1 to 2 feet bgs (P2A-B1-1-2). The arsenic-impacted soil in the area of boring P2A-B4 appears to be limited to 1 foot bgs.
- **Boring P2A-B7.** Soil samples P2A-B7-1-2 (14 mg/kg) collected from 1 to 2 feet bgs. Underlying soil samples collected from boring P2A-B7 were not analyzed for arsenic. Soil in the area of boring P2A-B7 appears to be impacted with arsenic from 1 to at least 2 feet bgs, and may be impacted to a greater depth.

Arsenic was either not detected or was detected at concentrations less than the MTCA Method A ULU cleanup level or Puget Sound Background Level in the remaining analyzed soil samples.

Lead

Lead was detected at concentrations greater than the MTCA Method A ULU cleanup level (250 mg/kg) in six soil samples. Lead-contaminated soil was identified in the following borings/soil samples.

- **Boring P2A-B2.** Soil sample P2A-B2-1-2 (410 mg/kg) collected from 1 to 2 feet bgs. Lead was not detected in the next underlying sample collected from 3 to 4 feet bgs (P2A-B2-3-4). The lead-contaminated soil in the area of boring P2A-B2 appears to be limited to approximately 3 feet bgs.
- **Boring P2A-B3.** Soil samples P2A-B3-1-2 (260 mg/kg) collected from 1 to 2 feet bgs and P2A-B3-3-4 (580 mg/kg) collected from 3 to 4 feet bgs. Soil in the area of boring P2A-B3 appears to be contaminated with lead from the ground surface to at least 4 feet bgs (anticipated depth of the proposed excavation).
- **Boring P2A-B6.** Soil samples P2A-B6-0-1 (520 mg/kg) collected from 0 to 1 feet bgs, P2A-B6-2-3 (270 mg/kg) collected from 2 to 3 feet bgs and P2A-B6-3-4 (420 mg/kg) collected from 3 to 4 feet bgs. Soil in the area of boring P2A-B6 appears to be contaminated with lead from the ground surface to at least 4 feet bgs (anticipated depth of the proposed excavation).

Lead was detected at concentrations less than the MTCA Method A ULU cleanup level (250 mg/kg) but greater than the soil reuse criteria (50 mg/kg) in seven soil samples. Lead-impacted soil was identified in the following borings/soil samples.

- **Boring P2A-B1.** Soil sample P2A-B1-0-1 (140 mg/kg) collected from the ground surface to 1 foot bgs. Lead was not detected in the next underlying sample collected from 1 to 2 feet bgs (P2A-B1-1-2). The lead-impacted soil in the area of boring P2A-B1 appears to be limited to approximately 1 foot bgs.
- **Boring P2A-B4.** Soil samples P2A-B4-0-1 (88 mg/kg) collected from 0 to 1 foot bgs and P2A-B4-1-2 (57 mg/kg) collected from 1 to 2 feet bgs. Underlying soil samples collected from boring P2A-B4 were not analyzed for lead. Soil in the area of boring P2A-B4 appears to be impacted with lead from the ground surface to at least 2 feet bgs, and may be impacted to a greater depth.
- **Boring P2A-B5.** Soil sample P2A-B5-1-2 (72 mg/kg) collected from 1 to 2 feet bgs. Underlying soil samples collected from boring P2A-B5 were not analyzed for lead. Soil in the area of boring P2A-B5 appears to be impacted with lead from the ground surface to at least 2 feet bgs, and may be impacted to a greater depth.
- **Boring P2A-B7.** Soil sample P2A-B7-1-2 (120 mg/kg) collected from 1 to 2 feet bgs. Underlying soil samples collected from boring P2A-B7 were not analyzed for lead. Soil in the area of boring P2A-B7 appears to be impacted with lead from the ground surface to at least 2 feet bgs, and may be impacted to a greater depth.
- **Boring P2A-B9.** Soil sample P2A-B9-1-2 (81 mg/kg) collected from 1 to 2 feet bgs. Underlying soil samples collected from boring P2A-B9 were not analyzed for lead. Soil in the area of boring P2A-B9 appears to be impacted with lead from the ground surface to at least 2 feet bgs, and may be impacted to a greater depth.
- **Boring P2A-HA1.** Soil sample P2A-HA1-0-1 (170 mg/kg) collected from 0 to 1 feet bgs. Underlying soil samples were not collected from boring P2A-HA1. Soil in the area of boring P2A-HA1 appears to be impacted with lead from the ground surface to at least 1 foot bgs.

Lead was either not detected or was detected at concentrations less than the MTCA Method A ULU cleanup level and soil reuse criteria in the remaining analyzed soil samples.

Other Metals

Boring P2A-B9. Cadmium (2.6 mg/kg) and mercury (6.3 mg/kg) were detected at concentrations greater than the respective MTCA Method A ULU cleanup levels (2 mg/kg each) in soil sample P2A-B9-1-2 collected from 1 to 2 feet bgs. Cadmium and mercury were not detected in the next underlying sample collected from 3 to 4 feet bgs. Cadmium- and mercury-contaminated soil appears to be limited to 3 feet bgs in the area of boring P2A-B9.

Boring P2A-B3. Mercury was detected at concentrations less than the MTCA Method A ULU cleanup level but greater than the Puget Sound background level (0.07 mg/kg) in soil samples P2A-B3-1-2 (0.29 mg/kg) collected from 1 to 2 feet bgs and P2A-B3-3-4 (1.7 mg/kg) collected from 3 to 4 feet bgs. Soil in the area of boring P2A-B3 appears to be impacted with mercury from the ground surface to at least 4 feet bgs (anticipated depth of the proposed excavation).

Boring P2A-B6. Cadmium (1.7 mg/kg) and mercury (0.6 mg/kg) were detected at concentrations less than the respective MTCA Method A ULU cleanup levels but greater than the Puget Sound background levels (1 mg/kg and 0.07 mg/kg, respectively) in soil sample P2A-B6-0-1 collected from 0 to 1 feet bgs. Cadmium and mercury were either not detected or were detected at concentrations less than the applicable Puget

Sound background level in the next underlying sample collected from 2 to 3 feet bgs. Cadmium- and mercury-impacted soil appears to be limited to 2 feet bgs in the area of boring P2A-B6.

Other metals were either not detected or were detected at concentrations less than the applicable MTCA Method A ULU cleanup level or Method B criteria.

4.3.3.VOCs

Tetrachloroethene (PCE) was detected at concentrations greater than the MTCA Method A ULU cleanup level (0.05 mg/kg) in two soil samples. PCE-contaminated soil was identified in the following boring/soil samples.

- **Boring P2A-B6.** Soil sample P2A-B6-3-4 (0.051 mg/kg) collected from 3 to 4 feet bgs. Soil in the area of boring P2A-B3 appears to be contaminated with PCE from 3 to at least 4 feet bgs (anticipated depth of the proposed excavation).
- **Boring P2A-HA1.** Soil sample P2A-HA1-0-1 (0.060 mg/kg) collected from 0 to 1 feet bgs. Underlying soil samples were not collected in boring P2A-HA1 because the hand auger extended to a depth of 1 foot bgs. Soil in the area of boring P2A-HA1 appears to be contaminated with PCE from the ground surface to at least 1 foot bgs.

PCE was detected at concentrations less than the MTCA Method A ULU cleanup level in two soil samples. PCE-impacted soil was identified in the following boring/soil samples.

- **Boring P2A-B6.** Soil samples P2A-B6-0-1 (0.0016 mg/kg) collected from 0 to 1 foot bgs and P2A-B6-2-3 (0.0023 mg/kg) collected from 2 to 3 feet bgs. PCE was detected at a concentration greater than the MTCA Method A ULU cleanup level in the next underlying soil sample collected from 3 to 4 feet bgs as described above. SPCE-impacted soil in the area of boring P2A-B6 appears to be present from the ground surface to 3 feet bgs and PCE-contaminated soil from 3 to at least 4 feet bgs (anticipated depth of the proposed excavation).

Trichloroethene (TCE) was detected at concentrations less than the MTCA Method A ULU cleanup level (0.03 mg/kg) in two soil samples. TCE-impacted soil was identified in the following two soil samples.

- **Boring P2A-B7.** Soil sample P2A-B7-1-2 (0.013 mg/kg) collected from 1 to 2 feet bgs. TCE was not detected in the next underlying sample collected from 3 to 4 feet bgs (P2A-B7-2-3). The TCE-impacted soil in the area of boring P2A-B7 appears to be limited to 2 foot bgs.
- **Boring P2A-HA1.** Soil sample P2A-HA1-0-1 (0.0092 mg/kg) collected from 0 to 1 feet bgs. Underlying soil samples were not collected in boring P2A-HA1 because the hand auger extended to a depth of 1 foot bgs. Soil in the area of boring P2A-HA1 appears to be impacted with TCE from the ground surface to at least 1 foot bgs.

PCE and TCE were not detected in the remaining analyzed soil samples. Other VOCs were either not detected or were detected at concentrations less than the applicable Method A ULU cleanup level or Method B criteria in the analyzed soil samples.

4.3.4. PAHs/SVOCs

Carcinogenic PAHs (cPAHs) were detected at Total Toxic Equivalent Concentration (TTEC) greater than the MTCA Method A ULU cleanup level (TTEC = 0.1 mg/kg) in 10 soil samples collected within seven borings. CPAH-contaminated soil was identified in the following borings/soil samples.

- **Boring P2A-B2.** Soil sample P2A-B2-1-2 (TTEC = 0.25 mg/kg) collected from 1 to 2 feet bgs. CPAHs were not detected in the next underlying sample from 3 to 4 feet bgs (P2A-B2-3-4). The cPAH-contaminated soil in the area of boring P2A-B2 appears to be limited to 3 feet bgs.
- **Boring P2A-B3.** Soil samples P2A-B3-1-2 (TTEC = 0.22 mg/kg) collected from 1 to 2 feet bgs and P2A-B3-3-4 (TTEC = 0.32 mg/kg) collected from 3 to 4 feet bgs. Soil in the area of boring P2A-B3 appears to be contaminated with cPAHs from the ground surface to at least 4 feet bgs (anticipated depth of the proposed excavation).
- **Boring P2A-B4.** Soil sample P2A-B4-1-2 (TTEC = 2 mg/kg) collected from 1 to 2 feet bgs. CPAHs were not detected in the next underlying sample from 3 to 4 feet bgs (P2A-B4-3-4). The cPAH-contaminated soil in the area of boring P2A-B4 appears to be limited to a depth of 3 feet bgs.
- **Boring P2A-B6.** Soil samples P2A-B6-0-1 (TTEC = 0.1 mg/kg) collected from 0 to 1 feet bgs, P2A-B6-2-3 (TTEC = 0.75 mg/kg) collected from 2 to 3 feet bgs, and P2A-B6-3-4 (TTEC = 1.2 mg/kg) collected from 3 to 4 feet bgs. Soil in the area of boring P2A-B6 appears to be contaminated with cPAHs from the ground surface to at least 4 feet bgs (anticipated depth of the proposed excavation).
- **Boring P2A-B7.** Soil sample P2A-B7-1-2 (TTEC = 0.28 mg/kg) collected from 1 to 2 feet bgs. CPAHs were not detected in the next underlying sample from 3 to 4 feet bgs (P2A-B7-3-4). The cPAH-contaminated soil in the area of boring P2A-B7 appears to be limited to a depth of 3 feet bgs.
- **Boring P2A-B9.** Soil sample P2A-B9-1-2 (TTEC = 0.15 mg/kg) collected from 1 to 2 feet bgs. CPAHs were not detected in the next underlying sample from 3 to 4 feet bgs (P2A-B9-3-4). The cPAH-contaminated soil in the area of boring P2A-B9 appears to be limited to a depth of 3 feet bgs.
- **Boring P2A-HA1.** Soil sample P2A-HA1-0-1 (TTEC = 1.3 mg/kg) collected from 0 to 1 feet bgs. Underlying soil samples were not collected from boring P2A-HA1. Soil in the area of boring P2A-HA1 appears to be impacted with cPAHs from the ground surface to at least 1 foot bgs.

CPAHs were detected at TTEC concentration less than the MTCA Method A ULU cleanup level in the following five soil samples with the concentrations detected identified in parentheses.

- **P2A-B1-0-1** (TTEC = 0.09 mg/kg). Collected from the ground surface to 1 foot bgs in boring P2A-B1.
- **P2A-B5-1-2** (TTEC = 0.09 mg/kg). Collected from 1 to 2 feet bgs in boring P2A-B5.
- **P2A-B8-0-1** (TTEC = 0.02 mg/kg). Collected from the ground surface to 1 foot bgs in boring P2A-B8.
- **P2A-B8-2-3** (TTEC = 0.046 mg/kg). Collected from 2 to 3 feet bgs in boring P2A-B8.
- **P2A-B10-1-2** (TTEC = 0.002 mg/kg). Collected from 1 to 2 feet bgs in boring P2A-B10.

CPAHs were not detected in the remaining analyzed soil samples. Non-carcinogenic PAHs and SVOCs were either not detected or were detected at concentrations less than the applicable MTCA Method A ULU cleanup level, or Method B criteria in the analyzed soil samples.

4.4. Groundwater Seep Chemical Analytical Results

Three groundwater seep samples were submitted for chemical analysis of gasoline-range petroleum hydrocarbons by Ecology-approved method NWTPH-Gx, diesel- and lube oil-range petroleum hydrocarbons by Ecology-approved method NWTPH-Dx, dissolved RCRA metals by EPA method 6000/7000 series, and VOCs by EPA method 8260. The chemical analytical results are described below.

4.4.1. Total Petroleum Hydrocarbons

Lube oil-range petroleum hydrocarbons were detected at a concentration (870 micrograms per liter [$\mu\text{g/L}$]) greater than the MTCA Method A cleanup level (500 $\mu\text{g/L}$) in the groundwater seep sample collected from seep P2A-S1 (P2A-S1-150707). The groundwater seep sample was collected from next to the former tunnel entrance. Lube oil-range petroleum hydrocarbons were not detected in the remaining analyzed groundwater seep samples.

Diesel-range petroleum hydrocarbons were detected at a concentration (430 $\mu\text{g/L}$) less than the MTCA Method A cleanup level (500 $\mu\text{g/L}$) in the groundwater seep sample collected from seep P2A-S1 (P2A-S1-150707). Diesel-range petroleum hydrocarbons were not detected in the remaining analyzed groundwater seep samples.

Gasoline-range petroleum hydrocarbons were not detected in the analyzed groundwater seep samples.

4.4.2. Dissolved Metals

Dissolved RCRA metals were not detected in the analyzed groundwater seep samples.

4.4.3. VOCs

PCE was detected at concentrations less than the MTCA Method A ULU cleanup level (5 $\mu\text{g/L}$) in the three analyzed groundwater seep samples with the concentrations detected identified in parentheses.

- P2A-S1-150707 (0.66 $\mu\text{g/L}$)
- P2A-S2-150707 (0.59 $\mu\text{g/L}$)
- P2A-S3-150707 (0.38 $\mu\text{g/L}$)

TCE was detected at concentrations less than the MTCA Method A ULU cleanup level (5 $\mu\text{g/L}$) in the three analyzed groundwater seep samples with the concentrations detected identified in parentheses.

- P2A-S1-150707 (1.5 $\mu\text{g/L}$)
- P2A-S2-150707 (1.4 $\mu\text{g/L}$)
- P2A-S3-150707 (0.76 $\mu\text{g/L}$)

Other VOCs were either not detected or were detected at concentrations less than the applicable Method A cleanup level or Method B criteria in the analyzed groundwater seep samples.

5.0 CONCLUSIONS

The results of the environmental subsurface investigation indicate that portions of the soil to be excavated at the site during construction is impacted and/or contaminated with petroleum hydrocarbons, arsenic, cadmium, mercury, lead, PCE, TCE and/or cPAHs. Shallow groundwater is contaminated or impacted with lube oil-range petroleum hydrocarbons, diesel-range petroleum hydrocarbons, PCE and/or TCE in the area of the site based on the results of the groundwater seep sampling. The approximate vertical limits of impacted and contaminated soil encountered at each subsurface exploration location are shown on Figure 2A.

5.1. Soil

The general locations of contaminated and impacted soil are described below relative to each soil boring completed for this project:

- **Boring P2A-B1:** Impacted soil (lube oil, arsenic, lead and cPAHs) is present in the area of boring P2A-B1 from 0 to 1 feet bgs.
- **Boring P2A-B2:** Impacted soil (diesel and lube oil) is present in the area of boring P2A-B2 from 1 to at least 2 feet bgs. Contaminated soil (lead and cPAHs) is present in the area of boring P2A-B2 from 1 to at least 2 feet bgs and may be present from the 1 to 3 feet bgs based on the depth of the next underlying sample collected from boring P2A-B2.
- **Boring P2A-B3:** Contaminated soil (lube oil, arsenic, lead and cPAHs) is present from 1 to at least 4 feet bgs in the area of boring P2A-B3. Diesel-impacted soil is also present from 1 to 2 feet bgs, and mercury-impacted soil is present from 1 to at least 4 feet bgs.
- **Boring P2A-B4:** Impacted soil (diesel, lube oil and lead) is present from the ground surface to 1 foot bgs. Impacted (lead) and contaminated (mercury and cPAHs) are present from 1 to 2 feet bgs in the area of boring P2A-B4. Mercury-contaminated and cPAH-contaminated soil may be present from the ground surface to 3 feet bgs (the depth of the next underlying sample collected from boring P2A-B4). The vertical extent of lead-impacted soil is not defined.
- **Boring P2A-B5:** Impacted soil (lube oil, lead and cPAHs) is present from 1 to 2 feet bgs in the area of boring P2A-B5. cPAH-impacted soil may be present from the ground surface to 3 feet bgs (the depth of the next underlying sample collected from boring P2A-B5). The vertical extent of lube oil- and lead-impacted soil is not defined.
- **Boring P2A-B6:** Impacted soil (diesel and lube oil) and contaminated soil (arsenic, lead, PCE and cPAHs) are present from the ground surface to at least 4 feet bgs in the area of boring P2A-B6.
- **Boring P2A-B7:** cPAH-contaminated soil and impacted soil (TCE, lube oil and lead) are present from 1 to 2 feet bgs in the area of boring P2A-B7. TCE-impacted and/or cPAH-contaminated soil may be present from the ground surface to 3 feet bgs (the depth of the next underlying sample collected from boring P2A-B7). The vertical extent of lube oil- and lead-impacted soil is not defined.
- **Boring P2A-B8:** cPAH-impacted soil is present from the ground surface to at least 3 feet bgs in the area of boring P2A-B8.
- **Boring P2A-B9:** Contaminated soil (cadmium, mercury and cPAHs) and impacted soil (lube oil and lead) are present from 1 to 2 feet bgs in the area of boring P2A-B9. Contaminated soil (cadmium, mercury and/or cPAHs) may be present from the ground surface to 3 feet bgs (the depth of the next underlying

sample collected from boring P2A-B9). The vertical extent of lube oil- and lead-impacted soil is not defined.

- **Boring P2A-B10:** cPAH-impacted soil is present from 1 to at least 2 feet bgs in the area of boring P2A-B10. The depth of the cPAH-impacted soil is not defined.
- **Boring P2A-HA1:** Contaminated soil (PCE, cPAHs and arsenic) and impacted soil (TCE, lube oil and lead) are present from the ground surface to at least 1 foot bgs in the area of boring P2A-HA1.

5.2. Groundwater Seeps

PCE and TCE were detected at concentrations less than the respective MTCA Method A groundwater cleanup levels in each of the three analyzed groundwater seep samples. The highest detected concentrations of PCE and TCE were identified in the sample collected from seep P2A-S1 located upgradient of the site. It appears that PCE and TCE in shallow groundwater may be migrating from a source upgradient of the site based on the results of the groundwater seep sampling.

Lube oil-range petroleum hydrocarbons were detected at a concentration greater than the MTCA Method A groundwater cleanup level and diesel-range petroleum hydrocarbons were detected at a concentration less than the MTCA Method A groundwater cleanup level in the groundwater seep sample P2A-S1 collected from upgradient of the site. The source of the petroleum hydrocarbons in the groundwater seeps is not known.

6.0 RECOMMENDATIONS

We understand the final design includes trails for pedestrians and bicycle use within the Phase 2A-2B area. We further understand that Ecology has indicated that PAHs- and metals-contaminated soil may be capped on the site if it is not disturbed based on the City's discussions with Mr. Marv Coleman with Ecology during the Phase 1A project. The specifics of the capping requirements has not been identified at this time but will likely be similar to the capping that is planned for the Phase 1A portion of the Prairie Line Trail. The capping consisted of:

- Hardscape (concrete, pavers, etc.)
- Geotextile overlain by 1 foot of clean soil

6.1. Soil Management

Soil excavated during construction activities will need to be managed in accordance with local, state and federal regulations. Additional exploration is recommended after the design is complete and the exact depths and locations of excavation are known to further delineate the areas of contaminated and impacted soil. Soil to be generated on the site will fall into the four categories:

- cPAH, metal or petroleum hydrocarbon-contaminated soil
- cPAH, metal or petroleum hydrocarbon-impacted soil
- PCE or TCE-impacted soil
- Non-impacted soil

6.1.1. CPAH, Metal or Petroleum Hydrocarbon-Contaminated Soil

Remediation of cPAH, metal or petroleum hydrocarbon-contaminated soil was not required on the Phase 1A project. Ecology did require the City of Tacoma to manage soil that was excavated and cap remaining contaminated soil. The soil excavated should be managed and disposed at a permitted Subtitle D landfill or treatment facility under state and federal regulations. We recommend that the City of Tacoma confirm with Ecology that the same methodology can be followed during the Phase 2A project.

Lead was also detected in nine of the soil samples at a concentration greater than 100 mg/kg. A concentration of 100 mg/kg is used by Subtitle D landfills as a screening level for when TCLP is required to be analyzed for disposal. The TCLP analysis differentiates between contaminated soil and dangerous waste. The soil samples were not analyzed for TCLP lead because we do not recommend analyzing discrete soil samples for TCLP lead because the soil may be characterized as dangerous waste. The City of Tacoma should consider either stockpiling the soil during construction or completing additional sampling once the design is completed.

6.1.2. CPAH, Metal or Petroleum Hydrocarbon-Impacted Soil

State and federal regulations generally do not require the impacted soil be disposed at a permitted Subtitle D landfill. However, low level petroleum hydrocarbons and cPAHs detected in the soil samples may be difficult to dispose at soil recycling facilities and other inert landfills because soil with petroleum and cPAHs is typically regulated under the facility permit conditions by the local regulatory agencies depending on the detected concentration of cPAHs. Petroleum- and cPAH-impacted soil that will be excavated during the construction activities will likely have to be disposed at a permitted Subtitle D landfill based on our experience.

Soil recycling facilities and other inert landfills in the area have various permit conditions regarding disposal of metal-impacted soil. However, there were not samples collected that were either not contaminated or impacted with other chemicals of concern.

6.1.3. Soil With PCE or TCE Detections

The source of the PCE and TCE detected in the soil is not known. PCE and TCE in the form of a spent solvent are considered an F-listed hazardous waste dangerous waste constituents. However, if the source of PCE and TCE is not known, the soil is technically not designated as a dangerous waste and typically may be disposed at an RCRA Subtitle D landfill under state and federal regulations. Ecology has indicated on previous projects that they should make a contained-in determination on all soil with PCE/TCE detections. The contained-in determination designates the soil as solid waste instead of dangerous waste based on the concentrations of PCE/TCE in the soil.

At the time of this report, a contained-in determination has not been obtained and if pursued may take up to two months to obtain. The City of Tacoma may choose to obtain a contained-in determination from Ecology prior to construction or allow the contractor to choose between disposing the PCE- and TCE-impacted soil at a facility that does not require a contained-in determination or be responsible for obtaining a contained-in determination from Ecology.

6.1.4. Non-Impacted Soil

Native soils or fill that does not appear to be visually stained are acceptable for disposal at a permitted soil recycling facility or inert waste landfill. Additional characterization of this material, including stockpile soil sampling and chemical analysis, may be required prior to disposal. The contractor shall be responsible for coordinating disposal with the City's preferred facility.

6.2. Groundwater Management

Groundwater seeps are present on the west side of the site. Groundwater within the seep are eventually conveyed to a drainage ditch on the site. It does not appear that the lube-oil range petroleum hydrocarbons have impacted the groundwater within the seeps or ditch present on the site. Low level PCE and TCE is present in the groundwater seeps, but at a concentrations less than the MTCA Method A Groundwater cleanup level. The City should consider the TCE and PCE concentrations when considering if the public should maintain access to the ditch and groundwater seeps. The City should also consider the groundwater impacted with TCE and PCE on the site specifically as it relates to conveyance off the site.

7.0 LIMITATIONS

GeoEngineers has performed this environmental subsurface investigation within the Phase 2A area of the proposed Prairie Line Trail in general accordance with our Services Agreement dated May 15, 2014 and generally accepted environmental science practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

This Environmental Subsurface Investigation report has been prepared for use by BCRA, Inc. No one except BCRA, Inc. should rely on this report without a third party reliance letter because this environmental report is not intended for use by others.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with the generally accepted environmental science practices for subsurface investigation in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

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

TABLE 1
SUMMARY OF CHEMICAL ANALYTICAL RESULTS¹ - SOIL
PRAIRIE LINE TRAIL PHASE 2A SUBSURFACE INVESTIGATION - CITY OF TACOMA
TACOMA, WASHINGTON

Boring Identification	P2A-B1		P2A-B2		P2A-B3			P2A-B4			P2A-B5		MTCA Method A ULU Cleanup Level (mg/kg)	Impacted Soil Criteria (mg/kg)
Sample Identification ²	P2A-B1-0-1	P2A-B1-1-2	P2A-B2-1-2	P2A-B2-3-4	P2A-B3-1-2	P2A-B3-2-3	P2A-B3-3-4	P2A-B4-0-1	P2A-B4-1-2	P2A-B4-3-4	P2A-B5-1-2	P2A-B5-3-4		
Sample Depth (feet bgs)	0 to 1	1 to 2	1 to 2	3 to 4	1 to 2	2 to 3	3 to 4	0 to1	1 to 2	3 to 4	1 to 2	3 to 4		
NWTPH-HCID ³ (mg/kg)														
Gasoline-Range Petroleum Hydrocarbons	23 U	25 U	25 U	--	23	--	30 U	30 U	23 U	--	30 U	--	30/100 ¹⁰	30 ¹⁵
Diesel-Range Petroleum Hydrocarbons	59 U	62 U	62 U	--	58	--	75 U	55	58 U	--	59 U	--	2,000	200 ¹⁵
Lube Oil-Range Petroleum Hydrocarbons	120	130 U	120	--	120	--	150	110	120 U	--	120	--	2,000	200 ¹⁵
NWTPH-Gx ⁴ (mg/kg)														
Gasoline-Range Petroleum Hydrocarbons	--	--	--	--	6.2 U	--	--	--	--	--	--	--	30/100 ¹⁰	30 ¹⁵
NWTPH-Dx ⁵ (mg/kg)														
Diesel-Range Petroleum Hydrocarbons	190	--	220	--	310	120	93	310	--	--	100	--	2,000	200 ¹⁵
Lube Oil-Range Petroleum Hydrocarbons	1,600	--	690	--	2,100	880	360	1,800	--	--	220	--	2,000	200 ¹⁵
Metals ⁶ (mg/kg)														
Arsenic	15	12 U	12 U	--	70	--	46	11 U	12 U	--	12 U	--	20	7 ¹⁶
Barium	140	140	230	--	270	--	410	82	140	--	200	--	16,000 ¹¹	NE
Cadmium	0.66	0.62 U	0.62 U	--	0.67	--	4.6	0.55 U	0.58 U	--	0.59 U	--	2.0	1 ¹⁶
Chromium	24	51	21	--	28	--	32	29	19	--	17	--	2,000 ¹³	NE
Lead	140	6.2 U	410	5.9 U	260	--	580	88	57	--	72	--	250	50 ¹⁵
Mercury	0.29 U	0.31 U	0.31 U	--	0.29	--	1.7	0.94	2.6	0.32 U	0.29 U	--	2.0	0.07 Or DET ¹⁶
Selenium	12 U	12 U	12 U	--	12 U	--	15 U	11 U	12 U	--	12 U	--	400 ¹²	NE
Silver	1.2 U	1.2 U	1.2 U	--	1.2 U	--	1.5 U	1.1 U	1.2 U	--	1.2 U	--	400 ¹²	NE
VOCs ⁷ (mg/kg)														
Tetrachloroethene (PCE)	0.015 U ¹⁴	0.00081 U	0.00075 U	0.00074 U	0.018 U ¹⁴	0.018 U ¹⁴	0.020 U ¹⁴	0.00069 U	0.00083 U	--	0.017 U ¹⁴	0.00072 U	0.05	DET ¹⁷
Trichloroethene (TCE)	0.00081 U	0.00081 U	0.00075 U	0.00074 U	0.0013 U	0.00091 U	0.0013 U	0.00069 U	0.00083 U	--	0.0011 U	0.00072 U	0.03	
cis-1,2-DCE	0.00081 U	0.00081 U	0.00075 U	0.00074 U	0.0013 U	0.0011	0.0037	0.00069 U	0.00083 U	--	0.0011 U	0.00072 U	160 ¹²	
Trans-1,2-DCE	0.00081 U	0.00081 U	0.00075 U	0.00074 U	0.0013 U	0.00091 U	0.0013 U	0.00069 U	0.00083 U	--	0.0011 U	0.00072 U	1,600 ¹²	
1,1-DCE	0.00081 U	0.00081 U	0.00075 U	0.00074 U	0.0013 U	0.00091 U	0.0013 U	0.00069 U	0.00083 U	--	0.0011 U	0.00072 U	4,000 ¹²	
Vinyl Chloride	0.00081 U	0.00081 U	0.00075 U	0.00074 U	0.0013 U	0.00091 U	0.0019	0.00069 U	0.00083 U	--	0.0011 U	0.00072 U	0.67 ¹²	
Benzene	0.00081 U	0.00081 U	0.00075 U	--	0.0013 U	--	0.0013 U	0.00069 U	0.00083 U	--	0.0011 U	--	0.03	0.03 ¹⁵
Toluene	0.0040 U	0.0041 U	0.0037 U	--	0.0066 U	--	0.0064 U	0.0035 U	0.0042 U	--	0.0055 U	--	7	7 ¹⁵
Ethylbenzene	0.052 U	0.00081 U	0.00075 U	--	0.063 U	--	0.096 U	0.00096	0.00083 U	--	0.060 U	--	6	6 ¹⁵
Xylenes ⁹	0.10 U	0.0016 U	0.0015 U	--	0.13 U	--	0.19 U	0.0046	0.0017 U	--	0.12 U	--	9	9 ¹⁵
2-Butanone (MEK) ¹⁰	0.010	0.022	0.0037 U	--	0.0066 U	--	0.021	0.0066	0.0042 U	--	0.0055 U	--	48,000 ¹²	NE
Acetone ¹⁰	0.065	0.14	0.0091	--	0.025	--	0.096	0.036	0.0042 U	--	0.0055 U	--	72,000 ¹²	NE
Carbon Disulfide ¹⁰	0.00091	0.0010	0.00075 U	--	0.0013 U	--	0.0015	0.00069 U	0.00083 U	--	0.0011 U	--	8,000 ¹²	NE
Naphthalene	0.052 U	0.051 U	0.00075 U	--	0.063 U	--	0.096 U	0.00069 U	0.00083 U	--	0.060 U	--	5	5 ¹⁵

Boring Identification	P2A-B1		P2A-B2		P2A-B3			P2A-B4			P2A-B5		MTCA Method A ULU Cleanup Level (mg/kg)	Impacted Soil Criteria (mg/kg)
Sample Identification ²	P2A-B1-0-1	P2A-B1-1-2	P2A-B2-1-2	P2A-B2-3-4	P2A-B3-1-2	P2A-B3-2-3	P2A-B3-3-4	P2A-B4-0-1	P2A-B4-1-2	P2A-B4-3-4	P2A-B5-1-2	P2A-B5-3-4		
Sample Depth (feet bgs)	0 to 1	1 to 2	1 to 2	3 to 4	1 to 2	2 to 3	3 to 4	0 to1	1 to 2	3 to 4	1 to 2	3 to 4		
PAHs/SVOCs ⁸ (mg/kg)														
Bis(2-Ethylhexyl) Phthalate	--	--	--	--	--	--	--	--	--	--	--	--	71.4 ¹²	NE
Dibutyl Phthalate	--	--	--	--	--	--	--	--	--	--	--	--	8,000 ¹²	NE
Naphthalene	0.11	0.0083 U	0.35	0.0079 U	0.22	--	0.37	--	0.46	0.0084 U	0.22	0.0080 U	5	DET ¹⁸
1-Methylnaphthalene	0.13	0.0083 U	0.26	0.0079 U	0.17	--	0.20	--	0.72	0.0084 U	0.34	0.0080 U	35 ¹²	
2-Methylnaphthalene	0.13	0.0083 U	0.31	0.0079 U	0.23	--	0.26	--	0.73	0.0084 U	0.36	0.0080 U	320 ¹²	
Acenaphthene	0.016 U	0.0083 U	0.029	0.0079 U	0.043	--	0.072	--	1.1	0.0084 U	0.021	0.0080 U	4,800 ¹²	
Acenaphthylene	0.029	0.0083 U	0.18	0.0079 U	0.079	--	0.077	--	0.19	0.0084 U	0.030	0.0080 U	NE	
Anthracene	0.040	0.0083 U	0.20	0.0079 U	0.13	--	0.12	--	1.7	0.0084 U	0.028	0.0080 U	24,000 ¹²	
Benzo(ghi)perylene	0.067	0.0083 U	0.16	0.0079 U	0.13	--	0.18	--	0.59	0.0084 U	0.051	0.0080 U	NE	
Fluoranthene	0.10	0.0083 U	0.34	0.0079 U	0.34	--	0.47	--	2.8	0.0084 U	0.15	0.0080 U	3,200 ¹²	
Fluorene	0.020	0.0083 U	0.041	0.0079 U	0.042	--	0.066	--	0.81	0.0084 U	0.037	0.0080 U	3,200 ¹²	
Phenanthrene	0.19	0.0083 U	0.47	0.0079 U	0.44	--	0.72	--	5.7	0.0084 U	0.40	0.0080 U	NE	
Pyrene	0.11	0.0083 U	0.31	0.0079 U	0.35	--	0.51	--	3.6	0.0084 U	0.15	0.0080 U	2,400 ¹²	
cPAHs ⁸ (mg/kg)														
Benzo (a) anthracene (TEF 0.1)	0.078	0.0083 U	0.23	0.0079 U	0.19	--	0.23	--	2.0	0.0084 U	0.085	0.0080 U	The TTEC concentration is 0.1 mg/kg	DET ¹⁸
Benzo (a) pyrene (TEF 1)	0.068	0.0083 U	0.16	0.0079 U	0.15	--	0.23	--	1.5	0.0084 U	0.065	0.0080 U		
Benzo (b) fluoranthene (TEF 0.1)	0.11	0.0083 U	0.37	0.0079 U	0.28	--	0.32	--	1.6	0.0084 U	0.11	0.0080 U		
Benzo (J,k) fluoranthene (TEF 0.1)	0.039 U	0.0083 U	0.077	0.0079 U	0.068	--	0.075	--	0.60	0.0084 U	0.022	0.0080 U		
Chrysene (TEF 0.01)	0.11	0.0083 U	0.28	0.0079 U	0.26	--	0.29	--	2.0	0.0084 U	0.13	0.0080 U		
Dibenz (a,h) anthracene (TEF 0.1)	0.039 U	0.0083 U	0.041 U	0.0079 U	0.038 U	--	0.041	--	0.15	0.0084 U	0.010	0.0080 U		
Indeno (1,2,3-cd) pyrene (TEF 0.1)	0.056	0.0083 U	0.15	0.0079 U	0.14	--	0.19	--	0.71	0.0084 U	0.058	0.0080 U		
Total cPAH TTEC	0.09	--	0.25	--	0.22	--	0.32	--	2.0	--	0.09	--	0.1	

Boring Identification	P2A-B6			P2A-B7		P2A-B8		P2A-B9-1-2		P2A-B10	P2A-HA1	MTCA Method A ULU Cleanup Level (mg/kg)	Impacted Soil Criteria (mg/kg)
Sample Identification ²	P2A-B6-0-1	P2A-B6-2-3	P2A-B6-3-4	P2A-B7-1-2	P2A-B7-3-4	P2A-B8-0-1	P2A-B8-2-3	P2A-B9-1-2	P2A-B9-3-4	P2A-B10-1-2	P2A-HA1-0-1		
Sample Depth (feet bgs)	0 to 1	2 to 3	3 to 4	1 to 2	3 to 4	0 to 1	2 to 3	1 to 2	3 to 4	1 to 2	0 to 1		
NWTPH-HCID ³ (mg/kg)													
Gasoline-Range Petroleum Hydrocarbons	22	22	--	23 U	--	21 U	22 U	25 U	--	23 U	32 U	30/100 ¹⁰	30 ¹⁵
Diesel-Range Petroleum Hydrocarbons	55	56	--	56	--	52 U	55 U	62 U	--	59 U	80 U	2,000	200 ¹⁵
Lube Oil-Range Petroleum Hydrocarbons	110	110	--	110	--	100	110 U	120	--	120 U	160	2,000	200 ¹⁵
NWTPH-Gx ⁴ (mg/kg)													
Gasoline-Range Petroleum Hydrocarbons	5.6 U	5.4 U	--	--	--	--	--	--	--	--	--	30/100 ¹⁰	30 ¹⁵
NWTPH-Dx ⁵ (mg/kg)													
Diesel-Range Petroleum Hydrocarbons	360	160	--	140	--	56	--	190	--	--	82	2,000	200 ¹⁵
Lube Oil-Range Petroleum Hydrocarbons	1,300	380	--	510	--	150	--	350	--	--	310	2,000	200 ¹⁵
Metals ⁶ (mg/kg)													
Arsenic	74	37	36	14	--	10 U	11 U	12 U	--	12 U	190	20	7 ¹⁶
Barium	420	200	--	230	--	68	98	280	--	110	250	16,000 ¹¹	NE
Cadmium	1.7	0.67	--	0.56 U	--	0.52 U	0.55 U	2.6	0.60 U	0.59 U	0.80 U	2.0	1 ¹⁶
Chromium	28	28	--	24	--	25	18	17	--	37	25	2,000 ¹³	NE
Lead	520	270	420	120	--	45	28	81	--	24	170	250	50 ¹⁵
Mercury	0.60	0.28 U	--	0.28 U	--	0.26 U	0.27 U	6.3	0.30 U	0.29 U	0.40 U	2.0	0.07 Or DET ¹⁶
Selenium	11 U	11 U	--	11 U	--	10 U	11 U	12 U	--	12 U	16 U	400 ¹²	NE
Silver	1.1 U	1.1 U	--	1.1 U	--	1.0 U	1.1 U	1.2 U	--	1.2 U	1.6 U	400 ¹²	NE
VOCs ⁷ (mg/kg)													
Tetrachloroethene (PCE)	0.0016	0.0023	0.051 J	0.043 U	0.00063 U	--	--	0.017 U ¹⁴	--	0.00069 U	0.060 J	0.05	DET ¹⁷
Trichloroethene (TCE)	0.0015 U	0.00095 U	0.0011 U	0.013	0.00063 U	--	--	0.00092 U	--	0.00069 U	0.0092	0.03	
cis-1,2-DCE	0.0015 U	0.00095 U	0.0011 U	0.00091 U	0.00063 U	--	--	0.00092 U	--	0.00069 U	0.0014 U	160 ¹²	
Trans-1,2-DCE	0.0015 U	0.00095 U	0.0011 U	0.00091 U	0.00063 U	--	--	0.00092 U	--	0.00069 U	0.0014 U	1,600 ¹²	
1,1-DCE	0.0015 U	0.00095 U	0.0011 U	0.00091 U	0.00063 U	--	--	0.00092 U	--	0.00069 U	0.0014 U	4,000 ¹²	
Vinyl Chloride	0.0015 U	0.00095 U	0.0011 U	0.00091 U	0.00063 U	--	--	0.00092 U	--	0.00069 U	0.0014 U	0.67 ¹²	
Benzene	0.0015 U	0.00095 U	--	0.00091 U	--	--	--	0.00092 U	--	0.00069 U	0.0014 U	0.03	0.03 ¹⁵
Toluene	0.0073 U	0.0048 U	--	0.0046 U	--	--	--	0.0046 U	--	0.0034 U	0.0070 U	7	7 ¹⁵
Ethylbenzene	0.0015 U	0.00095 U	--	0.043 U	--	--	--	0.058 U	--	0.00069 U	0.096 U	6	6 ¹⁵
Xylenes ⁹	0.0029 U	0.0019 U	--	0.087 U	--	--	--	0.12 U	--	0.0014 U	0.19 U	9	9 ¹⁵
2-Butanone (MEK) ¹⁰	0.015	0.0048 U	--	0.0046 U	--	--	--	0.0046 U	--	0.0034 U	0.0070 U	48,000 ¹²	NE
Acetone ¹⁰	1.3	0.16	--	0.0046 U	--	--	--	0.017	--	0.0034 U	0.025	72,000 ¹²	NE
Carbon Disulfide ¹⁰	0.0015 U	0.00095 U	--	0.00091 U	--	--	--	0.00092 U	--	0.00069 U	0.0014 U	8,000 ¹²	NE
Naphthalene	0.096	0.058 U	--	0.043 U	--	--	--	0.058 U	--	0.00069 U	0.096 U	5	5 ¹⁵

Boring Identification	P2A-B6			P2A-B7		P2A-B8		P2A-B9-1-2		P2A-B10	P2A-HA1	MTCA Method A ULU Cleanup Level (mg/kg)	Impacted Soil Criteria (mg/kg)
Sample Identification ²	P2A-B6-0-1	P2A-B6-2-3	P2A-B6-3-4	P2A-B7-1-2	P2A-B7-3-4	P2A-B8-0-1	P2A-B8-2-3	P2A-B9-1-2	P2A-B9-3-4	P2A-B10-1-2	P2A-HA1-0-1		
Sample Depth (feet bgs)	0 to 1	2 to 3	3 to 4	1 to 2	3 to 4	0 to 1	2 to 3	1 to 2	3 to 4	1 to 2	0 to 1		
PAHs/SVOCs ⁸ (mg/kg)													
Bis(2-Ethylhexyl) Phthalate	--	--	--	--	--	0.051	0.036 U	--	--	--	--	71.4 ¹²	NE
Dibutyl Phthalate	--	--	--	--	--	0.035 U	0.041	--	--	--	--	8000 ¹²	NE
Naphthalene	0.85	0.24	0.73	0.49	0.0085 U	0.020	0.079	0.45	0.0081 U	0.033	0.25	5	DET ¹⁸
1-Methylnaphthalene	0.59	0.30	1.4	0.37	0.0085 U	0.014	0.097	0.58	0.0081 U	0.058	0.29	35 ¹²	
2-Methylnaphthalene	0.90	0.32	1.1	0.52	0.0085 U	0.022	0.10	0.65	0.0081 U	0.063	0.34	320 ¹²	
Acenaphthene	0.029	0.11	0.15	0.051	0.0085 U	0.0069 U	0.0073 U	0.031	0.0081 U	0.0078 U	0.17	4,800 ¹²	
Acenaphthylene	0.051	0.11	0.21	0.31	0.0085 U	0.017	0.029	0.079	0.0081 U	0.0078 U	0.21	NE	
Anthracene	0.093	0.30	0.61	0.47	0.0085 U	0.023	0.031	0.075	0.0081 U	0.0078 U	0.46	24,000 ¹²	
Benzo(ghi)perylene	0.055	0.33	0.59	0.19	0.0085 U	0.019	0.028	0.096	0.0081 U	0.0078 U	0.64	NE	
Fluoranthene	0.19	0.92	2.0	0.45	0.0085 U	0.022	0.054	0.22	0.0081 U	0.0092	1.6	3,200 ¹²	
Fluorene	0.045	0.13	0.19	0.065	0.0085 U	0.0069 U	0.0088	0.073	0.0081 U	0.0078 U	0.18	3,200 ¹²	
Phenanthrene	0.39	1.2	3.0	0.58	0.0085 U	0.026	0.089	0.45	0.0081 U	0.077	2.0	NE	
Pyrene	0.16	1.0	3.0	0.35	0.0085 U	0.021	0.053	0.21	0.0081 U	0.012	2.0	2,400 ¹²	
cPAHs ⁸ (mg/kg)													
Benzo (a) anthracene (TEF 0.1)	0.099	0.60	1.1	0.27	0.0085 U	0.013	0.039	0.14	0.0081 U	0.012	1.0	The TTEC concentration is 0.1 mg/kg	DET ¹⁸
Benzo (a) pyrene (TEF 1)	0.069	0.56	0.82	0.17	0.0085 U	0.013	0.031	0.097	0.0081 U	0.0078 U	0.97		
Benzo (b) fluoranthene (TEF 0.1)	0.14	0.62	1.0	0.38	0.0085 U	0.035	0.050	0.21	0.0081 U	0.012	1.2		
Benzo (J,k) fluoranthene (TEF 0.1)	0.028	0.17	0.36	0.067	0.0085 U	0.0069 U	0.013	0.034	0.0081 U	0.0078 U	0.34		
Chrysene (TEF 0.01)	0.13	0.65	1.5	0.31	0.0085 U	0.021	0.041	0.18	0.0081 U	0.021	1.1		
Dibenz (a,h) anthracene (TEF 0.1)	0.010	0.091	0.20	0.037	0.0085 U	0.0069 U	0.0093	0.016	0.0081 U	0.0078 U	0.16		
Indeno (1,2,3-cd) pyrene (TEF 0.1)	0.060	0.36	0.63	0.27	0.0085 U	0.020	0.031	0.11	0.0081 U	0.0078 U	0.67		
Total cPAH TTEC	0.1	0.75	1.2 J	0.28	--	0.02	0.046	0.15	--	0.002	1.3	0.1	

Notes

¹ Chemical analysis performed by OnSite Environmental, Inc., of Redmond, Washington.

² Sample ID = Project identifier - boring number - starting depth of sample [feet bgs] -end depth [feet bgs], boring 1 collected 0-1 feet bgs = P2A-B1-0-1.

³ Washington State Department of Ecology (Ecology)-approved method NWTPH-HCID.

⁴ Ecology-approved method NWTPH-Gx.⁵ Ecology-approved method NWTPH-Dx.

⁶ Resource Conservation Recovery Act (RCRA) metals analyzed by U.S. Environmental Protection Agency (EPA) 6000/7000 series method

⁷ Volatile organic compounds (VOCs) analyzed by EPA method 8260B/8260C. Other VOCs were analyzed but not detected.

⁸ Polycyclic aromatic hydrocarbons (PAHs) analyzed by EPA method 8270D/SIM. Two samples analyzed for SVOCs by method EPA method 8270D/SIM.

⁹ Total xylenes consists of m, p, and o xylenes. The higher detection limit is shown.

¹⁰ 2-Butanone, Acetone and Carbon Disulfide are common laboratory contaminants

¹² MTOA Method B criteria represented because MTOA Method A cleanup level has not been established.

13. MITCHELL, M. H., J. A. J. HARRIS, AND J. L. S. TAYLOR. 1991. The

¹⁶ Metal-impacted soil is defined as arsenic, cadmium and mercury detected at concentrations greater than the respective Puget Sound Background levels but less than the respective MTCA Method A cleanup levels or MTCA Method B criteria (Summary Natural Background Soil Metals Concentrations in Washington State [Publication 94-115] dated October, 1994)

¹⁷ PCE or TCE impacted soil is defined as PCE or TCE detected at a concentration less than the MTCA Method A ULLU cleanup level (Hazardous Waste Regulations 40 CFR part 260).

¹⁸ CPAH or PAH impacted soil is defined as cPAHs or PAHs detected at a concentration less than the MTCA Method A ULU cleanup level but are detected at a concentration greater than the laboratory reporting limit. CPAH or PAH impacted soil will have to be disposed at a RCRA Subtitle D landfill based on our experience.

mg/kg = milligram per kilogram

hgs = below ground surface

DFT = Detected

LL = Analyte was not detected at or greater than the listed reporting limit

NE = Not Established

= sample not analyzed

L = Detected value is less than the method reporting limit (MRI) because the MRI was elevated due to matrix interference. Estimated result by the analytical laboratory.

TEF = Toxicity Equivalency Factor as defined in WAC 173.340.900 Table 308.2

Total Toxic Equivalent Concentration (TTEC) is the sum of each individual ePAH concentration multiplied by its corresponding TEF.

Bold type indicates analyte was detected at a concentration greater than the laboratory detection limit

Bold type with shading indicates analyte was detected at a concentration greater than the respective MTCA Method A ULL cleanup level or Method B Criteria

Bold font type, bold dashed outline indicates that the detected concentration is greater than the noted impacted soil criteria.

TABLE 2

SUMMARY OF CHEMICAL ANALYTICAL RESULTS¹ - GROUNDWATER SEEPS
PRAIRIE LINE TRAIL PHASE 2A SUBSURFACE INVESTIGATION - CITY OF TACOMA
TACOMA, WASHINGTON

Seep Location	P2A-S1	P2A-S2	P2A-S3	MTCA Method A Groundwater Cleanup Level (µg/L)
Sample Identification ²	P2A-S1-150707	P2A-S2-150707	P2A-S3-150707	
Sample Date	7/7/2015	7/7/2015	7/7/2015	
NWTPH-Gx ³ (µg/L)				
Gasoline-Range Petroleum Hydrocarbons	400 U	100 U	100 U	800/1,000 ⁹
NWTPH-Dx ⁴ (µg/L)				
Diesel-Range Petroleum Hydrocarbons	430	260 U	260 U	500
Lube Oil-Range Petroleum Hydrocarbons	870	410 U	410 U	500
Dissolved Metals ⁵ (µg/L)				
Arsenic	3.0 U	3.0 U	3.0 U	5
Barium	25 U	25 U	25 U	3,200 ¹⁰
Cadmium	4.0 U	4.0 U	4.0 U	5
Chromium	10 U	10 U	10 U	50
Lead	1.0 U	1.0 U	1.0 U	15
Mercury	0.50 U	0.50 U	0.50 U	2
Selenium	5.0 U	5.0 U	5.0 U	80 ¹⁰
Silver	10 U	10 U	10 U	80 ¹⁰
VOCs ⁶ (µg/L)				
Tetrachloroethene	0.66	0.59	0.38	5
Trichloroethene	1.5	1.4	0.76	5
cis-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	16 ¹⁰
Trans-1,2-Dichloroethene	0.20 U	0.20 U	0.20 U	160 ¹⁰
1,1-Dichloroethene	0.20 U	0.20 U	0.20 U	400 ¹⁰
Vinyl Chloride	0.20 U	0.20 U	0.20 U	0.2
Benzene	0.20 U	0.20 U	0.20 U	5
Toluene	1.0 U	1.0 U	1.0 U	1,000
Ethylbenzene	0.20 U	0.20 U	0.20 U	700
Xylenes ⁷	0.40 U	0.40 U	0.40 U	1,000
Acetone ⁸	5.0	5.0 U	5.0 U	7,200 ¹⁰
Chloroform ⁸	0.20	0.21	0.20 U	1.41 ¹⁰

Notes:

¹ Chemical analysis performed by OnSite Environmental, Inc., of Redmond, Washington.

² Sample ID = Project identifier - seep number - sample date, seep 1 collected on July 7, 2015 = P2A-S1-150707.

³ Washington State Department of Ecology (Ecology)-approved method NWTPH-Gx.

⁴ Ecology-approved method NWTPH-Dx.

⁵ Resource Conservation Recovery Act (RCRA) metals analyzed by U.S. Environmental Protection Agency (EPA) 6000/7000 series method.

⁶ Volatile organic compounds (VOCs) analyzed by EPA method 8260C. Other VOCs were analyzed but not detected.

⁷ Total xylenes consists of m,p- and o- xylenes. The higher detection limit is shown.

⁸ Acetone and Chloroform are common laboratory contaminants.

⁹ Model Toxics Control Act (MTCA) Method A cleanup level for gasoline is 800 µg/L if benzene is detected or if the sum of toluene, ethylbenzene and xylenes are equal to or greater than 1% of the total gasoline.

¹⁰ MTCA Method B groundwater criteria represented because MTCA Method A groundwater cleanup level has not been established.

µg/L = microgram per liter

VOCs = Volatile organic compounds

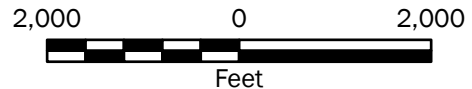
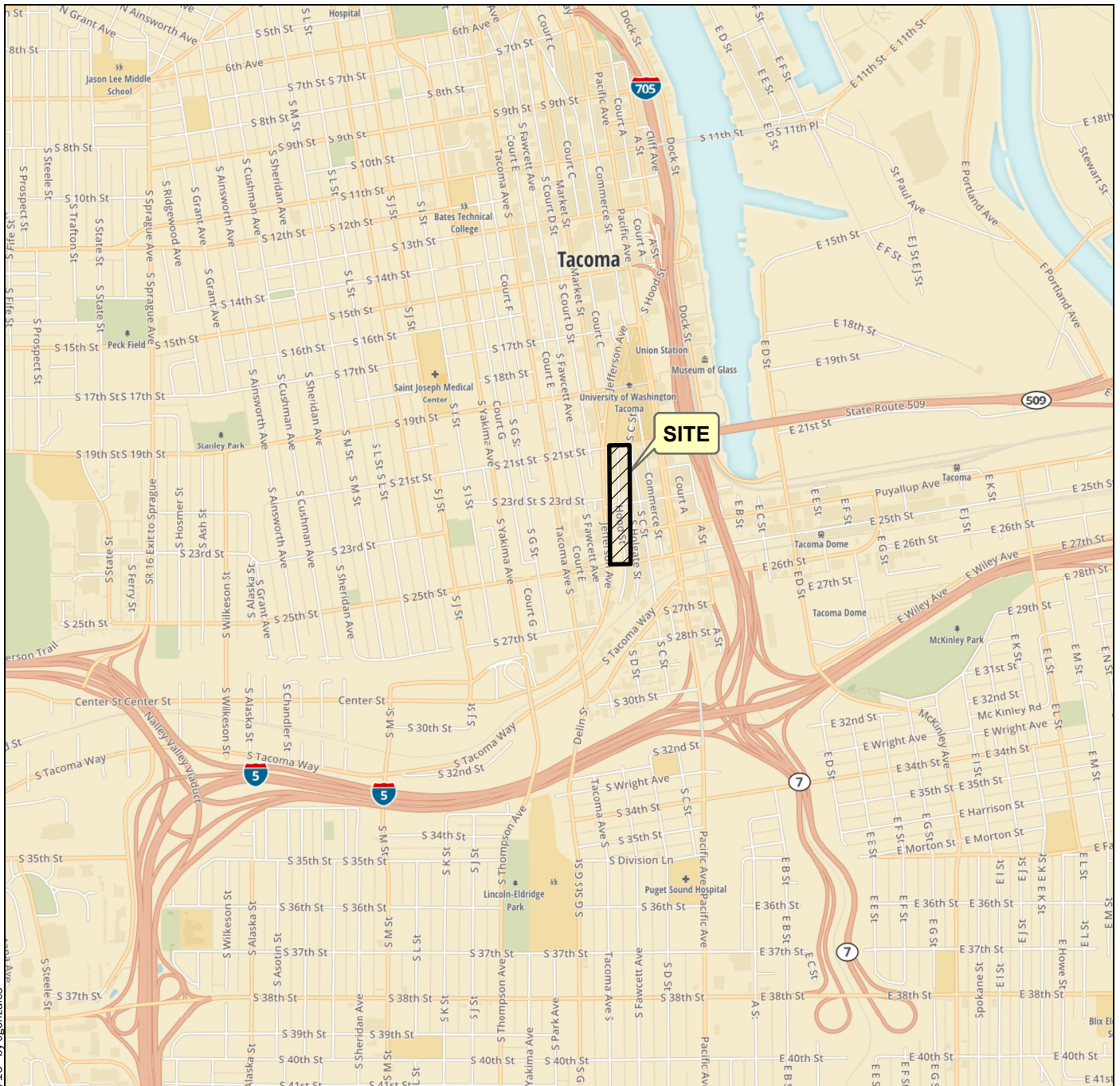
MTCA = Model Toxics Control Act

PAHs = Polycyclic aromatic hydrocarbons

U = Analyte was not detected at or greater than the listed reporting limit

Bold type indicates analyte was detected at a concentration greater than the laboratory detection limit.

Bold type with shading indicates analyte was detected at a concentration greater than the respective MTCA Method A cleanup level or Method B Criteria.



Vicinity Map

City of Tacoma - Prairie Line Trail Phase 2A
Tacoma, Washington



Figure 1

Notes:

1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Mapbox Open Street Map, 2015

Projection: NAD 1983 UTM Zone 10N

\\TACV\Projects\057013302_CAD\03_Sheet Files\057013302_F2a-F2b.dwg TAB:2A Date Exported: 08/17/15 - 14:53 by cvanslyke

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Base drawing titled "Hood Street Callout Plan", dated 7/22/15, are from the City of Tacoma Department of Public Works.

* Vertical Limit of Contaminated or Impacted Soil not Defined

Abbreviations

MTCA = Model Toxics Control Act
bgs = below ground surface
cPAHS = carcinogenic polycyclic aromatic hydrocarbons
PCE = Tetrachloroethene
TCE = Trichloroethene
µg/L = microgram per liter
COC = Chemical of Concern

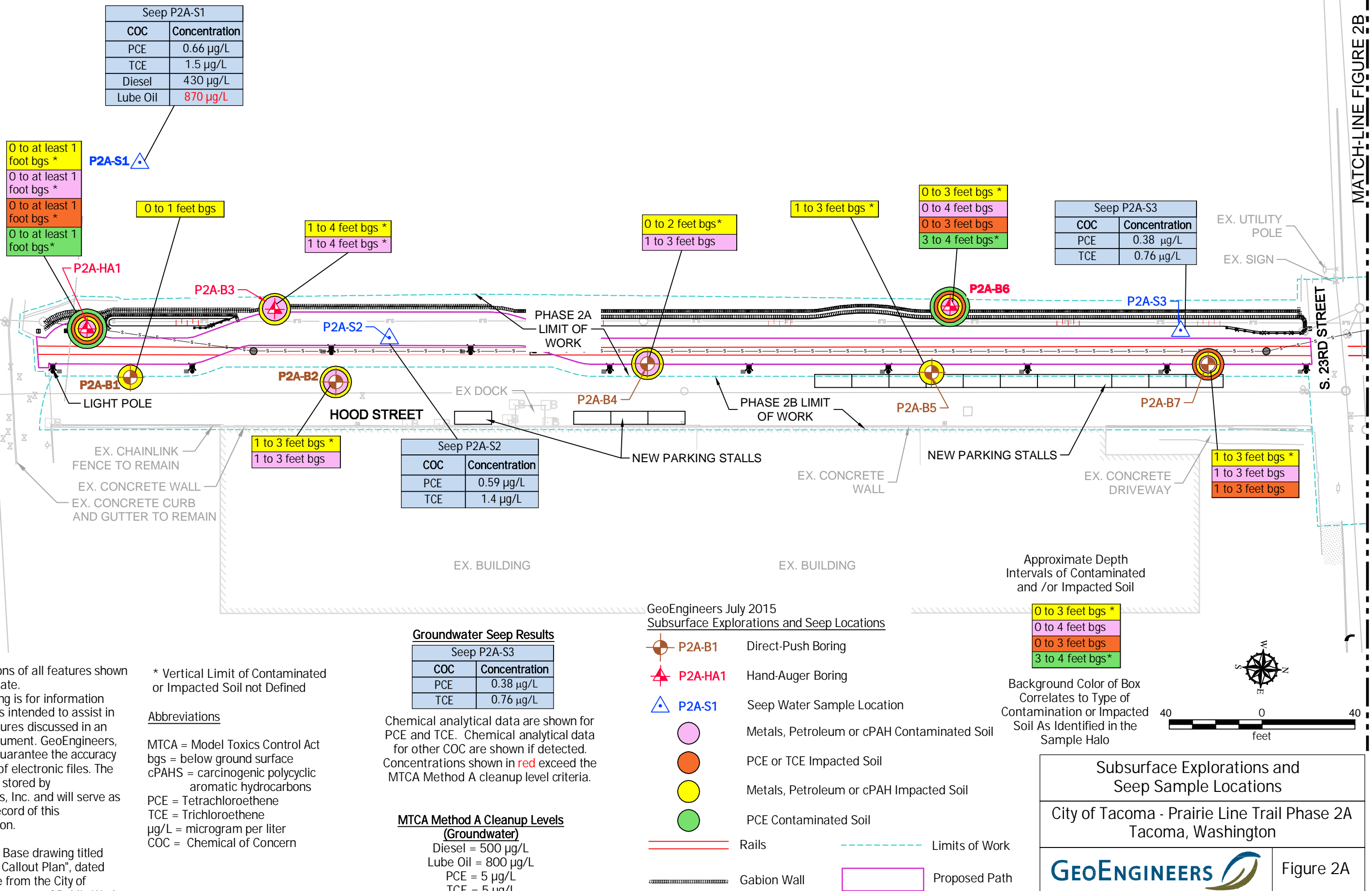
Groundwater Seep Results

Seep P2A-S3	
COC	Concentration
PCE	0.38 µg/L
TCE	0.76 µg/L

Chemical analytical data are shown for PCE and TCE. Chemical analytical data for other COC are shown if detected. Concentrations shown in **red** exceed the MTCA Method A cleanup level criteria.

MTCA Method A Cleanup Levels (Groundwater)

Diesel = 500 µg/L
Lube Oil = 800 µg/L
PCE = 5 µg/L
TCE = 5 µg/L



\\TAC\Projects\10\057013\02\CAD\03_Sheet Files\057013302_F2a\F2b.dwg TAB:2B Date Exported: 08/17/15 - 14:55 by cvanslyke

MATCH-LINE FIGURE 2A

S. 23RD STREET

S. 21ST STREET

0 to 3 feet bgs *

1 to 3 feet bgs *
1 to 3 feet bgs

1 to 2 feet bgs *

CHAIN LINK FENCE

EX. BUILDING

EX. RAILS

NEW LIGHT POLE

EX. WOOD STAIRS - ADD
STAIRS ON NORTH SIDE
OF LANDING

EX. CONCRETE
EDGE

PHASE 2A
LIMIT OF
WORK

PHASE 2B LIMIT
OF WORK

EX. STRUCTURE ABOVE

P2A-B9

EX. DOCK

EX. ASPHALT EDGE

HOOD STREET

P2A-B10

EX. DIRT

HOOD STREET

EX. DOCK

POTENTIAL SPOT FOR
SHADOW ELEMENT

EX. BUILDING

FUTURE PARKING
SPACES (N.I.C.)

EX. RIGHT-OF-WAY
LINE, TYP.

EX. BUILDING

EX. BUILDING

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Base drawing titled "Hood Street Callout Plan", dated 7/22/15, are from the City of Tacoma Department of Public Works.

* Vertical Limit of Contaminated or Impacted Soil not Defined

Abbreviations

MTCA = Model Toxics Control Act
bgs = below ground surface
cPAHS = carcinogenic polycyclic aromatic hydrocarbons
PCE = Tetrachloroethene
TCE = Trichloroethene
µg/L = microgram per liter

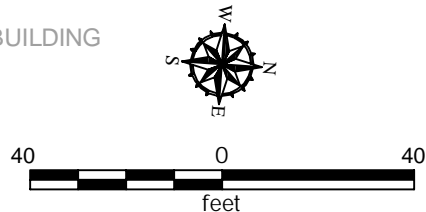
GeoEngineers July 2015
Subsurface Explorations and Seep Locations

- P2A-B8 Direct-Push Boring
- P2A-HA1 Hand-Auger Boring
- P2A-S1 Seep Water Sample Location
- Metals, Petroleum or cPAH Contaminated Soil
- PCE or TCE Impacted Soil
- Metals, Petroleum or cPAH Impacted Soil
- Rails
- Gabion Wall
- Limits of Work
- Proposed Path

Approximate Depth
Intervals of Contaminated
and /or Impacted Soil

- 0 to 3 feet bgs *
- 0 to 4 feet bgs
- 0 to 3 feet bgs
- 3 to 4 feet bgs*

Background Color of Box
Correlates to Type of
Contamination or Impacted
Soil As Identified in the
Sample Halo



Subsurface Explorations and Seep Sample Locations

City of Tacoma - Prairie Line Trail Phase 2A
Tacoma, Washington

GEOENGINEERS

Figure 2B

APPENDIX A

Field Exploration Program

APPENDIX A

FIELD EXPLORATION PROGRAM

General

Subsurface conditions were explored by completing eleven soil borings and collecting three groundwater seep samples at the site to evaluate the potential presence of petroleum hydrocarbons, metals, VOCs, and SVOCs in soil on July 7 and 8, 2015.

A representative of GeoEngineers selected the locations for borings, observed and classified the soils encountered and prepared a detailed log of each boring. The soils were classified according to the system described in Figure A-1. The boring logs are presented in Figures A-2 through A-12.

Soil Sampling

General

Soil samples obtained from the borings were visually classified in general accordance with ASTM International (ASTM) D 2488. The samples were evaluated for the potential presence of contamination using field screening techniques that include visual, olfactory, water sheen tests and photoionization (PID) measurements. Observations of soil and groundwater conditions, if encountered, and soil field screening results for each exploration are included in each boring log.

Samples collected were representative of contaminated or potentially materials and/or different types of materials at each boring. Selected soil samples were collected in glass jars (supplied by the analytical laboratory), labeled and stored in an ice-chest pending delivery to the laboratory. GeoEngineers' personnel used the recommended method 5035A sampling protocols to collect soil samples. All sampling and mixing equipment was decontaminated between samples using an Alconox soap wash and distilled water rinse. The soil cuttings and decon water were stored in drums on site.

Hand Augers

Three hand-auger explorations were completed using a manually operated sampling auger. The auger core is approximately 2.5 inches in diameter and 6 inches long and is extended into the ground using a series of 3-foot rods. The auger was advanced into the soil by hand. A representative from our staff selected the exploration locations and observed and classified the soil encountered. Soil in the explorations was visually classified in general accordance with ASTM D 2488-94.

The sampling equipment was decontaminated before each sampling attempt with an Alconox® wash solution and a distilled water rinse. Soil samples were obtained from continuous cores for field screening and possible chemical analysis.

Soil samples obtained from the hand-auger were collected from the sampler with a stainless steel knife, a stainless steel trowel and/or new gloves. A portion of each sample was placed in laboratory-prepared sample jars for possible chemical analysis. The remaining portion of each sample was used for field screening.

Selected samples from the explorations were submitted for chemical analysis based on field screening results.

Direct-Push Borings

Drilling activities were monitored continuously by a representative from GeoEngineers who observed and classified the soil encountered and prepared a detailed boring log. Soil samples were collected from borings advanced using direct push drilling equipment. Soil samples were obtained from the borings using a 4-foot-long by 2-inch-inside-diameter sampler at the end of the drilling rods. The core sampler was driven using the weight of the drill rig. Soil cuttings from the borings were placed in a labeled 16-gallon drum.

Field Screening Methods

Our representative conducted field screening on each of the soil samples obtained from the borings. Field screening results can be used as a general guideline to delineate areas of potential petroleum-related contamination in soils. In addition, screening results are often used as a basis for selecting soil samples for chemical analysis. The screening methods employed included: 1) visual examination, 2) screening for organic vapors and 3) water sheen testing.

Visual screening consists of observing the soil for stains indicative of petroleum-related contamination. Visual screening is generally more effective when contamination is related to heavy petroleum hydrocarbons such as motor oil, or when hydrocarbon concentrations are high. Sheen screening and headspace screening are more sensitive screening methods that can be effective in detecting petroleum-based products in concentrations lower than regulatory cleanup guidelines.

Headspace vapor testing for combustible gases consisted of using a Mini RAE 3000 photoionization detector (PID). Headspace vapor screening involves placing a soil sample in a plastic bag. Air is captured in the bag and the bag is shaken to expose the soil to the air trapped in the bag. The probe of the Mini RAE 3000 PID is inserted into the bag and the Mini RAE 3000 PID measures the concentration of organic vapors in the sample bag headspace. The Mini RAE 3000 PID is calibrated to isobutylene and is designed to quantify organic vapor concentrations up to 1,000 ppm (parts per million). The lower threshold of significance of the Mini RAE 3000 PID in this application is 10 ppm; however, values of zero were recorded by the instrument.

Water sheen testing involves placing soil in pan of distilled water and observing the water surface for signs of sheen. The results of water sheen testing on soil samples from the borings are presented on the boring logs. Sheens are classified as follows:

No Sheen (NS)	No visible sheen on water surface.
Slight Sheen (SS)	Light colorless film, spotty to globular; spread is irregular, not rapid; areas of no sheen remain; film dissipates rapidly.
Moderate Sheen (MS)	Light to heavy film, may have some color or iridescence, globular to stringy, spread is irregular to flowing; few remaining areas of no sheen on water surface.
Heavy Sheen (HS)	Heavy colorful film with iridescence; stringy, spread is rapid; sheen flows off the sample; most of water surface may be covered with sheen.

Groundwater Seep Sampling

Three groundwater seep samples were be collected at the site on July 7th, 2015. These seeps were sampled directly from discharge pipes or within the adjacent ditch. Samples were collected following 1 day of dry weather to prevent comingling with stormwater runoff.

Prior to water sample collection, one set of field parameters was collected using a multi-parameter water quality meter (Horiba U-22 or equivalent). The meter was submerged in the water until parameters reached stabilization. Parameters measured included: electrical conductivity, dissolved oxygen, pH, salinity, total dissolved solids, turbidity, oxidation-reduction potential and temperature. These field measurements were documented on the field log.

Samples were collected using a polyethylene dipper and poured directly into sample bottles provided by the analytical laboratory. Samples were be placed directly into a cooler with ice and logged on the chain-of-custody.

SOIL CLASSIFICATION CHART

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

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

Sampler Symbol Descriptions

	2.4-inch I.D. split barrel
	Standard Penetration Test (SPT)
	Shelby tube
	Piston
	Direct-Push
	Bulk or grab

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

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

ADDITIONAL MATERIAL SYMBOLS

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

Groundwater Contact



Measured groundwater level in exploration, well, or piezometer



Measured free product in well or piezometer

Graphic Log Contact



Distinct contact between soil strata or geologic units



Approximate location of soil strata change within a geologic soil unit

Material Description Contact



Distinct contact between soil strata or geologic units



Approximate location of soil strata change within a geologic soil unit

Laboratory / Field Tests

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

Sheen Classification

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

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

KEY TO EXPLORATION LOGS

Drilled	Start 7/8/2015	End 7/8/2015	Total Depth (ft)	2	Logged By Checked By	BEL DJT	Driller	ESN Northwest	Drilling Method	Direct Push
Surface Elevation (ft) Vertical Datum					Undetermined		Hammer Data		N/A	
Easting (X) Northing (Y)					System Datum		Drilling Equipment		Power Probe 9500 PTO	
Notes:							Groundwater Date Measured		Depth to Water (ft) Elevation (ft) See Remarks	

Elevation (feet)	FIELD DATA					Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Interval	Recovered (in)	Blows/foot (N ₆₀)	Collected Sample	Sample Name Testing							
0		24		P2A-B1-0-1				AC	Approximately 2 inches asphalt concrete	NS	<1	Groundwater observed at approximately 1.5 feet during drilling
								GP-GM	Gray fine gravel with silt and sand (medium dense, moist) (fill)			
								SM	Black silty fine to coarse sand with occasional gravel (loose, wet) (fill)			
				P2A-B1-1-2				ML	Brown silt with occasional sand and gravel (soft, wet)	NS	<1	
								ML	Dark brown silt with organic matter (very soft, wet)			
								ML	Gray silt with occasional sand and gravel (medium stiff, wet)			

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

Log of Boring P2A-B1



Project: Prairie Line Trail Phase 2A-2B
 Project Location: Tacoma, Washington
 Project Number: 0570-133-02

Figure A-2
 Sheet 1 of 1

Drilled	Start 7/8/2015	End 7/8/2015	Total Depth (ft)	4	Logged By Checked By	BEL DJT	Driller	ESN Northwest	Drilling Method	Direct Push
Surface Elevation (ft) Vertical Datum					Undetermined		Hammer Data		N/A	
Easting (X) Northing (Y)					System Datum		Drilling Equipment		Power Probe 9500 PTO	
Notes:							Groundwater Date Measured		Depth to Water (ft) Elevation (ft) See Remarks	

Elevation (feet)	FIELD DATA					Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Interval	Recovered (in)	Blows/foot (N ₆₀)	Collected Sample	Sample Name Testing							
0		40						AC	Approximately 2 inches asphalt concrete	NS	1.5	Groundwater observed at approximately 2.5 feet during drilling
								GP-GM	Gray fine gravel with silt and sand (medium dense, moist) (fill)			
								SM	Black silty fine to coarse sand with gravel (loose, moist) (fill)			
										MS	3.1	
										SS	2.7	
								ML	Brown silt with sand and occasional organic matter (soft, wet)			
										NS	4.5	
								ML	Brown silt with organic matter (very soft, wet)			
								ML	Gray silt with sand and occasional gravel (stiff, wet)			

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

Log of Boring P2A-B2



Project: Prairie Line Trail Phase 2A-2B
 Project Location: Tacoma, Washington
 Project Number: 0570-133-02

Figure A-3
 Sheet 1 of 1

Drilled	Start 7/8/2015	End 7/8/2015	Total Depth (ft)	4	Logged By Checked By	BB DJT	Driller	GeoEngineers	Drilling Method	Hand Auger
Surface Elevation (ft) Vertical Datum					Undetermined		Hammer Data		N/A	
Easting (X) Northing (Y)					System Datum		Drilling Equipment		Hand Auger	
Notes:					Groundwater Date Measured		Depth to Water (ft)		Elevation (ft)	
									See Remarks	

Elevation (feet)	FIELD DATA						MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Interval	Recovered (in)	Blows/foot (N ₆₀)	Collected Sample	Sample Name Testing	Water Level				
0										
				P2A-B3-1-2			Black fine to medium sand with silt and occasional gravel and organic matter (loose, moist) (fill)	NS	<1	
				P2A-B3-2-3				NS	<1	
				P2A-B3-3-4			Grades to wet	NS	<1	Groundwater observed at approximately 2.5 feet during drilling

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

Log of Boring P2A-B3



Project: Prairie Line Trail Phase 2A-2B
 Project Location: Tacoma, Washington
 Project Number: 0570-133-02

Figure A-4
 Sheet 1 of 1

Start Drilled 7/8/2015	End 7/8/2015	Total Depth (ft) 4	Logged By Checked By BEL DJT	Driller ESN Northwest	Drilling Method Direct Push
Surface Elevation (ft) Vertical Datum Undetermined			Hammer Data N/A		Drilling Equipment Power Probe 9500 PTO
Easting (X) Northing (Y)			System Datum		Groundwater Date Measured
Notes:			Depth to Water (ft) Elevation (ft) Not Observed		

Elevation (feet)	FIELD DATA					Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Interval	Recovered (in)	Blows/foot (N ₆₀)	Collected Sample	Sample Name Testing							
0		48		P2A-B4-0-1				GP-GM	Gray fine gravel with silt and sand (medium dense, moist) (fill)	NS	<1	
								SM	Brown to black silty fine to coarse sand with occasional gravel and debris (piece of metal) (medium dense, moist) (fill)			
				P2A-B4-1-2						NS	<1	
										NS	<1	
				P2A-B4-3-4	SA, HA, CEC, OC			SM	Brown to gray with orange mottling silty sand with occasional gravel (medium dense, moist)	NS	<1	MC=21%; %F=48

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

Log of Boring P2A-B4



Project: Prairie Line Trail Phase 2A-2B
 Project Location: Tacoma, Washington
 Project Number: 0570-133-02

Figure A-5
 Sheet 1 of 1

Start Drilled 7/8/2015	End 7/8/2015	Total Depth (ft) 4	Logged By Checked By BEL DJT	Driller ESN Northwest	Drilling Method Direct Push
Surface Elevation (ft) Vertical Datum Undetermined			Hammer Data N/A		Drilling Equipment Power Probe 9500 PTO
Easting (X) Northing (Y)			System Datum		Groundwater Date Measured
Notes:			Depth to Water (ft) Elevation (ft) See Remarks		

Elevation (feet)	FIELD DATA					Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Interval	Recovered (in)	Blows/foot (N ₆₀)	Collected Sample	Sample Name Testing							
0		40						GP-GM	Gray fine gravel with silt and sand (medium dense, moist) (fill)	NS	<1	
								SM	Black silty fine to coarse sand (loose, moist) (fill)	NS	<1	
								SM	Brown silty fine to medium sand with occasional gravel (medium dense, wet)	NS	<1	Groundwater observed at approximately 2.5 feet during drilling
								SM	Gray-brown silty sand with occasional gravel (medium dense, wet)	NS	<1	MC=20%; %F=42

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

Log of Boring P2A-B5



Project: Prairie Line Trail Phase 2A-2B
 Project Location: Tacoma, Washington
 Project Number: 0570-133-02

Figure A-6
 Sheet 1 of 1

Drilled	Start 7/8/2015	End 7/8/2015	Total Depth (ft)	4	Logged By Checked By	BB DJT	Driller	GeoEngineers	Drilling Method	Hand Auger
Surface Elevation (ft) Vertical Datum					Undetermined		Hammer Data		N/A	
Easting (X) Northing (Y)					System Datum		Groundwater		Hand Auger	
Notes:							Date Measured		Depth to Water (ft) Elevation (ft) Not Observed	

Elevation (feet)	FIELD DATA					Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Interval	Recovered (in)	Blows/foot (N ₆₀)	Collected Sample	Sample Name Testing							
0					P2A-B6-0-1			SM	Black fine to medium silty sand with occasional organic matter and gravel (loose, moist) (fill)	NS	1.2	
										NS	1.4	
					P2A-B6-2-3					NS	1.4	
					P2A-B6-3-4				Becomes dark brown	NS	<1	
										NS	<1	

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

Log of Boring P2A-B6



Project: Prairie Line Trail Phase 2A-2B
 Project Location: Tacoma, Washington
 Project Number: 0570-133-02

Figure A-7
 Sheet 1 of 1

Tacoma: Date: 8/17/15 Path: P:\0570133\GINT\057013302.GPJ DB Template: LIB Template: GEOENGINEERS8.GDT/GEI8 ENVIRONMENTAL STANDARD

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

GEOENGINEERS 

Figure A-8
Sheet 1 of 1

Drilled	Start 7/8/2015	End 7/8/2015	Total Depth (ft)	4	Logged By Checked By	BEL DJT	Driller	ESN Northwest	Drilling Method	Direct Push
Surface Elevation (ft) Vertical Datum					Undetermined		Hammer Data		N/A	
Easting (X) Northing (Y)					System Datum		Drilling Equipment		Power Probe 9500 PTO	
Notes:							Groundwater Date Measured		Depth to Water (ft) Elevation (ft) Not Observed	

Elevation (feet)	FIELD DATA					Water Level	Graphic Log	Group Classification	MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Interval	Recovered (in)	Blows/foot (N ₆₀)	Collected Sample	Sample Name Testing							
0		48						AC	Approximately 1 inch asphalt concrete	NS	<1	
								GP	Gray fine gravel with sand (medium dense, moist) (fill)			
								SM	Black silty fine to coarse sand with occasional gravel (loose, moist) (fill)			
										NS	340	
										NS	3	
								SM	Brown with orange mottling silty sand (medium dense, moist)	NS	3	MC=25%; %F=35

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

Log of Boring P2A-B9



Project: Prairie Line Trail Phase 2A-2B
 Project Location: Tacoma, Washington
 Project Number: 0570-133-02

Figure A-10
 Sheet 1 of 1

Start Drilled 7/8/2015	End 7/8/2015	Total Depth (ft) 4	Logged By Checked By BEL DJT	Driller ESN Northwest	Drilling Method Direct Push
Surface Elevation (ft) Vertical Datum Undetermined			Hammer Data N/A		Drilling Equipment Power Probe 9500 PTO
Easting (X) Northing (Y)			System Datum		Groundwater Date Measured Depth to Water (ft) Elevation (ft)
Notes:					Not Observed

Elevation (feet)	FIELD DATA					MATERIAL DESCRIPTION	Sheen	Headspace Vapor (ppm)	REMARKS
	Interval	Recovered (in)	Blows/foot (N ₆₀)	Collected Sample	Water Level				
0		48				AC	SS	<1	
						GP-GM			
						SM			
				P2A-B10-1-2			SS	<1	
						ML	NS	<1	
						SM			
				P2A-B10-3-4 SA, CEC, OC			NS	<1	MC=8%; %F=25

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

Log of Boring P2A-B10



Project: Prairie Line Trail Phase 2A-2B
 Project Location: Tacoma, Washington
 Project Number: 0570-133-02

Figure A-11
 Sheet 1 of 1

Path: P:\0570133\GINT\057013302.GPJ DBTemplate\LibTemplate:GEOENGINEERS8.GDT/GEI8_ENVIRONMENTAL_STANDARD

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



Figure A-12
Sheet 1 of 1

APPENDIX B

Chemical Analytical Program

Project: City of Tacoma – Prairie Line Trail, Phase 2A
July 2015 Soil and Groundwater Samples

GEI File No: 0570-133-02

Date: August 10, 2015

This report documents the results of a United States Environmental Protection Agency (USEPA)-defined Stage 2A data validation (USEPA Document 540-R-08-005; USEPA, 2009) of analytical data from the analyses of soil and groundwater samples collected as part of the July 2015 sampling event, and the associated laboratory quality control (QC) samples. The samples were obtained from the Prairie Line Trail Site located along Hood Street (existing rail alignment) between South 17th Street and South 15th Street and between South 21st Street and South 26th Street in Tacoma, Washington.

Objective and Quality Control Elements

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

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

The laboratory data was reviewed for the following QC elements:

- Data Package Completeness
- Chain-of-Custody Documentation
- Holding Times and Sample Preservation
- Surrogate Recoveries
- Method Blanks
- Matrix Spikes/Matrix Spike Duplicates
- Laboratory Control Samples/Laboratory Control Sample Duplicates
- Laboratory Duplicates
- Reporting Limits
- Miscellaneous

Validated Sample Delivery Groups

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

Table 1: Summary of Validated Sample Delivery Groups

Laboratory SDG	Samples Validated
1507-051	P2A-B3-1-2, P2A-B3-2-3, P2A-B3-3-4, P2A-B6-0-1, P2A-B6-2-3, P2A-B6-3-4, P2A-HA1-0-1, P2A-S1-150707, P2A-S2-150707, P2A-S3-150707
1507-071	P2A-B1-0-1, P2A-B1-1-2, P2A-B2-1-2, P2A-B2-3-4, P2A-B4-0-1, P2A-B4-1-2, P2A-B4-3-4, P2A-B5-1-2, P2A-B5-3-4, P2A-B7-1-2, P2A-B7-3-4, P2A-B8-0-1, P2A-B8-2-3, P2A-B9-1-2, P2A-B9-3-4, P2A-B10-1-2, P2A-B10-3-4

Chemical Analysis Performed

OnSite Environmental, Inc. (OnSite), located in Redmond, Washington, performed laboratory analyses on the soil and groundwater samples using one or more of the following methods:

- Hydrocarbon Identification (NWTPH-HCID) by Method NWTPH-HCID;
- Gasoline-Range Hydrocarbons (NWTPH-Gx) by Method NWTPH-Gx;
- Petroleum Hydrocarbons (NWTPH-Dx) by Method NWTPH-Dx;
- Volatile Organic Compounds (VOCs) by Method SW8260C;
- Halogenated Volatile Organic Compounds (HVOCs) by Method SW8260B/8260C;
- Semi-volatile Organic Compounds (SVOCs) by Methods SW8270D and SW8270D-SIM;
- Polycyclic Aromatic Hydrocarbons (PAHs) by Methods SW8270D and SW8270D-SIM;
- Total Metals by Methods EPA6010C/SW7471B; and
- Dissolved Metals by Methods EPA200.8/SW7470A

Data Validation Summary

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

Data Package Completeness

OnSite provided the required deliverables for the data validation according to the National Functional Guidelines, with exception of the laboratory sample receipt form. The laboratory followed adequate corrective action processes and the identified anomalies were discussed in the relevant laboratory case narrative.

Chain-of-Custody Documentation

Chain-of-custody (COC) forms were provided with the laboratory analytical reports. The laboratory did not include the sample receipt forms that discuss anomalies with the samples once they are received by the laboratory.

Holding Times and Sample Preservation

The sample holding time is defined as the time that elapses between sample collection and sample analysis. Maximum holding time criteria exist for each analysis to help ensure that the analyte concentrations found at the time of analysis reflect the concentration present at the time of sample collection. Established holding times were met for each analyses, with the exception noted below. The samples were stored at the laboratory at the appropriate temperatures of between two and six degrees Celsius; however, since the laboratory did not include the sample receipt forms, the sample cooler temperatures could not be verified that they were within the control limits upon arrival at the laboratory.

SDG 1507-051: (PAHs) The 14-day holding time was exceeded in Sample P2A-B6-3-4. The sample was initially analyzed on 7/20/2015; however, reextraction and reanalysis outside of holding time were required due to failed laboratory quality control limits. For this reason, the positive results for the target analytes were qualified as estimated (J) in this sample.

Surrogate Recoveries

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

Method Blanks

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

Matrix Spikes/Matrix Spike Duplicates

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

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

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

Laboratory Control Samples/Laboratory Control Sample Duplicates

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

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

Laboratory Duplicates

Internal laboratory duplicate analyses are performed to monitor the precision of the analyses. Two separate aliquots of a sample are analyzed as distinct samples in the laboratory and the RPD between the two results is calculated. Duplicate analyses should be performed once per analytical batch. If one or more of the samples used has a concentration less than five times the reporting limit for that sample, the absolute difference is used instead of the RPD. For organic analyses, the RPD control limits are specified in the laboratory documents. For inorganic analyses, the RPD control limit is 20 percent for water samples and 35 percent for soil samples. Laboratory duplicates were analyzed at the proper frequency and the specified acceptance criteria were met, with the exceptions noted below:

SDG 1507-051: (NWTPH-Dx) A laboratory duplicate sample analysis was performed on Sample P2A-B3-1-2. The RPD values for diesel-range and lube oil-range hydrocarbons were greater than the control limit. The positive results for diesel-range and lube oil-range hydrocarbons were qualified as estimated (J) in this sample.

A laboratory duplicate sample analysis was performed with an RPD outlier; however, it was performed on a sample not associated with the project batch samples. For this reason, no action was required.

Reporting Limits

The contract required quantitation limits (CRQL) were met by the laboratory for all target analytes throughout this sampling event, with the following exceptions:

SDG 1507-051: (VOCs) Some Model Toxics Control Act Method A cleanup levels were non-achievable due to sample matrix effects for Samples P2A-B3-1-2, P2A-B3-2-3, P2A-B3-3-4, P2A-B6-3-4, and P2A-HA1-0-1. No action was required, other than to note it here.

SDG 1507-071: (VOCs) Some Model Toxics Control Act Method A cleanup levels were non-achievable due to sample matrix effects for Samples P2A-B1-0-1, P2A-B5-1-2, P2A-B7-1-2, and P2A-B9-1-2. No action was required, other than to note it here.

Miscellaneous

SDG 1507-051: (NWTPH-HCID) The positive results for diesel-range hydrocarbons in Samples P2A-B3-1-2, P2A-B6-0-1, and P2A-B6-2-3 may be influenced by the relative concentration of lube oil-range hydrocarbons in the samples. For this reason, the positive results for diesel-range hydrocarbons were qualified as estimated (J) in these samples, in order to signify a potential high bias.

The positive results for lube oil-range hydrocarbons in Samples P2A-B3-1-2, P2A-B6-0-1, and P2A-B6-2-3 may be influenced by the relative concentration of diesel-range hydrocarbons in the samples. For this reason, the positive results for lube oil-range hydrocarbons were qualified as estimated (J) in these samples, in order to signify a potential high bias.

(NWTPH-Dx) The positive results for diesel-range hydrocarbons in Samples P2A-B3-1-2, P2A-B3-2-3, P2A-B3-3-4, P2A-B6-0-1, P2A-B6-2-3, and P2A-HA1-0-1 may be influenced by the relative concentration of lube oil-range hydrocarbons in the samples. For this reason, the positive results for diesel-range hydrocarbons were qualified as estimated (J) in these samples, in order to signify a potential high bias.

(PAHs) The laboratory reported two sets of PAH results for Sample P2A-B6-3-4, an initial and a reextraction. The entire data set of target analytes in the initial sample were labeled as do-not-report (DNR) and should not be used for any purpose.

SDG 1507-071: (NWTPH-Dx) The positive results for diesel-range hydrocarbons in Samples P2A-B1-0-1, P2A-B2-1-2, P2A-B4-0-1, and P2A-B7-1-2 may be influenced by the relative concentration of lube oil-range hydrocarbons in the samples. For this reason, the positive results for diesel-range hydrocarbons were qualified as estimated (J) in these samples, in order to signify a potential high bias.

Overall Assessment

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

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

TABLE 2: SUMMARY OF QUALIFIED SAMPLES

Sample ID	Analyte	Method	Qualifier	Reason
P2A-B1-0-1	Diesel-range Hydrocarbons	NWTPH-Dx	J	See Miscellaneous
P2A-B2-1-2	Diesel-range Hydrocarbons	NWTPH-Dx	J	See Miscellaneous
P2A-B3-1-2	Diesel-range Hydrocarbons	NWTPH-HCID/-Dx	J	Laboratory Dup RPD/See Misc.
	Lube oil-range Hydrocarbons	NWTPH-HCID/-Dx	J	Laboratory Dup RPD/See Misc.
P2A-B3-2-3	Diesel-range Hydrocarbons	NWTPH-Dx	J	See Miscellaneous
P2A-B3-3-4	Diesel-range Hydrocarbons	NWTPH-Dx	J	See Miscellaneous
P2A-B4-0-1	Diesel-range Hydrocarbons	NWTPH-Dx	J	See Miscellaneous
P2A-B6-0-1	Diesel-range Hydrocarbons	NWTPH-HCID/-Dx	J	See Miscellaneous
	Lube oil-range Hydrocarbons	NWTPH-HCID	J	See Miscellaneous
P2A-B6-2-3	Diesel-range Hydrocarbons	NWTPH-HCID/-Dx	J	See Miscellaneous
	Lube oil-range Hydrocarbons	NWTPH-HCID	J	See Miscellaneous
P2A-B6-3-4	PAH target analytes (7/28/2015)	EPA 8270D/-SIM	J	Holding Time
	PAH target analytes (7/20/2015)	EPA 8270D/-SIM	DNR	See Miscellaneous
P2A-B7-1-2	Diesel-range Hydrocarbons	NWTPH-Dx	J	See Miscellaneous
P2A-HA1-0-1	Diesel-range Hydrocarbons	NWTPH-Dx	J	See Miscellaneous

References

- U.S. Environmental Protection Agency (USEPA). “Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use,” EPA-540-R-08-005. January 2009.
- U.S. Environmental Protection Agency (USEPA). “Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review,” EPA-540-R-08-01. June 2008.
- U.S. Environmental Protection Agency (USEPA). “Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review,” EPA-540-R-10-011. January 2010.



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

July 30, 2015

Tricia DeOme
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 0570-133-02
Laboratory Reference No. 1507-051

Dear Tricia:

Enclosed are the analytical results and associated quality control data for samples submitted on July 8, 2015.

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 line extending to the right.

David Baumeister
Project Manager

Enclosures

Date of Report: July 30, 2015
Samples Submitted: July 8, 2015
Laboratory Reference: 1507-051
Project: 0570-133-02

Case Narrative

Samples were collected on July 7, 2015 and received by the laboratory on July 8, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

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 (soil) 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.

Volatiles EPA 8260C (soil) 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 P2A-B3-1-2, P2A-B3-3-4, and P2A-HA1-0-1 due to sample matrix effects.

Some MTCA Method A cleanup levels are non-achievable for samples P2A-B3-2-3 and P2A-B6-3-4 due to sample matrix effects.

PAHs EPA 8270D/SIM Analysis

The sample that was originally extracted on July 20th failed quality control limits. These samples were re-extracted seven days out of hold time. The results were similar and both sets of data are reported.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: July 30, 2015
Samples Submitted: July 8, 2015
Laboratory Reference: 1507-051
Project: 0570-133-02

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
P2A-B3-1-2	07-051-02	Soil	7-7-15	7-8-15	
P2A-B3-2-3	07-051-03	Soil	7-7-15	7-8-15	
P2A-B3-3-4	07-051-04	Soil	7-7-15	7-8-15	
P2A-HA1-0-1	07-051-05	Soil	7-7-15	7-8-15	
P2A-B6-0-1	07-051-06	Soil	7-7-15	7-8-15	
P2A-B6-2-3	07-051-08	Soil	7-7-15	7-8-15	
P2A-B6-3-4	07-051-09	Soil	7-7-15	7-8-15	
P2A-S2-150707	07-051-10	Water	7-7-15	7-8-15	
P2A-S3-150707	07-051-11	Water	7-7-15	7-8-15	
P2A-S1-150707	07-051-12	Water	7-7-15	7-8-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

NWTPH-HCID

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B3-1-2					
Laboratory ID:	07-051-02					
Gasoline Range Organics	Detected	23	NWTPH-HCID	7-9-15	7-10-15	N1
Diesel Range Organics	Detected	58	NWTPH-HCID	7-9-15	7-10-15	N
Lube Oil	Detected	120	NWTPH-HCID	7-9-15	7-10-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	91	50-150				

Client ID:	P2A-B3-3-4					
Laboratory ID:	07-051-04					
Gasoline Range Organics	ND	30	NWTPH-HCID	7-9-15	7-10-15	
Diesel Range Organics	ND	75	NWTPH-HCID	7-9-15	7-10-15	
Lube Oil	Detected	150	NWTPH-HCID	7-9-15	7-10-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	81	50-150				

Client ID:	P2A-HA1-0-1					
Laboratory ID:	07-051-05					
Gasoline Range Organics	ND	32	NWTPH-HCID	7-9-15	7-10-15	
Diesel Range Organics	ND	80	NWTPH-HCID	7-9-15	7-10-15	
Lube Oil	Detected	160	NWTPH-HCID	7-9-15	7-10-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	78	50-150				

Client ID:	P2A-B6-0-1					
Laboratory ID:	07-051-06					
Gasoline Range Organics	Detected	22	NWTPH-HCID	7-9-15	7-10-15	N1
Diesel Range Organics	Detected	55	NWTPH-HCID	7-9-15	7-10-15	N
Lube Oil	Detected	110	NWTPH-HCID	7-9-15	7-10-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	96	50-150				

Client ID:	P2A-B6-2-3					
Laboratory ID:	07-051-08					
Gasoline Range Organics	Detected	22	NWTPH-HCID	7-9-15	7-10-15	N1
Diesel Range Organics	Detected	56	NWTPH-HCID	7-9-15	7-10-15	N
Lube Oil	Detected	110	NWTPH-HCID	7-9-15	7-10-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	100	50-150				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

NWTPH-Gx

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-S2-150707					
Laboratory ID:	07-051-10					
Gasoline	ND	100	NWTPH-Gx	7-10-15	7-10-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	91	71-113				
Client ID:	P2A-S3-150707					
Laboratory ID:	07-051-11					
Gasoline	ND	100	NWTPH-Gx	7-10-15	7-10-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	90	71-113				
Client ID:	P2A-S1-150707					
Laboratory ID:	07-051-12					
Gasoline	ND	400	NWTPH-Gx	7-10-15	7-10-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	92	71-113				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

NWTPH-Gx

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B3-1-2					
Laboratory ID:	07-051-02					
Gasoline	ND	6.2	NWTPH-Gx	7-16-15	7-16-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	116	68-123				
Client ID:	P2A-B6-0-1					
Laboratory ID:	07-051-06					
Gasoline	ND	5.6	NWTPH-Gx	7-16-15	7-16-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	100	68-123				
Client ID:	P2A-B6-2-3					
Laboratory ID:	07-051-08					
Gasoline	ND	5.4	NWTPH-Gx	7-16-15	7-16-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Fluorobenzene</i>	105	68-123				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

NWTPH-Dx

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-S2-150707					
Laboratory ID:	07-051-10					
Diesel Range Organics	ND	0.26	NWTPH-Dx	7-13-15	7-14-15	
Lube Oil Range Organics	ND	0.41	NWTPH-Dx	7-13-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	77	50-150				
Client ID:	P2A-S3-150707					
Laboratory ID:	07-051-11					
Diesel Range Organics	ND	0.26	NWTPH-Dx	7-13-15	7-13-15	
Lube Oil Range Organics	ND	0.41	NWTPH-Dx	7-13-15	7-13-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	78	50-150				
Client ID:	P2A-S1-150707					
Laboratory ID:	07-051-12					
Diesel Range Organics	0.43	0.26	NWTPH-Dx	7-13-15	7-14-15	
Lube Oil Range Organics	0.87	0.41	NWTPH-Dx	7-13-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	61	50-150				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

NWTPH-Dx

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B3-1-2					
Laboratory ID:	07-051-02					
Diesel Range Organics	310	140	NWTPH-Dx	7-14-15	7-14-15	N
Lube Oil	2100	290	NWTPH-Dx	7-14-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	77	50-150				
Client ID:	P2A-B3-3-4					
Laboratory ID:	07-051-04					
Diesel Range Organics	93	37	NWTPH-Dx	7-14-15	7-14-15	N
Lube Oil	360	75	NWTPH-Dx	7-14-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	91	50-150				
Client ID:	P2A-HA1-0-1					
Laboratory ID:	07-051-05					
Diesel Range Organics	82	40	NWTPH-Dx	7-14-15	7-14-15	N
Lube Oil	310	80	NWTPH-Dx	7-14-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				
Client ID:	P2A-B6-0-1					
Laboratory ID:	07-051-06					
Diesel Range Organics	360	27	NWTPH-Dx	7-14-15	7-14-15	N
Lube Oil	1300	55	NWTPH-Dx	7-14-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	100	50-150				
Client ID:	P2A-B6-2-3					
Laboratory ID:	07-051-08					
Diesel Range Organics	160	28	NWTPH-Dx	7-14-15	7-14-15	N
Lube Oil	380	56	NWTPH-Dx	7-14-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	90	50-150				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

NWTPH-Dx

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B3-2-3					
Laboratory ID:	07-051-03					
Diesel Range Organics	120	33	NWTPH-Dx	7-20-15	7-20-15	N
Lube Oil	880	66	NWTPH-Dx	7-20-15	7-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	93	50-150				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:		P2A-S2-150707				
Laboratory ID:		07-051-10				
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Chloromethane	ND	1.0	EPA 8260C	7-9-15	7-9-15	
Vinyl Chloride	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Bromomethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Chloroethane	ND	1.0	EPA 8260C	7-9-15	7-9-15	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Acetone	ND	5.0	EPA 8260C	7-9-15	7-9-15	
Iodomethane	ND	1.3	EPA 8260C	7-9-15	7-9-15	
Carbon Disulfide	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Methylene Chloride	ND	1.0	EPA 8260C	7-9-15	7-9-15	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Vinyl Acetate	ND	1.0	EPA 8260C	7-9-15	7-9-15	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
2-Butanone	ND	5.0	EPA 8260C	7-9-15	7-9-15	
Bromochloromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Chloroform	0.21	0.20	EPA 8260C	7-9-15	7-9-15	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Benzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Trichloroethene	1.4	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Dibromomethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Bromodichloromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
2-Chloroethyl Vinyl Ether	ND	2.0	EPA 8260C	7-9-15	7-9-15	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	7-9-15	7-9-15	
Toluene	ND	1.0	EPA 8260C	7-9-15	7-9-15	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-9-15	7-9-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: P2A-S2-150707						
Laboratory ID: 07-051-10						
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Tetrachloroethene	0.59	0.20	EPA 8260C	7-9-15	7-9-15	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
2-Hexanone	ND	2.0	EPA 8260C	7-9-15	7-9-15	
Dibromochloromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Chlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Ethylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
m,p-Xylene	ND	0.40	EPA 8260C	7-9-15	7-9-15	
o-Xylene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Styrene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Bromoform	ND	1.0	EPA 8260C	7-9-15	7-9-15	
Isopropylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Bromobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
n-Propylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
tert-Butylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
sec-Butylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
p-Isopropyltoluene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
n-Butylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-9-15	7-9-15	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Hexachlorobutadiene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Naphthalene	ND	1.0	EPA 8260C	7-9-15	7-9-15	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>79-131</i>				
<i>Toluene-d8</i>	<i>95</i>	<i>80-120</i>				
<i>4-Bromofluorobenzene</i>	<i>93</i>	<i>80-120</i>				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:		P2A-S3-150707				
Laboratory ID:		07-051-11				
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Chloromethane	ND	1.0	EPA 8260C	7-9-15	7-9-15	
Vinyl Chloride	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Bromomethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Chloroethane	ND	1.0	EPA 8260C	7-9-15	7-9-15	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Acetone	ND	5.0	EPA 8260C	7-9-15	7-9-15	
Iodomethane	ND	1.3	EPA 8260C	7-9-15	7-9-15	
Carbon Disulfide	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Methylene Chloride	ND	1.0	EPA 8260C	7-9-15	7-9-15	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Vinyl Acetate	ND	1.0	EPA 8260C	7-9-15	7-9-15	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
2-Butanone	ND	5.0	EPA 8260C	7-9-15	7-9-15	
Bromochloromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Chloroform	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Benzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Trichloroethene	0.76	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Dibromomethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Bromodichloromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
2-Chloroethyl Vinyl Ether	ND	2.0	EPA 8260C	7-9-15	7-9-15	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	7-9-15	7-9-15	
Toluene	ND	1.0	EPA 8260C	7-9-15	7-9-15	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-9-15	7-9-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: P2A-S3-150707						
Laboratory ID: 07-051-11						
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Tetrachloroethene	0.38	0.20	EPA 8260C	7-9-15	7-9-15	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
2-Hexanone	ND	2.0	EPA 8260C	7-9-15	7-9-15	
Dibromochloromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Chlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Ethylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
m,p-Xylene	ND	0.40	EPA 8260C	7-9-15	7-9-15	
o-Xylene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Styrene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Bromoform	ND	1.0	EPA 8260C	7-9-15	7-9-15	
Isopropylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Bromobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
n-Propylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
tert-Butylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
sec-Butylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
p-Isopropyltoluene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
n-Butylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-9-15	7-9-15	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Hexachlorobutadiene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Naphthalene	ND	1.0	EPA 8260C	7-9-15	7-9-15	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>111</i>	<i>79-131</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>80-120</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>80-120</i>				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:		P2A-S1-150707				
Laboratory ID:		07-051-12				
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Chloromethane	ND	1.0	EPA 8260C	7-9-15	7-9-15	
Vinyl Chloride	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Bromomethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Chloroethane	ND	1.0	EPA 8260C	7-9-15	7-9-15	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Acetone	5.0	5.0	EPA 8260C	7-9-15	7-9-15	
Iodomethane	ND	1.3	EPA 8260C	7-9-15	7-9-15	
Carbon Disulfide	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Methylene Chloride	ND	1.0	EPA 8260C	7-9-15	7-9-15	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Vinyl Acetate	ND	1.0	EPA 8260C	7-9-15	7-9-15	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
2-Butanone	ND	5.0	EPA 8260C	7-9-15	7-9-15	
Bromochloromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Chloroform	0.20	0.20	EPA 8260C	7-9-15	7-9-15	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Benzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Trichloroethene	1.5	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Dibromomethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Bromodichloromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
2-Chloroethyl Vinyl Ether	ND	2.0	EPA 8260C	7-9-15	7-9-15	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	7-9-15	7-9-15	
Toluene	ND	1.0	EPA 8260C	7-9-15	7-9-15	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-9-15	7-9-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID: P2A-S1-150707						
Laboratory ID: 07-051-12						
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Tetrachloroethene	0.66	0.20	EPA 8260C	7-9-15	7-9-15	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
2-Hexanone	ND	2.0	EPA 8260C	7-9-15	7-9-15	
Dibromochloromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Chlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Ethylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
m,p-Xylene	ND	0.40	EPA 8260C	7-9-15	7-9-15	
o-Xylene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Styrene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Bromoform	ND	1.0	EPA 8260C	7-9-15	7-9-15	
Isopropylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Bromobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
n-Propylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
tert-Butylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
sec-Butylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
p-Isopropyltoluene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
n-Butylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-9-15	7-9-15	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Hexachlorobutadiene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Naphthalene	ND	1.0	EPA 8260C	7-9-15	7-9-15	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>109</i>	<i>79-131</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>80-120</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>80-120</i>				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B3-1-2						
Laboratory ID:	07-051-02						
Dichlorodifluoromethane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Chloromethane	ND	0.0066		EPA 8260C	7-9-15	7-9-15	
Vinyl Chloride	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Bromomethane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Chloroethane	ND	0.0066		EPA 8260C	7-9-15	7-9-15	
Trichlorofluoromethane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethene	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Acetone	0.025	0.0066		EPA 8260C	7-9-15	7-9-15	
Iodomethane	ND	0.0066		EPA 8260C	7-9-15	7-9-15	
Carbon Disulfide	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Methylene Chloride	ND	0.0066		EPA 8260C	7-9-15	7-9-15	
(trans) 1,2-Dichloroethene	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Methyl t-Butyl Ether	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Vinyl Acetate	ND	0.0066		EPA 8260C	7-9-15	7-9-15	
2,2-Dichloropropane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
(cis) 1,2-Dichloroethene	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
2-Butanone	ND	0.0066		EPA 8260C	7-9-15	7-9-15	
Bromochloromethane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Chloroform	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
1,1,1-Trichloroethane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Carbon Tetrachloride	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
1,1-Dichloropropene	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Benzene	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
1,2-Dichloroethane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Trichloroethene	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
1,2-Dichloropropane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Dibromomethane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Bromodichloromethane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
2-Chloroethyl Vinyl Ether	ND	0.0066		EPA 8260C	7-9-15	7-9-15	
(cis) 1,3-Dichloropropene	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Methyl Isobutyl Ketone	ND	0.0066		EPA 8260C	7-9-15	7-9-15	
Toluene	ND	0.0066		EPA 8260C	7-9-15	7-9-15	
(trans) 1,3-Dichloropropene	ND	0.063		EPA 8260C	7-10-15	7-10-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B3-1-2						
Laboratory ID:	07-051-02						
1,1,2-Trichloroethane	ND	0.063	0.018	EPA 8260C	7-10-15	7-10-15	
Tetrachloroethene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
1,3-Dichloropropane	ND	0.063		EPA 8260C	7-10-15	7-10-15	
2-Hexanone	ND	0.31		EPA 8260C	7-10-15	7-10-15	
Dibromochloromethane	ND	0.063		EPA 8260C	7-10-15	7-10-15	
1,2-Dibromoethane	ND	0.063		EPA 8260C	7-10-15	7-10-15	
Chlorobenzene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
1,1,1,2-Tetrachloroethane	ND	0.063		EPA 8260C	7-10-15	7-10-15	
Ethylbenzene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
m,p-Xylene	ND	0.13		EPA 8260C	7-10-15	7-10-15	
o-Xylene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
Styrene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
Bromoform	ND	0.063		EPA 8260C	7-10-15	7-10-15	
Isopropylbenzene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
Bromobenzene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
1,1,2,2-Tetrachloroethane	ND	0.063		EPA 8260C	7-10-15	7-10-15	
1,2,3-Trichloropropane	ND	0.063		EPA 8260C	7-10-15	7-10-15	
n-Propylbenzene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
2-Chlorotoluene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
4-Chlorotoluene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
1,3,5-Trimethylbenzene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
tert-Butylbenzene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
1,2,4-Trimethylbenzene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
sec-Butylbenzene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
1,3-Dichlorobenzene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
p-Isopropyltoluene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
1,4-Dichlorobenzene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
1,2-Dichlorobenzene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
n-Butylbenzene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
1,2-Dibromo-3-chloropropane	ND	0.31		EPA 8260C	7-10-15	7-10-15	
1,2,4-Trichlorobenzene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
Hexachlorobutadiene	ND	0.31		EPA 8260C	7-10-15	7-10-15	
Naphthalene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
1,2,3-Trichlorobenzene	ND	0.063		EPA 8260C	7-10-15	7-10-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>					
<i>Dibromofluoromethane</i>	<i>123</i>	<i>76-131</i>					
<i>Toluene-d8</i>	<i>104</i>	<i>82-129</i>					
<i>4-Bromofluorobenzene</i>	<i>108</i>	<i>79-126</i>					

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B3-3-4						
Laboratory ID:	07-051-04						
Dichlorodifluoromethane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Chloromethane	ND	0.0064		EPA 8260C	7-9-15	7-9-15	
Vinyl Chloride	0.0019	0.0013		EPA 8260C	7-9-15	7-9-15	
Bromomethane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Chloroethane	ND	0.0064		EPA 8260C	7-9-15	7-9-15	
Trichlorofluoromethane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethene	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Acetone	0.096	0.0064		EPA 8260C	7-9-15	7-9-15	
Iodomethane	ND	0.0064		EPA 8260C	7-9-15	7-9-15	
Carbon Disulfide	0.0015	0.0013		EPA 8260C	7-9-15	7-9-15	
Methylene Chloride	ND	0.0064		EPA 8260C	7-9-15	7-9-15	
(trans) 1,2-Dichloroethene	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Methyl t-Butyl Ether	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Vinyl Acetate	ND	0.0064		EPA 8260C	7-9-15	7-9-15	
2,2-Dichloropropane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
(cis) 1,2-Dichloroethene	0.0037	0.0013		EPA 8260C	7-9-15	7-9-15	
2-Butanone	0.021	0.0064		EPA 8260C	7-9-15	7-9-15	
Bromochloromethane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Chloroform	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
1,1,1-Trichloroethane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Carbon Tetrachloride	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
1,1-Dichloropropene	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Benzene	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
1,2-Dichloroethane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Trichloroethene	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
1,2-Dichloropropane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Dibromomethane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Bromodichloromethane	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
2-Chloroethyl Vinyl Ether	ND	0.0064		EPA 8260C	7-9-15	7-9-15	
(cis) 1,3-Dichloropropene	ND	0.0013		EPA 8260C	7-9-15	7-9-15	
Methyl Isobutyl Ketone	ND	0.0064		EPA 8260C	7-9-15	7-9-15	
Toluene	ND	0.0064		EPA 8260C	7-9-15	7-9-15	
(trans) 1,3-Dichloropropene	ND	0.096		EPA 8260C	7-10-15	7-10-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B3-3-4						
Laboratory ID:	07-051-04						
1,1,2-Trichloroethane	ND	0.096	0.028	EPA 8260C	7-10-15	7-10-15	
Tetrachloroethene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,3-Dichloropropane	ND	0.096		EPA 8260C	7-10-15	7-10-15	
2-Hexanone	ND	0.48		EPA 8260C	7-10-15	7-10-15	
Dibromochloromethane	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,2-Dibromoethane	ND	0.096		EPA 8260C	7-10-15	7-10-15	
Chlorobenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,1,1,2-Tetrachloroethane	ND	0.096		EPA 8260C	7-10-15	7-10-15	
Ethylbenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
m,p-Xylene	ND	0.19		EPA 8260C	7-10-15	7-10-15	
o-Xylene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
Styrene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
Bromoform	ND	0.096		EPA 8260C	7-10-15	7-10-15	
Isopropylbenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
Bromobenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,1,2,2-Tetrachloroethane	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,2,3-Trichloropropane	ND	0.096		EPA 8260C	7-10-15	7-10-15	
n-Propylbenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
2-Chlorotoluene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
4-Chlorotoluene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,3,5-Trimethylbenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
tert-Butylbenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,2,4-Trimethylbenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
sec-Butylbenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,3-Dichlorobenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
p-Isopropyltoluene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,4-Dichlorobenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,2-Dichlorobenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
n-Butylbenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,2-Dibromo-3-chloropropane	ND	0.48		EPA 8260C	7-10-15	7-10-15	
1,2,4-Trichlorobenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
Hexachlorobutadiene	ND	0.48		EPA 8260C	7-10-15	7-10-15	
Naphthalene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,2,3-Trichlorobenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>					
<i>Dibromofluoromethane</i>	<i>130</i>	<i>76-131</i>					
<i>Toluene-d8</i>	<i>103</i>	<i>82-129</i>					
<i>4-Bromofluorobenzene</i>	<i>103</i>	<i>79-126</i>					

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-HA1-0-1						
Laboratory ID:	07-051-05						
Dichlorodifluoromethane	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
Chloromethane	ND	0.0070		EPA 8260C	7-9-15	7-9-15	
Vinyl Chloride	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
Bromomethane	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
Chloroethane	ND	0.0070		EPA 8260C	7-9-15	7-9-15	
Trichlorofluoromethane	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethene	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
Acetone	0.025	0.0070		EPA 8260C	7-9-15	7-9-15	
Iodomethane	ND	0.0070		EPA 8260C	7-9-15	7-9-15	
Carbon Disulfide	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
Methylene Chloride	ND	0.0070		EPA 8260C	7-9-15	7-9-15	
(trans) 1,2-Dichloroethene	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
Methyl t-Butyl Ether	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethane	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
Vinyl Acetate	ND	0.0070		EPA 8260C	7-9-15	7-9-15	
2,2-Dichloropropane	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
(cis) 1,2-Dichloroethene	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
2-Butanone	ND	0.0070		EPA 8260C	7-9-15	7-9-15	
Bromochloromethane	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
Chloroform	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
1,1,1-Trichloroethane	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
Carbon Tetrachloride	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
1,1-Dichloropropene	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
Benzene	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
1,2-Dichloroethane	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
Trichloroethene	0.0092	0.0014		EPA 8260C	7-9-15	7-9-15	
1,2-Dichloropropane	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
Dibromomethane	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
Bromodichloromethane	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
2-Chloroethyl Vinyl Ether	ND	0.0070		EPA 8260C	7-9-15	7-9-15	
(cis) 1,3-Dichloropropene	ND	0.0014		EPA 8260C	7-9-15	7-9-15	
Methyl Isobutyl Ketone	ND	0.0070		EPA 8260C	7-9-15	7-9-15	
Toluene	ND	0.0070		EPA 8260C	7-9-15	7-9-15	
(trans) 1,3-Dichloropropene	ND	0.096		EPA 8260C	7-10-15	7-10-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-HA1-0-1						
Laboratory ID:	07-051-05						
1,1,2-Trichloroethane	ND	0.096		EPA 8260C	7-10-15	7-10-15	
Tetrachloroethene	0.060	0.096	0.028	EPA 8260C	7-10-15	7-10-15	J
1,3-Dichloropropane	ND	0.096		EPA 8260C	7-10-15	7-10-15	
2-Hexanone	ND	0.48		EPA 8260C	7-10-15	7-10-15	
Dibromochloromethane	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,2-Dibromoethane	ND	0.096		EPA 8260C	7-10-15	7-10-15	
Chlorobenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,1,1,2-Tetrachloroethane	ND	0.096		EPA 8260C	7-10-15	7-10-15	
Ethylbenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
m,p-Xylene	ND	0.19		EPA 8260C	7-10-15	7-10-15	
o-Xylene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
Styrene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
Bromoform	ND	0.096		EPA 8260C	7-10-15	7-10-15	
Isopropylbenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
Bromobenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,1,2,2-Tetrachloroethane	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,2,3-Trichloropropane	ND	0.096		EPA 8260C	7-10-15	7-10-15	
n-Propylbenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
2-Chlorotoluene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
4-Chlorotoluene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,3,5-Trimethylbenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
tert-Butylbenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,2,4-Trimethylbenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
sec-Butylbenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,3-Dichlorobenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
p-Isopropyltoluene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,4-Dichlorobenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,2-Dichlorobenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
n-Butylbenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,2-Dibromo-3-chloropropane	ND	0.48		EPA 8260C	7-10-15	7-10-15	
1,2,4-Trichlorobenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
Hexachlorobutadiene	ND	0.48		EPA 8260C	7-10-15	7-10-15	
Naphthalene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
1,2,3-Trichlorobenzene	ND	0.096		EPA 8260C	7-10-15	7-10-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>					
<i>Dibromofluoromethane</i>	<i>126</i>	<i>76-131</i>					
<i>Toluene-d8</i>	<i>107</i>	<i>82-129</i>					
<i>4-Bromofluorobenzene</i>	<i>104</i>	<i>79-126</i>					

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B6-0-1					
Laboratory ID:	07-051-06					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Chloromethane	ND	0.0073	EPA 8260C	7-9-15	7-9-15	
Vinyl Chloride	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Bromomethane	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Chloroethane	ND	0.0073	EPA 8260C	7-9-15	7-9-15	
Trichlorofluoromethane	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethene	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Acetone	1.3	0.31	EPA 8260C	7-10-15	7-10-15	
Iodomethane	ND	0.0073	EPA 8260C	7-9-15	7-9-15	
Carbon Disulfide	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Methylene Chloride	ND	0.0073	EPA 8260C	7-9-15	7-9-15	
(trans) 1,2-Dichloroethene	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Methyl t-Butyl Ether	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethane	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Vinyl Acetate	ND	0.0073	EPA 8260C	7-9-15	7-9-15	
2,2-Dichloropropane	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
(cis) 1,2-Dichloroethene	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
2-Butanone	0.015	0.0073	EPA 8260C	7-9-15	7-9-15	
Bromochloromethane	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Chloroform	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
1,1,1-Trichloroethane	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Carbon Tetrachloride	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloropropene	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Benzene	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
1,2-Dichloroethane	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Trichloroethene	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
1,2-Dichloropropane	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Dibromomethane	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Bromodichloromethane	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
2-Chloroethyl Vinyl Ether	ND	0.0073	EPA 8260C	7-9-15	7-9-15	
(cis) 1,3-Dichloropropene	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Methyl Isobutyl Ketone	ND	0.0073	EPA 8260C	7-9-15	7-9-15	
Toluene	ND	0.0073	EPA 8260C	7-9-15	7-9-15	
(trans) 1,3-Dichloropropene	ND	0.0015	EPA 8260C	7-9-15	7-9-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B6-0-1					
Laboratory ID:	07-051-06					
1,1,2-Trichloroethane	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Tetrachloroethene	0.0016	0.0015	EPA 8260C	7-9-15	7-9-15	
1,3-Dichloropropane	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
2-Hexanone	ND	0.0073	EPA 8260C	7-9-15	7-9-15	
Dibromochloromethane	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
1,2-Dibromoethane	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Chlorobenzene	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
1,1,1,2-Tetrachloroethane	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Ethylbenzene	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
m,p-Xylene	ND	0.0029	EPA 8260C	7-9-15	7-9-15	
o-Xylene	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Styrene	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Bromoform	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Isopropylbenzene	ND	0.0015	EPA 8260C	7-9-15	7-9-15	
Bromobenzene	ND	0.063	EPA 8260C	7-10-15	7-10-15	
1,1,2,2-Tetrachloroethane	ND	0.063	EPA 8260C	7-10-15	7-10-15	
1,2,3-Trichloropropane	ND	0.063	EPA 8260C	7-10-15	7-10-15	
n-Propylbenzene	ND	0.063	EPA 8260C	7-10-15	7-10-15	
2-Chlorotoluene	ND	0.063	EPA 8260C	7-10-15	7-10-15	
4-Chlorotoluene	ND	0.063	EPA 8260C	7-10-15	7-10-15	
1,3,5-Trimethylbenzene	ND	0.063	EPA 8260C	7-10-15	7-10-15	
tert-Butylbenzene	ND	0.063	EPA 8260C	7-10-15	7-10-15	
1,2,4-Trimethylbenzene	ND	0.063	EPA 8260C	7-10-15	7-10-15	
sec-Butylbenzene	ND	0.063	EPA 8260C	7-10-15	7-10-15	
1,3-Dichlorobenzene	ND	0.063	EPA 8260C	7-10-15	7-10-15	
p-Isopropyltoluene	ND	0.063	EPA 8260C	7-10-15	7-10-15	
1,4-Dichlorobenzene	ND	0.063	EPA 8260C	7-10-15	7-10-15	
1,2-Dichlorobenzene	ND	0.063	EPA 8260C	7-10-15	7-10-15	
n-Butylbenzene	ND	0.063	EPA 8260C	7-10-15	7-10-15	
1,2-Dibromo-3-chloropropane	ND	0.31	EPA 8260C	7-10-15	7-10-15	
1,2,4-Trichlorobenzene	ND	0.063	EPA 8260C	7-10-15	7-10-15	
Hexachlorobutadiene	ND	0.31	EPA 8260C	7-10-15	7-10-15	
Naphthalene	0.096	0.063	EPA 8260C	7-10-15	7-10-15	
1,2,3-Trichlorobenzene	ND	0.063	EPA 8260C	7-10-15	7-10-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>124</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>82</i>	<i>79-126</i>				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B6-2-3					
Laboratory ID:	07-051-08					
Dichlorodifluoromethane	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Chloromethane	ND	0.0048	EPA 8260C	7-9-15	7-9-15	
Vinyl Chloride	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Bromomethane	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Chloroethane	ND	0.0048	EPA 8260C	7-9-15	7-9-15	
Trichlorofluoromethane	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethene	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Acetone	0.16	0.0048	EPA 8260C	7-9-15	7-9-15	
Iodomethane	ND	0.0048	EPA 8260C	7-9-15	7-9-15	
Carbon Disulfide	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Methylene Chloride	ND	0.0048	EPA 8260C	7-9-15	7-9-15	
(trans) 1,2-Dichloroethene	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Methyl t-Butyl Ether	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethane	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Vinyl Acetate	ND	0.0048	EPA 8260C	7-9-15	7-9-15	
2,2-Dichloropropane	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
(cis) 1,2-Dichloroethene	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
2-Butanone	ND	0.0048	EPA 8260C	7-9-15	7-9-15	
Bromochloromethane	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Chloroform	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
1,1,1-Trichloroethane	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Carbon Tetrachloride	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloropropene	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Benzene	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
1,2-Dichloroethane	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Trichloroethene	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
1,2-Dichloropropane	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Dibromomethane	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Bromodichloromethane	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
2-Chloroethyl Vinyl Ether	ND	0.0048	EPA 8260C	7-9-15	7-9-15	
(cis) 1,3-Dichloropropene	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Methyl Isobutyl Ketone	ND	0.0048	EPA 8260C	7-9-15	7-9-15	
Toluene	ND	0.0048	EPA 8260C	7-9-15	7-9-15	
(trans) 1,3-Dichloropropene	ND	0.00095	EPA 8260C	7-9-15	7-9-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B6-2-3					
Laboratory ID:	07-051-08					
1,1,2-Trichloroethane	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Tetrachloroethene	0.0023	0.00095	EPA 8260C	7-9-15	7-9-15	
1,3-Dichloropropane	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
2-Hexanone	ND	0.0048	EPA 8260C	7-9-15	7-9-15	
Dibromochloromethane	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
1,2-Dibromoethane	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Chlorobenzene	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
1,1,1,2-Tetrachloroethane	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Ethylbenzene	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
m,p-Xylene	ND	0.0019	EPA 8260C	7-9-15	7-9-15	
o-Xylene	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Styrene	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Bromoform	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Isopropylbenzene	ND	0.00095	EPA 8260C	7-9-15	7-9-15	
Bromobenzene	ND	0.058	EPA 8260C	7-10-15	7-10-15	
1,1,2,2-Tetrachloroethane	ND	0.058	EPA 8260C	7-10-15	7-10-15	
1,2,3-Trichloropropane	ND	0.058	EPA 8260C	7-10-15	7-10-15	
n-Propylbenzene	ND	0.058	EPA 8260C	7-10-15	7-10-15	
2-Chlorotoluene	ND	0.058	EPA 8260C	7-10-15	7-10-15	
4-Chlorotoluene	ND	0.058	EPA 8260C	7-10-15	7-10-15	
1,3,5-Trimethylbenzene	ND	0.058	EPA 8260C	7-10-15	7-10-15	
tert-Butylbenzene	ND	0.058	EPA 8260C	7-10-15	7-10-15	
1,2,4-Trimethylbenzene	ND	0.058	EPA 8260C	7-10-15	7-10-15	
sec-Butylbenzene	ND	0.058	EPA 8260C	7-10-15	7-10-15	
1,3-Dichlorobenzene	ND	0.058	EPA 8260C	7-10-15	7-10-15	
p-Isopropyltoluene	ND	0.058	EPA 8260C	7-10-15	7-10-15	
1,4-Dichlorobenzene	ND	0.058	EPA 8260C	7-10-15	7-10-15	
1,2-Dichlorobenzene	ND	0.058	EPA 8260C	7-10-15	7-10-15	
n-Butylbenzene	ND	0.058	EPA 8260C	7-10-15	7-10-15	
1,2-Dibromo-3-chloropropane	ND	0.29	EPA 8260C	7-10-15	7-10-15	
1,2,4-Trichlorobenzene	ND	0.058	EPA 8260C	7-10-15	7-10-15	
Hexachlorobutadiene	ND	0.29	EPA 8260C	7-10-15	7-10-15	
Naphthalene	ND	0.058	EPA 8260C	7-10-15	7-10-15	
1,2,3-Trichlorobenzene	ND	0.058	EPA 8260C	7-10-15	7-10-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>126</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>108</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>84</i>	<i>79-126</i>				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

HALOGENATED VOLATILES EPA 8260B

Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Client ID:		P2A-B3-2-3					
Laboratory ID:		07-051-03					
Dichlorodifluoromethane	ND	0.00091		EPA 8260C	7-20-15	7-20-15	
Chloromethane	ND	0.0046		EPA 8260C	7-20-15	7-20-15	
Vinyl Chloride	ND	0.00091		EPA 8260C	7-20-15	7-20-15	
Bromomethane	ND	0.00091		EPA 8260C	7-20-15	7-20-15	
Chloroethane	ND	0.0046		EPA 8260C	7-20-15	7-20-15	
Trichlorofluoromethane	ND	0.00091		EPA 8260C	7-20-15	7-20-15	
1,1-Dichloroethene	ND	0.00091		EPA 8260C	7-20-15	7-20-15	
Iodomethane	ND	0.0046		EPA 8260C	7-20-15	7-20-15	
Methylene Chloride	ND	0.0046		EPA 8260C	7-20-15	7-20-15	
(trans) 1,2-Dichloroethene	ND	0.00091		EPA 8260C	7-20-15	7-20-15	
1,1-Dichloroethane	ND	0.00091		EPA 8260C	7-20-15	7-20-15	
2,2-Dichloropropane	ND	0.00091		EPA 8260C	7-20-15	7-20-15	
(cis) 1,2-Dichloroethene	0.0011	0.00091		EPA 8260C	7-20-15	7-20-15	
Bromochloromethane	ND	0.00091		EPA 8260C	7-20-15	7-20-15	
Chloroform	ND	0.00091		EPA 8260C	7-20-15	7-20-15	
1,1,1-Trichloroethane	ND	0.00091		EPA 8260C	7-20-15	7-20-15	
Carbon Tetrachloride	ND	0.00091		EPA 8260C	7-20-15	7-20-15	
1,1-Dichloropropene	ND	0.00091		EPA 8260C	7-20-15	7-20-15	
1,2-Dichloroethane	ND	0.00091		EPA 8260C	7-20-15	7-20-15	
Trichloroethene	ND	0.00091		EPA 8260C	7-20-15	7-20-15	
1,2-Dichloropropane	ND	0.00091		EPA 8260C	7-20-15	7-20-15	
Dibromomethane	ND	0.00091		EPA 8260C	7-20-15	7-20-15	
Bromodichloromethane	ND	0.00091		EPA 8260C	7-20-15	7-20-15	
2-Chloroethyl Vinyl Ether	ND	0.0046		EPA 8260C	7-20-15	7-20-15	
(cis) 1,3-Dichloropropene	ND	0.00091		EPA 8260C	7-20-15	7-20-15	
(trans) 1,3-Dichloropropene	ND	0.068		EPA 8260C	7-20-15	7-20-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

HALOGENATED VOLATILES EPA 8260B

Page 2 of 2

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B3-2-3						
Laboratory ID:	07-051-03						
1,1,2-Trichloroethane	ND	0.068		EPA 8260C	7-20-15	7-20-15	
Tetrachloroethene	ND	0.068	0.020	EPA 8260C	7-20-15	7-20-15	
1,3-Dichloropropane	ND	0.068		EPA 8260C	7-20-15	7-20-15	
Dibromochloromethane	ND	0.068		EPA 8260C	7-20-15	7-20-15	
1,2-Dibromoethane	ND	0.068		EPA 8260C	7-20-15	7-20-15	
Chlorobenzene	ND	0.068		EPA 8260C	7-20-15	7-20-15	
1,1,1,2-Tetrachloroethane	ND	0.068		EPA 8260C	7-20-15	7-20-15	
Bromoform	ND	0.068		EPA 8260C	7-20-15	7-20-15	
Bromobenzene	ND	0.068		EPA 8260C	7-20-15	7-20-15	
1,1,2,2-Tetrachloroethane	ND	0.068		EPA 8260C	7-20-15	7-20-15	
1,2,3-Trichloropropane	ND	0.068		EPA 8260C	7-20-15	7-20-15	
2-Chlorotoluene	ND	0.068		EPA 8260C	7-20-15	7-20-15	
4-Chlorotoluene	ND	0.068		EPA 8260C	7-20-15	7-20-15	
1,3-Dichlorobenzene	ND	0.068		EPA 8260C	7-20-15	7-20-15	
1,4-Dichlorobenzene	ND	0.068		EPA 8260C	7-20-15	7-20-15	
1,2-Dichlorobenzene	ND	0.068		EPA 8260C	7-20-15	7-20-15	
1,2-Dibromo-3-chloropropane	ND	0.34		EPA 8260C	7-20-15	7-20-15	
1,2,4-Trichlorobenzene	ND	0.068		EPA 8260C	7-20-15	7-20-15	
Hexachlorobutadiene	ND	0.34		EPA 8260C	7-20-15	7-20-15	
1,2,3-Trichlorobenzene	ND	0.068		EPA 8260C	7-20-15	7-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>					
<i>Dibromofluoromethane</i>	<i>128</i>	<i>76-131</i>					
<i>Toluene-d8</i>	<i>110</i>	<i>82-129</i>					
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>79-126</i>					

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

HALOGENATED VOLATILES EPA 8260B

Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Client ID:		P2A-B6-3-4					
Laboratory ID:		07-051-09					
Dichlorodifluoromethane	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
Chloromethane	ND	0.0054		EPA 8260C	7-20-15	7-20-15	
Vinyl Chloride	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
Bromomethane	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
Chloroethane	ND	0.0054		EPA 8260C	7-20-15	7-20-15	
Trichlorofluoromethane	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
1,1-Dichloroethene	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
Iodomethane	ND	0.0054		EPA 8260C	7-20-15	7-20-15	
Methylene Chloride	ND	0.0054		EPA 8260C	7-20-15	7-20-15	
(trans) 1,2-Dichloroethene	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
1,1-Dichloroethane	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
2,2-Dichloropropane	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
(cis) 1,2-Dichloroethene	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
Bromochloromethane	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
Chloroform	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
1,1,1-Trichloroethane	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
Carbon Tetrachloride	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
1,1-Dichloropropene	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
1,2-Dichloroethane	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
Trichloroethene	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
1,2-Dichloropropane	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
Dibromomethane	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
Bromodichloromethane	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
2-Chloroethyl Vinyl Ether	ND	0.0054		EPA 8260C	7-20-15	7-20-15	
(cis) 1,3-Dichloropropene	ND	0.0011		EPA 8260C	7-20-15	7-20-15	
(trans) 1,3-Dichloropropene	ND	0.063		EPA 8260C	7-20-15	7-20-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

HALOGENATED VOLATILES EPA 8260B

Page 2 of 2

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B6-3-4						
Laboratory ID:	07-051-09						
1,1,2-Trichloroethane	ND	0.063		EPA 8260C	7-20-15	7-20-15	
Tetrachloroethene	0.051	0.063	0.018	EPA 8260C	7-20-15	7-20-15	J
1,3-Dichloropropane	ND	0.063		EPA 8260C	7-20-15	7-20-15	
Dibromochloromethane	ND	0.063		EPA 8260C	7-20-15	7-20-15	
1,2-Dibromoethane	ND	0.063		EPA 8260C	7-20-15	7-20-15	
Chlorobenzene	ND	0.063		EPA 8260C	7-20-15	7-20-15	
1,1,1,2-Tetrachloroethane	ND	0.063		EPA 8260C	7-20-15	7-20-15	
Bromoform	ND	0.063		EPA 8260C	7-20-15	7-20-15	
Bromobenzene	ND	0.063		EPA 8260C	7-20-15	7-20-15	
1,1,2,2-Tetrachloroethane	ND	0.063		EPA 8260C	7-20-15	7-20-15	
1,2,3-Trichloropropane	ND	0.063		EPA 8260C	7-20-15	7-20-15	
2-Chlorotoluene	ND	0.063		EPA 8260C	7-20-15	7-20-15	
4-Chlorotoluene	ND	0.063		EPA 8260C	7-20-15	7-20-15	
1,3-Dichlorobenzene	ND	0.063		EPA 8260C	7-20-15	7-20-15	
1,4-Dichlorobenzene	ND	0.063		EPA 8260C	7-20-15	7-20-15	
1,2-Dichlorobenzene	ND	0.063		EPA 8260C	7-20-15	7-20-15	
1,2-Dibromo-3-chloropropane	ND	0.31		EPA 8260C	7-20-15	7-20-15	
1,2,4-Trichlorobenzene	ND	0.063		EPA 8260C	7-20-15	7-20-15	
Hexachlorobutadiene	ND	0.31		EPA 8260C	7-20-15	7-20-15	
1,2,3-Trichlorobenzene	ND	0.063		EPA 8260C	7-20-15	7-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>					
<i>Dibromofluoromethane</i>	<i>119</i>	<i>76-131</i>					
<i>Toluene-d8</i>	<i>100</i>	<i>82-129</i>					
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>79-126</i>					

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:		P2A-B3-1-2				
Laboratory ID:		07-051-02				
Naphthalene	0.22	0.038	EPA 8270D/SIM	7-9-15	7-9-15	
2-Methylnaphthalene	0.23	0.038	EPA 8270D/SIM	7-9-15	7-9-15	
1-Methylnaphthalene	0.17	0.038	EPA 8270D/SIM	7-9-15	7-9-15	
Acenaphthylene	0.079	0.038	EPA 8270D/SIM	7-9-15	7-9-15	
Acenaphthene	0.043	0.038	EPA 8270D/SIM	7-9-15	7-9-15	
Fluorene	0.042	0.038	EPA 8270D/SIM	7-9-15	7-9-15	
Phenanthrene	0.44	0.038	EPA 8270D/SIM	7-9-15	7-9-15	
Anthracene	0.13	0.038	EPA 8270D/SIM	7-9-15	7-9-15	
Fluoranthene	0.34	0.038	EPA 8270D/SIM	7-9-15	7-9-15	
Pyrene	0.35	0.038	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[a]anthracene	0.19	0.038	EPA 8270D/SIM	7-9-15	7-9-15	
Chrysene	0.26	0.038	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[b]fluoranthene	0.28	0.038	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo(j,k)fluoranthene	0.068	0.038	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[a]pyrene	0.15	0.038	EPA 8270D/SIM	7-9-15	7-9-15	
Indeno(1,2,3-c,d)pyrene	0.14	0.038	EPA 8270D/SIM	7-9-15	7-9-15	
Dibenz[a,h]anthracene	ND	0.038	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[g,h,i]perylene	0.13	0.038	EPA 8270D/SIM	7-9-15	7-9-15	
<i>Surrogate: Percent Recovery Control Limits</i>						
2-Fluorobiphenyl	58	32 - 114				
Pyrene-d10	54	33 - 121				
Terphenyl-d14	75	31 - 116				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B3-3-4					
Laboratory ID:	07-051-04					
Naphthalene	0.37	0.0099	EPA 8270D/SIM	7-9-15	7-9-15	
2-Methylnaphthalene	0.26	0.0099	EPA 8270D/SIM	7-9-15	7-9-15	
1-Methylnaphthalene	0.20	0.0099	EPA 8270D/SIM	7-9-15	7-9-15	
Acenaphthylene	0.077	0.0099	EPA 8270D/SIM	7-9-15	7-9-15	
Acenaphthene	0.072	0.0099	EPA 8270D/SIM	7-9-15	7-9-15	
Fluorene	0.066	0.0099	EPA 8270D/SIM	7-9-15	7-9-15	
Phenanthrene	0.72	0.0099	EPA 8270D/SIM	7-9-15	7-9-15	
Anthracene	0.12	0.0099	EPA 8270D/SIM	7-9-15	7-9-15	
Fluoranthene	0.47	0.0099	EPA 8270D/SIM	7-9-15	7-9-15	
Pyrene	0.51	0.0099	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[a]anthracene	0.23	0.0099	EPA 8270D/SIM	7-9-15	7-9-15	
Chrysene	0.29	0.0099	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[b]fluoranthene	0.32	0.0099	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo(j,k)fluoranthene	0.075	0.0099	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[a]pyrene	0.23	0.0099	EPA 8270D/SIM	7-9-15	7-9-15	
Indeno(1,2,3-c,d)pyrene	0.19	0.0099	EPA 8270D/SIM	7-9-15	7-9-15	
Dibenz[a,h]anthracene	0.041	0.0099	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[g,h,i]perylene	0.18	0.0099	EPA 8270D/SIM	7-9-15	7-9-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>77</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>66</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>81</i>	<i>31 - 116</i>				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:		P2A-HA1-0-1				
Laboratory ID:		07-051-05				
Naphthalene	0.25	0.011	EPA 8270D/SIM	7-9-15	7-9-15	
2-Methylnaphthalene	0.34	0.011	EPA 8270D/SIM	7-9-15	7-9-15	
1-Methylnaphthalene	0.29	0.011	EPA 8270D/SIM	7-9-15	7-9-15	
Acenaphthylene	0.21	0.011	EPA 8270D/SIM	7-9-15	7-9-15	
Acenaphthene	0.17	0.011	EPA 8270D/SIM	7-9-15	7-9-15	
Fluorene	0.18	0.011	EPA 8270D/SIM	7-9-15	7-9-15	
Phenanthrene	2.0	0.021	EPA 8270D/SIM	7-9-15	7-10-15	
Anthracene	0.46	0.011	EPA 8270D/SIM	7-9-15	7-9-15	
Fluoranthene	1.6	0.021	EPA 8270D/SIM	7-9-15	7-10-15	
Pyrene	2.0	0.021	EPA 8270D/SIM	7-9-15	7-10-15	
Benzo[a]anthracene	1.0	0.011	EPA 8270D/SIM	7-9-15	7-9-15	
Chrysene	1.1	0.011	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[b]fluoranthene	1.2	0.011	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo(j,k)fluoranthene	0.34	0.011	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[a]pyrene	0.97	0.011	EPA 8270D/SIM	7-9-15	7-9-15	
Indeno(1,2,3-c,d)pyrene	0.67	0.011	EPA 8270D/SIM	7-9-15	7-9-15	
Dibenz[a,h]anthracene	0.16	0.011	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[g,h,i]perylene	0.64	0.011	EPA 8270D/SIM	7-9-15	7-9-15	
<i>Surrogate:</i>						
	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	56	32 - 114				
Pyrene-d10	50	33 - 121				
Terphenyl-d14	60	31 - 116				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B6-0-1					
Laboratory ID:	07-051-06					
Naphthalene	0.85	0.0073	EPA 8270D/SIM	7-9-15	7-9-15	
2-Methylnaphthalene	0.90	0.015	EPA 8270D/SIM	7-9-15	7-10-15	
1-Methylnaphthalene	0.59	0.0073	EPA 8270D/SIM	7-9-15	7-9-15	
Acenaphthylene	0.051	0.0073	EPA 8270D/SIM	7-9-15	7-9-15	
Acenaphthene	0.029	0.0073	EPA 8270D/SIM	7-9-15	7-9-15	
Fluorene	0.045	0.0073	EPA 8270D/SIM	7-9-15	7-9-15	
Phenanthrene	0.39	0.0073	EPA 8270D/SIM	7-9-15	7-9-15	
Anthracene	0.093	0.0073	EPA 8270D/SIM	7-9-15	7-9-15	
Fluoranthene	0.19	0.0073	EPA 8270D/SIM	7-9-15	7-9-15	
Pyrene	0.16	0.0073	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[a]anthracene	0.099	0.0073	EPA 8270D/SIM	7-9-15	7-9-15	
Chrysene	0.13	0.0073	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[b]fluoranthene	0.14	0.0073	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo(j,k)fluoranthene	0.028	0.0073	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[a]pyrene	0.069	0.0073	EPA 8270D/SIM	7-9-15	7-9-15	
Indeno(1,2,3-c,d)pyrene	0.060	0.0073	EPA 8270D/SIM	7-9-15	7-9-15	
Dibenz[a,h]anthracene	0.010	0.0073	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[g,h,i]perylene	0.055	0.0073	EPA 8270D/SIM	7-9-15	7-9-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>65</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>60</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>72</i>	<i>31 - 116</i>				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:		P2A-B6-2-3				
Laboratory ID:		07-051-08				
Naphthalene	0.24	0.0074	EPA 8270D/SIM	7-9-15	7-9-15	
2-Methylnaphthalene	0.32	0.0074	EPA 8270D/SIM	7-9-15	7-9-15	
1-Methylnaphthalene	0.30	0.0074	EPA 8270D/SIM	7-9-15	7-9-15	
Acenaphthylene	0.11	0.0074	EPA 8270D/SIM	7-9-15	7-9-15	
Acenaphthene	0.11	0.0074	EPA 8270D/SIM	7-9-15	7-9-15	
Fluorene	0.13	0.0074	EPA 8270D/SIM	7-9-15	7-9-15	
Phenanthrene	1.2	0.015	EPA 8270D/SIM	7-9-15	7-10-15	
Anthracene	0.30	0.0074	EPA 8270D/SIM	7-9-15	7-9-15	
Fluoranthene	0.92	0.0074	EPA 8270D/SIM	7-9-15	7-9-15	
Pyrene	1.0	0.015	EPA 8270D/SIM	7-9-15	7-10-15	
Benzo[a]anthracene	0.60	0.0074	EPA 8270D/SIM	7-9-15	7-9-15	
Chrysene	0.65	0.0074	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[b]fluoranthene	0.62	0.0074	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[j,k]fluoranthene	0.17	0.0074	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[a]pyrene	0.56	0.0074	EPA 8270D/SIM	7-9-15	7-9-15	
Indeno(1,2,3-c,d)pyrene	0.36	0.0074	EPA 8270D/SIM	7-9-15	7-9-15	
Dibenz[a,h]anthracene	0.091	0.0074	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[g,h,i]perylene	0.33	0.0074	EPA 8270D/SIM	7-9-15	7-9-15	
<i>Surrogate: Percent Recovery Control Limits</i>						
2-Fluorobiphenyl	71	32 - 114				
Pyrene-d10	67	33 - 121				
Terphenyl-d14	78	31 - 116				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B6-3-4					
Laboratory ID:	07-051-09					
Naphthalene	0.73	0.73	EPA 8270D	7-28-15	7-30-15	
2-Methylnaphthalene	1.1	0.73	EPA 8270D	7-28-15	7-30-15	
1-Methylnaphthalene	1.4	0.73	EPA 8270D	7-28-15	7-30-15	
Acenaphthylene	0.21	0.029	EPA 8270D/SIM	7-28-15	7-29-15	
Acenaphthene	0.15	0.029	EPA 8270D/SIM	7-28-15	7-29-15	
Fluorene	0.19	0.029	EPA 8270D/SIM	7-28-15	7-29-15	
Phenanthrene	3.0	0.73	EPA 8270D	7-28-15	7-30-15	
Anthracene	0.61	0.029	EPA 8270D/SIM	7-28-15	7-29-15	
Fluoranthene	2.0	0.73	EPA 8270D	7-28-15	7-30-15	
Pyrene	3.0	0.73	EPA 8270D	7-28-15	7-30-15	
Benzo[a]anthracene	1.1	0.73	EPA 8270D	7-28-15	7-30-15	
Chrysene	1.5	0.73	EPA 8270D	7-28-15	7-30-15	
Benzo[b]fluoranthene	1.0	0.73	EPA 8270D	7-28-15	7-30-15	
Benzo[j,k]fluoranthene	0.36	0.029	EPA 8270D/SIM	7-28-15	7-29-15	
Benzo[a]pyrene	0.82	0.73	EPA 8270D	7-28-15	7-30-15	
Indeno[1,2,3-cd]pyrene	0.63	0.029	EPA 8270D/SIM	7-28-15	7-29-15	
Dibenz[a,h]anthracene	0.20	0.029	EPA 8270D/SIM	7-28-15	7-29-15	
Benzo[g,h,i]perylene	0.59	0.029	EPA 8270D/SIM	7-28-15	7-29-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>35</i>	<i>31 - 110</i>				
<i>Phenol-d6</i>	<i>43</i>	<i>34 - 109</i>				
<i>Nitrobenzene-d5</i>	<i>90</i>	<i>30 - 109</i>				
<i>2-Fluorobiphenyl</i>	<i>88</i>	<i>39 - 103</i>				
<i>2,4,6-Tribromophenol</i>	<i>58</i>	<i>25 - 120</i>				
<i>Terphenyl-d14</i>	<i>80</i>	<i>40 - 117</i>				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B6-3-4					
Laboratory ID:	07-051-09					
Naphthalene	0.28	0.037	EPA 8270D/SIM	7-20-15	7-28-15	
2-Methylnaphthalene	0.44	0.037	EPA 8270D/SIM	7-20-15	7-28-15	
1-Methylnaphthalene	0.49	0.037	EPA 8270D/SIM	7-20-15	7-28-15	
Acenaphthylene	0.087	0.037	EPA 8270D/SIM	7-20-15	7-28-15	
Acenaphthene	0.079	0.037	EPA 8270D/SIM	7-20-15	7-28-15	
Fluorene	0.14	0.037	EPA 8270D/SIM	7-20-15	7-28-15	
Phenanthrene	1.3	0.037	EPA 8270D/SIM	7-20-15	7-28-15	
Anthracene	0.27	0.037	EPA 8270D/SIM	7-20-15	7-28-15	
Fluoranthene	0.87	0.037	EPA 8270D/SIM	7-20-15	7-28-15	
Pyrene	1.0	0.037	EPA 8270D/SIM	7-20-15	7-28-15	
Benzo[a]anthracene	0.46	0.037	EPA 8270D/SIM	7-20-15	7-28-15	
Chrysene	0.55	0.037	EPA 8270D/SIM	7-20-15	7-28-15	
Benzo[b]fluoranthene	0.56	0.037	EPA 8270D/SIM	7-20-15	7-28-15	
Benzo(j,k)fluoranthene	0.14	0.037	EPA 8270D/SIM	7-20-15	7-28-15	
Benzo[a]pyrene	0.41	0.037	EPA 8270D/SIM	7-20-15	7-28-15	
Indeno(1,2,3-c,d)pyrene	0.25	0.037	EPA 8270D/SIM	7-20-15	7-28-15	
Dibenz[a,h]anthracene	0.075	0.037	EPA 8270D/SIM	7-20-15	7-28-15	
Benzo[g,h,i]perylene	0.24	0.037	EPA 8270D/SIM	7-20-15	7-28-15	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorobiphenyl	21	32 - 114				Q
Pyrene-d10	23	33 - 121				Q
Terphenyl-d14	33	31 - 116				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

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

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
<hr/>						
Lab ID:	07-051-02					
Client ID:	P2A-B3-1-2					
<hr/>						
Arsenic	70	12	6010C	7-13-15	7-13-15	
Barium	270	2.9	6010C	7-13-15	7-13-15	
Cadmium	0.67	0.58	6010C	7-13-15	7-13-15	
Chromium	28	0.58	6010C	7-13-15	7-13-15	
Lead	260	5.8	6010C	7-13-15	7-13-15	
Mercury	0.29	0.29	7471B	7-13-15	7-13-15	
Selenium	ND	12	6010C	7-13-15	7-13-15	
Silver	ND	1.2	6010C	7-13-15	7-13-15	

Lab ID:	07-051-04					
Client ID:	P2A-B3-3-4					
<hr/>						
Arsenic	46	15	6010C	7-13-15	7-13-15	
Barium	410	3.7	6010C	7-13-15	7-13-15	
Cadmium	4.6	0.75	6010C	7-13-15	7-13-15	
Chromium	32	0.75	6010C	7-13-15	7-13-15	
Lead	580	7.5	6010C	7-13-15	7-13-15	
Mercury	1.7	0.75	7471B	7-13-15	7-13-15	
Selenium	ND	15	6010C	7-13-15	7-13-15	
Silver	ND	1.5	6010C	7-13-15	7-13-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

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

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	07-051-05					
Client ID:	P2A-HA1-0-1					
Arsenic	190	16	6010C	7-13-15	7-13-15	
Barium	250	4.0	6010C	7-13-15	7-13-15	
Cadmium	ND	0.80	6010C	7-13-15	7-13-15	
Chromium	25	0.80	6010C	7-13-15	7-13-15	
Lead	170	8.0	6010C	7-13-15	7-13-15	
Mercury	ND	0.40	7471B	7-13-15	7-13-15	
Selenium	ND	16	6010C	7-13-15	7-13-15	
Silver	ND	1.6	6010C	7-13-15	7-13-15	

Lab ID:	07-051-06					
Client ID:	P2A-B6-0-1					
Arsenic	74	11	6010C	7-13-15	7-13-15	
Barium	420	2.7	6010C	7-13-15	7-13-15	
Cadmium	1.7	0.55	6010C	7-13-15	7-13-15	
Chromium	28	0.55	6010C	7-13-15	7-13-15	
Lead	520	5.5	6010C	7-13-15	7-13-15	
Mercury	0.6	0.27	7471B	7-13-15	7-13-15	
Selenium	ND	11	6010C	7-13-15	7-13-15	
Silver	ND	1.1	6010C	7-13-15	7-13-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

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

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	07-051-08					
Client ID:	P2A-B6-2-3					
Arsenic	37	11	6010C	7-13-15	7-13-15	
Barium	200	2.8	6010C	7-13-15	7-13-15	
Cadmium	0.67	0.56	6010C	7-13-15	7-13-15	
Chromium	28	0.56	6010C	7-13-15	7-13-15	
Lead	270	5.6	6010C	7-13-15	7-13-15	
Mercury	ND	0.28	7471B	7-13-15	7-13-15	
Selenium	ND	11	6010C	7-13-15	7-13-15	
Silver	ND	1.1	6010C	7-13-15	7-13-15	

Date of Report: July 30, 2015
Samples Submitted: July 8, 2015
Laboratory Reference: 1507-051
Project: 0570-133-02

**TOTAL METALS
EPA 6010C**

Matrix: Soil
Units: mg/kg (ppm)

				Date	Date	
Analyte	Result	PQL	EPA Method	Prepared	Analyzed	Flags
Lab ID: 07-051-09						
Client ID: P2A-B6-3-4						
Arsenic	36	11	6010C	7-21-15	7-21-15	
Lead	420	5.5	6010C	7-21-15	7-21-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

DISSOLVED METALS
EPA 200.8/7470A

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
<hr/>						
Lab ID:	07-051-10					
Client ID:	P2A-S2-150707					
Arsenic	ND	3.0	200.8	7-8-15	7-9-15	
Barium	ND	25	200.8	7-8-15	7-9-15	
Cadmium	ND	4.0	200.8	7-8-15	7-9-15	
Chromium	ND	10	200.8	7-8-15	7-9-15	
Lead	ND	1.0	200.8	7-8-15	7-9-15	
Mercury	ND	0.50	7470A	7-8-15	7-9-15	
Selenium	ND	5.0	200.8	7-8-15	7-9-15	
Silver	ND	10	200.8	7-8-15	7-9-15	

Lab ID: 07-051-11
Client ID: P2A-S3-150707

Arsenic	ND	3.0	200.8	7-8-15	7-9-15	
Barium	ND	25	200.8	7-8-15	7-9-15	
Cadmium	ND	4.0	200.8	7-8-15	7-9-15	
Chromium	ND	10	200.8	7-8-15	7-9-15	
Lead	ND	1.0	200.8	7-8-15	7-9-15	
Mercury	ND	0.50	7470A	7-8-15	7-9-15	
Selenium	ND	5.0	200.8	7-8-15	7-9-15	
Silver	ND	10	200.8	7-8-15	7-9-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

DISSOLVED METALS
EPA 200.8/7470A

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	07-051-12					
Client ID:	P2A-S1-150707					
Arsenic	ND	3.0	200.8	7-8-15	7-9-15	
Barium	ND	25	200.8	7-8-15	7-9-15	
Cadmium	ND	4.0	200.8	7-8-15	7-9-15	
Chromium	ND	10	200.8	7-8-15	7-9-15	
Lead	ND	1.0	200.8	7-8-15	7-9-15	
Mercury	ND	0.50	7470A	7-8-15	7-9-15	
Selenium	ND	5.0	200.8	7-8-15	7-9-15	
Silver	ND	10	200.8	7-8-15	7-9-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

**NWTPH-HCID
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0709S3					
Gasoline Range Organics	ND	20	NWTPH-HCID	7-9-15	7-9-15	
Diesel Range Organics	ND	50	NWTPH-HCID	7-9-15	7-9-15	
Lube Oil Range Organics	ND	100	NWTPH-HCID	7-9-15	7-9-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	86	50-150				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

**NWTPH-Gx
 QUALITY CONTROL**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0710W1					
Gasoline	ND	100	NWTPH-Gx	7-10-15	7-10-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	94	71-113				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	07-064-01							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
Surrogate:								
Fluorobenzene				91	91	71-113		

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

**NWTPH-Gx
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0716S1					
Gasoline	ND	5.0	NWTPH-Gx	7-16-15	7-16-15	
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	102	68-123				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	07-099-01							
	ORIG	DUP						
Gasoline	ND	ND	NA	NA	NA	NA	30	
Surrogate:								
Fluorobenzene				94	98	68-123		

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

**NWTPH-Dx
QUALITY CONTROL**

Matrix: Water
 Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0713W1					
Diesel Range Organics	ND	0.25	NWTPH-Dx	7-13-15	7-13-15	
Lube Oil Range Organics	ND	0.40	NWTPH-Dx	7-13-15	7-13-15	
Surrogate:	Percent Recovery	Control Limits				
<i>o</i> -Terphenyl	84	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	07-077-02							
	ORIG	DUP						
Diesel Range Organics	0.387	0.376	NA	NA	NA	NA	3	NA
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	NA
Surrogate:								
<i>o</i> -Terphenyl				84	80	50-150		

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

**NWTPH-Dx
QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0714S2					
Diesel Range Organics	ND	25	NWTPH-Dx	7-14-15	7-14-15	
Lube Oil Range Organics	ND	50	NWTPH-Dx	7-14-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	111	50-150				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	07-051-02									
	ORIG	DUP								
Diesel Range Organics	272	194	NA	NA		NA	NA	33	NA	
Lube Oil	1800	1260	NA	NA		NA	NA	35	NA	
Surrogate:										
o-Terphenyl						77	71	50-150		

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

**NWTPH-Dx
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0720S2					
Diesel Range Organics	ND	25	NWTPH-Dx	7-20-15	7-20-15	
Lube Oil Range Organics	ND	50	NWTPH-Dx	7-20-15	7-20-15	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	89	50-150				

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE										
Laboratory ID:	07-115-04									
	ORIG	DUP								
Diesel Range Organics	182	43.0	NA	NA		NA	NA	124	NA	
Lube Oil Range	ND	ND	NA	NA		NA	NA	NA	NA	
Surrogate:										
o-Terphenyl						87	85	50-150		

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
 page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0709W1						
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Chloromethane	ND	1.0	EPA 8260C	7-9-15	7-9-15	
Vinyl Chloride	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Bromomethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Chloroethane	ND	1.0	EPA 8260C	7-9-15	7-9-15	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Acetone	ND	5.0	EPA 8260C	7-9-15	7-9-15	
Iodomethane	ND	1.3	EPA 8260C	7-9-15	7-9-15	
Carbon Disulfide	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Methylene Chloride	ND	1.0	EPA 8260C	7-9-15	7-9-15	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Vinyl Acetate	ND	1.0	EPA 8260C	7-9-15	7-9-15	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
2-Butanone	ND	5.0	EPA 8260C	7-9-15	7-9-15	
Bromochloromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Chloroform	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Benzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Trichloroethene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Dibromomethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Bromodichloromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
2-Chloroethyl Vinyl Ether	ND	2.0	EPA 8260C	7-9-15	7-9-15	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	7-9-15	7-9-15	
Toluene	ND	1.0	EPA 8260C	7-9-15	7-9-15	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-9-15	7-9-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0709W1						
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Tetrachloroethene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
2-Hexanone	ND	2.0	EPA 8260C	7-9-15	7-9-15	
Dibromochloromethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Chlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Ethylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
m,p-Xylene	ND	0.40	EPA 8260C	7-9-15	7-9-15	
o-Xylene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Styrene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Bromoform	ND	1.0	EPA 8260C	7-9-15	7-9-15	
Isopropylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Bromobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-9-15	7-9-15	
n-Propylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
tert-Butylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
sec-Butylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
p-Isopropyltoluene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
n-Butylbenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	7-9-15	7-9-15	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Hexachlorobutadiene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
Naphthalene	ND	1.0	EPA 8260C	7-9-15	7-9-15	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	7-9-15	7-9-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>105</i>	<i>79-131</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>80-120</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>80-120</i>				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Water

Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	Limits		Limit	
SPIKE BLANKS										
Laboratory ID:	SB0709W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.91	9.88	10.0	10.0	99	99	64-138	0	16	
Benzene	10.5	10.3	10.0	10.0	105	103	76-125	2	14	
Trichloroethene	10.4	9.49	10.0	10.0	104	95	70-125	9	16	
Toluene	11.0	10.3	10.0	10.0	110	103	75-125	7	15	
Chlorobenzene	10.4	9.88	10.0	10.0	104	99	80-140	5	15	
Surrogate:										
Dibromofluoromethane					96	98	79-131			
Toluene-d8					99	97	80-120			
4-Bromofluorobenzene					94	95	80-120			

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0709S1						
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Chloromethane	ND	0.0050	EPA 8260C	7-9-15	7-9-15	
Vinyl Chloride	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Bromomethane	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Chloroethane	ND	0.0050	EPA 8260C	7-9-15	7-9-15	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Acetone	ND	0.0050	EPA 8260C	7-9-15	7-9-15	
Iodomethane	ND	0.0050	EPA 8260C	7-9-15	7-9-15	
Carbon Disulfide	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Methylene Chloride	ND	0.0050	EPA 8260C	7-9-15	7-9-15	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Vinyl Acetate	ND	0.0050	EPA 8260C	7-9-15	7-9-15	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
2-Butanone	ND	0.0050	EPA 8260C	7-9-15	7-9-15	
Bromochloromethane	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Chloroform	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Benzene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Trichloroethene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Dibromomethane	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Bromodichloromethane	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	7-9-15	7-9-15	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260C	7-9-15	7-9-15	
Toluene	ND	0.0050	EPA 8260C	7-9-15	7-9-15	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0709S1						
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Tetrachloroethene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
2-Hexanone	ND	0.0050	EPA 8260C	7-9-15	7-9-15	
Dibromochloromethane	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Chlorobenzene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Ethylbenzene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
m,p-Xylene	ND	0.0020	EPA 8260C	7-9-15	7-9-15	
o-Xylene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Styrene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Bromoform	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Isopropylbenzene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Bromobenzene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
n-Propylbenzene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
2-Chlorotoluene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
4-Chlorotoluene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
tert-Butylbenzene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
sec-Butylbenzene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
p-Isopropyltoluene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
n-Butylbenzene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	7-9-15	7-9-15	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	7-9-15	7-9-15	
Naphthalene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	7-9-15	7-9-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>118</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>107</i>	<i>79-126</i>				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0710S1							
Dichlorodifluoromethane	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Chloromethane	ND	0.0050		EPA 8260C	7-10-15	7-10-15	
Vinyl Chloride	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Bromomethane	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Chloroethane	ND	0.0050		EPA 8260C	7-10-15	7-10-15	
Trichlorofluoromethane	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
1,1-Dichloroethene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Acetone	ND	0.0050		EPA 8260C	7-10-15	7-10-15	
Iodomethane	ND	0.0050		EPA 8260C	7-10-15	7-10-15	
Carbon Disulfide	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Methylene Chloride	ND	0.0050		EPA 8260C	7-10-15	7-10-15	
(trans) 1,2-Dichloroethene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Methyl t-Butyl Ether	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
1,1-Dichloroethane	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Vinyl Acetate	ND	0.0050		EPA 8260C	7-10-15	7-10-15	
2,2-Dichloropropane	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
(cis) 1,2-Dichloroethene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
2-Butanone	ND	0.0050		EPA 8260C	7-10-15	7-10-15	
Bromochloromethane	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Chloroform	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
1,1,1-Trichloroethane	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Carbon Tetrachloride	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
1,1-Dichloropropene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Benzene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
1,2-Dichloroethane	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Trichloroethene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
1,2-Dichloropropane	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Dibromomethane	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Bromodichloromethane	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
2-Chloroethyl Vinyl Ether	ND	0.0070		EPA 8260C	7-10-15	7-10-15	
(cis) 1,3-Dichloropropene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Methyl Isobutyl Ketone	ND	0.0050		EPA 8260C	7-10-15	7-10-15	
Toluene	ND	0.0050		EPA 8260C	7-10-15	7-10-15	
(trans) 1,3-Dichloropropene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

page 2 of 2

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0710S1							
1,1,2-Trichloroethane	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Tetrachloroethene	ND	0.0010	0.00029	EPA 8260C	7-10-15	7-10-15	
1,3-Dichloropropane	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
2-Hexanone	ND	0.0050		EPA 8260C	7-10-15	7-10-15	
Dibromochloromethane	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
1,2-Dibromoethane	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Chlorobenzene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
1,1,1,2-Tetrachloroethane	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Ethylbenzene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
m,p-Xylene	ND	0.0020		EPA 8260C	7-10-15	7-10-15	
o-Xylene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Styrene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Bromoform	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Isopropylbenzene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Bromobenzene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
1,1,2,2-Tetrachloroethane	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
1,2,3-Trichloropropane	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
n-Propylbenzene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
2-Chlorotoluene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
4-Chlorotoluene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
1,3,5-Trimethylbenzene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
tert-Butylbenzene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
1,2,4-Trimethylbenzene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
sec-Butylbenzene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
1,3-Dichlorobenzene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
p-Isopropyltoluene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
1,4-Dichlorobenzene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
1,2-Dichlorobenzene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
n-Butylbenzene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
1,2-Dibromo-3-chloropropane	ND	0.0050		EPA 8260C	7-10-15	7-10-15	
1,2,4-Trichlorobenzene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Hexachlorobutadiene	ND	0.0050		EPA 8260C	7-10-15	7-10-15	
Naphthalene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
1,2,3-Trichlorobenzene	ND	0.0010		EPA 8260C	7-10-15	7-10-15	
Surrogate:	Percent Recovery	Control Limits					
Dibromofluoromethane	115	76-131					
Toluene-d8	108	82-129					
4-Bromofluorobenzene	107	79-126					

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits		RPD	RPD Limit	Flags
					Recovery						
SPIKE BLANKS											
Laboratory ID:	SB0709S1										
	SB	SBD	SB	SBD	SB	SBD					
1,1-Dichloroethene	0.0562	0.0558	0.0500	0.0500	112	112	66-129	1	15		
Benzene	0.0551	0.0545	0.0500	0.0500	110	109	71-123	1	15		
Trichloroethene	0.0505	0.0514	0.0500	0.0500	101	103	75-115	2	15		
Toluene	0.0539	0.0533	0.0500	0.0500	108	107	75-120	1	15		
Chlorobenzene	0.0512	0.0492	0.0500	0.0500	102	98	75-121	4	15		
Surrogate:											
Dibromofluoromethane					108	102	76-131				
Toluene-d8					102	100	82-129				
4-Bromofluorobenzene					103	97	79-126				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
					Recovery					
SPIKE BLANKS										
Laboratory ID:	SB0710S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0569	0.0603	0.0500	0.0500	114	121	66-129	6	15	
Benzene	0.0565	0.0600	0.0500	0.0500	113	120	71-123	6	15	
Trichloroethene	0.0499	0.0521	0.0500	0.0500	100	104	75-115	4	15	
Toluene	0.0527	0.0520	0.0500	0.0500	105	104	75-120	1	15	
Chlorobenzene	0.0497	0.0498	0.0500	0.0500	99	100	75-121	0	15	
Surrogate:										
Dibromofluoromethane					102	109	76-131			
Toluene-d8					96	99	82-129			
4-Bromofluorobenzene					94	98	79-126			

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

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

Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0720S1							
Dichlorodifluoromethane	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
Chloromethane	ND	0.0050		EPA 8260C	7-20-15	7-20-15	
Vinyl Chloride	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
Bromomethane	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
Chloroethane	ND	0.0050		EPA 8260C	7-20-15	7-20-15	
Trichlorofluoromethane	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
1,1-Dichloroethene	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
Iodomethane	ND	0.0050		EPA 8260C	7-20-15	7-20-15	
Methylene Chloride	ND	0.0050		EPA 8260C	7-20-15	7-20-15	
(trans) 1,2-Dichloroethene	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
1,1-Dichloroethane	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
2,2-Dichloropropane	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
(cis) 1,2-Dichloroethene	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
Bromochloromethane	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
Chloroform	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
1,1,1-Trichloroethane	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
Carbon Tetrachloride	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
1,1-Dichloropropene	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
1,2-Dichloroethane	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
Trichloroethene	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
1,2-Dichloropropane	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
Dibromomethane	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
Bromodichloromethane	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
2-Chloroethyl Vinyl Ether	ND	0.0050		EPA 8260C	7-20-15	7-20-15	
(cis) 1,3-Dichloropropene	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
(trans) 1,3-Dichloropropene	ND	0.0010		EPA 8260C	7-20-15	7-20-15	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

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

Page 2 of 2

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0720S1							
1,1,2-Trichloroethane	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
Tetrachloroethene	ND	0.0010	0.00029	EPA 8260C	7-20-15	7-20-15	
1,3-Dichloropropane	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
Dibromochloromethane	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
1,2-Dibromoethane	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
Chlorobenzene	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
1,1,1,2-Tetrachloroethane	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
Bromoform	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
Bromobenzene	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
1,1,2,2-Tetrachloroethane	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
1,2,3-Trichloropropane	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
2-Chlorotoluene	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
4-Chlorotoluene	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
1,3-Dichlorobenzene	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
1,4-Dichlorobenzene	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
1,2-Dichlorobenzene	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
1,2-Dibromo-3-chloropropane	ND	0.0050		EPA 8260C	7-20-15	7-20-15	
1,2,4-Trichlorobenzene	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
Hexachlorobutadiene	ND	0.0050		EPA 8260C	7-20-15	7-20-15	
1,2,3-Trichlorobenzene	ND	0.0010		EPA 8260C	7-20-15	7-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>					
<i>Dibromofluoromethane</i>	<i>107</i>	<i>76-131</i>					
<i>Toluene-d8</i>	<i>107</i>	<i>82-129</i>					
<i>4-Bromofluorobenzene</i>	<i>106</i>	<i>79-126</i>					

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

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

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
					Recovery					
SPIKE BLANKS										
Laboratory ID:	SB0720S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0439	0.0448	0.0500	0.0500	88	90	66-129	2	15	
Benzene	0.0462	0.0467	0.0500	0.0500	92	93	71-123	1	15	
Trichloroethene	0.0486	0.0498	0.0500	0.0500	97	100	75-115	2	15	
Toluene	0.0497	0.0512	0.0500	0.0500	99	102	75-120	3	15	
Chlorobenzene	0.0482	0.0487	0.0500	0.0500	96	97	75-121	1	15	
Surrogate:										
Dibromofluoromethane					99	105	76-131			
Toluene-d8					98	105	82-129			
4-Bromofluorobenzene					96	103	79-126			

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

**PAHs EPA 8270D/SIM
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0709S1						
Naphthalene	ND	0.0067	EPA 8270D/SIM	7-9-15	7-9-15	
2-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	7-9-15	7-9-15	
1-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	7-9-15	7-9-15	
Acenaphthylene	ND	0.0067	EPA 8270D/SIM	7-9-15	7-9-15	
Acenaphthene	ND	0.0067	EPA 8270D/SIM	7-9-15	7-9-15	
Fluorene	ND	0.0067	EPA 8270D/SIM	7-9-15	7-9-15	
Phenanthrene	ND	0.0067	EPA 8270D/SIM	7-9-15	7-9-15	
Anthracene	ND	0.0067	EPA 8270D/SIM	7-9-15	7-9-15	
Fluoranthene	ND	0.0067	EPA 8270D/SIM	7-9-15	7-9-15	
Pyrene	ND	0.0067	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[a]anthracene	ND	0.0067	EPA 8270D/SIM	7-9-15	7-9-15	
Chrysene	ND	0.0067	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[a]pyrene	ND	0.0067	EPA 8270D/SIM	7-9-15	7-9-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270D/SIM	7-9-15	7-9-15	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270D/SIM	7-9-15	7-9-15	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270D/SIM	7-9-15	7-9-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	100	32 - 114				
Pyrene-d10	85	33 - 121				
Terphenyl-d14	93	31 - 116				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

**PAHs EPA 8270D/SIM
 SB/SBD QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0709S1									
	SB	SBD	SB	SBD	SB	SBD				
Naphthalene	0.0664	0.0683	0.0833	0.0833	80	82	63 - 113	3	19	
Acenaphthylene	0.0710	0.0734	0.0833	0.0833	85	88	61 - 125	3	16	
Acenaphthene	0.0707	0.0728	0.0833	0.0833	85	87	66 - 113	3	16	
Fluorene	0.0682	0.0771	0.0833	0.0833	82	93	60 - 117	12	16	
Phenanthrene	0.0660	0.0741	0.0833	0.0833	79	89	63 - 116	12	12	
Anthracene	0.0797	0.0893	0.0833	0.0833	96	107	66 - 146	11	19	
Fluoranthene	0.0666	0.0749	0.0833	0.0833	80	90	60 - 125	12	13	
Pyrene	0.0643	0.0721	0.0833	0.0833	77	87	66 - 126	11	15	
Benzo[a]anthracene	0.0701	0.0740	0.0833	0.0833	84	89	60 - 128	5	15	
Chrysene	0.0680	0.0717	0.0833	0.0833	82	86	60 - 117	5	13	
Benzo[b]fluoranthene	0.0662	0.0760	0.0833	0.0833	79	91	60 - 131	14	16	
Benzo(j,k)fluoranthene	0.0707	0.0696	0.0833	0.0833	85	84	57 - 126	2	20	
Benzo[a]pyrene	0.0694	0.0731	0.0833	0.0833	83	88	62 - 136	5	16	
Indeno(1,2,3-c,d)pyrene	0.0691	0.0728	0.0833	0.0833	83	87	60 - 127	5	19	
Dibenz[a,h]anthracene	0.0683	0.0730	0.0833	0.0833	82	88	62 - 133	7	22	
Benzo[g,h,i]perylene	0.0687	0.0725	0.0833	0.0833	82	87	63 - 129	5	22	
Surrogate:										
2-Fluorobiphenyl					80	94	32 - 114			
Pyrene-d10					80	90	33 - 121			
Terphenyl-d14					84	89	31 - 116			

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

**PAHs EPA 8270D/SIM
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0720S1						
Naphthalene	ND	0.0067	EPA 8270D/SIM	7-20-15	7-21-15	
2-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	7-20-15	7-21-15	
1-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	7-20-15	7-21-15	
Acenaphthylene	ND	0.0067	EPA 8270D/SIM	7-20-15	7-21-15	
Acenaphthene	ND	0.0067	EPA 8270D/SIM	7-20-15	7-21-15	
Fluorene	ND	0.0067	EPA 8270D/SIM	7-20-15	7-21-15	
Phenanthrene	ND	0.0067	EPA 8270D/SIM	7-20-15	7-21-15	
Anthracene	ND	0.0067	EPA 8270D/SIM	7-20-15	7-21-15	
Fluoranthene	ND	0.0067	EPA 8270D/SIM	7-20-15	7-21-15	
Pyrene	ND	0.0067	EPA 8270D/SIM	7-20-15	7-21-15	
Benzo[a]anthracene	ND	0.0067	EPA 8270D/SIM	7-20-15	7-21-15	
Chrysene	ND	0.0067	EPA 8270D/SIM	7-20-15	7-21-15	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270D/SIM	7-20-15	7-21-15	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270D/SIM	7-20-15	7-21-15	
Benzo[a]pyrene	ND	0.0067	EPA 8270D/SIM	7-20-15	7-21-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270D/SIM	7-20-15	7-21-15	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270D/SIM	7-20-15	7-21-15	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270D/SIM	7-20-15	7-21-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	78	32 - 114				
Pyrene-d10	93	33 - 121				
Terphenyl-d14	93	31 - 116				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

**PAHs EPA 8270D/SIM
 SB/SBD QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS									
Laboratory ID:	SB0720S1								
	SB	SBD	SB	SBD	SB	SBD			
Naphthalene	0.0645	0.0705	0.0833	0.0833	77	85	63 - 113	9	19
Acenaphthylene	0.0716	0.0751	0.0833	0.0833	86	90	61 - 125	5	16
Acenaphthene	0.0714	0.0718	0.0833	0.0833	86	86	66 - 113	1	16
Fluorene	0.0679	0.0714	0.0833	0.0833	82	86	60 - 117	5	16
Phenanthrene	0.0683	0.0715	0.0833	0.0833	82	86	63 - 116	5	12
Anthracene	0.0819	0.0861	0.0833	0.0833	98	103	66 - 146	5	19
Fluoranthene	0.0665	0.0709	0.0833	0.0833	80	85	60 - 125	6	13
Pyrene	0.0631	0.0684	0.0833	0.0833	76	82	66 - 126	8	15
Benzo[a]anthracene	0.0718	0.0758	0.0833	0.0833	86	91	60 - 128	5	15
Chrysene	0.0641	0.0688	0.0833	0.0833	77	83	60 - 117	7	13
Benzo[b]fluoranthene	0.0668	0.0720	0.0833	0.0833	80	86	60 - 131	7	16
Benzo(j,k)fluoranthene	0.0619	0.0672	0.0833	0.0833	74	81	57 - 126	8	20
Benzo[a]pyrene	0.0665	0.0712	0.0833	0.0833	80	85	62 - 136	7	16
Indeno(1,2,3-c,d)pyrene	0.0687	0.0731	0.0833	0.0833	82	88	60 - 127	6	19
Dibenz[a,h]anthracene	0.0710	0.0757	0.0833	0.0833	85	91	62 - 133	6	22
Benzo[g,h,i]perylene	0.0648	0.0702	0.0833	0.0833	78	84	63 - 129	8	22
Surrogate:									
2-Fluorobiphenyl					76	78	32 - 114		
Pyrene-d10					85	89	33 - 121		
Terphenyl-d14					88	93	31 - 116		

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

**PAHs EPA 8270D/SIM
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0728S1						
Naphthalene	ND	0.0067	EPA 8270D/SIM	7-28-15	7-28-15	
2-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	7-28-15	7-28-15	
1-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	7-28-15	7-28-15	
Acenaphthylene	ND	0.0067	EPA 8270D/SIM	7-28-15	7-28-15	
Acenaphthene	ND	0.0067	EPA 8270D/SIM	7-28-15	7-28-15	
Fluorene	ND	0.0067	EPA 8270D/SIM	7-28-15	7-28-15	
Phenanthrene	ND	0.0067	EPA 8270D/SIM	7-28-15	7-28-15	
Anthracene	ND	0.0067	EPA 8270D/SIM	7-28-15	7-28-15	
Fluoranthene	ND	0.0067	EPA 8270D/SIM	7-28-15	7-28-15	
Pyrene	ND	0.0067	EPA 8270D/SIM	7-28-15	7-28-15	
Benzo[a]anthracene	ND	0.0067	EPA 8270D/SIM	7-28-15	7-28-15	
Chrysene	ND	0.0067	EPA 8270D/SIM	7-28-15	7-28-15	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270D/SIM	7-28-15	7-28-15	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270D/SIM	7-28-15	7-28-15	
Benzo[a]pyrene	ND	0.0067	EPA 8270D/SIM	7-28-15	7-28-15	
Indeno[1,2,3-cd]pyrene	ND	0.0067	EPA 8270D/SIM	7-28-15	7-28-15	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270D/SIM	7-28-15	7-28-15	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270D/SIM	7-28-15	7-28-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorophenol</i>	<i>64</i>	<i>31 - 110</i>				
<i>Phenol-d6</i>	<i>63</i>	<i>34 - 109</i>				
<i>Nitrobenzene-d5</i>	<i>64</i>	<i>30 - 109</i>				
<i>2-Fluorobiphenyl</i>	<i>67</i>	<i>39 - 103</i>				
<i>2,4,6-Tribromophenol</i>	<i>72</i>	<i>25 - 120</i>				
<i>Terphenyl-d14</i>	<i>71</i>	<i>40 - 117</i>				

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

**PAHs EPA 8270D/SIM
 SB/SBD QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0728S1									
	SB	SBD	SB	SBD	SB	SBD				
Phenol	0.904	0.936	1.33	1.33	68	70	55 - 105	3	25	
2-Chlorophenol	0.954	0.968	1.33	1.33	72	73	56 - 102	1	30	
1,4-Dichlorobenzene	0.467	0.454	0.667	0.667	70	68	49 - 99	3	35	
n-Nitroso-di-n-propylamine	0.451	0.471	0.667	0.667	68	71	52 - 102	4	26	
1,2,4-Trichlorobenzene	0.466	0.477	0.667	0.667	70	72	49 - 110	2	30	
4-Chloro-3-methylphenol	1.03	1.10	1.33	1.33	77	83	59 - 113	7	22	
Acenaphthene	0.463	0.481	0.667	0.667	69	72	52 - 103	4	22	
4-Nitrophenol	1.36	1.39	1.33	1.33	102	105	51 - 125	2	23	
2,4-Dinitrotoluene	0.483	0.511	0.667	0.667	72	77	53 - 118	6	23	
Pentachlorophenol	1.09	1.15	1.33	1.33	82	86	25 - 141	5	39	
Pyrene	0.504	0.510	0.667	0.667	76	76	57 - 120	1	20	
Surrogate:										
2-Fluorophenol					56	55	31 - 110			
Phenol-d6					56	56	34 - 109			
Nitrobenzene-d5					53	54	30 - 109			
2-Fluorobiphenyl					59	59	39 - 103			
2,4,6-Tribromophenol					62	63	25 - 120			
Terphenyl-d14					63	62	40 - 117			

Date of Report: July 30, 2015
Samples Submitted: July 8, 2015
Laboratory Reference: 1507-051
Project: 0570-133-02

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

Date Extracted: 7-13-15

Date Analyzed: 7-13-15

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: MB0713SM1&MB0713S1

Analyte	Method	Result	PQL
Arsenic	6010C	ND	10
Barium	6010C	ND	2.5
Cadmium	6010C	ND	0.50
Chromium	6010C	ND	0.50
Lead	6010C	ND	5.0
Mercury	7471B	ND	0.25
Selenium	6010C	ND	10
Silver	6010C	ND	1.0

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

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

Date Extracted: 7-13-15
 Date Analyzed: 7-13-15

 Matrix: Soil
 Units: mg/kg (ppm)

 Lab ID: 07-077-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	10	
Barium	67.8	67.0	1	2.5	
Cadmium	ND	ND	NA	0.50	
Chromium	25.1	24.7	2	0.50	
Lead	ND	ND	NA	5.0	
Mercury	ND	ND	NA	0.25	
Selenium	ND	ND	NA	10	
Silver	ND	ND	NA	1.0	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

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

Date Extracted: 7-13-15

Date Analyzed: 7-13-15

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 07-077-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	100	83.6	84	86.1	86	3	
Barium	100	158	90	161	94	2	
Cadmium	50.0	45.0	90	45.3	91	1	
Chromium	100	118	93	117	92	0	
Lead	250	219	88	222	89	2	
Mercury	0.500	0.495	99	0.509	102	3	
Selenium	100	78.6	79	79.4	79	1	
Silver	25.0	20.3	81	20.7	83	2	

Date of Report: July 30, 2015
Samples Submitted: July 8, 2015
Laboratory Reference: 1507-051
Project: 0570-133-02

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

Date Extracted: 7-21-15
Date Analyzed: 7-21-15

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: MB0721SM1

Analyte	Method	Result	PQL
Arsenic	6010C	ND	10
Lead	6010C	ND	5.0

Date of Report: July 30, 2015
Samples Submitted: July 8, 2015
Laboratory Reference: 1507-051
Project: 0570-133-02

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

Date Extracted: 7-21-15
Date Analyzed: 7-21-15

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 07-155-02

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	10	
Lead	ND	ND	NA	5.0	

Date of Report: July 30, 2015
Samples Submitted: July 8, 2015
Laboratory Reference: 1507-051
Project: 0570-133-02

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

Date Extracted: 7-21-15

Date Analyzed: 7-21-15

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 07-155-02

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	100	86.5	87	92.9	93	7	
Lead	250	219	87	234	94	7	

Date of Report: July 30, 2015
Samples Submitted: July 8, 2015
Laboratory Reference: 1507-051
Project: 0570-133-02

**DISSOLVED METALS
EPA 200.8/7470A
METHOD BLANK QUALITY CONTROL**

Date Filtered: 7-8-15
Date Analyzed: 7-9-15

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0708F1

Analyte	Method	Result	PQL
Arsenic	200.8	ND	3.0
Barium	200.8	ND	25
Cadmium	200.8	ND	4.0
Chromium	200.8	ND	10
Lead	200.8	ND	1.0
Mercury	7470A	ND	0.50
Selenium	200.8	ND	5.0
Silver	200.8	ND	10

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

**DISSOLVED METALS
 EPA 200.8/7470A
 DUPLICATE QUALITY CONTROL**

Date Analyzed: 7-9-15

Matrix: Water
 Units: ug/L (ppb)

Lab ID: 07-045-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	29.4	27.5	7	3.0	
Barium	48.8	46.1	6	25	
Cadmium	ND	ND	NA	4.0	
Chromium	ND	ND	NA	10	
Lead	ND	ND	NA	1.0	
Mercury	ND	ND	NA	0.50	
Selenium	ND	ND	NA	5.0	
Silver	ND	ND	NA	10	

Date of Report: July 30, 2015
 Samples Submitted: July 8, 2015
 Laboratory Reference: 1507-051
 Project: 0570-133-02

**DISSOLVED METALS
 EPA 200.8/7470A
 MS/MSD QUALITY CONTROL**

Date Analyzed: 7-9-15

Matrix: Water
 Units: ug/L (ppb)

Lab ID: 07-045-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	80.0	110	101	111	102	1	
Barium	80.0	127	98	128	99	1	
Cadmium	80.0	79.6	99	79.1	99	1	
Chromium	80.0	77.3	97	79.1	99	2	
Lead	80.0	75.9	95	76	95	0	
Mercury	12.5	11.4	91	11.7	93	3	
Selenium	80.0	88.2	110	89.1	111	1	
Silver	80.0	71.9	90	72.9	91	1	

Date of Report: July 30, 2015
Samples Submitted: July 8, 2015
Laboratory Reference: 1507-051
Project: 0570-133-02

% MOISTURE

Date Analyzed: 7-9&20-15

Client ID	Lab ID	% Moisture
P2A-B3-1-2	07-051-02	13
P2A-B3-2-3	07-051-03	24
P2A-B3-3-4	07-051-04	33
P2A-HA1-0-1	07-051-05	38
P2A-B6-0-1	07-051-06	9
P2A-B6-2-3	07-051-08	10
P2A-B6-3-4	07-051-09	9



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.
- X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
- Z -
- ND - Not Detected at PQL
- PQL - Practical Quantitation Limit
- RPD - Relative Percent Difference



Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 1 of 2

Company: Enviro			Turnaround Request (in working days)			Laboratory Number: 07-051											
Project Number: 0570-133-02			<input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day			<div>Chromatograms with final report <input type="checkbox"/></div>											
Project Name: PLT PHASE 2A			<input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days														
Project Manager: Tecia Ozone			<input checked="" type="checkbox"/> Standard (7 Days) (TPH analysis 5 Days)														
Sampled by: Bryan Bob Bryanfield			<input type="checkbox"/> (other) _____														
Lab ID			Sample Identification			Number of Containers											
1			P2A-B3-0-1			NWTPH-HCID											
2			P2A-B3-1-2			NWTPH-Gx/BTEX											
3			P2A-B3-2-3			NWTPH-Gx											
4			P2A-B3-3-4			NWTPH-Dx											
5			P2A-HA1-0-1			Volatiles 8260C											
6			P2A-B6-0-1			Halogenated Volatiles 8260C											
7			P2A-B6-1-2			Semivolatiles 8270D/SIM (with low-level PAHs)											
8			P2A-B6-2-3			PAHs 8270D/SIM (low-level)											
9			P2A-B6-3-4			PCBs 8082A											
10			P2A-S2-156707			Organochlorine Pesticides 8081B											
Relinquished			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 0850			Comments/Special Instructions: (X) Added 7/11/15. DB (STA)		
Received			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1100			Comments/Special Instructions: (X) Added 7/13/15. DB (STA)		
Relinquished			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 7/20/15. DB		
Received			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Relinquished			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Received			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Relinquished			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Received			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Relinquished			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Received			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Relinquished			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Received			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Relinquished			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Received			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Relinquished			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Received			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Relinquished			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Received			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Relinquished			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Received			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Relinquished			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Received			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Relinquished			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Received			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Relinquished			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Received			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Relinquished			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 1200			Comments/Special Instructions: (X) Added 8/11/15. STA		
Received			Signature: <i>[Signature]</i>			Company: Specmag			Date: 7/8/15			Time: 12					



**Onsite
Environmental Inc.**

Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 2 of 2

Company:

6306660345

Project Number:

0570-133-02

Project Name:

ALT Phase 2A

Project Manager:

TALIA PEDONE

Sampled by:

BRANDY BLAIR

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: **07-051**

Lab ID

Sample Identification

Date
Sampled

Time
Sampled

Matrix

Number of Containers

NWTPH-HCID

NWTPH-Gx/BTEX

NWTPH-Gx

NWTPH-Dx

Volatiles 8260C

Halogenated Volatiles 8260C

Semivolatiles 8270D/SIM

(with low-level PAHs)

PAHs 8270D/SIM (low-level)

PCBs 8082A

Organochlorine Pesticides 8081B

Organophosphorus Pesticides 8270D/SIM

Chlorinated Acid Herbicides 8151A

Total RCRA Metals

Total MTCA Metals

TCLP Metals

HEM (oil and grease) 1664A

**DISSOLVED PCRA
METALS**

% Moisture

11 92A-S3-150707
12 12A-S1-150707

7/12/15 1315 WATER
7/14/15 1355 WATER

X X X
X X X

X X

Signature

Company

Date

Time

Comments/Special Instructions

Relinquished

Received

Relinquished

Received

Relinquished

Received

Reviewed/Date

[Signature]

[Signature]

[Signature]

6306660345

5/24/11

0825

7/8/15 0830

7/11/11 11

7/8/15 1200

Data Package: Standard ☐ Level III ☐ Level IV ☐

Electronic Data Deliverables (EDDs) ☐

Chromatograms with final report ☐



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

July 29, 2015

Tricia DeOme
GeoEngineers, Inc.
1101 Fawcett Avenue South, Suite 200
Tacoma, WA 98402

Re: Analytical Data for Project 0570-133-02
Laboratory Reference No. 1507-071

Dear Tricia:

Enclosed are the analytical results and associated quality control data for samples submitted on July 9, 2015.

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 long horizontal flourish.

David Baumeister
Project Manager

Enclosures

Date of Report: July 29, 2015
Samples Submitted: July 9, 2015
Laboratory Reference: 1507-071
Project: 0570-133-02

Case Narrative

Samples were collected on July 8, 2015 and received by the laboratory on July 9, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below.

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 8260C 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 P2A-B9-1-2, P2A-B7-1-2, P2A-B5-1-2, and P2A-B1-0-1 due to sample matrix effects.

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: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

ANALYTICAL REPORT FOR SAMPLES

Client ID	Laboratory ID	Matrix	Date Sampled	Date Received	Notes
P2A-B10-1-2	07-071-02	Soil	7-8-15	7-9-15	
P2A-B10-3-4	07-071-04	Soil	7-8-15	7-9-15	
P2A-B9-1-2	07-071-06	Soil	7-8-15	7-9-15	
P2A-B9-3-4	07-071-08	Soil	7-8-15	7-9-15	
P2A-B8-0-1	07-071-10	Soil	7-8-15	7-9-15	
P2A-B8-2-3	07-071-12	Soil	7-8-15	7-9-15	
P2A-B7-1-2	07-071-15	Soil	7-8-15	7-9-15	
P2A-B7-3-4	07-071-17	Soil	7-8-15	7-9-15	
P2A-B5-1-2	07-071-19	Soil	7-8-15	7-9-15	
P2A-B5-3-4	07-071-21	Soil	7-8-15	7-9-15	
P2A-B4-0-1	07-071-22	Soil	7-8-15	7-9-15	
P2A-B4-1-2	07-071-23	Soil	7-8-15	7-9-15	
P2A-B4-3-4	07-071-25	Soil	7-8-15	7-9-15	
P2A-B2-1-2	07-071-27	Soil	7-8-15	7-9-15	
P2A-B2-3-4	07-071-29	Soil	7-8-15	7-9-15	
P2A-B1-0-1	07-071-30	Soil	7-8-15	7-9-15	
P2A-B1-1-2	07-071-31	Soil	7-8-15	7-9-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

NWTPH-HCID

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B10-1-2					
Laboratory ID:	07-071-02					
Gasoline Range Organics	ND	23	NWTPH-HCID	7-13-15	7-14-15	
Diesel Range Organics	ND	59	NWTPH-HCID	7-13-15	7-14-15	
Lube Oil Range Organics	ND	120	NWTPH-HCID	7-13-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	111	50-150				

Client ID:	P2A-B9-1-2					
Laboratory ID:	07-071-06					
Gasoline Range Organics	ND	25	NWTPH-HCID	7-13-15	7-14-15	
Diesel Range Organics	ND	62	NWTPH-HCID	7-13-15	7-14-15	
Lube Oil	Detected	120	NWTPH-HCID	7-13-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	107	50-150				

Client ID:	P2A-B8-0-1					
Laboratory ID:	07-071-10					
Gasoline Range Organics	ND	21	NWTPH-HCID	7-13-15	7-14-15	
Diesel Range Organics	ND	52	NWTPH-HCID	7-13-15	7-14-15	
Lube Oil	Detected	100	NWTPH-HCID	7-13-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	109	50-150				

Client ID:	P2A-B8-2-3					
Laboratory ID:	07-071-12					
Gasoline Range Organics	ND	22	NWTPH-HCID	7-13-15	7-14-15	
Diesel Range Organics	ND	55	NWTPH-HCID	7-13-15	7-14-15	
Lube Oil Range Organics	ND	110	NWTPH-HCID	7-13-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	107	50-150				

Client ID:	P2A-B7-1-2					
Laboratory ID:	07-071-15					
Gasoline Range Organics	ND	23	NWTPH-HCID	7-13-15	7-14-15	
Diesel Range Organics	Detected	56	NWTPH-HCID	7-13-15	7-14-15	
Lube Oil	Detected	110	NWTPH-HCID	7-13-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	111	50-150				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

NWTPH-HCID

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B5-1-2					
Laboratory ID:	07-071-19					
Gasoline Range Organics	ND	30	NWTPH-HCID	7-13-15	7-14-15	U1
Diesel Range Organics	ND	59	NWTPH-HCID	7-13-15	7-14-15	
Lube Oil	Detected	120	NWTPH-HCID	7-13-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	122	50-150				

Client ID:	P2A-B4-0-1					
Laboratory ID:	07-071-22					
Gasoline Range Organics	ND	30	NWTPH-HCID	7-13-15	7-14-15	U1
Diesel Range Organics	Detected	55	NWTPH-HCID	7-13-15	7-14-15	
Lube Oil	Detected	110	NWTPH-HCID	7-13-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	124	50-150				

Client ID:	P2A-B4-1-2					
Laboratory ID:	07-071-23					
Gasoline Range Organics	ND	23	NWTPH-HCID	7-13-15	7-14-15	
Diesel Range Organics	ND	58	NWTPH-HCID	7-13-15	7-14-15	
Lube Oil Range Organics	ND	120	NWTPH-HCID	7-13-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	106	50-150				

Client ID:	P2A-B2-1-2					
Laboratory ID:	07-071-27					
Gasoline Range Organics	ND	25	NWTPH-HCID	7-13-15	7-14-15	
Diesel Range Organics	ND	62	NWTPH-HCID	7-13-15	7-14-15	
Lube Oil	Detected	120	NWTPH-HCID	7-13-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	111	50-150				

Client ID:	P2A-B1-0-1					
Laboratory ID:	07-071-30					
Gasoline Range Organics	ND	23	NWTPH-HCID	7-13-15	7-14-15	
Diesel Range Organics	ND	59	NWTPH-HCID	7-13-15	7-14-15	
Lube Oil	Detected	120	NWTPH-HCID	7-13-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	112	50-150				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

NWTPH-HCID

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B1-1-2					
Laboratory ID:	07-071-31					
Gasoline Range Organics	ND	25	NWTPH-HCID	7-13-15	7-14-15	
Diesel Range Organics	ND	62	NWTPH-HCID	7-13-15	7-14-15	
Lube Oil Range Organics	ND	130	NWTPH-HCID	7-13-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	113	50-150				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

NWTPH-Dx

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B9-1-2					
Laboratory ID:	07-071-06					
Diesel Range Organics	190	31	NWTPH-Dx	7-21-15	7-20-15	
Lube Oil Range Organics	350	62	NWTPH-Dx	7-21-15	7-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	81	50-150				

Client ID:	P2A-B8-0-1					
Laboratory ID:	07-071-10					
Diesel Range Organics	56	26	NWTPH-Dx	7-21-15	7-20-15	
Lube Oil Range Organics	150	52	NWTPH-Dx	7-21-15	7-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	82	50-150				

Client ID:	P2A-B7-1-2					
Laboratory ID:	07-071-15					
Diesel Range Organics	140	28	NWTPH-Dx	7-21-15	7-20-15	N
Lube Oil Range Organics	510	56	NWTPH-Dx	7-21-15	7-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	69	50-150				

Client ID:	P2A-B5-1-2					
Laboratory ID:	07-071-19					
Diesel Range Organics	100	29	NWTPH-Dx	7-21-15	7-20-15	
Lube Oil Range Organics	220	59	NWTPH-Dx	7-21-15	7-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				

Client ID:	P2A-B4-0-1					
Laboratory ID:	07-071-22					
Diesel Range Organics	310	140	NWTPH-Dx	7-21-15	7-21-15	N
Lube Oil Range Organics	1800	270	NWTPH-Dx	7-21-15	7-21-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	85	50-150				

Client ID:	P2A-B2-1-2					
Laboratory ID:	07-071-27					
Diesel Range Organics	220	31	NWTPH-Dx	7-21-15	7-20-15	N
Lube Oil Range Organics	690	62	NWTPH-Dx	7-21-15	7-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	91	50-150				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

NWTPH-Dx

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B1-0-1					
Laboratory ID:	07-071-30					
Diesel Range Organics	190	29	NWTPH-Dx	7-21-15	7-20-15	N
Lube Oil Range Organics	1600	59	NWTPH-Dx	7-21-15	7-20-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	94	50-150				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B10-1-2					
Laboratory ID:	07-071-02					
Dichlorodifluoromethane	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Chloromethane	ND	0.0034	EPA 8260C	7-13-15	7-13-15	
Vinyl Chloride	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Bromomethane	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Chloroethane	ND	0.0034	EPA 8260C	7-13-15	7-13-15	
Trichlorofluoromethane	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
1,1-Dichloroethene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Acetone	ND	0.0034	EPA 8260C	7-13-15	7-13-15	
Iodomethane	ND	0.0034	EPA 8260C	7-13-15	7-13-15	
Carbon Disulfide	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Methylene Chloride	ND	0.0034	EPA 8260C	7-13-15	7-13-15	
(trans) 1,2-Dichloroethene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Methyl t-Butyl Ether	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
1,1-Dichloroethane	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Vinyl Acetate	ND	0.0034	EPA 8260C	7-13-15	7-13-15	
2,2-Dichloropropane	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
(cis) 1,2-Dichloroethene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
2-Butanone	ND	0.0034	EPA 8260C	7-13-15	7-13-15	
Bromochloromethane	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Chloroform	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
1,1,1-Trichloroethane	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Carbon Tetrachloride	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
1,1-Dichloropropene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Benzene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
1,2-Dichloroethane	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Trichloroethene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
1,2-Dichloropropane	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Dibromomethane	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Bromodichloromethane	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
2-Chloroethyl Vinyl Ether	ND	0.0058	EPA 8260C	7-13-15	7-13-15	
(cis) 1,3-Dichloropropene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Methyl Isobutyl Ketone	ND	0.0034	EPA 8260C	7-13-15	7-13-15	
Toluene	ND	0.0034	EPA 8260C	7-13-15	7-13-15	
(trans) 1,3-Dichloropropene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B10-1-2					
Laboratory ID:	07-071-02					
1,1,2-Trichloroethane	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Tetrachloroethene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
1,3-Dichloropropane	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
2-Hexanone	ND	0.0034	EPA 8260C	7-13-15	7-13-15	
Dibromochloromethane	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
1,2-Dibromoethane	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Chlorobenzene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
1,1,1,2-Tetrachloroethane	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Ethylbenzene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
m,p-Xylene	ND	0.0014	EPA 8260C	7-13-15	7-13-15	
o-Xylene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Styrene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Bromoform	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Isopropylbenzene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Bromobenzene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
1,1,2,2-Tetrachloroethane	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
1,2,3-Trichloropropane	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
n-Propylbenzene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
2-Chlorotoluene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
4-Chlorotoluene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
1,3,5-Trimethylbenzene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
tert-Butylbenzene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
1,2,4-Trimethylbenzene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
sec-Butylbenzene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
1,3-Dichlorobenzene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
p-Isopropyltoluene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
1,4-Dichlorobenzene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
1,2-Dichlorobenzene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
n-Butylbenzene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
1,2-Dibromo-3-chloropropane	ND	0.0034	EPA 8260C	7-13-15	7-13-15	
1,2,4-Trichlorobenzene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
Hexachlorobutadiene	ND	0.0034	EPA 8260C	7-13-15	7-13-15	
Naphthalene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
1,2,3-Trichlorobenzene	ND	0.00069	EPA 8260C	7-13-15	7-13-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>115</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>104</i>	<i>79-126</i>				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B9-1-2						
Laboratory ID:	07-071-06						
Dichlorodifluoromethane	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
Chloromethane	ND	0.0046		EPA 8260C	7-14-15	7-14-15	
Vinyl Chloride	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
Bromomethane	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
Chloroethane	ND	0.0046		EPA 8260C	7-14-15	7-14-15	
Trichlorofluoromethane	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
1,1-Dichloroethene	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
Acetone	0.017	0.0046		EPA 8260C	7-14-15	7-14-15	
Iodomethane	ND	0.0046		EPA 8260C	7-14-15	7-14-15	
Carbon Disulfide	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
Methylene Chloride	ND	0.0046		EPA 8260C	7-14-15	7-14-15	
(trans) 1,2-Dichloroethene	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
Methyl t-Butyl Ether	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
1,1-Dichloroethane	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
Vinyl Acetate	ND	0.0046		EPA 8260C	7-14-15	7-14-15	
2,2-Dichloropropane	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
(cis) 1,2-Dichloroethene	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
2-Butanone	ND	0.0046		EPA 8260C	7-14-15	7-14-15	
Bromochloromethane	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
Chloroform	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
1,1,1-Trichloroethane	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
Carbon Tetrachloride	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
1,1-Dichloropropene	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
Benzene	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
1,2-Dichloroethane	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
Trichloroethene	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
1,2-Dichloropropane	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
Dibromomethane	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
Bromodichloromethane	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
2-Chloroethyl Vinyl Ether	ND	0.0067		EPA 8260C	7-14-15	7-14-15	
(cis) 1,3-Dichloropropene	ND	0.00092		EPA 8260C	7-14-15	7-14-15	
Methyl Isobutyl Ketone	ND	0.0046		EPA 8260C	7-14-15	7-14-15	
Toluene	ND	0.0046		EPA 8260C	7-14-15	7-14-15	
(trans) 1,3-Dichloropropene	ND	0.058		EPA 8260C	7-14-15	7-14-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B9-1-2						
Laboratory ID:	07-071-06						
1,1,2-Trichloroethane	ND	0.058		EPA 8260C	7-14-15	7-14-15	
Tetrachloroethene	ND	0.058	0.017	EPA 8260C	7-14-15	7-14-15	
1,3-Dichloropropane	ND	0.058		EPA 8260C	7-14-15	7-14-15	
2-Hexanone	ND	0.29		EPA 8260C	7-14-15	7-14-15	
Dibromochloromethane	ND	0.058		EPA 8260C	7-14-15	7-14-15	
1,2-Dibromoethane	ND	0.058		EPA 8260C	7-14-15	7-14-15	
Chlorobenzene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
1,1,1,2-Tetrachloroethane	ND	0.058		EPA 8260C	7-14-15	7-14-15	
Ethylbenzene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
m,p-Xylene	ND	0.12		EPA 8260C	7-14-15	7-14-15	
o-Xylene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
Styrene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
Bromoform	ND	0.058		EPA 8260C	7-14-15	7-14-15	
Isopropylbenzene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
Bromobenzene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
1,1,2,2-Tetrachloroethane	ND	0.058		EPA 8260C	7-14-15	7-14-15	
1,2,3-Trichloropropane	ND	0.058		EPA 8260C	7-14-15	7-14-15	
n-Propylbenzene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
2-Chlorotoluene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
4-Chlorotoluene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
1,3,5-Trimethylbenzene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
tert-Butylbenzene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
1,2,4-Trimethylbenzene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
sec-Butylbenzene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
1,3-Dichlorobenzene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
p-Isopropyltoluene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
1,4-Dichlorobenzene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
1,2-Dichlorobenzene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
n-Butylbenzene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
1,2-Dibromo-3-chloropropane	ND	0.29		EPA 8260C	7-14-15	7-14-15	
1,2,4-Trichlorobenzene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
Hexachlorobutadiene	ND	0.29		EPA 8260C	7-14-15	7-14-15	
Naphthalene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
1,2,3-Trichlorobenzene	ND	0.058		EPA 8260C	7-14-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>					
<i>Dibromofluoromethane</i>	<i>110</i>	<i>76-131</i>					
<i>Toluene-d8</i>	<i>106</i>	<i>82-129</i>					
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>79-126</i>					

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B7-1-2					
Laboratory ID:	07-071-15					
Dichlorodifluoromethane	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
Chloromethane	ND	0.0046	EPA 8260C	7-13-15	7-13-15	
Vinyl Chloride	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
Bromomethane	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
Chloroethane	ND	0.0046	EPA 8260C	7-13-15	7-13-15	
Trichlorofluoromethane	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
1,1-Dichloroethene	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
Acetone	ND	0.0046	EPA 8260C	7-13-15	7-13-15	
Iodomethane	ND	0.0046	EPA 8260C	7-13-15	7-13-15	
Carbon Disulfide	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
Methylene Chloride	ND	0.0046	EPA 8260C	7-13-15	7-13-15	
(trans) 1,2-Dichloroethene	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
Methyl t-Butyl Ether	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
1,1-Dichloroethane	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
Vinyl Acetate	ND	0.0046	EPA 8260C	7-13-15	7-13-15	
2,2-Dichloropropane	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
(cis) 1,2-Dichloroethene	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
2-Butanone	ND	0.0046	EPA 8260C	7-13-15	7-13-15	
Bromochloromethane	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
Chloroform	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
1,1,1-Trichloroethane	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
Carbon Tetrachloride	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
1,1-Dichloropropene	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
Benzene	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
1,2-Dichloroethane	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
Trichloroethene	0.013	0.00091	EPA 8260C	7-13-15	7-13-15	
1,2-Dichloropropane	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
Dibromomethane	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
Bromodichloromethane	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
2-Chloroethyl Vinyl Ether	ND	0.0076	EPA 8260C	7-13-15	7-13-15	
(cis) 1,3-Dichloropropene	ND	0.00091	EPA 8260C	7-13-15	7-13-15	
Methyl Isobutyl Ketone	ND	0.0046	EPA 8260C	7-13-15	7-13-15	
Toluene	ND	0.0046	EPA 8260C	7-13-15	7-13-15	
(trans) 1,3-Dichloropropene	ND	0.043	EPA 8260C	7-14-15	7-14-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B7-1-2					
Laboratory ID:	07-071-15					
1,1,2-Trichloroethane	ND	0.043	EPA 8260C	7-14-15	7-14-15	
Tetrachloroethene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
1,3-Dichloropropane	ND	0.043	EPA 8260C	7-14-15	7-14-15	
2-Hexanone	ND	0.22	EPA 8260C	7-14-15	7-14-15	
Dibromochloromethane	ND	0.043	EPA 8260C	7-14-15	7-14-15	
1,2-Dibromoethane	ND	0.043	EPA 8260C	7-14-15	7-14-15	
Chlorobenzene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
1,1,1,2-Tetrachloroethane	ND	0.043	EPA 8260C	7-14-15	7-14-15	
Ethylbenzene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
m,p-Xylene	ND	0.087	EPA 8260C	7-14-15	7-14-15	
o-Xylene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
Styrene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
Bromoform	ND	0.043	EPA 8260C	7-14-15	7-14-15	
Isopropylbenzene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
Bromobenzene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
1,1,2,2-Tetrachloroethane	ND	0.043	EPA 8260C	7-14-15	7-14-15	
1,2,3-Trichloropropane	ND	0.043	EPA 8260C	7-14-15	7-14-15	
n-Propylbenzene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
2-Chlorotoluene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
4-Chlorotoluene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
1,3,5-Trimethylbenzene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
tert-Butylbenzene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
1,2,4-Trimethylbenzene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
sec-Butylbenzene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
1,3-Dichlorobenzene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
p-Isopropyltoluene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
1,4-Dichlorobenzene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
1,2-Dichlorobenzene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
n-Butylbenzene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
1,2-Dibromo-3-chloropropane	ND	0.22	EPA 8260C	7-14-15	7-14-15	
1,2,4-Trichlorobenzene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
Hexachlorobutadiene	ND	0.22	EPA 8260C	7-14-15	7-14-15	
Naphthalene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
1,2,3-Trichlorobenzene	ND	0.043	EPA 8260C	7-14-15	7-14-15	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	108	76-131				
Toluene-d8	110	82-129				
4-Bromofluorobenzene	103	79-126				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B5-1-2						
Laboratory ID:	07-071-19						
Dichlorodifluoromethane	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
Chloromethane	ND	0.0055		EPA 8260C	7-13-15	7-13-15	
Vinyl Chloride	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
Bromomethane	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
Chloroethane	ND	0.0055		EPA 8260C	7-13-15	7-13-15	
Trichlorofluoromethane	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
1,1-Dichloroethene	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
Acetone	ND	0.0055		EPA 8260C	7-13-15	7-13-15	
Iodomethane	ND	0.0055		EPA 8260C	7-13-15	7-13-15	
Carbon Disulfide	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
Methylene Chloride	ND	0.0055		EPA 8260C	7-13-15	7-13-15	
(trans) 1,2-Dichloroethene	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
Methyl t-Butyl Ether	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
1,1-Dichloroethane	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
Vinyl Acetate	ND	0.0055		EPA 8260C	7-13-15	7-13-15	
2,2-Dichloropropane	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
(cis) 1,2-Dichloroethene	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
2-Butanone	ND	0.0055		EPA 8260C	7-13-15	7-13-15	
Bromochloromethane	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
Chloroform	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
1,1,1-Trichloroethane	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
Carbon Tetrachloride	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
1,1-Dichloropropene	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
Benzene	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
1,2-Dichloroethane	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
Trichloroethene	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
1,2-Dichloropropane	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
Dibromomethane	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
Bromodichloromethane	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
2-Chloroethyl Vinyl Ether	ND	0.0093		EPA 8260C	7-13-15	7-13-15	
(cis) 1,3-Dichloropropene	ND	0.0011		EPA 8260C	7-13-15	7-13-15	
Methyl Isobutyl Ketone	ND	0.0055		EPA 8260C	7-13-15	7-13-15	
Toluene	ND	0.0055		EPA 8260C	7-13-15	7-13-15	
(trans) 1,3-Dichloropropene	ND	0.060		EPA 8260C	7-14-15	7-14-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B5-1-2						
Laboratory ID:	07-071-19						
1,1,2-Trichloroethane	ND	0.060		EPA 8260C	7-14-15	7-14-15	
Tetrachloroethene	ND	0.060	0.017	EPA 8260C	7-14-15	7-14-15	
1,3-Dichloropropane	ND	0.060		EPA 8260C	7-14-15	7-14-15	
2-Hexanone	ND	0.30		EPA 8260C	7-14-15	7-14-15	
Dibromochloromethane	ND	0.060		EPA 8260C	7-14-15	7-14-15	
1,2-Dibromoethane	ND	0.060		EPA 8260C	7-14-15	7-14-15	
Chlorobenzene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
1,1,1,2-Tetrachloroethane	ND	0.060		EPA 8260C	7-14-15	7-14-15	
Ethylbenzene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
m,p-Xylene	ND	0.12		EPA 8260C	7-14-15	7-14-15	
o-Xylene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
Styrene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
Bromoform	ND	0.060		EPA 8260C	7-14-15	7-14-15	
Isopropylbenzene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
Bromobenzene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
1,1,2,2-Tetrachloroethane	ND	0.060		EPA 8260C	7-14-15	7-14-15	
1,2,3-Trichloropropane	ND	0.060		EPA 8260C	7-14-15	7-14-15	
n-Propylbenzene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
2-Chlorotoluene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
4-Chlorotoluene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
1,3,5-Trimethylbenzene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
tert-Butylbenzene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
1,2,4-Trimethylbenzene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
sec-Butylbenzene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
1,3-Dichlorobenzene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
p-Isopropyltoluene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
1,4-Dichlorobenzene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
1,2-Dichlorobenzene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
n-Butylbenzene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
1,2-Dibromo-3-chloropropane	ND	0.30		EPA 8260C	7-14-15	7-14-15	
1,2,4-Trichlorobenzene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
Hexachlorobutadiene	ND	0.30		EPA 8260C	7-14-15	7-14-15	
Naphthalene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
1,2,3-Trichlorobenzene	ND	0.060		EPA 8260C	7-14-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>					
<i>Dibromofluoromethane</i>	<i>111</i>	<i>76-131</i>					
<i>Toluene-d8</i>	<i>111</i>	<i>82-129</i>					
<i>4-Bromofluorobenzene</i>	<i>102</i>	<i>79-126</i>					

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B4-0-1					
Laboratory ID:	07-071-22					
Dichlorodifluoromethane	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Chloromethane	ND	0.0035	EPA 8260C	7-14-15	7-14-15	
Vinyl Chloride	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Bromomethane	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Chloroethane	ND	0.0035	EPA 8260C	7-14-15	7-14-15	
Trichlorofluoromethane	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
1,1-Dichloroethene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Acetone	0.036	0.0035	EPA 8260C	7-14-15	7-14-15	
Iodomethane	ND	0.0035	EPA 8260C	7-14-15	7-14-15	
Carbon Disulfide	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Methylene Chloride	ND	0.0035	EPA 8260C	7-14-15	7-14-15	
(trans) 1,2-Dichloroethene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Methyl t-Butyl Ether	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
1,1-Dichloroethane	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Vinyl Acetate	ND	0.0035	EPA 8260C	7-14-15	7-14-15	
2,2-Dichloropropane	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
(cis) 1,2-Dichloroethene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
2-Butanone	0.0066	0.0035	EPA 8260C	7-14-15	7-14-15	
Bromochloromethane	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Chloroform	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
1,1,1-Trichloroethane	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Carbon Tetrachloride	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
1,1-Dichloropropene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Benzene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
1,2-Dichloroethane	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Trichloroethene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
1,2-Dichloropropane	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Dibromomethane	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Bromodichloromethane	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
2-Chloroethyl Vinyl Ether	ND	0.0051	EPA 8260C	7-14-15	7-14-15	
(cis) 1,3-Dichloropropene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Methyl Isobutyl Ketone	ND	0.0035	EPA 8260C	7-14-15	7-14-15	
Toluene	ND	0.0035	EPA 8260C	7-14-15	7-14-15	
(trans) 1,3-Dichloropropene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B4-0-1					
Laboratory ID:	07-071-22					
1,1,2-Trichloroethane	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Tetrachloroethene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
1,3-Dichloropropane	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
2-Hexanone	ND	0.0035	EPA 8260C	7-14-15	7-14-15	
Dibromochloromethane	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
1,2-Dibromoethane	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Chlorobenzene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
1,1,1,2-Tetrachloroethane	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Ethylbenzene	0.00096	0.00069	EPA 8260C	7-14-15	7-14-15	
m,p-Xylene	0.0046	0.0014	EPA 8260C	7-14-15	7-14-15	
o-Xylene	0.0028	0.00069	EPA 8260C	7-14-15	7-14-15	
Styrene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Bromoform	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Isopropylbenzene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Bromobenzene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
1,1,2,2-Tetrachloroethane	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
1,2,3-Trichloropropane	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
n-Propylbenzene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
2-Chlorotoluene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
4-Chlorotoluene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
1,3,5-Trimethylbenzene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
tert-Butylbenzene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
1,2,4-Trimethylbenzene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
sec-Butylbenzene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
1,3-Dichlorobenzene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
p-Isopropyltoluene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
1,4-Dichlorobenzene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
1,2-Dichlorobenzene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
n-Butylbenzene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
1,2-Dibromo-3-chloropropane	ND	0.0035	EPA 8260C	7-14-15	7-14-15	
1,2,4-Trichlorobenzene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
Hexachlorobutadiene	ND	0.0035	EPA 8260C	7-14-15	7-14-15	
Naphthalene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
1,2,3-Trichlorobenzene	ND	0.00069	EPA 8260C	7-14-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>109</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>79-126</i>				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:		P2A-B4-1-2				
Laboratory ID:		07-071-23				
Dichlorodifluoromethane	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Chloromethane	ND	0.0042	EPA 8260C	7-13-15	7-13-15	
Vinyl Chloride	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Bromomethane	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Chloroethane	ND	0.0042	EPA 8260C	7-13-15	7-13-15	
Trichlorofluoromethane	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
1,1-Dichloroethene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Acetone	ND	0.0042	EPA 8260C	7-13-15	7-13-15	
Iodomethane	ND	0.0042	EPA 8260C	7-13-15	7-13-15	
Carbon Disulfide	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Methylene Chloride	ND	0.0042	EPA 8260C	7-13-15	7-13-15	
(trans) 1,2-Dichloroethene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Methyl t-Butyl Ether	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
1,1-Dichloroethane	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Vinyl Acetate	ND	0.0042	EPA 8260C	7-13-15	7-13-15	
2,2-Dichloropropane	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
(cis) 1,2-Dichloroethene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
2-Butanone	ND	0.0042	EPA 8260C	7-13-15	7-13-15	
Bromochloromethane	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Chloroform	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
1,1,1-Trichloroethane	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Carbon Tetrachloride	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
1,1-Dichloropropene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Benzene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
1,2-Dichloroethane	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Trichloroethene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
1,2-Dichloropropane	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Dibromomethane	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Bromodichloromethane	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
2-Chloroethyl Vinyl Ether	ND	0.0070	EPA 8260C	7-13-15	7-13-15	
(cis) 1,3-Dichloropropene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Methyl Isobutyl Ketone	ND	0.0042	EPA 8260C	7-13-15	7-13-15	
Toluene	ND	0.0042	EPA 8260C	7-13-15	7-13-15	
(trans) 1,3-Dichloropropene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B4-1-2					
Laboratory ID:	07-071-23					
1,1,2-Trichloroethane	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Tetrachloroethene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
1,3-Dichloropropane	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
2-Hexanone	ND	0.0042	EPA 8260C	7-13-15	7-13-15	
Dibromochloromethane	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
1,2-Dibromoethane	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Chlorobenzene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
1,1,1,2-Tetrachloroethane	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Ethylbenzene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
m,p-Xylene	ND	0.0017	EPA 8260C	7-13-15	7-13-15	
o-Xylene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Styrene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Bromoform	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Isopropylbenzene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Bromobenzene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
1,1,2,2-Tetrachloroethane	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
1,2,3-Trichloropropane	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
n-Propylbenzene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
2-Chlorotoluene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
4-Chlorotoluene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
1,3,5-Trimethylbenzene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
tert-Butylbenzene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
1,2,4-Trimethylbenzene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
sec-Butylbenzene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
1,3-Dichlorobenzene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
p-Isopropyltoluene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
1,4-Dichlorobenzene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
1,2-Dichlorobenzene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
n-Butylbenzene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
1,2-Dibromo-3-chloropropane	ND	0.0042	EPA 8260C	7-13-15	7-13-15	
1,2,4-Trichlorobenzene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
Hexachlorobutadiene	ND	0.0042	EPA 8260C	7-13-15	7-13-15	
Naphthalene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
1,2,3-Trichlorobenzene	ND	0.00083	EPA 8260C	7-13-15	7-13-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>119</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>79-126</i>				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B2-1-2					
Laboratory ID:	07-071-27					
Dichlorodifluoromethane	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Chloromethane	ND	0.0037	EPA 8260C	7-13-15	7-13-15	
Vinyl Chloride	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Bromomethane	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Chloroethane	ND	0.0037	EPA 8260C	7-13-15	7-13-15	
Trichlorofluoromethane	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
1,1-Dichloroethene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Acetone	0.0091	0.0037	EPA 8260C	7-13-15	7-13-15	
Iodomethane	ND	0.0037	EPA 8260C	7-13-15	7-13-15	
Carbon Disulfide	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Methylene Chloride	ND	0.0037	EPA 8260C	7-13-15	7-13-15	
(trans) 1,2-Dichloroethene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Methyl t-Butyl Ether	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
1,1-Dichloroethane	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Vinyl Acetate	ND	0.0037	EPA 8260C	7-13-15	7-13-15	
2,2-Dichloropropane	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
(cis) 1,2-Dichloroethene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
2-Butanone	ND	0.0037	EPA 8260C	7-13-15	7-13-15	
Bromochloromethane	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Chloroform	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
1,1,1-Trichloroethane	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Carbon Tetrachloride	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
1,1-Dichloropropene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Benzene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
1,2-Dichloroethane	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Trichloroethene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
1,2-Dichloropropane	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Dibromomethane	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Bromodichloromethane	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
2-Chloroethyl Vinyl Ether	ND	0.0063	EPA 8260C	7-13-15	7-13-15	
(cis) 1,3-Dichloropropene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Methyl Isobutyl Ketone	ND	0.0037	EPA 8260C	7-13-15	7-13-15	
Toluene	ND	0.0037	EPA 8260C	7-13-15	7-13-15	
(trans) 1,3-Dichloropropene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B2-1-2					
Laboratory ID:	07-071-27					
1,1,2-Trichloroethane	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Tetrachloroethene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
1,3-Dichloropropane	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
2-Hexanone	ND	0.0037	EPA 8260C	7-13-15	7-13-15	
Dibromochloromethane	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
1,2-Dibromoethane	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Chlorobenzene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
1,1,1,2-Tetrachloroethane	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Ethylbenzene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
m,p-Xylene	ND	0.0015	EPA 8260C	7-13-15	7-13-15	
o-Xylene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Styrene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Bromoform	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Isopropylbenzene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Bromobenzene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
1,1,2,2-Tetrachloroethane	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
1,2,3-Trichloropropane	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
n-Propylbenzene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
2-Chlorotoluene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
4-Chlorotoluene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
1,3,5-Trimethylbenzene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
tert-Butylbenzene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
1,2,4-Trimethylbenzene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
sec-Butylbenzene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
1,3-Dichlorobenzene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
p-Isopropyltoluene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
1,4-Dichlorobenzene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
1,2-Dichlorobenzene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
n-Butylbenzene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
1,2-Dibromo-3-chloropropane	ND	0.0037	EPA 8260C	7-13-15	7-13-15	
1,2,4-Trichlorobenzene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
Hexachlorobutadiene	ND	0.0037	EPA 8260C	7-13-15	7-13-15	
Naphthalene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
1,2,3-Trichlorobenzene	ND	0.00075	EPA 8260C	7-13-15	7-13-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>124</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>111</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>79-126</i>				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B1-0-1						
Laboratory ID:	07-071-30						
Dichlorodifluoromethane	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
Chloromethane	ND	0.0040		EPA 8260C	7-14-15	7-14-15	
Vinyl Chloride	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
Bromomethane	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
Chloroethane	ND	0.0040		EPA 8260C	7-14-15	7-14-15	
Trichlorofluoromethane	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
1,1-Dichloroethene	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
Acetone	0.065	0.0040		EPA 8260C	7-14-15	7-14-15	
Iodomethane	ND	0.0040		EPA 8260C	7-14-15	7-14-15	
Carbon Disulfide	0.00091	0.00081		EPA 8260C	7-14-15	7-14-15	Y
Methylene Chloride	ND	0.0040		EPA 8260C	7-14-15	7-14-15	
(trans) 1,2-Dichloroethene	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
Methyl t-Butyl Ether	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
1,1-Dichloroethane	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
Vinyl Acetate	ND	0.0040		EPA 8260C	7-14-15	7-14-15	
2,2-Dichloropropane	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
(cis) 1,2-Dichloroethene	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
2-Butanone	0.010	0.0040		EPA 8260C	7-14-15	7-14-15	
Bromochloromethane	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
Chloroform	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
1,1,1-Trichloroethane	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
Carbon Tetrachloride	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
1,1-Dichloropropene	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
Benzene	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
1,2-Dichloroethane	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
Trichloroethene	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
1,2-Dichloropropane	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
Dibromomethane	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
Bromodichloromethane	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
2-Chloroethyl Vinyl Ether	ND	0.0059		EPA 8260C	7-14-15	7-14-15	
(cis) 1,3-Dichloropropene	ND	0.00081		EPA 8260C	7-14-15	7-14-15	
Methyl Isobutyl Ketone	ND	0.0040		EPA 8260C	7-14-15	7-14-15	
Toluene	ND	0.0040		EPA 8260C	7-14-15	7-14-15	
(trans) 1,3-Dichloropropene	ND	0.052		EPA 8260C	7-14-15	7-14-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B1-0-1						
Laboratory ID:	07-071-30						
1,1,2-Trichloroethane	ND	0.052		EPA 8260C	7-14-15	7-14-15	
Tetrachloroethene	ND	0.052	0.015	EPA 8260C	7-14-15	7-14-15	
1,3-Dichloropropane	ND	0.052		EPA 8260C	7-14-15	7-14-15	
2-Hexanone	ND	0.26		EPA 8260C	7-14-15	7-14-15	
Dibromochloromethane	ND	0.052		EPA 8260C	7-14-15	7-14-15	
1,2-Dibromoethane	ND	0.052		EPA 8260C	7-14-15	7-14-15	
Chlorobenzene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
1,1,1,2-Tetrachloroethane	ND	0.052		EPA 8260C	7-14-15	7-14-15	
Ethylbenzene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
m,p-Xylene	ND	0.10		EPA 8260C	7-14-15	7-14-15	
o-Xylene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
Styrene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
Bromoform	ND	0.052		EPA 8260C	7-14-15	7-14-15	
Isopropylbenzene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
Bromobenzene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
1,1,2,2-Tetrachloroethane	ND	0.052		EPA 8260C	7-14-15	7-14-15	
1,2,3-Trichloropropane	ND	0.052		EPA 8260C	7-14-15	7-14-15	
n-Propylbenzene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
2-Chlorotoluene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
4-Chlorotoluene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
1,3,5-Trimethylbenzene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
tert-Butylbenzene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
1,2,4-Trimethylbenzene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
sec-Butylbenzene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
1,3-Dichlorobenzene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
p-Isopropyltoluene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
1,4-Dichlorobenzene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
1,2-Dichlorobenzene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
n-Butylbenzene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
1,2-Dibromo-3-chloropropane	ND	0.26		EPA 8260C	7-14-15	7-14-15	
1,2,4-Trichlorobenzene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
Hexachlorobutadiene	ND	0.26		EPA 8260C	7-14-15	7-14-15	
Naphthalene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
1,2,3-Trichlorobenzene	ND	0.052		EPA 8260C	7-14-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>					
<i>Dibromofluoromethane</i>	<i>106</i>	<i>76-131</i>					
<i>Toluene-d8</i>	<i>107</i>	<i>82-129</i>					
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>79-126</i>					

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B1-1-2					
Laboratory ID:	07-071-31					
Dichlorodifluoromethane	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Chloromethane	ND	0.0041	EPA 8260C	7-13-15	7-13-15	
Vinyl Chloride	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Bromomethane	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Chloroethane	ND	0.0041	EPA 8260C	7-13-15	7-13-15	
Trichlorofluoromethane	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
1,1-Dichloroethene	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Acetone	0.14	0.0041	EPA 8260C	7-13-15	7-13-15	
Iodomethane	ND	0.0041	EPA 8260C	7-13-15	7-13-15	
Carbon Disulfide	0.0010	0.00081	EPA 8260C	7-13-15	7-13-15	
Methylene Chloride	ND	0.0041	EPA 8260C	7-13-15	7-13-15	
(trans) 1,2-Dichloroethene	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Methyl t-Butyl Ether	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
1,1-Dichloroethane	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Vinyl Acetate	ND	0.0041	EPA 8260C	7-13-15	7-13-15	
2,2-Dichloropropane	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
(cis) 1,2-Dichloroethene	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
2-Butanone	0.022	0.0041	EPA 8260C	7-13-15	7-13-15	
Bromochloromethane	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Chloroform	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
1,1,1-Trichloroethane	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Carbon Tetrachloride	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
1,1-Dichloropropene	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Benzene	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
1,2-Dichloroethane	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Trichloroethene	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
1,2-Dichloropropane	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Dibromomethane	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Bromodichloromethane	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
2-Chloroethyl Vinyl Ether	ND	0.0068	EPA 8260C	7-13-15	7-13-15	
(cis) 1,3-Dichloropropene	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Methyl Isobutyl Ketone	ND	0.0041	EPA 8260C	7-13-15	7-13-15	
Toluene	ND	0.0041	EPA 8260C	7-13-15	7-13-15	
(trans) 1,3-Dichloropropene	ND	0.00081	EPA 8260C	7-13-15	7-13-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B1-1-2					
Laboratory ID:	07-071-31					
1,1,2-Trichloroethane	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Tetrachloroethene	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
1,3-Dichloropropane	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
2-Hexanone	ND	0.0041	EPA 8260C	7-13-15	7-13-15	
Dibromochloromethane	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
1,2-Dibromoethane	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Chlorobenzene	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
1,1,1,2-Tetrachloroethane	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Ethylbenzene	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
m,p-Xylene	ND	0.0016	EPA 8260C	7-13-15	7-13-15	
o-Xylene	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Styrene	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Bromoform	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Isopropylbenzene	ND	0.00081	EPA 8260C	7-13-15	7-13-15	
Bromobenzene	ND	0.051	EPA 8260C	7-14-15	7-14-15	
1,1,2,2-Tetrachloroethane	ND	0.051	EPA 8260C	7-14-15	7-14-15	
1,2,3-Trichloropropane	ND	0.051	EPA 8260C	7-14-15	7-14-15	
n-Propylbenzene	ND	0.051	EPA 8260C	7-14-15	7-14-15	
2-Chlorotoluene	ND	0.051	EPA 8260C	7-14-15	7-14-15	
4-Chlorotoluene	ND	0.051	EPA 8260C	7-14-15	7-14-15	
1,3,5-Trimethylbenzene	ND	0.051	EPA 8260C	7-14-15	7-14-15	
tert-Butylbenzene	ND	0.051	EPA 8260C	7-14-15	7-14-15	
1,2,4-Trimethylbenzene	ND	0.051	EPA 8260C	7-14-15	7-14-15	
sec-Butylbenzene	ND	0.051	EPA 8260C	7-14-15	7-14-15	
1,3-Dichlorobenzene	ND	0.051	EPA 8260C	7-14-15	7-14-15	
p-Isopropyltoluene	ND	0.051	EPA 8260C	7-14-15	7-14-15	
1,4-Dichlorobenzene	ND	0.051	EPA 8260C	7-14-15	7-14-15	
1,2-Dichlorobenzene	ND	0.051	EPA 8260C	7-14-15	7-14-15	
n-Butylbenzene	ND	0.051	EPA 8260C	7-14-15	7-14-15	
1,2-Dibromo-3-chloropropane	ND	0.26	EPA 8260C	7-14-15	7-14-15	
1,2,4-Trichlorobenzene	ND	0.051	EPA 8260C	7-14-15	7-14-15	
Hexachlorobutadiene	ND	0.26	EPA 8260C	7-14-15	7-14-15	
Naphthalene	ND	0.051	EPA 8260C	7-14-15	7-14-15	
1,2,3-Trichlorobenzene	ND	0.051	EPA 8260C	7-14-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>117</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>80</i>	<i>79-126</i>				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

HALOGENATED VOLATILES EPA 8260C

Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B7-3-4					
Laboratory ID:	07-071-17					
Dichlorodifluoromethane	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
Chloromethane	ND	0.0032	EPA 8260C	7-21-15	7-21-15	
Vinyl Chloride	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
Bromomethane	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
Chloroethane	ND	0.0032	EPA 8260C	7-21-15	7-21-15	
Trichlorofluoromethane	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
1,1-Dichloroethene	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
Iodomethane	ND	0.0032	EPA 8260C	7-21-15	7-21-15	
Methylene Chloride	ND	0.0032	EPA 8260C	7-21-15	7-21-15	
(trans) 1,2-Dichloroethene	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
1,1-Dichloroethane	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
2,2-Dichloropropane	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
(cis) 1,2-Dichloroethene	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
Bromochloromethane	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
Chloroform	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
1,1,1-Trichloroethane	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
Carbon Tetrachloride	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
1,1-Dichloropropene	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
1,2-Dichloroethane	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
Trichloroethene	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
1,2-Dichloropropane	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
Dibromomethane	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
Bromodichloromethane	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
2-Chloroethyl Vinyl Ether	ND	0.0042	EPA 8260C	7-21-15	7-21-15	
(cis) 1,3-Dichloropropene	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
(trans) 1,3-Dichloropropene	ND	0.00063	EPA 8260C	7-21-15	7-21-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

HALOGENATED VOLATILES EPA 8260C

Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B7-3-4					
Laboratory ID:	07-071-17					
1,1,2-Trichloroethane	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
Tetrachloroethene	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
1,3-Dichloropropane	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
Dibromochloromethane	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
1,2-Dibromoethane	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
Chlorobenzene	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
1,1,1,2-Tetrachloroethane	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
Bromoform	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
Bromobenzene	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
1,1,2,2-Tetrachloroethane	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
1,2,3-Trichloropropane	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
2-Chlorotoluene	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
4-Chlorotoluene	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
1,3-Dichlorobenzene	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
1,4-Dichlorobenzene	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
1,2-Dichlorobenzene	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
1,2-Dibromo-3-chloropropane	ND	0.0032	EPA 8260C	7-21-15	7-21-15	
1,2,4-Trichlorobenzene	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
Hexachlorobutadiene	ND	0.0032	EPA 8260C	7-21-15	7-21-15	
1,2,3-Trichlorobenzene	ND	0.00063	EPA 8260C	7-21-15	7-21-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>93</i>	<i>79-126</i>				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

HALOGENATED VOLATILES EPA 8260C

Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B5-3-4					
Laboratory ID:	07-071-21					
Dichlorodifluoromethane	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
Chloromethane	ND	0.0036	EPA 8260C	7-21-15	7-21-15	
Vinyl Chloride	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
Bromomethane	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
Chloroethane	ND	0.0036	EPA 8260C	7-21-15	7-21-15	
Trichlorofluoromethane	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
1,1-Dichloroethene	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
Iodomethane	ND	0.0036	EPA 8260C	7-21-15	7-21-15	
Methylene Chloride	ND	0.0036	EPA 8260C	7-21-15	7-21-15	
(trans) 1,2-Dichloroethene	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
1,1-Dichloroethane	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
2,2-Dichloropropane	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
(cis) 1,2-Dichloroethene	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
Bromochloromethane	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
Chloroform	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
1,1,1-Trichloroethane	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
Carbon Tetrachloride	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
1,1-Dichloropropene	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
1,2-Dichloroethane	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
Trichloroethene	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
1,2-Dichloropropane	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
Dibromomethane	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
Bromodichloromethane	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
2-Chloroethyl Vinyl Ether	ND	0.0048	EPA 8260C	7-21-15	7-21-15	
(cis) 1,3-Dichloropropene	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
(trans) 1,3-Dichloropropene	ND	0.00072	EPA 8260C	7-21-15	7-21-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

HALOGENATED VOLATILES EPA 8260C

Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B5-3-4					
Laboratory ID:	07-071-21					
1,1,2-Trichloroethane	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
Tetrachloroethene	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
1,3-Dichloropropane	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
Dibromochloromethane	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
1,2-Dibromoethane	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
Chlorobenzene	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
1,1,1,2-Tetrachloroethane	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
Bromoform	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
Bromobenzene	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
1,1,2,2-Tetrachloroethane	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
1,2,3-Trichloropropane	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
2-Chlorotoluene	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
4-Chlorotoluene	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
1,3-Dichlorobenzene	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
1,4-Dichlorobenzene	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
1,2-Dichlorobenzene	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
1,2-Dibromo-3-chloropropane	ND	0.0036	EPA 8260C	7-21-15	7-21-15	
1,2,4-Trichlorobenzene	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
Hexachlorobutadiene	ND	0.0036	EPA 8260C	7-21-15	7-21-15	
1,2,3-Trichlorobenzene	ND	0.00072	EPA 8260C	7-21-15	7-21-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>105</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>109</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>102</i>	<i>79-126</i>				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

HALOGENATED VOLATILES EPA 8260C

Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B2-3-4					
Laboratory ID:	07-071-29					
Dichlorodifluoromethane	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
Chloromethane	ND	0.0037	EPA 8260C	7-21-15	7-21-15	
Vinyl Chloride	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
Bromomethane	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
Chloroethane	ND	0.0037	EPA 8260C	7-21-15	7-21-15	
Trichlorofluoromethane	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
1,1-Dichloroethene	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
Iodomethane	ND	0.0037	EPA 8260C	7-21-15	7-21-15	
Methylene Chloride	ND	0.0037	EPA 8260C	7-21-15	7-21-15	
(trans) 1,2-Dichloroethene	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
1,1-Dichloroethane	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
2,2-Dichloropropane	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
(cis) 1,2-Dichloroethene	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
Bromochloromethane	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
Chloroform	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
1,1,1-Trichloroethane	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
Carbon Tetrachloride	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
1,1-Dichloropropene	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
1,2-Dichloroethane	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
Trichloroethene	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
1,2-Dichloropropane	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
Dibromomethane	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
Bromodichloromethane	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
2-Chloroethyl Vinyl Ether	ND	0.0049	EPA 8260C	7-21-15	7-21-15	
(cis) 1,3-Dichloropropene	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
(trans) 1,3-Dichloropropene	ND	0.00074	EPA 8260C	7-21-15	7-21-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

HALOGENATED VOLATILES EPA 8260C

Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B2-3-4					
Laboratory ID:	07-071-29					
1,1,2-Trichloroethane	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
Tetrachloroethene	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
1,3-Dichloropropane	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
Dibromochloromethane	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
1,2-Dibromoethane	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
Chlorobenzene	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
1,1,1,2-Tetrachloroethane	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
Bromoform	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
Bromobenzene	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
1,1,2,2-Tetrachloroethane	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
1,2,3-Trichloropropane	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
2-Chlorotoluene	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
4-Chlorotoluene	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
1,3-Dichlorobenzene	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
1,4-Dichlorobenzene	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
1,2-Dichlorobenzene	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
1,2-Dibromo-3-chloropropane	ND	0.0037	EPA 8260C	7-21-15	7-21-15	
1,2,4-Trichlorobenzene	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
Hexachlorobutadiene	ND	0.0037	EPA 8260C	7-21-15	7-21-15	
1,2,3-Trichlorobenzene	ND	0.00074	EPA 8260C	7-21-15	7-21-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>91</i>	<i>79-126</i>				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

SEMIVOLATILES EPA 8270D/SIM
 page 1 of 2

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B8-0-1					
Laboratory ID:	07-071-10					
n-Nitrosodimethylamine	ND	0.035	EPA 8270D	7-13-15	7-13-15	
Pyridine	ND	0.35	EPA 8270D	7-13-15	7-13-15	
Phenol	ND	0.035	EPA 8270D	7-13-15	7-13-15	
Aniline	ND	0.17	EPA 8270D	7-13-15	7-13-15	
bis(2-Chloroethyl)ether	ND	0.035	EPA 8270D	7-13-15	7-13-15	
2-Chlorophenol	ND	0.035	EPA 8270D	7-13-15	7-13-15	
1,3-Dichlorobenzene	ND	0.035	EPA 8270D	7-13-15	7-13-15	
1,4-Dichlorobenzene	ND	0.035	EPA 8270D	7-13-15	7-13-15	
Benzyl alcohol	ND	0.17	EPA 8270D	7-13-15	7-13-15	
1,2-Dichlorobenzene	ND	0.035	EPA 8270D	7-13-15	7-13-15	
2-Methylphenol (o-Cresol)	ND	0.035	EPA 8270D	7-13-15	7-13-15	
bis(2-Chloroisopropyl)ether	ND	0.035	EPA 8270D	7-13-15	7-13-15	
(3+4)-Methylphenol (m,p-Cresol)	ND	0.035	EPA 8270D	7-13-15	7-13-15	
n-Nitroso-di-n-propylamine	ND	0.035	EPA 8270D	7-13-15	7-13-15	
Hexachloroethane	ND	0.035	EPA 8270D	7-13-15	7-13-15	
Nitrobenzene	ND	0.035	EPA 8270D	7-13-15	7-13-15	
Isophorone	ND	0.035	EPA 8270D	7-13-15	7-13-15	
2-Nitrophenol	ND	0.035	EPA 8270D	7-13-15	7-13-15	
2,4-Dimethylphenol	ND	0.035	EPA 8270D	7-13-15	7-13-15	
bis(2-Chloroethoxy)methane	ND	0.035	EPA 8270D	7-13-15	7-13-15	
2,4-Dichlorophenol	ND	0.035	EPA 8270D	7-13-15	7-13-15	
1,2,4-Trichlorobenzene	ND	0.035	EPA 8270D	7-13-15	7-13-15	
Naphthalene	0.020	0.0069	EPA 8270D/SIM	7-13-15	7-13-15	
4-Chloroaniline	ND	0.17	EPA 8270D	7-13-15	7-13-15	
Hexachlorobutadiene	ND	0.035	EPA 8270D	7-13-15	7-13-15	
4-Chloro-3-methylphenol	ND	0.035	EPA 8270D	7-13-15	7-13-15	
2-Methylnaphthalene	0.022	0.0069	EPA 8270D/SIM	7-13-15	7-13-15	
1-Methylnaphthalene	0.014	0.0069	EPA 8270D/SIM	7-13-15	7-13-15	
Hexachlorocyclopentadiene	ND	0.035	EPA 8270D	7-13-15	7-13-15	
2,4,6-Trichlorophenol	ND	0.035	EPA 8270D	7-13-15	7-13-15	
2,3-Dichloroaniline	ND	0.035	EPA 8270D	7-13-15	7-13-15	
2,4,5-Trichlorophenol	ND	0.035	EPA 8270D	7-13-15	7-13-15	
2-Chloronaphthalene	ND	0.035	EPA 8270D	7-13-15	7-13-15	
2-Nitroaniline	ND	0.035	EPA 8270D	7-13-15	7-13-15	
1,4-Dinitrobenzene	ND	0.035	EPA 8270D	7-13-15	7-13-15	
Dimethylphthalate	ND	0.035	EPA 8270D	7-13-15	7-13-15	
1,3-Dinitrobenzene	ND	0.035	EPA 8270D	7-13-15	7-13-15	
2,6-Dinitrotoluene	ND	0.035	EPA 8270D	7-13-15	7-13-15	
1,2-Dinitrobenzene	ND	0.035	EPA 8270D	7-13-15	7-13-15	
Acenaphthylene	0.017	0.0069	EPA 8270D/SIM	7-13-15	7-13-15	
3-Nitroaniline	ND	0.035	EPA 8270D	7-13-15	7-13-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

SEMIVOLATILES EPA 8270D/SIM
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B8-0-1					
Laboratory ID:	07-071-10					
2,4-Dinitrophenol	ND	0.17	EPA 8270D	7-13-15	7-13-15	
Acenaphthene	ND	0.0069	EPA 8270D/SIM	7-13-15	7-13-15	
4-Nitrophenol	ND	0.035	EPA 8270D	7-13-15	7-13-15	
2,4-Dinitrotoluene	ND	0.035	EPA 8270D	7-13-15	7-13-15	
Dibenzofuran	ND	0.035	EPA 8270D	7-13-15	7-13-15	
2,3,5,6-Tetrachlorophenol	ND	0.035	EPA 8270D	7-13-15	7-13-15	
2,3,4,6-Tetrachlorophenol	ND	0.035	EPA 8270D	7-13-15	7-13-15	
Diethylphthalate	ND	0.17	EPA 8270D	7-13-15	7-13-15	
4-Chlorophenyl-phenylether	ND	0.035	EPA 8270D	7-13-15	7-13-15	
4-Nitroaniline	ND	0.035	EPA 8270D	7-13-15	7-13-15	
Fluorene	ND	0.0069	EPA 8270D/SIM	7-13-15	7-13-15	
4,6-Dinitro-2-methylphenol	ND	0.17	EPA 8270D	7-13-15	7-13-15	
n-Nitrosodiphenylamine	ND	0.035	EPA 8270D	7-13-15	7-13-15	
1,2-Diphenylhydrazine	ND	0.035	EPA 8270D	7-13-15	7-13-15	
4-Bromophenyl-phenylether	ND	0.035	EPA 8270D	7-13-15	7-13-15	
Hexachlorobenzene	ND	0.035	EPA 8270D	7-13-15	7-13-15	
Pentachlorophenol	ND	0.17	EPA 8270D	7-13-15	7-13-15	
Phenanthrene	0.026	0.0069	EPA 8270D/SIM	7-13-15	7-13-15	
Anthracene	0.023	0.0069	EPA 8270D/SIM	7-13-15	7-13-15	
Carbazole	ND	0.035	EPA 8270D	7-13-15	7-13-15	
Di-n-butylphthalate	ND	0.035	EPA 8270D	7-13-15	7-13-15	
Fluoranthene	0.022	0.0069	EPA 8270D/SIM	7-13-15	7-13-15	
Benzidine	ND	0.35	EPA 8270D	7-13-15	7-13-15	
Pyrene	0.021	0.0069	EPA 8270D/SIM	7-13-15	7-13-15	
Butylbenzylphthalate	ND	0.035	EPA 8270D	7-13-15	7-13-15	
bis-2-Ethylhexyladipate	ND	0.035	EPA 8270D	7-13-15	7-13-15	
3,3'-Dichlorobenzidine	ND	0.17	EPA 8270D	7-13-15	7-13-15	
Benzo[a]anthracene	0.013	0.0069	EPA 8270D/SIM	7-13-15	7-13-15	
Chrysene	0.021	0.0069	EPA 8270D/SIM	7-13-15	7-13-15	
bis(2-Ethylhexyl)phthalate	0.051	0.035	EPA 8270D	7-13-15	7-13-15	
Di-n-octylphthalate	ND	0.035	EPA 8270D	7-13-15	7-13-15	
Benzo[b]fluoranthene	0.035	0.0069	EPA 8270D/SIM	7-13-15	7-13-15	
Benzo(j,k)fluoranthene	ND	0.0069	EPA 8270D/SIM	7-13-15	7-13-15	
Benzo[a]pyrene	0.013	0.0069	EPA 8270D/SIM	7-13-15	7-13-15	
Indeno[1,2,3-cd]pyrene	0.020	0.0069	EPA 8270D/SIM	7-13-15	7-13-15	
Dibenz[a,h]anthracene	ND	0.0069	EPA 8270D/SIM	7-13-15	7-13-15	
Benzo[g,h,i]perylene	0.019	0.0069	EPA 8270D/SIM	7-13-15	7-13-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	67	31 - 110				
Phenol-d6	72	34 - 109				
Nitrobenzene-d5	62	30 - 109				
2-Fluorobiphenyl	76	39 - 103				
2,4,6-Tribromophenol	92	25 - 120				
Terphenyl-d14	80	40 - 117				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

SEMIVOLATILES EPA 8270D/SIM
 page 1 of 2

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B8-2-3					
Laboratory ID:	07-071-12					
n-Nitrosodimethylamine	ND	0.036	EPA 8270D	7-13-15	7-13-15	
Pyridine	ND	0.36	EPA 8270D	7-13-15	7-13-15	
Phenol	ND	0.036	EPA 8270D	7-13-15	7-13-15	
Aniline	ND	0.18	EPA 8270D	7-13-15	7-13-15	
bis(2-Chloroethyl)ether	ND	0.036	EPA 8270D	7-13-15	7-13-15	
2-Chlorophenol	ND	0.036	EPA 8270D	7-13-15	7-13-15	
1,3-Dichlorobenzene	ND	0.036	EPA 8270D	7-13-15	7-13-15	
1,4-Dichlorobenzene	ND	0.036	EPA 8270D	7-13-15	7-13-15	
Benzyl alcohol	ND	0.18	EPA 8270D	7-13-15	7-13-15	
1,2-Dichlorobenzene	ND	0.036	EPA 8270D	7-13-15	7-13-15	
2-Methylphenol (o-Cresol)	ND	0.036	EPA 8270D	7-13-15	7-13-15	
bis(2-Chloroisopropyl)ether	ND	0.036	EPA 8270D	7-13-15	7-13-15	
(3+4)-Methylphenol (m,p-Cresol)	ND	0.036	EPA 8270D	7-13-15	7-13-15	
n-Nitroso-di-n-propylamine	ND	0.036	EPA 8270D	7-13-15	7-13-15	
Hexachloroethane	ND	0.036	EPA 8270D	7-13-15	7-13-15	
Nitrobenzene	ND	0.036	EPA 8270D	7-13-15	7-13-15	
Isophorone	ND	0.036	EPA 8270D	7-13-15	7-13-15	
2-Nitrophenol	ND	0.036	EPA 8270D	7-13-15	7-13-15	
2,4-Dimethylphenol	ND	0.036	EPA 8270D	7-13-15	7-13-15	
bis(2-Chloroethoxy)methane	ND	0.036	EPA 8270D	7-13-15	7-13-15	
2,4-Dichlorophenol	ND	0.036	EPA 8270D	7-13-15	7-13-15	
1,2,4-Trichlorobenzene	ND	0.036	EPA 8270D	7-13-15	7-13-15	
Naphthalene	0.079	0.036	EPA 8270D	7-13-15	7-13-15	
4-Chloroaniline	ND	0.18	EPA 8270D	7-13-15	7-13-15	
Hexachlorobutadiene	ND	0.036	EPA 8270D	7-13-15	7-13-15	
4-Chloro-3-methylphenol	ND	0.036	EPA 8270D	7-13-15	7-13-15	
2-Methylnaphthalene	0.10	0.036	EPA 8270D	7-13-15	7-13-15	
1-Methylnaphthalene	0.097	0.036	EPA 8270D	7-13-15	7-13-15	
Hexachlorocyclopentadiene	ND	0.036	EPA 8270D	7-13-15	7-13-15	
2,4,6-Trichlorophenol	ND	0.036	EPA 8270D	7-13-15	7-13-15	
2,3-Dichloroaniline	ND	0.036	EPA 8270D	7-13-15	7-13-15	
2,4,5-Trichlorophenol	ND	0.036	EPA 8270D	7-13-15	7-13-15	
2-Chloronaphthalene	ND	0.036	EPA 8270D	7-13-15	7-13-15	
2-Nitroaniline	ND	0.036	EPA 8270D	7-13-15	7-13-15	
1,4-Dinitrobenzene	ND	0.036	EPA 8270D	7-13-15	7-13-15	
Dimethylphthalate	ND	0.036	EPA 8270D	7-13-15	7-13-15	
1,3-Dinitrobenzene	ND	0.036	EPA 8270D	7-13-15	7-13-15	
2,6-Dinitrotoluene	ND	0.036	EPA 8270D	7-13-15	7-13-15	
1,2-Dinitrobenzene	ND	0.036	EPA 8270D	7-13-15	7-13-15	
Acenaphthylene	0.029	0.0073	EPA 8270D/SIM	7-13-15	7-13-15	
3-Nitroaniline	ND	0.036	EPA 8270D	7-13-15	7-13-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

SEMIVOLATILES EPA 8270D/SIM
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B8-2-3					
Laboratory ID:	07-071-12					
2,4-Dinitrophenol	ND	0.18	EPA 8270D	7-13-15	7-13-15	
Acenaphthene	ND	0.0073	EPA 8270D/SIM	7-13-15	7-13-15	
4-Nitrophenol	ND	0.036	EPA 8270D	7-13-15	7-13-15	
2,4-Dinitrotoluene	ND	0.036	EPA 8270D	7-13-15	7-13-15	
Dibenzofuran	ND	0.036	EPA 8270D	7-13-15	7-13-15	
2,3,5,6-Tetrachlorophenol	ND	0.036	EPA 8270D	7-13-15	7-13-15	
2,3,4,6-Tetrachlorophenol	ND	0.036	EPA 8270D	7-13-15	7-13-15	
Diethylphthalate	ND	0.18	EPA 8270D	7-13-15	7-13-15	
4-Chlorophenyl-phenylether	ND	0.036	EPA 8270D	7-13-15	7-13-15	
4-Nitroaniline	ND	0.036	EPA 8270D	7-13-15	7-13-15	
Fluorene	0.0088	0.0073	EPA 8270D/SIM	7-13-15	7-13-15	
4,6-Dinitro-2-methylphenol	ND	0.18	EPA 8270D	7-13-15	7-13-15	
n-Nitrosodiphenylamine	ND	0.036	EPA 8270D	7-13-15	7-13-15	
1,2-Diphenylhydrazine	ND	0.036	EPA 8270D	7-13-15	7-13-15	
4-Bromophenyl-phenylether	ND	0.036	EPA 8270D	7-13-15	7-13-15	
Hexachlorobenzene	ND	0.036	EPA 8270D	7-13-15	7-13-15	
Pentachlorophenol	ND	0.18	EPA 8270D	7-13-15	7-13-15	
Phenanthrene	0.089	0.036	EPA 8270D	7-13-15	7-13-15	
Anthracene	0.031	0.0073	EPA 8270D/SIM	7-13-15	7-13-15	
Carbazole	ND	0.036	EPA 8270D	7-13-15	7-13-15	
Di-n-butylphthalate	0.041	0.036	EPA 8270D	7-13-15	7-13-15	
Fluoranthene	0.054	0.036	EPA 8270D	7-13-15	7-13-15	
Benzidine	ND	0.36	EPA 8270D	7-13-15	7-13-15	
Pyrene	0.053	0.036	EPA 8270D	7-13-15	7-13-15	
Butylbenzylphthalate	ND	0.036	EPA 8270D	7-13-15	7-13-15	
bis-2-Ethylhexyladipate	ND	0.036	EPA 8270D	7-13-15	7-13-15	
3,3'-Dichlorobenzidine	ND	0.18	EPA 8270D	7-13-15	7-13-15	
Benzo[a]anthracene	0.039	0.0073	EPA 8270D/SIM	7-13-15	7-13-15	
Chrysene	0.041	0.036	EPA 8270D	7-13-15	7-13-15	
bis(2-Ethylhexyl)phthalate	ND	0.036	EPA 8270D	7-13-15	7-13-15	
Di-n-octylphthalate	ND	0.036	EPA 8270D	7-13-15	7-13-15	
Benzo[b]fluoranthene	0.050	0.036	EPA 8270D	7-13-15	7-13-15	
Benzo(j,k)fluoranthene	0.013	0.0073	EPA 8270D/SIM	7-13-15	7-13-15	
Benzo[a]pyrene	0.031	0.0073	EPA 8270D/SIM	7-13-15	7-13-15	
Indeno[1,2,3-cd]pyrene	0.031	0.0073	EPA 8270D/SIM	7-13-15	7-13-15	
Dibenz[a,h]anthracene	0.0093	0.0073	EPA 8270D/SIM	7-13-15	7-13-15	
Benzo[g,h,i]perylene	0.028	0.0073	EPA 8270D/SIM	7-13-15	7-13-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorophenol	49	31 - 110				
Phenol-d6	47	34 - 109				
Nitrobenzene-d5	64	30 - 109				
2-Fluorobiphenyl	71	39 - 103				
2,4,6-Tribromophenol	83	25 - 120				
Terphenyl-d14	70	40 - 117				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B10-1-2					
Laboratory ID:	07-071-02					
Naphthalene	0.033	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
2-Methylnaphthalene	0.063	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
1-Methylnaphthalene	0.058	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Acenaphthylene	ND	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Acenaphthene	ND	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Fluorene	ND	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Phenanthrene	0.077	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Anthracene	ND	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Fluoranthene	0.0092	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Pyrene	0.012	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[a]anthracene	0.012	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Chrysene	0.021	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[b]fluoranthene	0.012	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo(j,k)fluoranthene	ND	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[a]pyrene	ND	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Dibenz[a,h]anthracene	ND	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[g,h,i]perylene	ND	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>70</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>70</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>78</i>	<i>31 - 116</i>				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B9-1-2					
Laboratory ID:	07-071-06					
Naphthalene	0.45	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
2-Methylnaphthalene	0.65	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
1-Methylnaphthalene	0.58	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Acenaphthylene	0.079	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Acenaphthene	0.031	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Fluorene	0.073	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Phenanthrene	0.45	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Anthracene	0.075	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Fluoranthene	0.22	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Pyrene	0.21	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[a]anthracene	0.14	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Chrysene	0.18	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[b]fluoranthene	0.21	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo(j,k)fluoranthene	0.034	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[a]pyrene	0.097	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Indeno(1,2,3-c,d)pyrene	0.11	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Dibenz[a,h]anthracene	0.016	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[g,h,i]perylene	0.096	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	79	32 - 114				
Pyrene-d10	72	33 - 121				
Terphenyl-d14	79	31 - 116				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B7-1-2					
Laboratory ID:	07-071-15					
Naphthalene	0.49	0.0075	EPA 8270D/SIM	7-14-15	7-14-15	
2-Methylnaphthalene	0.52	0.0075	EPA 8270D/SIM	7-14-15	7-14-15	
1-Methylnaphthalene	0.37	0.0075	EPA 8270D/SIM	7-14-15	7-14-15	
Acenaphthylene	0.31	0.0075	EPA 8270D/SIM	7-14-15	7-14-15	
Acenaphthene	0.051	0.0075	EPA 8270D/SIM	7-14-15	7-14-15	
Fluorene	0.065	0.0075	EPA 8270D/SIM	7-14-15	7-14-15	
Phenanthrene	0.58	0.0075	EPA 8270D/SIM	7-14-15	7-14-15	
Anthracene	0.47	0.0075	EPA 8270D/SIM	7-14-15	7-14-15	
Fluoranthene	0.45	0.0075	EPA 8270D/SIM	7-14-15	7-14-15	
Pyrene	0.35	0.0075	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[a]anthracene	0.27	0.0075	EPA 8270D/SIM	7-14-15	7-14-15	
Chrysene	0.31	0.0075	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[b]fluoranthene	0.38	0.0075	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo(j,k)fluoranthene	0.067	0.0075	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[a]pyrene	0.17	0.0075	EPA 8270D/SIM	7-14-15	7-14-15	
Indeno(1,2,3-c,d)pyrene	0.27	0.0075	EPA 8270D/SIM	7-14-15	7-14-15	
Dibenz[a,h]anthracene	0.037	0.0075	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[g,h,i]perylene	0.19	0.0075	EPA 8270D/SIM	7-14-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>77</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>69</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>82</i>	<i>31 - 116</i>				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B5-1-2					
Laboratory ID:	07-071-19					
Naphthalene	0.22	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
2-Methylnaphthalene	0.36	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
1-Methylnaphthalene	0.34	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Acenaphthylene	0.030	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Acenaphthene	0.021	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Fluorene	0.037	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Phenanthrene	0.40	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Anthracene	0.028	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Fluoranthene	0.15	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Pyrene	0.15	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[a]anthracene	0.085	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Chrysene	0.13	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[b]fluoranthene	0.11	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo(j,k)fluoranthene	0.022	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[a]pyrene	0.065	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Indeno(1,2,3-c,d)pyrene	0.058	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Dibenz[a,h]anthracene	0.010	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[g,h,i]perylene	0.051	0.0078	EPA 8270D/SIM	7-14-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>79</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>71</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>81</i>	<i>31 - 116</i>				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:		P2A-B4-1-2				
Laboratory ID:		07-071-23				
Naphthalene	0.46	0.15	EPA 8270D/SIM	7-14-15	7-15-15	
2-Methylnaphthalene	0.73	0.15	EPA 8270D/SIM	7-14-15	7-15-15	
1-Methylnaphthalene	0.72	0.15	EPA 8270D/SIM	7-14-15	7-15-15	
Acenaphthylene	0.19	0.15	EPA 8270D/SIM	7-14-15	7-15-15	
Acenaphthene	1.1	0.15	EPA 8270D/SIM	7-14-15	7-15-15	
Fluorene	0.81	0.15	EPA 8270D/SIM	7-14-15	7-15-15	
Phenanthrene	5.7	0.15	EPA 8270D/SIM	7-14-15	7-15-15	
Anthracene	1.7	0.15	EPA 8270D/SIM	7-14-15	7-15-15	
Fluoranthene	2.8	0.15	EPA 8270D/SIM	7-14-15	7-15-15	
Pyrene	3.6	0.15	EPA 8270D/SIM	7-14-15	7-15-15	
Benzo[a]anthracene	2.0	0.15	EPA 8270D/SIM	7-14-15	7-15-15	
Chrysene	2.0	0.15	EPA 8270D/SIM	7-14-15	7-15-15	
Benzo[b]fluoranthene	1.6	0.15	EPA 8270D/SIM	7-14-15	7-15-15	
Benzo(j,k)fluoranthene	0.60	0.15	EPA 8270D/SIM	7-14-15	7-15-15	
Benzo[a]pyrene	1.5	0.15	EPA 8270D/SIM	7-14-15	7-15-15	
Indeno(1,2,3-c,d)pyrene	0.71	0.15	EPA 8270D/SIM	7-14-15	7-15-15	
Dibenz[a,h]anthracene	0.15	0.15	EPA 8270D/SIM	7-14-15	7-15-15	
Benzo[g,h,i]perylene	0.59	0.15	EPA 8270D/SIM	7-14-15	7-15-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>69</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>70</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>90</i>	<i>31 - 116</i>				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:		P2A-B2-1-2				
Laboratory ID:		07-071-27				
Naphthalene	0.35	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
2-Methylnaphthalene	0.31	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
1-Methylnaphthalene	0.26	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
Acenaphthylene	0.18	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
Acenaphthene	0.029	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
Fluorene	0.041	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
Phenanthrene	0.47	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
Anthracene	0.20	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
Fluoranthene	0.34	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
Pyrene	0.31	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
Benzo[a]anthracene	0.23	0.041	EPA 8270D/SIM	7-14-15	7-17-15	
Chrysene	0.28	0.041	EPA 8270D/SIM	7-14-15	7-17-15	
Benzo[b]fluoranthene	0.37	0.041	EPA 8270D/SIM	7-14-15	7-17-15	
Benzo(j,k)fluoranthene	0.077	0.041	EPA 8270D/SIM	7-14-15	7-17-15	
Benzo[a]pyrene	0.16	0.041	EPA 8270D/SIM	7-14-15	7-17-15	
Indeno(1,2,3-c,d)pyrene	0.15	0.041	EPA 8270D/SIM	7-14-15	7-17-15	
Dibenz[a,h]anthracene	ND	0.041	EPA 8270D/SIM	7-14-15	7-17-15	
Benzo[g,h,i]perylene	0.16	0.041	EPA 8270D/SIM	7-14-15	7-17-15	
<i>Surrogate:</i>						
	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	84	32 - 114				
Pyrene-d10	72	33 - 121				
Terphenyl-d14	88	31 - 116				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B1-0-1					
Laboratory ID:	07-071-30					
Naphthalene	0.11	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
2-Methylnaphthalene	0.13	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
1-Methylnaphthalene	0.13	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
Acenaphthylene	0.029	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
Acenaphthene	ND	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
Fluorene	0.020	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
Phenanthrene	0.19	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
Anthracene	0.040	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
Fluoranthene	0.10	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
Pyrene	0.11	0.016	EPA 8270D/SIM	7-14-15	7-16-15	
Benzo[a]anthracene	0.078	0.039	EPA 8270D/SIM	7-14-15	7-17-15	
Chrysene	0.11	0.039	EPA 8270D/SIM	7-14-15	7-17-15	
Benzo[b]fluoranthene	0.11	0.039	EPA 8270D/SIM	7-14-15	7-17-15	
Benzo(j,k)fluoranthene	ND	0.039	EPA 8270D/SIM	7-14-15	7-17-15	
Benzo[a]pyrene	0.068	0.039	EPA 8270D/SIM	7-14-15	7-17-15	
Indeno(1,2,3-c,d)pyrene	0.056	0.039	EPA 8270D/SIM	7-14-15	7-17-15	
Dibenz[a,h]anthracene	ND	0.039	EPA 8270D/SIM	7-14-15	7-17-15	
Benzo[g,h,i]perylene	0.067	0.039	EPA 8270D/SIM	7-14-15	7-17-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>81</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>72</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>84</i>	<i>31 - 116</i>				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B1-1-2					
Laboratory ID:	07-071-31					
Naphthalene	ND	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
2-Methylnaphthalene	ND	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
1-Methylnaphthalene	ND	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Acenaphthylene	ND	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Acenaphthene	ND	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Fluorene	ND	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Phenanthrene	ND	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Anthracene	ND	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Fluoranthene	ND	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Pyrene	ND	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[a]anthracene	ND	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Chrysene	ND	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[b]fluoranthene	ND	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo(j,k)fluoranthene	ND	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[a]pyrene	ND	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Dibenz[a,h]anthracene	ND	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[g,h,i]perylene	ND	0.0083	EPA 8270D/SIM	7-14-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>73</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>72</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>88</i>	<i>31 - 116</i>				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:		P2A-B9-3-4				
Laboratory ID:		07-071-08				
Naphthalene	ND	0.0081	EPA 8270D/SIM	7-21-15	7-23-15	
2-Methylnaphthalene	ND	0.0081	EPA 8270D/SIM	7-21-15	7-23-15	
1-Methylnaphthalene	ND	0.0081	EPA 8270D/SIM	7-21-15	7-23-15	
Acenaphthylene	ND	0.0081	EPA 8270D/SIM	7-21-15	7-23-15	
Acenaphthene	ND	0.0081	EPA 8270D/SIM	7-21-15	7-23-15	
Fluorene	ND	0.0081	EPA 8270D/SIM	7-21-15	7-23-15	
Phenanthrene	ND	0.0081	EPA 8270D/SIM	7-21-15	7-23-15	
Anthracene	ND	0.0081	EPA 8270D/SIM	7-21-15	7-23-15	
Fluoranthene	ND	0.0081	EPA 8270D/SIM	7-21-15	7-23-15	
Pyrene	ND	0.0081	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[a]anthracene	ND	0.0081	EPA 8270D/SIM	7-21-15	7-23-15	
Chrysene	ND	0.0081	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[b]fluoranthene	ND	0.0081	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo(j,k)fluoranthene	ND	0.0081	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[a]pyrene	ND	0.0081	EPA 8270D/SIM	7-21-15	7-23-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0081	EPA 8270D/SIM	7-21-15	7-23-15	
Dibenz[a,h]anthracene	ND	0.0081	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[g,h,i]perylene	ND	0.0081	EPA 8270D/SIM	7-21-15	7-23-15	
<hr/>						
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	73	32 - 114				
<i>Pyrene-d10</i>	69	33 - 121				
<i>Terphenyl-d14</i>	65	31 - 116				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2A-B7-3-4					
Laboratory ID:	07-071-17					
Naphthalene	ND	0.0085	EPA 8270D/SIM	7-21-15	7-23-15	
2-Methylnaphthalene	ND	0.0085	EPA 8270D/SIM	7-21-15	7-23-15	
1-Methylnaphthalene	ND	0.0085	EPA 8270D/SIM	7-21-15	7-23-15	
Acenaphthylene	ND	0.0085	EPA 8270D/SIM	7-21-15	7-23-15	
Acenaphthene	ND	0.0085	EPA 8270D/SIM	7-21-15	7-23-15	
Fluorene	ND	0.0085	EPA 8270D/SIM	7-21-15	7-23-15	
Phenanthrene	ND	0.0085	EPA 8270D/SIM	7-21-15	7-23-15	
Anthracene	ND	0.0085	EPA 8270D/SIM	7-21-15	7-23-15	
Fluoranthene	ND	0.0085	EPA 8270D/SIM	7-21-15	7-23-15	
Pyrene	ND	0.0085	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[a]anthracene	ND	0.0085	EPA 8270D/SIM	7-21-15	7-23-15	
Chrysene	ND	0.0085	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[b]fluoranthene	ND	0.0085	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo(j,k)fluoranthene	ND	0.0085	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[a]pyrene	ND	0.0085	EPA 8270D/SIM	7-21-15	7-23-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0085	EPA 8270D/SIM	7-21-15	7-23-15	
Dibenz[a,h]anthracene	ND	0.0085	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[g,h,i]perylene	ND	0.0085	EPA 8270D/SIM	7-21-15	7-23-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>74</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>71</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>65</i>	<i>31 - 116</i>				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:		P2A-B5-3-4				
Laboratory ID:		07-071-21				
Naphthalene	ND	0.0080	EPA 8270D/SIM	7-21-15	7-23-15	
2-Methylnaphthalene	ND	0.0080	EPA 8270D/SIM	7-21-15	7-23-15	
1-Methylnaphthalene	ND	0.0080	EPA 8270D/SIM	7-21-15	7-23-15	
Acenaphthylene	ND	0.0080	EPA 8270D/SIM	7-21-15	7-23-15	
Acenaphthene	ND	0.0080	EPA 8270D/SIM	7-21-15	7-23-15	
Fluorene	ND	0.0080	EPA 8270D/SIM	7-21-15	7-23-15	
Phenanthrene	ND	0.0080	EPA 8270D/SIM	7-21-15	7-23-15	
Anthracene	ND	0.0080	EPA 8270D/SIM	7-21-15	7-23-15	
Fluoranthene	ND	0.0080	EPA 8270D/SIM	7-21-15	7-23-15	
Pyrene	ND	0.0080	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[a]anthracene	ND	0.0080	EPA 8270D/SIM	7-21-15	7-23-15	
Chrysene	ND	0.0080	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[b]fluoranthene	ND	0.0080	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo(j,k)fluoranthene	ND	0.0080	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[a]pyrene	ND	0.0080	EPA 8270D/SIM	7-21-15	7-23-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0080	EPA 8270D/SIM	7-21-15	7-23-15	
Dibenz[a,h]anthracene	ND	0.0080	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[g,h,i]perylene	ND	0.0080	EPA 8270D/SIM	7-21-15	7-23-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	71	32 - 114				
Pyrene-d10	68	33 - 121				
Terphenyl-d14	61	31 - 116				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:		P2A-B4-3-4				
Laboratory ID:		07-071-25				
Naphthalene	ND	0.0084	EPA 8270D/SIM	7-21-15	7-23-15	
2-Methylnaphthalene	ND	0.0084	EPA 8270D/SIM	7-21-15	7-23-15	
1-Methylnaphthalene	ND	0.0084	EPA 8270D/SIM	7-21-15	7-23-15	
Acenaphthylene	ND	0.0084	EPA 8270D/SIM	7-21-15	7-23-15	
Acenaphthene	ND	0.0084	EPA 8270D/SIM	7-21-15	7-23-15	
Fluorene	ND	0.0084	EPA 8270D/SIM	7-21-15	7-23-15	
Phenanthrene	ND	0.0084	EPA 8270D/SIM	7-21-15	7-23-15	
Anthracene	ND	0.0084	EPA 8270D/SIM	7-21-15	7-23-15	
Fluoranthene	ND	0.0084	EPA 8270D/SIM	7-21-15	7-23-15	
Pyrene	ND	0.0084	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[a]anthracene	ND	0.0084	EPA 8270D/SIM	7-21-15	7-23-15	
Chrysene	ND	0.0084	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[b]fluoranthene	ND	0.0084	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo(j,k)fluoranthene	ND	0.0084	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[a]pyrene	ND	0.0084	EPA 8270D/SIM	7-21-15	7-23-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0084	EPA 8270D/SIM	7-21-15	7-23-15	
Dibenz[a,h]anthracene	ND	0.0084	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[g,h,i]perylene	ND	0.0084	EPA 8270D/SIM	7-21-15	7-23-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	78	32 - 114				
Pyrene-d10	80	33 - 121				
Terphenyl-d14	71	31 - 116				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

PAHs EPA 8270D/SIM

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:		P2A-B2-3-4				
Laboratory ID:		07-071-29				
Naphthalene	ND	0.0079	EPA 8270D/SIM	7-21-15	7-23-15	
2-Methylnaphthalene	ND	0.0079	EPA 8270D/SIM	7-21-15	7-23-15	
1-Methylnaphthalene	ND	0.0079	EPA 8270D/SIM	7-21-15	7-23-15	
Acenaphthylene	ND	0.0079	EPA 8270D/SIM	7-21-15	7-23-15	
Acenaphthene	ND	0.0079	EPA 8270D/SIM	7-21-15	7-23-15	
Fluorene	ND	0.0079	EPA 8270D/SIM	7-21-15	7-23-15	
Phenanthrene	ND	0.0079	EPA 8270D/SIM	7-21-15	7-23-15	
Anthracene	ND	0.0079	EPA 8270D/SIM	7-21-15	7-23-15	
Fluoranthene	ND	0.0079	EPA 8270D/SIM	7-21-15	7-23-15	
Pyrene	ND	0.0079	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[a]anthracene	ND	0.0079	EPA 8270D/SIM	7-21-15	7-23-15	
Chrysene	ND	0.0079	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[b]fluoranthene	ND	0.0079	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo(j,k)fluoranthene	ND	0.0079	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[a]pyrene	ND	0.0079	EPA 8270D/SIM	7-21-15	7-23-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0079	EPA 8270D/SIM	7-21-15	7-23-15	
Dibenz[a,h]anthracene	ND	0.0079	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[g,h,i]perylene	ND	0.0079	EPA 8270D/SIM	7-21-15	7-23-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>2-Fluorobiphenyl</i>	<i>80</i>	<i>32 - 114</i>				
<i>Pyrene-d10</i>	<i>76</i>	<i>33 - 121</i>				
<i>Terphenyl-d14</i>	<i>69</i>	<i>31 - 116</i>				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

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

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
<hr/>						
Lab ID:	07-071-02					
Client ID:	P2A-B10-1-2					
<hr/>						
Arsenic	ND	12	6010C	7-13-15	7-13-15	
Barium	110	2.9	6010C	7-13-15	7-13-15	
Cadmium	ND	0.59	6010C	7-13-15	7-13-15	
Chromium	37	0.59	6010C	7-13-15	7-13-15	
Lead	24	5.9	6010C	7-13-15	7-13-15	
Mercury	ND	0.29	7471B	7-13-15	7-13-15	
Selenium	ND	12	6010C	7-13-15	7-13-15	
Silver	ND	1.2	6010C	7-13-15	7-13-15	

Lab ID:	07-071-06					
Client ID:	P2A-B9-1-2					
<hr/>						
Arsenic	ND	12	6010C	7-13-15	7-13-15	
Barium	280	3.1	6010C	7-13-15	7-13-15	
Cadmium	2.6	0.62	6010C	7-13-15	7-13-15	
Chromium	17	0.62	6010C	7-13-15	7-13-15	
Lead	81	6.2	6010C	7-13-15	7-13-15	
Mercury	6.3	3.1	7471B	7-13-15	7-13-15	
Selenium	ND	12	6010C	7-13-15	7-13-15	
Silver	ND	1.2	6010C	7-13-15	7-13-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

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

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	07-071-10					
Client ID:	P2A-B8-0-1					
Arsenic	ND	10	6010C	7-13-15	7-13-15	
Barium	68	2.6	6010C	7-13-15	7-13-15	
Cadmium	ND	0.52	6010C	7-13-15	7-13-15	
Chromium	25	0.52	6010C	7-13-15	7-13-15	
Lead	45	5.2	6010C	7-13-15	7-13-15	
Mercury	ND	0.26	7471B	7-13-15	7-13-15	
Selenium	ND	10	6010C	7-13-15	7-13-15	
Silver	ND	1.0	6010C	7-13-15	7-13-15	

Lab ID:	07-071-12					
Client ID:	P2A-B8-2-3					
Arsenic	ND	11	6010C	7-13-15	7-13-15	
Barium	98	2.7	6010C	7-13-15	7-13-15	
Cadmium	ND	0.55	6010C	7-13-15	7-13-15	
Chromium	18	0.55	6010C	7-13-15	7-13-15	
Lead	28	5.5	6010C	7-13-15	7-13-15	
Mercury	ND	0.27	7471B	7-13-15	7-13-15	
Selenium	ND	11	6010C	7-13-15	7-13-15	
Silver	ND	1.1	6010C	7-13-15	7-13-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

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

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	07-071-15					
Client ID:	P2A-B7-1-2					
Arsenic	14	11	6010C	7-13-15	7-13-15	
Barium	230	2.8	6010C	7-13-15	7-13-15	
Cadmium	ND	0.56	6010C	7-13-15	7-13-15	
Chromium	24	0.56	6010C	7-13-15	7-13-15	
Lead	120	5.6	6010C	7-13-15	7-13-15	
Mercury	ND	0.28	7471B	7-13-15	7-13-15	
Selenium	ND	11	6010C	7-13-15	7-13-15	
Silver	ND	1.1	6010C	7-13-15	7-13-15	

Lab ID:	07-071-19					
Client ID:	P2A-B5-1-2					
Arsenic	ND	12	6010C	7-13-15	7-13-15	
Barium	200	2.9	6010C	7-13-15	7-13-15	
Cadmium	ND	0.59	6010C	7-13-15	7-13-15	
Chromium	17	0.59	6010C	7-13-15	7-13-15	
Lead	72	5.9	6010C	7-13-15	7-13-15	
Mercury	ND	0.29	7471B	7-13-15	7-13-15	
Selenium	ND	12	6010C	7-13-15	7-13-15	
Silver	ND	1.2	6010C	7-13-15	7-13-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

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

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
<hr/>						
Lab ID:	07-071-22					
Client ID:	P2A-B4-0-1					
Arsenic	ND	11	6010C	7-13-15	7-13-15	
Barium	82	2.7	6010C	7-13-15	7-13-15	
Cadmium	ND	0.55	6010C	7-13-15	7-13-15	
Chromium	29	0.55	6010C	7-13-15	7-13-15	
Lead	88	5.5	6010C	7-13-15	7-13-15	
Mercury	0.94	0.27	7471B	7-13-15	7-13-15	
Selenium	ND	11	6010C	7-13-15	7-13-15	
Silver	ND	1.1	6010C	7-13-15	7-13-15	

Lab ID:	07-071-23					
Client ID:	P2A-B4-1-2					
Arsenic	ND	12	6010C	7-13-15	7-13-15	
Barium	140	2.9	6010C	7-13-15	7-13-15	
Cadmium	ND	0.58	6010C	7-13-15	7-13-15	
Chromium	19	0.58	6010C	7-13-15	7-13-15	
Lead	57	5.8	6010C	7-13-15	7-13-15	
Mercury	2.6	1.2	7471B	7-13-15	7-13-15	
Selenium	ND	12	6010C	7-13-15	7-13-15	
Silver	ND	1.2	6010C	7-13-15	7-13-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

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

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	07-071-27					
Client ID:	P2A-B2-1-2					
Arsenic	ND	12	6010C	7-13-15	7-13-15	
Barium	230	3.1	6010C	7-13-15	7-13-15	
Cadmium	ND	0.62	6010C	7-13-15	7-13-15	
Chromium	21	0.62	6010C	7-13-15	7-13-15	
Lead	410	6.2	6010C	7-13-15	7-13-15	
Mercury	ND	0.31	7471B	7-13-15	7-13-15	
Selenium	ND	12	6010C	7-13-15	7-13-15	
Silver	ND	1.2	6010C	7-13-15	7-13-15	

Lab ID:	07-071-30					
Client ID:	P2A-B1-0-1					
Arsenic	15	12	6010C	7-13-15	7-13-15	
Barium	140	2.9	6010C	7-13-15	7-13-15	
Cadmium	0.66	0.59	6010C	7-13-15	7-13-15	
Chromium	24	0.59	6010C	7-13-15	7-13-15	
Lead	140	5.9	6010C	7-13-15	7-13-15	
Mercury	ND	0.29	7471B	7-13-15	7-13-15	
Selenium	ND	12	6010C	7-13-15	7-13-15	
Silver	ND	1.2	6010C	7-13-15	7-13-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

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

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	07-071-31					
Client ID:	P2A-B1-1-2					
Arsenic	ND	12	6010C	7-13-15	7-13-15	
Barium	140	3.1	6010C	7-13-15	7-13-15	
Cadmium	ND	0.62	6010C	7-13-15	7-13-15	
Chromium	51	0.62	6010C	7-13-15	7-13-15	
Lead	ND	6.2	6010C	7-13-15	7-13-15	
Mercury	ND	0.31	7471B	7-13-15	7-13-15	
Selenium	ND	12	6010C	7-13-15	7-13-15	
Silver	ND	1.2	6010C	7-13-15	7-13-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

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

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
<hr/>						
Lab ID:	07-071-08					
Client ID:	P2A-B9-3-4					
<hr/>						
Cadmium	ND	0.60	6010C	7-23-15	7-23-15	
Mercury	ND	0.30	7471B	7-23-15	7-23-15	
<hr/>						
Lab ID:	07-071-25					
Client ID:	P2A-B4-3-4					
<hr/>						
Mercury	ND	0.32	7471B	7-23-15	7-23-15	
<hr/>						
Lab ID:	07-071-29					
Client ID:	P2A-B2-3-4					
<hr/>						
Lead	ND	5.9	6010C	7-23-15	7-23-15	
<hr/>						

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

**NWTPH-HCID
 QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0713S1					
Gasoline Range Organics	ND	20	NWTPH-HCID	7-13-15	7-14-15	
Diesel Range Organics	ND	50	NWTPH-HCID	7-13-15	7-14-15	
Lube Oil Range Organics	ND	100	NWTPH-HCID	7-13-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>o-Terphenyl</i>	123	50-150				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

**NWTPH-Dx
QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0720S1					
Diesel Range Organics	ND	25	NWTPH-Dx	7-21-15	7-20-15	
Lube Oil Range Organics	ND	50	NWTPH-Dx	7-21-15	7-20-15	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	62	50-150				

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	07-145-02							
	ORIG	DUP						
Diesel Range	ND	ND	NA	NA	NA	NA	NA	
Lube Oil Range	ND	ND	NA	NA	NA	NA	NA	
Surrogate:								
o-Terphenyl				79	93	50-150		

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0713S1						
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Chloromethane	ND	0.0050	EPA 8260C	7-13-15	7-13-15	
Vinyl Chloride	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Bromomethane	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Chloroethane	ND	0.0050	EPA 8260C	7-13-15	7-13-15	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Acetone	ND	0.0050	EPA 8260C	7-13-15	7-13-15	
Iodomethane	ND	0.0050	EPA 8260C	7-13-15	7-13-15	
Carbon Disulfide	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Methylene Chloride	ND	0.0050	EPA 8260C	7-13-15	7-13-15	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Vinyl Acetate	ND	0.0050	EPA 8260C	7-13-15	7-13-15	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
2-Butanone	ND	0.0050	EPA 8260C	7-13-15	7-13-15	
Bromochloromethane	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Chloroform	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Benzene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Trichloroethene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Dibromomethane	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Bromodichloromethane	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
2-Chloroethyl Vinyl Ether	ND	0.0084	EPA 8260C	7-13-15	7-13-15	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260C	7-13-15	7-13-15	
Toluene	ND	0.0050	EPA 8260C	7-13-15	7-13-15	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0713S1						
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Tetrachloroethene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
2-Hexanone	ND	0.0050	EPA 8260C	7-13-15	7-13-15	
Dibromochloromethane	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Chlorobenzene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Ethylbenzene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
m,p-Xylene	ND	0.0020	EPA 8260C	7-13-15	7-13-15	
o-Xylene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Styrene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Bromoform	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Isopropylbenzene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Bromobenzene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
n-Propylbenzene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
2-Chlorotoluene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
4-Chlorotoluene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
tert-Butylbenzene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
sec-Butylbenzene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
p-Isopropyltoluene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
n-Butylbenzene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	7-13-15	7-13-15	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	7-13-15	7-13-15	
Naphthalene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	7-13-15	7-13-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>114</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>109</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>104</i>	<i>79-126</i>				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0714S1							
Dichlorodifluoromethane	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Chloromethane	ND	0.0050		EPA 8260C	7-14-15	7-14-15	
Vinyl Chloride	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Bromomethane	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Chloroethane	ND	0.0050		EPA 8260C	7-14-15	7-14-15	
Trichlorofluoromethane	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
1,1-Dichloroethene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Acetone	ND	0.0050		EPA 8260C	7-14-15	7-14-15	
Iodomethane	ND	0.0050		EPA 8260C	7-14-15	7-14-15	
Carbon Disulfide	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Methylene Chloride	ND	0.0050		EPA 8260C	7-14-15	7-14-15	
(trans) 1,2-Dichloroethene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Methyl t-Butyl Ether	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
1,1-Dichloroethane	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Vinyl Acetate	ND	0.0050		EPA 8260C	7-14-15	7-14-15	
2,2-Dichloropropane	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
(cis) 1,2-Dichloroethene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
2-Butanone	ND	0.0050		EPA 8260C	7-14-15	7-14-15	
Bromochloromethane	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Chloroform	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
1,1,1-Trichloroethane	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Carbon Tetrachloride	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
1,1-Dichloropropene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Benzene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
1,2-Dichloroethane	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Trichloroethene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
1,2-Dichloropropane	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Dibromomethane	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Bromodichloromethane	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
2-Chloroethyl Vinyl Ether	ND	0.0073		EPA 8260C	7-14-15	7-14-15	
(cis) 1,3-Dichloropropene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Methyl Isobutyl Ketone	ND	0.0050		EPA 8260C	7-14-15	7-14-15	
Toluene	ND	0.0050		EPA 8260C	7-14-15	7-14-15	
(trans) 1,3-Dichloropropene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL

page 2 of 2

Analyte	Result	PQL	MDL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0714S1							
1,1,2-Trichloroethane	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Tetrachloroethene	ND	0.0010	0.00029	EPA 8260C	7-14-15	7-14-15	
1,3-Dichloropropane	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
2-Hexanone	ND	0.0050		EPA 8260C	7-14-15	7-14-15	
Dibromochloromethane	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
1,2-Dibromoethane	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Chlorobenzene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
1,1,1,2-Tetrachloroethane	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Ethylbenzene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
m,p-Xylene	ND	0.0020		EPA 8260C	7-14-15	7-14-15	
o-Xylene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Styrene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Bromoform	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Isopropylbenzene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Bromobenzene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
1,1,2,2-Tetrachloroethane	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
1,2,3-Trichloropropane	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
n-Propylbenzene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
2-Chlorotoluene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
4-Chlorotoluene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
1,3,5-Trimethylbenzene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
tert-Butylbenzene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
1,2,4-Trimethylbenzene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
sec-Butylbenzene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
1,3-Dichlorobenzene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
p-Isopropyltoluene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
1,4-Dichlorobenzene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
1,2-Dichlorobenzene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
n-Butylbenzene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
1,2-Dibromo-3-chloropropane	ND	0.0050		EPA 8260C	7-14-15	7-14-15	
1,2,4-Trichlorobenzene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Hexachlorobutadiene	ND	0.0050		EPA 8260C	7-14-15	7-14-15	
Naphthalene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
1,2,3-Trichlorobenzene	ND	0.0010		EPA 8260C	7-14-15	7-14-15	
Surrogate:	Percent Recovery	Control Limits					
Dibromofluoromethane	117	76-131					
Toluene-d8	107	82-129					
4-Bromofluorobenzene	106	79-126					

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits		RPD	RPD Limit	Flags
					Recovery						
SPIKE BLANKS											
Laboratory ID:	SB0713S1										
	SB	SBD	SB	SBD	SB	SBD					
1,1-Dichloroethene	0.0587	0.0574	0.0500	0.0500	117	115	66-129	2		15	
Benzene	0.0583	0.0581	0.0500	0.0500	117	116	71-123	0		15	
Trichloroethene	0.0518	0.0512	0.0500	0.0500	104	102	75-115	1		15	
Toluene	0.0539	0.0530	0.0500	0.0500	108	106	75-120	2		15	
Chlorobenzene	0.0497	0.0490	0.0500	0.0500	99	98	75-121	1		15	
Surrogate:											
Dibromofluoromethane					112	106	76-131				
Toluene-d8					103	99	82-129				
4-Bromofluorobenzene					102	97	79-126				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

VOLATILES by EPA 8260C
SB/SBD QUALITY CONTROL

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	Limits		Limit	
SPIKE BLANKS										
Laboratory ID:	SB0714S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0575	0.0577	0.0500	0.0500	115	115	66-129	0	15	
Benzene	0.0573	0.0572	0.0500	0.0500	115	114	71-123	0	15	
Trichloroethene	0.0515	0.0502	0.0500	0.0500	103	100	75-115	3	15	
Toluene	0.0532	0.0532	0.0500	0.0500	106	106	75-120	0	15	
Chlorobenzene	0.0488	0.0492	0.0500	0.0500	98	98	75-121	1	15	
Surrogate:										
Dibromofluoromethane					111	109	76-131			
Toluene-d8					102	99	82-129			
4-Bromofluorobenzene					98	99	79-126			

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

**HALOGENATED VOLATILES EPA 8260C
 METHOD BLANK QUALITY CONTROL**

Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0721S1						
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
Chloromethane	ND	0.0050	EPA 8260C	7-21-15	7-21-15	
Vinyl Chloride	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
Bromomethane	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
Chloroethane	ND	0.0050	EPA 8260C	7-21-15	7-21-15	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
Iodomethane	ND	0.0050	EPA 8260C	7-21-15	7-21-15	
Methylene Chloride	ND	0.0050	EPA 8260C	7-21-15	7-21-15	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
Bromochloromethane	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
Chloroform	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
Trichloroethene	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
Dibromomethane	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
Bromodichloromethane	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
2-Chloroethyl Vinyl Ether	ND	0.0066	EPA 8260C	7-21-15	7-21-15	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-21-15	7-21-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

**HALOGENATED VOLATILES EPA 8260C
 METHOD BLANK QUALITY CONTROL**

Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0721S1						
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
Tetrachloroethene	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
Dibromochloromethane	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
Chlorobenzene	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
Bromoform	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
Bromobenzene	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
2-Chlorotoluene	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
4-Chlorotoluene	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	7-21-15	7-21-15	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	7-21-15	7-21-15	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	7-21-15	7-21-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>110</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>108</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>109</i>	<i>79-126</i>				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

**HALOGENATED VOLATILES EPA 8260C
 SB/SBD QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
					Recovery					
SPIKE BLANKS										
Laboratory ID:	SB0721S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0479	0.0461	0.0500	0.0500	96	92	66-129	4	15	
Benzene	0.0493	0.0489	0.0500	0.0500	99	98	71-123	1	15	
Trichloroethene	0.0508	0.0518	0.0500	0.0500	102	104	75-115	2	15	
Toluene	0.0515	0.0527	0.0500	0.0500	103	105	75-120	2	15	
Chlorobenzene	0.0504	0.0501	0.0500	0.0500	101	100	75-121	1	15	
Surrogate:										
Dibromofluoromethane					98	99	76-131			
Toluene-d8					99	101	82-129			
4-Bromofluorobenzene					99	100	79-126			

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

**SEMIVOLATILES EPA 8270D/SIM
 METHOD BLANK QUALITY CONTROL**

page 1 of 2

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0713S1					
n-Nitrosodimethylamine	ND	0.033	EPA 8270D	7-13-15	7-13-15	
Pyridine	ND	0.33	EPA 8270D	7-13-15	7-13-15	
Phenol	ND	0.033	EPA 8270D	7-13-15	7-13-15	
Aniline	ND	0.17	EPA 8270D	7-13-15	7-13-15	
bis(2-Chloroethyl)ether	ND	0.033	EPA 8270D	7-13-15	7-13-15	
2-Chlorophenol	ND	0.033	EPA 8270D	7-13-15	7-13-15	
1,3-Dichlorobenzene	ND	0.033	EPA 8270D	7-13-15	7-13-15	
1,4-Dichlorobenzene	ND	0.033	EPA 8270D	7-13-15	7-13-15	
Benzyl alcohol	ND	0.17	EPA 8270D	7-13-15	7-13-15	
1,2-Dichlorobenzene	ND	0.033	EPA 8270D	7-13-15	7-13-15	
2-Methylphenol (o-Cresol)	ND	0.033	EPA 8270D	7-13-15	7-13-15	
bis(2-Chloroisopropyl)ether	ND	0.033	EPA 8270D	7-13-15	7-13-15	
(3+4)-Methylphenol (m,p-Cresol)	ND	0.033	EPA 8270D	7-13-15	7-13-15	
n-Nitroso-di-n-propylamine	ND	0.033	EPA 8270D	7-13-15	7-13-15	
Hexachloroethane	ND	0.033	EPA 8270D	7-13-15	7-13-15	
Nitrobenzene	ND	0.033	EPA 8270D	7-13-15	7-13-15	
Isophorone	ND	0.033	EPA 8270D	7-13-15	7-13-15	
2-Nitrophenol	ND	0.033	EPA 8270D	7-13-15	7-13-15	
2,4-Dimethylphenol	ND	0.033	EPA 8270D	7-13-15	7-13-15	
bis(2-Chloroethoxy)methane	ND	0.033	EPA 8270D	7-13-15	7-13-15	
2,4-Dichlorophenol	ND	0.033	EPA 8270D	7-13-15	7-13-15	
1,2,4-Trichlorobenzene	ND	0.033	EPA 8270D	7-13-15	7-13-15	
Naphthalene	ND	0.0067	EPA 8270D/SIM	7-13-15	7-13-15	
4-Chloroaniline	ND	0.17	EPA 8270D	7-13-15	7-13-15	
Hexachlorobutadiene	ND	0.033	EPA 8270D	7-13-15	7-13-15	
4-Chloro-3-methylphenol	ND	0.033	EPA 8270D	7-13-15	7-13-15	
2-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	7-13-15	7-13-15	
1-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	7-13-15	7-13-15	
Hexachlorocyclopentadiene	ND	0.033	EPA 8270D	7-13-15	7-13-15	
2,4,6-Trichlorophenol	ND	0.033	EPA 8270D	7-13-15	7-13-15	
2,3-Dichloroaniline	ND	0.033	EPA 8270D	7-13-15	7-13-15	
2,4,5-Trichlorophenol	ND	0.033	EPA 8270D	7-13-15	7-13-15	
2-Chloronaphthalene	ND	0.033	EPA 8270D	7-13-15	7-13-15	
2-Nitroaniline	ND	0.033	EPA 8270D	7-13-15	7-13-15	
1,4-Dinitrobenzene	ND	0.033	EPA 8270D	7-13-15	7-13-15	
Dimethylphthalate	ND	0.033	EPA 8270D	7-13-15	7-13-15	
1,3-Dinitrobenzene	ND	0.033	EPA 8270D	7-13-15	7-13-15	
2,6-Dinitrotoluene	ND	0.033	EPA 8270D	7-13-15	7-13-15	
1,2-Dinitrobenzene	ND	0.033	EPA 8270D	7-13-15	7-13-15	
Acenaphthylene	ND	0.0067	EPA 8270D/SIM	7-13-15	7-13-15	
3-Nitroaniline	ND	0.033	EPA 8270D	7-13-15	7-13-15	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

**SEMIVOLATILES EPA 8270D/SIM
 METHOD BLANK QUALITY CONTROL**

page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<hr/>						
Laboratory ID:	MB0713S1					
2,4-Dinitrophenol	ND	0.17	EPA 8270D	7-13-15	7-13-15	
Acenaphthene	ND	0.0067	EPA 8270D/SIM	7-13-15	7-13-15	
4-Nitrophenol	ND	0.033	EPA 8270D	7-13-15	7-13-15	
2,4-Dinitrotoluene	ND	0.033	EPA 8270D	7-13-15	7-13-15	
Dibenzofuran	ND	0.033	EPA 8270D	7-13-15	7-13-15	
2,3,5,6-Tetrachlorophenol	ND	0.033	EPA 8270D	7-13-15	7-13-15	
2,3,4,6-Tetrachlorophenol	ND	0.033	EPA 8270D	7-13-15	7-13-15	
Diethylphthalate	ND	0.17	EPA 8270D	7-13-15	7-13-15	
4-Chlorophenyl-phenylether	ND	0.033	EPA 8270D	7-13-15	7-13-15	
4-Nitroaniline	ND	0.033	EPA 8270D	7-13-15	7-13-15	
Fluorene	ND	0.0067	EPA 8270D/SIM	7-13-15	7-13-15	
4,6-Dinitro-2-methylphenol	ND	0.17	EPA 8270D	7-13-15	7-13-15	
n-Nitrosodiphenylamine	ND	0.033	EPA 8270D	7-13-15	7-13-15	
1,2-Diphenylhydrazine	ND	0.033	EPA 8270D	7-13-15	7-13-15	
4-Bromophenyl-phenylether	ND	0.033	EPA 8270D	7-13-15	7-13-15	
Hexachlorobenzene	ND	0.033	EPA 8270D	7-13-15	7-13-15	
Pentachlorophenol	ND	0.17	EPA 8270D	7-13-15	7-13-15	
Phenanthrene	ND	0.0067	EPA 8270D/SIM	7-13-15	7-13-15	
Anthracene	ND	0.0067	EPA 8270D/SIM	7-13-15	7-13-15	
Carbazole	ND	0.033	EPA 8270D	7-13-15	7-13-15	
Di-n-butylphthalate	ND	0.033	EPA 8270D	7-13-15	7-13-15	
Fluoranthene	ND	0.0067	EPA 8270D/SIM	7-13-15	7-13-15	
Benzidine	ND	0.33	EPA 8270D	7-13-15	7-13-15	
Pyrene	ND	0.0067	EPA 8270D/SIM	7-13-15	7-13-15	
Butylbenzylphthalate	ND	0.033	EPA 8270D	7-13-15	7-13-15	
bis-2-Ethylhexyladipate	ND	0.033	EPA 8270D	7-13-15	7-13-15	
3,3'-Dichlorobenzidine	ND	0.17	EPA 8270D	7-13-15	7-13-15	
Benzo[a]anthracene	ND	0.0067	EPA 8270D/SIM	7-13-15	7-13-15	
Chrysene	ND	0.0067	EPA 8270D/SIM	7-13-15	7-13-15	
bis(2-Ethylhexyl)phthalate	ND	0.033	EPA 8270D	7-13-15	7-13-15	
Di-n-octylphthalate	ND	0.033	EPA 8270D	7-13-15	7-13-15	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270D/SIM	7-13-15	7-13-15	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270D/SIM	7-13-15	7-13-15	
Benzo[a]pyrene	ND	0.0067	EPA 8270D/SIM	7-13-15	7-13-15	
Indeno[1,2,3-cd]pyrene	ND	0.0067	EPA 8270D/SIM	7-13-15	7-13-15	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270D/SIM	7-13-15	7-13-15	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270D/SIM	7-13-15	7-13-15	
<hr/>						
Surrogate:	Percent Recovery	Control Limits				
2-Fluorophenol	79	31 - 110				
Phenol-d6	77	34 - 109				
Nitrobenzene-d5	68	30 - 109				
2-Fluorobiphenyl	73	39 - 103				
2,4,6-Tribromophenol	93	25 - 120				
Terphenyl-d14	72	40 - 117				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

**SEMIVOLATILES EPA 8270D/SIM
 MS/MSD QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES										
Laboratory ID:	07-056-03									
	MS	MSD	MS	MSD		MS	MSD			
Phenol	0.710	0.826	1.33	1.33	ND	53	62	33 - 111	15	33
2-Chlorophenol	0.807	0.918	1.33	1.33	ND	61	69	34 - 107	13	39
1,4-Dichlorobenzene	0.408	0.479	0.667	0.667	ND	61	72	35 - 106	16	39
n-Nitroso-di-n-propylamine	0.347	0.411	0.667	0.667	ND	52	62	34 - 106	17	33
1,2,4-Trichlorobenzene	0.404	0.492	0.667	0.667	ND	61	74	35 - 106	20	39
4-Chloro-3-methylphenol	0.838	0.955	1.33	1.33	ND	63	72	44 - 114	13	22
Acenaphthene	0.402	0.457	0.667	0.667	ND	60	69	37 - 108	13	25
4-Nitrophenol	0.801	0.889	1.33	1.33	ND	60	67	35 - 111	10	24
2,4-Dinitrotoluene	0.386	0.450	0.667	0.667	ND	58	67	33 - 113	15	23
Pentachlorophenol	0.680	0.793	1.33	1.33	ND	51	60	25 - 110	15	34
Pyrene	0.378	0.441	0.667	0.667	ND	57	66	37 - 120	15	36
Surrogate:										
2-Fluorophenol						65	75	31 - 110		
Phenol-d6						64	73	34 - 109		
Nitrobenzene-d5						58	68	30 - 109		
2-Fluorobiphenyl						64	73	39 - 103		
2,4,6-Tribromophenol						80	88	25 - 120		
Terphenyl-d14						59	70	40 - 117		

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

**PAHs EPA 8270D/SIM
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0714S1						
Naphthalene	ND	0.0067	EPA 8270D/SIM	7-14-15	7-14-15	
2-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	7-14-15	7-14-15	
1-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	7-14-15	7-14-15	
Acenaphthylene	ND	0.0067	EPA 8270D/SIM	7-14-15	7-14-15	
Acenaphthene	ND	0.0067	EPA 8270D/SIM	7-14-15	7-14-15	
Fluorene	ND	0.0067	EPA 8270D/SIM	7-14-15	7-14-15	
Phenanthrene	ND	0.0067	EPA 8270D/SIM	7-14-15	7-14-15	
Anthracene	ND	0.0067	EPA 8270D/SIM	7-14-15	7-14-15	
Fluoranthene	ND	0.0067	EPA 8270D/SIM	7-14-15	7-14-15	
Pyrene	ND	0.0067	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[a]anthracene	ND	0.0067	EPA 8270D/SIM	7-14-15	7-14-15	
Chrysene	ND	0.0067	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[a]pyrene	ND	0.0067	EPA 8270D/SIM	7-14-15	7-14-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270D/SIM	7-14-15	7-14-15	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270D/SIM	7-14-15	7-14-15	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270D/SIM	7-14-15	7-14-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	76	32 - 114				
Pyrene-d10	79	33 - 121				
Terphenyl-d14	90	31 - 116				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

**PAHs EPA 8270D/SIM
 MS/MSD QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	07-071-02										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	0.153	0.194	0.167	0.167	0.0279	75	99	44 - 107	24	29	
Acenaphthylene	0.153	0.158	0.167	0.167	ND	92	95	44 - 121	3	27	
Acenaphthene	0.135	0.137	0.167	0.167	ND	81	82	47 - 109	1	26	
Fluorene	0.134	0.137	0.167	0.167	ND	80	82	49 - 115	2	28	
Phenanthrene	0.190	0.187	0.167	0.167	0.0658	74	73	45 - 114	2	26	
Anthracene	0.149	0.154	0.167	0.167	ND	89	92	43 - 140	3	27	
Fluoranthene	0.124	0.128	0.167	0.167	0.00787	70	72	44 - 126	3	27	
Pyrene	0.123	0.129	0.167	0.167	0.0107	67	71	43 - 125	5	27	
Benzo[a]anthracene	0.139	0.147	0.167	0.167	0.0107	77	82	42 - 134	6	27	
Chrysene	0.135	0.134	0.167	0.167	0.0180	70	69	45 - 114	1	27	
Benzo[b]fluoranthene	0.138	0.130	0.167	0.167	0.0102	77	72	38 - 131	6	33	
Benzo(j,k)fluoranthene	0.112	0.113	0.167	0.167	ND	67	68	44 - 114	1	34	
Benzo[a]pyrene	0.125	0.132	0.167	0.167	ND	75	79	40 - 136	5	29	
Indeno(1,2,3-c,d)pyrene	0.117	0.121	0.167	0.167	ND	70	72	45 - 126	3	30	
Dibenz[a,h]anthracene	0.113	0.120	0.167	0.167	ND	68	72	46 - 121	6	28	
Benzo[g,h,i]perylene	0.103	0.110	0.167	0.167	ND	62	66	43 - 120	7	31	
Surrogate:											
2-Fluorobiphenyl						74	74	32 - 114			
Pyrene-d10						74	75	33 - 121			
Terphenyl-d14						83	84	31 - 116			

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

**PAHs EPA 8270D/SIM
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0721S3						
Naphthalene	ND	0.0067	EPA 8270D/SIM	7-21-15	7-23-15	
2-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	7-21-15	7-23-15	
1-Methylnaphthalene	ND	0.0067	EPA 8270D/SIM	7-21-15	7-23-15	
Acenaphthylene	ND	0.0067	EPA 8270D/SIM	7-21-15	7-23-15	
Acenaphthene	ND	0.0067	EPA 8270D/SIM	7-21-15	7-23-15	
Fluorene	ND	0.0067	EPA 8270D/SIM	7-21-15	7-23-15	
Phenanthrene	ND	0.0067	EPA 8270D/SIM	7-21-15	7-23-15	
Anthracene	ND	0.0067	EPA 8270D/SIM	7-21-15	7-23-15	
Fluoranthene	ND	0.0067	EPA 8270D/SIM	7-21-15	7-23-15	
Pyrene	ND	0.0067	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[a]anthracene	ND	0.0067	EPA 8270D/SIM	7-21-15	7-23-15	
Chrysene	ND	0.0067	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo(j,k)fluoranthene	ND	0.0067	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[a]pyrene	ND	0.0067	EPA 8270D/SIM	7-21-15	7-23-15	
Indeno(1,2,3-c,d)pyrene	ND	0.0067	EPA 8270D/SIM	7-21-15	7-23-15	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270D/SIM	7-21-15	7-23-15	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270D/SIM	7-21-15	7-23-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
2-Fluorobiphenyl	80	32 - 114				
Pyrene-d10	82	33 - 121				
Terphenyl-d14	75	31 - 116				

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

**PAHs EPA 8270D/SIM
 MS/MSD QUALITY CONTROL**

Matrix: Soil
 Units: mg/Kg

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	07-071-29										
	MS	MSD	MS	MSD		MS	MSD				
Naphthalene	0.144	0.140	0.167	0.167	ND	86	84	44 - 107	3	29	
Acenaphthylene	0.141	0.137	0.167	0.167	ND	84	82	44 - 121	3	27	
Acenaphthene	0.150	0.145	0.167	0.167	ND	90	87	47 - 109	3	26	
Fluorene	0.153	0.145	0.167	0.167	ND	92	87	49 - 115	5	28	
Phenanthrene	0.147	0.138	0.167	0.167	ND	88	83	45 - 114	6	26	
Anthracene	0.183	0.172	0.167	0.167	ND	110	103	43 - 140	6	27	
Fluoranthene	0.144	0.138	0.167	0.167	ND	86	83	44 - 126	4	27	
Pyrene	0.141	0.144	0.167	0.167	ND	84	86	43 - 125	2	27	
Benzo[a]anthracene	0.135	0.131	0.167	0.167	ND	81	78	42 - 134	3	27	
Chrysene	0.145	0.140	0.167	0.167	ND	87	84	45 - 114	4	27	
Benzo[b]fluoranthene	0.140	0.135	0.167	0.167	ND	84	81	38 - 131	4	33	
Benzo(j,k)fluoranthene	0.137	0.135	0.167	0.167	ND	82	81	44 - 114	1	34	
Benzo[a]pyrene	0.138	0.134	0.167	0.167	ND	83	80	40 - 136	3	29	
Indeno(1,2,3-c,d)pyrene	0.138	0.133	0.167	0.167	ND	83	80	45 - 126	4	30	
Dibenz[a,h]anthracene	0.141	0.137	0.167	0.167	ND	84	82	46 - 121	3	28	
Benzo[g,h,i]perylene	0.136	0.131	0.167	0.167	ND	81	78	43 - 120	4	31	
Surrogate:											
2-Fluorobiphenyl						87	84	32 - 114			
Pyrene-d10						83	79	33 - 121			
Terphenyl-d14						75	73	31 - 116			

Date of Report: July 29, 2015
Samples Submitted: July 9, 2015
Laboratory Reference: 1507-071
Project: 0570-133-02

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

Date Extracted: 7-13-15

Date Analyzed: 7-13-15

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: MB0713SM1&MB0713S1

Analyte	Method	Result	PQL
Arsenic	6010C	ND	10
Barium	6010C	ND	2.5
Cadmium	6010C	ND	0.50
Chromium	6010C	ND	0.50
Lead	6010C	ND	5.0
Mercury	7471B	ND	0.25
Selenium	6010C	ND	10
Silver	6010C	ND	1.0

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

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

Date Extracted: 7-13-15
 Date Analyzed: 7-13-15

 Matrix: Soil
 Units: mg/kg (ppm)

 Lab ID: 07-077-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	10	
Barium	67.8	67.0	1	2.5	
Cadmium	ND	ND	NA	0.50	
Chromium	25.1	24.7	2	0.50	
Lead	ND	ND	NA	5.0	
Mercury	ND	ND	NA	0.25	
Selenium	ND	ND	NA	10	
Silver	ND	ND	NA	1.0	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

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

Date Extracted: 7-13-15

Date Analyzed: 7-13-15

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 07-077-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	100	83.6	84	86.1	86	3	
Barium	100	158	90	161	94	2	
Cadmium	50.0	45.0	90	45.3	91	1	
Chromium	100	118	93	117	92	0	
Lead	250	219	88	222	89	2	
Mercury	0.500	0.495	99	0.509	102	3	
Selenium	100	78.6	79	79.4	79	1	
Silver	25.0	20.3	81	20.7	83	2	

Date of Report: July 29, 2015
Samples Submitted: July 9, 2015
Laboratory Reference: 1507-071
Project: 0570-133-02

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

Date Extracted: 7-23-15

Date Analyzed: 7-23-15

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: MB723SM1&MB0723S1

Analyte	Method	Result	PQL
Cadmium	6010C	ND	0.50
Lead	6010C	ND	5.0
Mercury	7471B	ND	0.25

Date of Report: July 29, 2015
Samples Submitted: July 9, 2015
Laboratory Reference: 1507-071
Project: 0570-133-02

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

Date Extracted: 7-23-15
Date Analyzed: 7-23-15

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: 07-071-08

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Cadmium	ND	ND	NA	0.50	
Lead	ND	ND	NA	5.0	
Mercury	ND	ND	NA	0.25	

Date of Report: July 29, 2015
Samples Submitted: July 9, 2015
Laboratory Reference: 1507-071
Project: 0570-133-02

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

Date Extracted: 7-23-15

Date Analyzed: 7-23-15

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 07-071-08

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Cadmium	50.0	42.8	86	47.9	96	11	
Lead	250	208	83	232	93	11	
Mercury	0.500	0.497	99	0.501	100	1	

Date of Report: July 29, 2015
 Samples Submitted: July 9, 2015
 Laboratory Reference: 1507-071
 Project: 0570-133-02

% MOISTURE

Date Analyzed: 7-13&21-15

Client ID	Lab ID	% Moisture
P2A-B10-1-2	07-071-02	15
P2A-B9-1-2	07-071-06	19
P2A-B9-3-4	07-071-08	17
P2A-B8-0-1	07-071-10	3
P2A-B8-2-3	07-071-12	9
P2A-B7-1-2	07-071-15	11
P2A-B7-3-4	07-071-17	21
P2A-B5-1-2	07-071-19	15
P2A-B5-3-4	07-071-21	17
P2A-B4-0-1	07-071-22	8
P2A-B4-1-2	07-071-23	14
P2A-B4-3-4	07-071-25	21
P2A-B2-1-2	07-071-27	19
P2A-B2-3-4	07-071-29	16
P2A-B1-0-1	07-071-30	15
P2A-B1-1-2	07-071-31	20



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.
- X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
- Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
- Z -
- ND - Not Detected at PQL
- PQL - Practical Quantitation Limit
- RPD - Relative Percent Difference



Onsite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 1 of 4

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:

07-071

Company: Best Engineers Inc
Project Number: 0507133012-0570-133-02
Project Name: Phase 1c Tail Phase 2A
Project Manager: Tricia Deane
Sampled by: Brenda Bayfield

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
1	PZA-B10-O-1	7-8-15	0750	Soil
2	PZA-B10-1-2		0755	
3	PZA-B10-2-3		0800	
4	PZA-B10-3-4		0805	
5	PZA-B9-O-1		0830	
6	PZA-B9-1-2		0835	
7	PZA-B9-2-3		0840	
8	PZA-B9-3-4		0845	
9	PZA-Dup-O1	7-8-15		

Number of Containers		Laboratory Number: 07-071									
NWTPH-HCID		NWTPH-GX/BTEX GRAINSIZE SIEVE/HYD. GRAINSIZE SIEVE ONLY									
NWTPH-Dx											
Volatiles 8260C											
Halogenated Volatiles 8260C											
Semivolatiles 8270D/SIM (with low-level PAHs)											
PAHs 8270D/SIM (low-level)											
PCBs 8082A											
Organochlorine Pesticides 8081B											
Organophosphorus Pesticides 8270D/SIM											
Chlorinated Acid Herbicides 8151A											
Total RCRA Metals											
Total MTCA Metals											
TCLP Metals											
HEM (oil and grease) 1664A											
CADMIUM/MERCURY C.E.C. EPA 9081											
ORGANIC CONTENT ASTM D2974											
% Moisture											

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-GX/BTEX GRAINSIZE SIEVE/HYD. GRAINSIZE SIEVE ONLY	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	CADMIUM/MERCURY C.E.C. EPA 9081	ORGANIC CONTENT ASTM D2974	% Moisture
1	PZA-B10-O-1	7-8-15	0750	Soil	6																		
2	PZA-B10-1-2		0755		6	X			X			X						X					
3	PZA-B10-2-3		0800		6																		X
4	PZA-B10-3-4		0805		5																		
5	PZA-B9-O-1		0830		6																		
6	PZA-B9-1-2		0835		6	X			X			X						X					X
7	PZA-B9-2-3		0840		6																		
8	PZA-B9-3-4		0845		6																		
9	PZA-Dup-O1	7-8-15			5																		

Comments/Special Instructions

(X) Added 7/17/15. DB (STA)
O Added 7/20/15. DB (STA)
● Added 7/21/15. DB (STA)
⊖ Added 7/22/15. STA. DJ

Relinquished
Received
Relinquished
Received
Relinquished
Received
Reviewed/Date

Signature
Company
Reviewed/Date

Date
Time

Chromatograms with final report ☐



Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 2 of 2

7

Company: GeoEngineers Inc			Turnaround Request (in working days)			Laboratory Number: 07-071																	
Project Number: 0570-135-02			<input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day																				
Project Name: Rosie Line Tail Phase 2A			<input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days																				
Project Manager: Tricia DeDine			<input checked="" type="checkbox"/> Standard (7 Days) (TPI analysis 5 Days)																				
Sampled by: Brenda Barfield			<input type="checkbox"/> (other)																				
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	CEC EPA 9081	ORGANIC CONTENT ASTM D2934	% Moisture
10	P2A-B8-C-1	7-8-15	0910	Soil	6	X		X			X							X					X
11	P2A-B8-1-2		0915		6																		X
12	P2A-B8-2-3		0920		5	X					X							X					X
13	P2A-B8-3-4		0925		6																		X
14	P2A-B7-O-1		0945		5																		X
15	P2A-B7-1-2		0950		6	X		X				X						X					X
16	P2A-B7-2-3		0955		6																		X
17	P2A-B7-3-4		1000		6																		X
Signature		Company		Date	Time	Comments/Special Instructions																	
Relinquished		G21		7/16/15	0905																		
Received		SP44		"	0905																		
Relinquished		"		"	1105																		
Received		Q823		7/16/15	1105																		
Relinquished																							
Received																							
Reviewed/Date		Reviewed/Date		Chromatograms with final report <input type="checkbox"/>																			



Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 3 of 4

Company: Geo Engineers			Turnaround Request (in working days)			Laboratory Number: 07-071																					
Project Number: 0570-133-02			<input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day																								
Project Name: Barie Lin Tail PZA			<input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days																								
Project Manager: Iricio De Ame			<input checked="" type="checkbox"/> Standard (7 Days) (TPH analysis 5 Days)																								
Sampled by: Brandon Barfield			<input type="checkbox"/> (other)																								
Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	161d	MERCURY	C E C EIA 9081	ORGANIC CONTENT	ASTM D2274	% Moisture
18	PZA-B5-C-1	7/8/15	1025	Soil	5																						
19	PZA-B5-1-2		1030			X			X	X									X								
20	PZA-B5-2-3		1035																								
21	PZA-B5-3-4		1040																								
22	PZA-B4-C-1		1055						X																		
23	PZA-B4-1-2		1100																								
24	PZA-B4-2-3		1105																								
25	PZA-B4-3-4		1110																								
Signature		Company		Date	Time	Comments/Special Instructions																					
Received		631		7/9/15	0905																						
Relinquished		Sperdy		11	0905																						
Received		0825		7/9/15	1105																						
Relinquished																											
Received																											
Relinquished																											
Reviewed/Date		Reviewed/Date		Chromatograms with final report <input type="checkbox"/>																							



Onsite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Turnaround Request
(in working days)

Laboratory Number: **07-071**

Project Name: **Residue Trail PZA**
Project Manager: **Tricia Deane**
Sampled by: **Barton Bayfield**

Company: **Geo Engineers**
Project Number: **0570-133-02**

Project Name: **Residue Trail PZA**

Project Manager: **Tricia Deane**

Sampled by: **Barton Bayfield**

Lab ID

Sample Identification

Date Sampled

Time Sampled

Matrix

Number of Containers

NWTPH-HCID

NWTPH-Gx/BTEX

NWTPH-Gx

NWTPH-Dx

Volatiles 8260C

Halogenated Volatiles 8260C

Semivolatiles 8270D/SIM
(with low-level PAHs)

PAHs 8270D/SIM (low-level)

PCBs 8082A

Organochlorine Pesticides 8081B

Organophosphorus Pesticides 8270D/SIM

Chlorinated Acid Herbicides 8151A

Total RCRA Metals

Total MTCA Metals

TCLP Metals

HEM (oil and grease) 1664A

LEAD
CEC EPA 9081
ORGANIC CONTENT
(ASTM D2974)

% Moisture

(Check One)

☐ Same Day ☐ 1 Day

☐ 2 Days ☐ 3 Days

☐ Standard (7 Days)
(TPH analysis 5 Days)

☐ (other)

Signature

Company

Date

Time

Comments/Special Instructions

Relinquished

Received

Relinquished

Received

Relinquished

Received

Reviewed/Date

Reviewed/Date

Chromatograms with final report ☐

Data Package: Standard ☐

Level III ☐

Level IV ☐

Electronic Data Deliverables (EDDs) ☐

Chromatograms with final report ☐

APPENDIX C

Report Limitations and Guidelines for Use

APPENDIX C

REPORT LIMITATIONS AND GUIDELINES FOR USE¹

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

Environmental Services are Performed for Specific Purposes, Persons and Projects

This report has been prepared for use by BCRA, Inc. This report may be made available to for review. This report is not intended for use by others, and the information contained herein is not applicable to other sites.

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

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

This report has been prepared for Hood Street-South 25th Street to South 21st Street in Tacoma, Washington. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

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

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

Reliance Conditions for Third Parties

If a lending agency or other parties intend to place legal reliance on the product of our services, we require that those parties indicate in writing their acknowledgement that the scope of services provided, and the general conditions under which the services were rendered including the limitation of professional liability, are understood and accepted by them. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions.

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

Environmental Regulations are Always Evolving

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

Subsurface Conditions can Change

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

Topsoil

For the purposes of this report, we consider topsoil to consist of generally fine-grained soil with an appreciable amount of organic matter based on visual examination, and to be unsuitable for direct support of the proposed improvements. However, the organic content and other mineralogical and gradational characteristics used to evaluate the suitability of soil for use in landscaping and agricultural purposes was not determined, nor considered in our analyses. Therefore, the information and recommendations in this report, and our logs and descriptions should not be used as a basis for estimating the volume of topsoil available for such purposes.

Most Environmental Findings are Professional Opinions

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

Do Not Redraw the Exploration Logs

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

Read These Provisions Closely

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory “limitations”

provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these “Report Limitations and Guidelines for Use” apply to your project or site.

Geotechnical, Geologic and Geoenvironmental Reports Should Not Be Interchanged

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

Biological Pollutants

GeoEngineers’ Scope of Work specifically excludes the investigation, detection, prevention, or assessment of the presence of Biological Pollutants in or around any structure. Accordingly, this report includes no interpretations, recommendations, findings, or conclusions for the purpose of detecting, preventing, assessing, or abating Biological Pollutants. The term “Biological Pollutants” includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts.