DRAFT PHASE II ENVIRONMENTAL SITE ASSESSMENT REPORT

YOUTH SERVICES CENTER
1211 EAST ALDER STREET
SEATTLE, WASHINGTON

TAX PARCELS 2908700085/7949300095

Prepared for King County Facilities Management Division

Prepared by Herrera Environmental Consultants, Inc.



Note:

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Prepared for
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CONTENTS

Introduction
Property Description and Physical Setting
Property Description and Physical Setting
Asset Description
Regional and Site Geology and Hydrogeology
Geology
Regional and Site Hydrology (Surface Water, Wetlands, Stormwater Runoff
Phase I ESA Update
·
Field Investigations
Utility Locate1
Drilling and Sampling Activities
First Field Event
Second Field Event
Third Field Event
Fourth Field Event
. 5
Investigation Results
Subsurface Conditions
Site Geology1
Groundwater
Contaminants of Concern
Groundwater Sampling
Soil Sampling
Air Sampling
Conclusions
Groundwater
Soil
Indoor Air
Limitations
LIIIItations
References4
Appendix A Field Procedures
Appendix B Soil Boring and Monitoring Well Construction Records
Appendix C Data Quality Assurance Review
Appendix D Analytical Laboratory Reports



TABLES

Table 1.	Building Addition Construction Information, Youth Services Center	3
Table 2.	Summary of Sites with Suspected Environmental Conditions Based on Historical Activities, Youth Services Center.	9
Table 3.	Groundwater Dry Cleaner Solvent Analytical Results Summary (µg/L), Youth Services Center, Seattle, Washington	25
Table 4.	Soil Sampling Analytical Results Summary, Youth Services Center, Seattle, Washington.	30
Table 5.	Air Monitoring Analytical Results Summary, Youth Services Center, Seattle, Washington.	33
FIGUR	RES	
Figure 1.	Location Map, Youth Services Center, Seattle, Washington	2
Figure 2.	Vicinity Map, Youth Services Center, Seattle, Washington	8
Figure 3.	Groundwater Sampling Locations, Youth Services Center, Seattle, Washington.	12
Figure 4.	Soil Sampling Locations, Youth Services Center, Seattle, Washington	13
Figure 5.	Air Sampling Locations, Youth Services Center, Seattle, Washington	14
Figure 6.	Geologic Cross-section, Youth Services Center, Seattle, Washington	21
Figure 7.	Groundwater Elevation Contour Map, Youth Services Center, Seattle, Washington.	23
Figure 8.	Groundwater Sampling Summary Results, Youth Services Center, Seattle,	27



INTRODUCTION

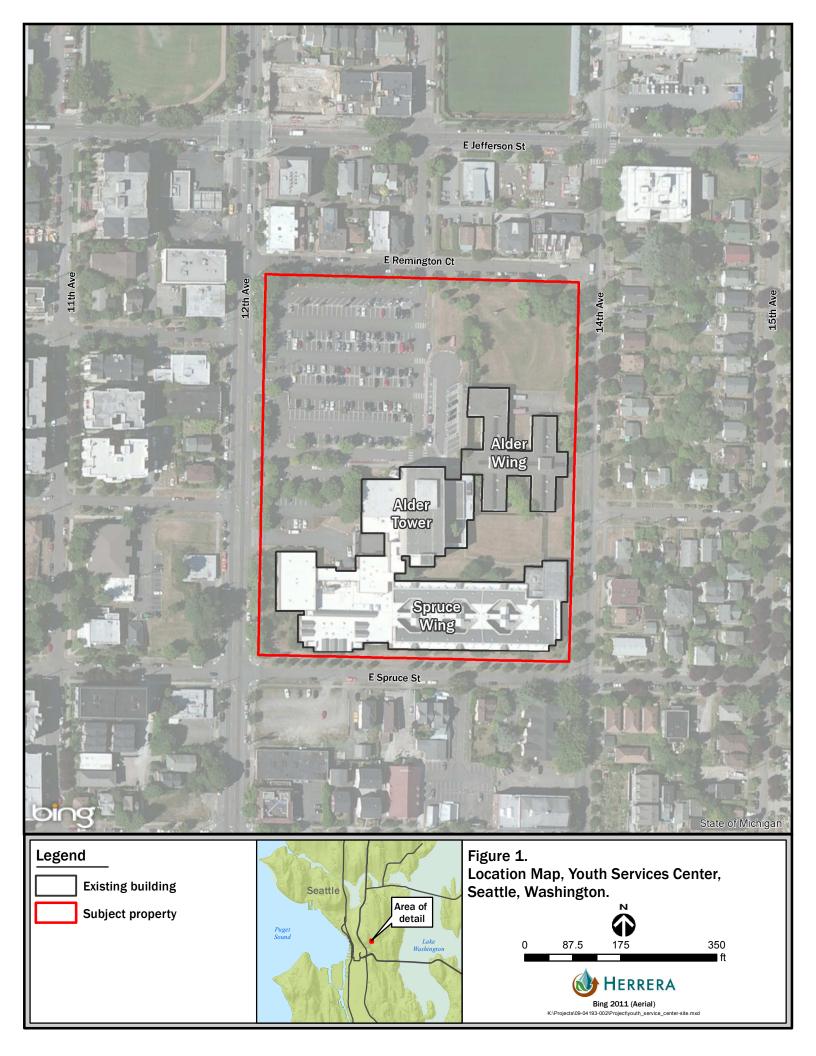
Herrera Environmental Consultants, Inc. (Herrera) has completed a Phase II Environmental Site Assessment (ESA) for the Youth Services Center (YSC) property, located at 1211 East Alder Street in Seattle, Washington 98122 (Figure 1). The work was conducted under On-Call Environmental Hazard Services Procurement Contract No. B21945B between King County and Herrera. The assessment was performed to determine the potential for presence of hazardous substances prior to demolition of existing buildings and construction of a new facility. The new facility will include a courthouse, detention facility and parking garage. King County is the property owner.

Herrera identified Recognized Environmental Conditions (RECs) in a Phase I ESA completed in April 2010, including potential releases of petroleum hydrocarbons at the site and possible migration of petroleum hydrocarbons and dry cleaner solvents onto the property from historical operations at sites located to the north, west, and south (Herrera 2010).

Work performed for this Phase II ESA was conducted in phases, including:

- Updating the 2010 Phase I ESA by reviewing current regulatory databases for recently listed sites
- Conducting probe groundwater sampling at seven locations to determine the potential
 for site contamination associated with identified historical onsite and offsite
 contaminant sources, as well as soil sampling at three potential onsite source locations
- Conducting follow up probe groundwater sampling at five locations to further delineate identified dry cleaner solvent contamination in the northwest corner of the site and conducting groundwater sampling at three monitoring wells installed during concurrent geotechnical investigations
- Conducting indoor air monitoring for possible vapor intrusion (VI) associated with groundwater contamination
- Conducting additional probe groundwater and soil and sampling across the northcentral portion of the site to further characterize groundwater contamination (7 locations) and to characterize soil planned for excavation during site development (22 locations)
- Installing and sampling nine groundwater monitoring wells to define groundwater flow direction and monitor water quality conditions across the property.





PROPERTY DESCRIPTION AND PHYSICAL SETTING

Property Description and Physical Setting

The site consists of two parcels covering at total of 8.59 acres, located in the south central portion of Section 41, Township 25 North, Range 4 East of the Willamette Meridian, in King County. The two parcels are identified by Tax ID numbers 2908700085 and 7949300095.

The subject property is situated at latitude 47.59909 North and longitude -122.33136 West on land that slopes down to the south from approximately 260 to 220 feet above mean sea level (EDR 2010). The site is currently used as a court and juvenile detention center by King County; a small school is also operated by the Seattle School District in the Alder Wing. Approximately 65 percent of the site is covered by impervious surfaces that include building roofs and paved parking areas. Buildings cover approximately 35 percent of the property; the remainder is composed of parking lots, paved walkways, and lawn/landscaped areas. Catch basins in the paved areas drain surface water to the City stormwater system; roof drains are also connected to the City system. The site is bordered by residential and commercial/industrial properties on all sides.

Asset Description

King County property records indicate that a 20,724 square foot (ft²) rectangular masonry building was constructed on the property in 1950; building addition information is provided in Table 1.

Table 1. Building Addition Construction Information, Youth Services Center.					
Building Addition	Addition Area (ft²)	Addition Construction Date	Current Use		
1	90,792	1951	Cafeteria, hospital, gymnasium		
2	4,108	1968	Indoor swimming pool room		
3	4,459	1970	Gymnasium		
4	40,144	1971	Youth center dormitory		
5	64,500	1971	Office and court		
6	30,750	1974	Youth center dormitory		
7	95,719	1990	Office, jail, gymnasium		

Note: The 1951 structure was demolished when the 1971 structures were built.

The current configuration separates the building complex into three general areas, connected by indoor hallways: the central Alder Tower, the Alder Wing to the east, and the Spruce Wing to the south (see Figure 1).



Regional and Site Geology and Hydrogeology

Geology

The YSC is located within the southern portion of the Puget Sound Lowland physiographic region. The Puget Sound Lowland has undergone physiographic and depositional changes due to at least five glacial episodes. The last glaciation that occurred in the region was the Vashon Stade of the Fraser Glaciation, which ended approximately 13,500 years ago. The advance of the Vashon Glacier deepened and widened the north/south trending valleys situated between the Olympic Mountains and the Cascade Range in western Washington State. In the Seattle area, the Vashon Stade is represented by four stratigraphic units (from oldest to youngest): Lawton Clay, Esperance Sand, Vashon Till, and Vashon recessional deposits that make up the Vashon Drift (Galster and Laprade 1991).

As the Vashon glacial lobe advanced south and blocked the northern portion of the Puget Sound basin, a lake was formed and fine-grained sediments were deposited. This glaciolacustrial deposit, known as the Lawton Clay, is reported to be present in the Seattle area as high as 150 feet above mean sea level. A fine- to medium-grained sand unit was deposited above the Lawton Clay by meltwater streams issuing from the advancing ice sheet as it neared the Seattle area. This sand unit is called the Esperance Sand Member. The Lawton Clay and Esperance Sand are sometimes intermixed and interbedded, and the contact between the two soil types may be gradational. Both of these deposits were overridden by an estimated 3,000 feet of ice, which consolidated them into hard or dense layers. A mantle of the Vashon till was deposited on top of the Esperance Sand and Lawton Clay.

The YSC likely rests on recessional outwash deposits formed in a channel that trends north-south, flanked by till to the east and west. The recessional deposits are typically stratified sand and gravel and, less commonly, silty sand and silt. Locally, the recessional deposits are divided into 1) lacustrine deposits, consisting of laminated silt and clay, with localized sand layers underlain by 2) coarse grained deposits, consisting of sand and gravel (USGS 2005).

Regional and Site Hydrology (Surface Water, Wetlands, Stormwater Runoff

The YSC sits at the center of the north-south trending trough, with the potential to accept surface flow from a wide arc, extending from the northwest, swinging through the north to the northeast. Surface water leaves the site to the south. Surface flow typically is intercepted by the City stormwater collection system, so that typically only site runoff comes onto the property; however, historical intense rainfall events have resulted in significant site flooding. There are no wetlands or surface water bodies mapped in the vicinity of the subject property.

Hydrogeology (Groundwater)

Regional shallow groundwater in the Seattle area generally occurs above the Esperance Sand/Lawton Clay contact and emerges along hillsides as springs. This groundwater is primarily recharged by direct infiltration and seepage from surface waters, precipitation, and surface runoff. Fine-grained deposits within the recessional outwash, situated above the Esperance Sand/Lawton Clay, often result in perched groundwater conditions. Groundwater



tends to migrate downward within thin sand layers in these zones to more permeable and transmissive sand and gravel within the recessional and advance deposits.

Fifteen monitoring wells were installed during this investigation; additional discussion of site-specific groundwater conditions, including a water level contour map is provided in the results section of this report.



PHASE I ESA UPDATE

The regulatory database review conducted in 2010 identified a generator diesel fuel underground storage tank (UST) located on the YSC property in current use and nine sites documented on Ecology databases as having handled or managed hazardous substances within 1,000 feet of the YSC. The tank currently in use is constructed of double wall steel, is registered with Ecology, complies with current regulations, and features an electronic leak detection system; no evidence of a leak has been identified for the tank. None of the nine surrounding sites identified during the regulatory database review were determined to pose a risk to the YSC property based on activities reported, locations, and distances from the YSC.

Review of site drawings in 2010 identified an historical emergency generator UST located in the basement on the west side of the Alder Tower; it is unknown whether the tank was removed when the facility was redeveloped in 1990.

In addition to the regulatory database review, a review of historical property uses surrounding the YSC was performed that identified 14 sites with a potential to impact the site (Table 2, Figure 2). Three of these sites had been located on the YSC property and the other 11 sites had been located one or two blocks away to the west, north, and east (downgradient offsite businesses to the south were not considered potential sources worth further consideration).

No new sites of potential concern were identified as a result of a 2013 updated review of regulatory databases; each of the sites and addresses indicated in Table 2 were confirmed.

In September 2012, it was discovered that an estimated 50 gallons of hydraulic fluid had leaked into a concrete vault at the base of the north Alder Tower elevator (near the building entrance). The elevator repair company soaked up what they could, but suspected that much of the oil had seeped into concrete fractures and joints and then onto soil beneath the building. The release was reported to Ecology, along with a plan to address the contaminated soil when demolishing the building over the next few years. Ecology suggested that the site would be placed on the Confirmed and Suspected Contaminated Sites List; however, it was not found during the 2013 database review.



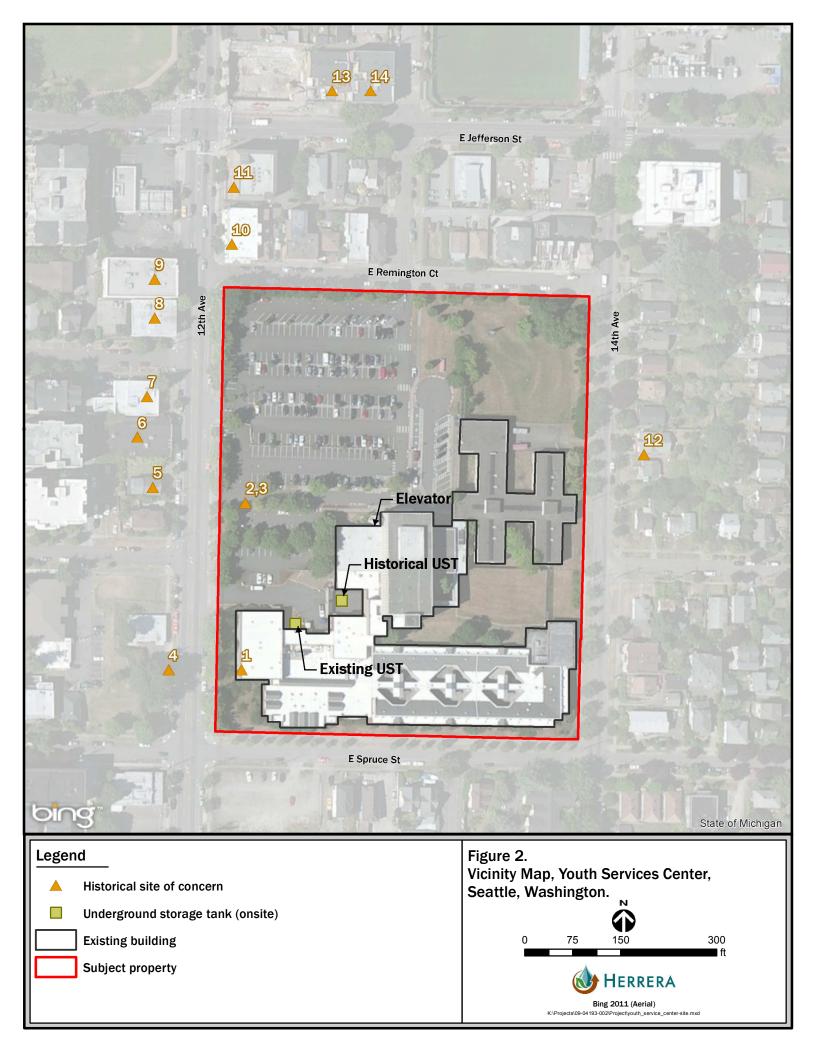


Table 2.	Table 2. Summary of Sites with Suspected Environmental Conditions Based on Historical Activities, Youth Services Center.						
Site No.	Site Name	Site Address	Distance ^a	Туре	Contaminant		
1	Paul R Johnson	212 12th Avenue	Onsite	Historical Auto Stations	Petroleum products		
2	Hill's Auto Repair	314 12th Avenue	Onsite	Historical Auto Stations	Petroleum products		
3	Auto Repair	320 12th Avenue	Onsite	Historical Auto Stations	Petroleum products		
4	NW Perkins Motors	217 12th Avenue	60 feet west	Historical Auto Stations	Petroleum products		
5	Bob's Auto Repair	305 12th Avenue	60 feet west	Historical Auto Stations	Petroleum products		
6	Tet's Auto Repair	317 12th Avenue	60 feet west	Historical Auto Stations	Petroleum products		
7	Kono Garage	321 12th Avenue	60 feet west	Historical Auto Stations	Petroleum products		
8	Kono Y Tkio	407 12th Avenue	60 feet west	Historical Auto Stations	Petroleum products		
9	Frans Bros	417 12th Avenue	60 feet west	Historical Auto Stations	Petroleum products		
10	Law's Cleaners and Hatters	452 12th Avenue	60 feet north	Historical Cleaners	Solvents		
11	Robertson's Cleaners	460 12th Avenue	80 feet north	Historical Cleaners	Solvents		
12	Fuller Serv U Dry Cleaners	320 14th Avenue	60 feet east	Historical Cleaners	Solvents		
13	Lee Wing Hand Laundry	1222 E Jefferson Street	250 feet north	Historical Cleaners	Solvents		
14	Dong Gom	1220 E Jefferson Street	250 feet north	Historical Cleaners	Solvents		

^a Distance of the listed site relative to the subject property boundary, as determined by area reconnaissance (note: the 2010 Phase ESA reported these distances relative to the property buildings).



FIELD INVESTIGATIONS

Field investigations were conducted using a phased approach, where sampling and analysis results from each field event were used to determine sampling efforts for the following field event. Herrera provided oversight for installation of 36 vibratory probes and nine groundwater monitoring wells. Groundwater was sampled from 20 of the probes and soil was sampled from 23 of the probes. In addition to the nine monitoring wells installed by Herrera, three monitoring wells were installed by Icicle Creek Engineers during their geotechnical investigations, conducted concurrent with Phase II investigations, to support future building designs. Due to the presence of volatile organic compounds detected in groundwater beneath the buildings, indoor air monitoring was conducted in the Alder Tower and Spruce Wing.

Field procedures are provided in Appendix A and boring logs and well completion diagrams are provided in Appendix B. Drilling locations associated with groundwater sampling are provided on Figure 3 and drilling locations associated with soil sampling are provided in Figure 4 (soil and groundwater samples were collected from the same probes at eight locations, shown on both figures). Air monitoring locations also are provided on Figure 5.

Soil and groundwater samples were analyzed for all or some of the following:

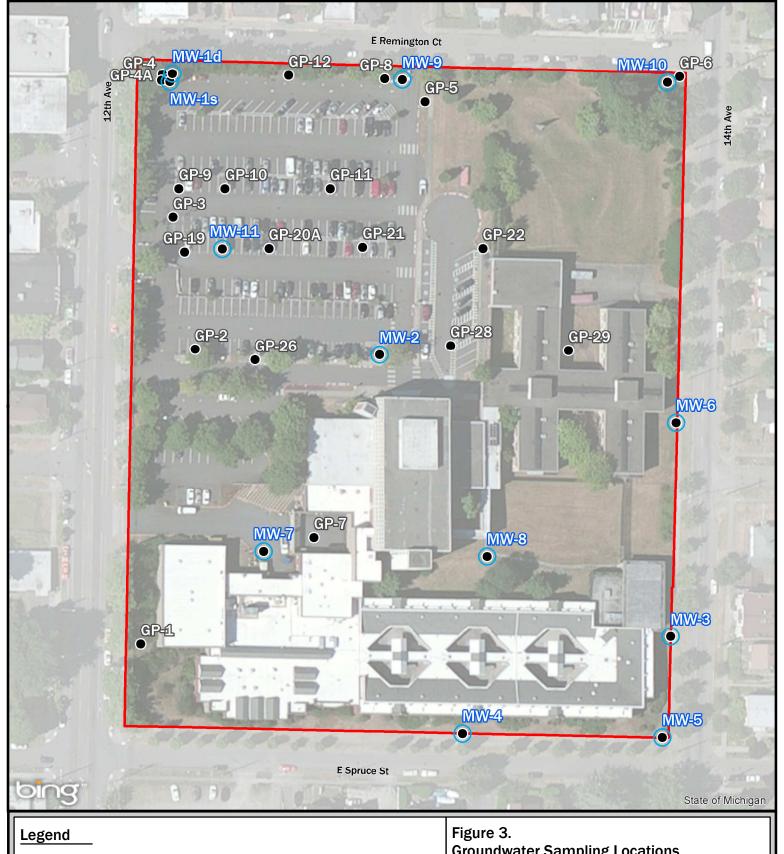
- Petroleum hydrocarbons using Hydrocarbon Identification (HCID) screening and then follow up with Total Petroleum Hydrocarbon - diesel extended (TPH-Dx) based on screening results
- Total lead using Environmental Protection Agency (EPA) method 6010C/6020A
- Toxicity Characteristic Leaching Procedure (TCLP) for lead using EPA method 1311
- Halogenated volatile organic compounds (HVOCs) using EPA method 8260C

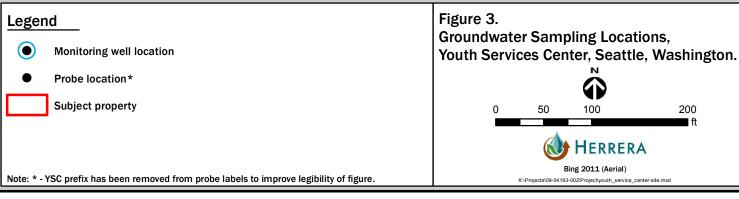
Air samples were analyzed for dry cleaner solvent HVOCs, including tetrachloroethylene, trichloroethylene, (cis) 1,2-dichloroethylene, (trans) 1,2-dichloroethylene, and vinyl chloride and for 1,1-dichloroethane using EPA method TO-15.

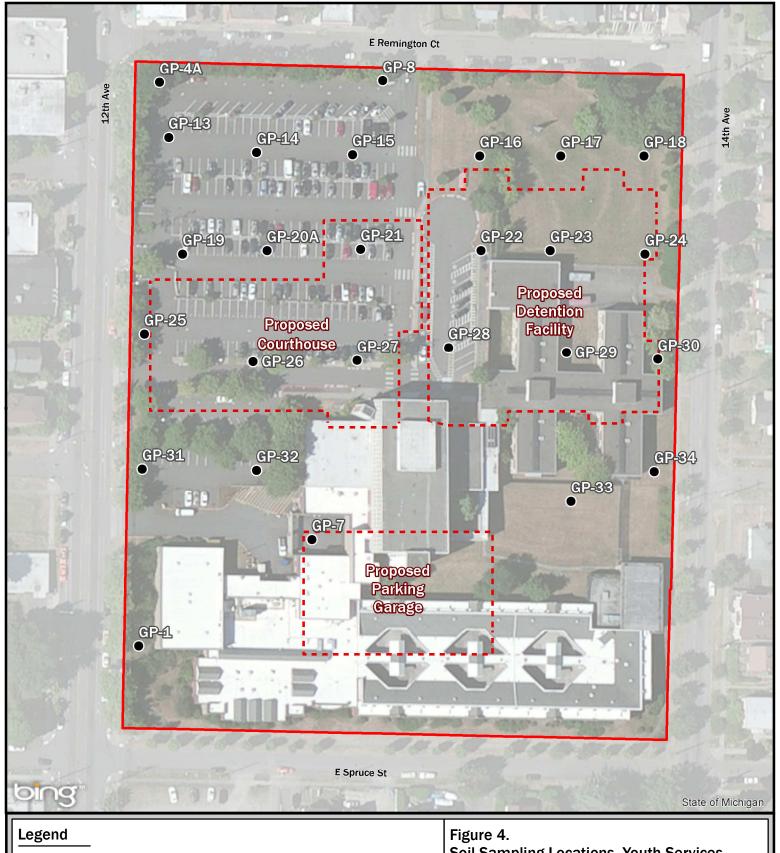
Utility Locate

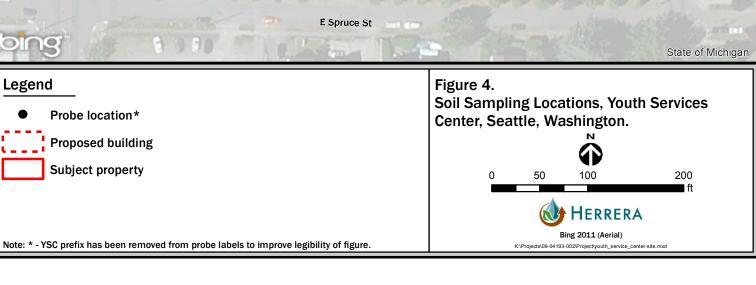
The toll-free (one call) underground utility location service was contacted prior to drilling to designate water, sewer, gas, electric, and communication lines surrounding the property. A private locating service, APS of North Bend, Washington, identified underground piping on the subject property prior to each drilling event. Seattle Public Utilities provided a map that indicated a detailed wastewater, water supply, and storm drain piping network across the site.



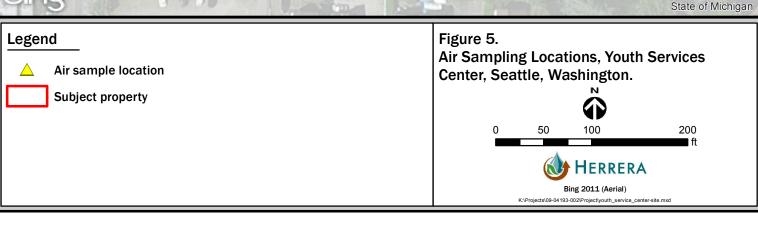












Drilling and Sampling Activities

First Field Event

Initial Phase II sampling included installation of six probes (YSCGP-1 through YSCGP-6) along the west and north property boundaries to address potential soil and groundwater contamination associated with the offsite historical sources listed in Table 2. Probe YSCGP-7 was installed immediately south of the historical emergency generator UST. Groundwater was encountered between 10 and 23 feet below ground surface (bgs); probes were advanced to probe depths ranging from 15 to 25 feet bgs. Sampling and analysis were conducted, as follows (refer to Figure 2 for historical source locations):

- Probe YSCGP-1 was drilled adjacent to historical site No. 1-soil was collected from 2- and 10-foot depths and analyzed for HCID; groundwater was analyzed for HCID.
- Probe YSCGP-2 was drilled adjacent to historical site Nos. 2/3-groundwater was analyzed for HCID and HVOCs.
- Probe YSCGP-3 was drilled across the street from historical site Nos. 6/7-groundwater was analyzed for HCID and HVOCs.
- Probe YSCGP-4 was drilled across the street from historical site Nos.
 10/11-groundwater was analyzed for HVOCs.
- Probe YSCGP-5 and YSCGP-6 were drilled downgradient from historical site Nos. 13/14-groundwater was analyzed for HVOCs.
- Probe YSCGP-7 was drilled adjacent to the historical Alder Tower emergency generator-soil was collected from 9 feet bgs and analyzed for HCID and TPH-Dx; groundwater was analyzed for HCID.

Contamination found at the northwest corner of the site indicated the need for additional groundwater characterization (specific results are discussed in the Investigation and Results section below).

Second Field Event

Follow up Phase II sampling included installation of six probes (YSCGP-4A and YSCGP-8 through YSCGP-12) across the northwest corner of the property. Probe YSCGP-4A was drilled adjacent to YSCGP-4 to determine if groundwater initially sampled in YSCGP-4 had come from a 6-inch thick sand lens encountered at 6.5 feet bgs or from a deeper layer. Probes YSCGP-8 through YSCGP-12 were positioned to complete a grid with an approximate 100-foot spacing, extending to the east and south of YSCGP-4. Groundwater was encountered between 7 and 11.5 feet bgs; probes were advanced to between 10 and 21 feet bgs. Sampling and analysis were conducted, as follows:

• **Probe YSCGP-4A** - soil was collected from 8.5 feet bgs and analyzed for HVOC to characterize the soil cuttings for disposal; groundwater was analyzed for HVOCs.



- Probe YSCGP-8 soil was analyzed for HCID; groundwater was analyzed for HCID, TPH-Dx, and HVOCs (petroleum was analyzed based on a sheen observed on saturated soil).
- **Probes YSCGP-9 through YSCGP-12** groundwater was analyzed for HVOCs.

Concurrent with the second field event, three geotechnical borings were completed as monitoring wells (MW-6, MW-7, and MW-8) by Icicle Creek Engineers, located in the south-central portion of the property. Groundwater was sampled from each well after the probes were sampled. Contamination found in probes south of YSCGP-4 and in MW-8 indicated the need for additional groundwater characterization (specific results are discussed in the Investigation and Results section below).

Third Field Event

Additional Phase II sampling included installation of 23 probes (YSCGP-13 through YSCGP-34) across the northern two-thirds of the property (additional probe YSCGP-20A was drilled adjacent to YSCGP-20 to collect a groundwater sample that could not previously be collected due to lack of water prior to encountering refusal). The probes were positioned on a grid with approximately 100-foot spacing, extending to the east and south of a point located approximately 100 feet south of YSCGP-4. Soil was collected from 22 locations to evaluate potential construction and disposal requirements associated with planned building basement excavations; groundwater was collected from seven probes to delineate contamination across the central portion of the site to help determine placement of future monitoring wells:

- Probes YSCGP-13 through YSCGP-34 shallow soil (fill) was analyzed for HCID, TPH-Dx (as required), lead, and HVOCs; deep soil (saturated) was analyzed for HVOCs.
- Shallow soil samples were not analyzed from **Probes YSCGP-23 and YSCGP-29** because no fill material was encountered.
- A deep soil sample was not analyzed from Probe YSCGP-33; the boring was not able to penetrate beyond 11 feet due to the presence of coarse material and saturated soil was not encountered.
- Probes YSCGP-19, YSCGP-20A, YSCGP-21, YSCGP-22, YSCGP-26, YSCGP-28, YSCGP-33 - groundwater was analyzed for HVOCs.

Fourth Field Event

Nine monitoring wells were installed across the entire site, integrating the labeling system already established with the existing wells installed during the geotechnical investigation:

- MW-1s was installed at the northwest corner of the site, screened across the groundwater surface to a depth of 16 feet bgs, to evaluate shallow aquifer conditions-groundwater was analyzed for HVOCs.
- MW-1d was installed adjacent to MW-1s and screened between 35 and 45 feet bgs to evaluate deep aquifer conditions-groundwater was analyzed for HVOCs.



- MW-2 was installed at the center of the property, immediately north of the Alder Tower entrance, screened across the groundwater surface to a depth of 26 feet bgs, to evaluate conditions half way between the northwest corner of the property and contamination found at MW-8 during the second field event-groundwater was analyzed for HVOCs.
- MW-3, MW-4, and MW-5 were installed across the southeast corner of the property, screened across the groundwater surface to depths of 31, 18, and 22.5 feet bgs, respectively, to evaluate downgradient property boundary conditions-groundwater was analyzed for HVOCs.
- MW-9 was installed at the north-central property boundary, screened across the groundwater surface to a depth of 27 feet bgs, to evaluate the eastern extent of the plume-groundwater was analyzed for HVOCs.
- MW-10 was installed at the northeast corner of the property, screened across the groundwater surface to a depth of 26 feet bgs, to evaluate the eastern extent of the plume-groundwater was analyzed for HVOCs.
- MW-11 was installed approximately 200 feet south of the northwest corner of the property, screened across the groundwater surface to a depth of 25 feet bgs, to evaluate the western extent of the plume-groundwater was analyzed for HVOCs.

All monitoring wells were surveyed to the tops of casings on September 23, 2013, by Parametrix; elevations were established according to the NAVD 1988 vertical datum, per City of Seattle Benchmarks #SNV-2503 and #3638-0201.

Indoor Air Sampling

Analytical results associated with probe sampling at the northwest corner of the site and the geotechnical investigation monitoring wells indicated the presence of tetrachloroethylene beneath occupied buildings at a concentration of concern for VI. Five Summa canisters were installed within and on top of both the Alder Tower and the Spruce Wing to evaluate indoor and ambient air quality:

- Sample #1 located in the Alder Tower basement mechanical room
- Sample #2 located in the Spruce Wing detention L wing unit 4
- Sample #3 located in the Alder Tower basement storage room
- Sample #4 located in the Spruce Wing roof above unit 4 ventilation system exhaust
- Sample #5 located in the Alder Tower penthouse ventilation system intake

Each Summa canister was set to collect air over an 8-hour period. The two outdoor locations were selected to represent background conditions and influent air quality into the building. The three indoor locations were selected to represent the highest potentials for exposure. After sampling was complete, it was determined that the vent structure associated with Sample #4 was an exhaust vent.



INVESTIGATION RESULTS

Subsurface Conditions

Site Geology

Fill material was encountered across the site, including brick fragments found in over one-third of the borings completed during this study. Small pieces of concrete, plastic, and wood fragments also were observed in several borings. Much of the fill consisted of loose silty sand with gravel, often underlain by brick fragments, and was logged as fill. Gray and red-brown mottled silty sand and sandy silt with gravel was observed beneath sediment with brick fragments at depths ranging from 7 to 11 feet bgs near the center of the site and within 1 foot of ground surface near the northern property boundary. Based on the nature of this material, including color mottling, consistency, and its presence at depth, it was logged as native soil.

The fill layer was thickest immediately north of the Alder Tower (18 feet) and south of the Alder Tower (7 to 13 feet), diminishing to 1 or 2 feet at the north property boundary, 3 feet at the south property boundary, 4 feet at the east property boundary, and 1 to 3 feet at the west property boundary. Fill was found to be approximately 1 foot thick across the entire northeast quarter of the property where the surface elevation was generally 9 feet lower than the central portion of the property.

Fill material was underlain by glacial outwash deposits, generally consisting of loose silt, sand, and gravel. Clay layers also were observed in five probes across the site, including YSCGP-6, YSCGP-11, YSCGP-16, YSCGP-30, and YSCGP-31 at depths ranging from 8 feet to 14.5 feet bgs with thicknesses from 0.5 to 3.5 feet. Thin interbeds, less than 4 inches thick, of silt or sand were present at some boring locations.

Outwash deposits were observed as very dense across the site at depths ranging from 15 to 25 feet bgs. The outwash began transitioning to fine-grained deposits of silty clay observed in monitoring well MW-1d at 45 feet bgs; dense silt found at depths ranging from 25.5 to 30 feet bgs in MW-3, MW-9, and MW-10; and dense sandy silt observed at 47.5 feet bgs in MW-5.

A geologic cross section drawn from the northwest corner to the southeast corner of the YSC property is provided as Figure 6. There appears to be a consistent vertical profile throughout the site progressing from the surface to approximately 50 feet deep as layers of fill, silt, sand, and silt, with some interbedding of sand or clay. The lower silt layer becomes hard at depth, likely acting as an aquiclude.

Groundwater

Shallow groundwater migrates onto the YSC property from surrounding properties and recharges from precipitation that occurs onsite. Zones of low permeability, including silt and



clay, impede vertical migration of water across the site, causing it to migrate in a stair step manner through the vadose zone. Thin sand interbeds convey shallow groundwater onto the property from offsite.

Groundwater levels measured on September 23, 2013, were used to develop a water level contour map; the direction of groundwater flow was to the south-southeast (Figure 7). The depth to water varied from 4.6 to 20.8 feet bgs. Water levels measured in MW-1s (9.0 feet bgs) and in MW-1d (7.9 feet bgs) indicate an upward vertical gradient; the formation spanning the two screened sections was found to be quite transmissive (silty sand to sandy gravel), sampled at 5-foot intervals. The hydraulic gradient is calculated as 0.022 ft/ft.

Shallow groundwater appears to be semi-confined, due to the presence of fine-grained material overlying more permeable zones of sand and gravel. The fine-grained lacustrine deposits, discussed above in Site Geology, may be considered the bottom of the shallow aquifer for the site. The very dense silts and clays, encountered at depths ranging from 25.5 to 45 feet bgs, did not appear to be saturated.

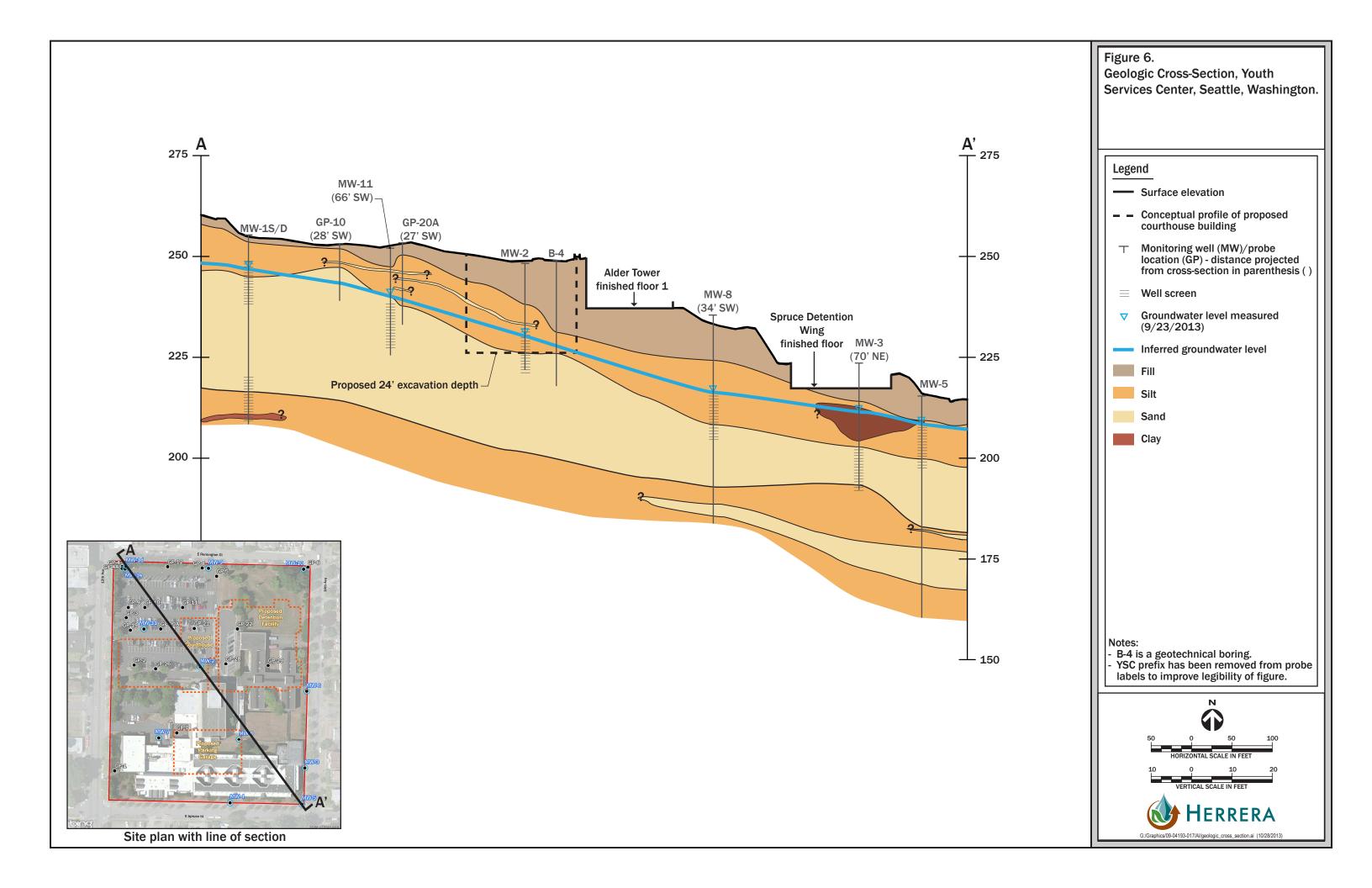
Water levels relative to ground surface elevations were observed during probe installations and measured at wells when sampled. Depth to water measured in probes and wells within and adjacent to proposed building locations included:

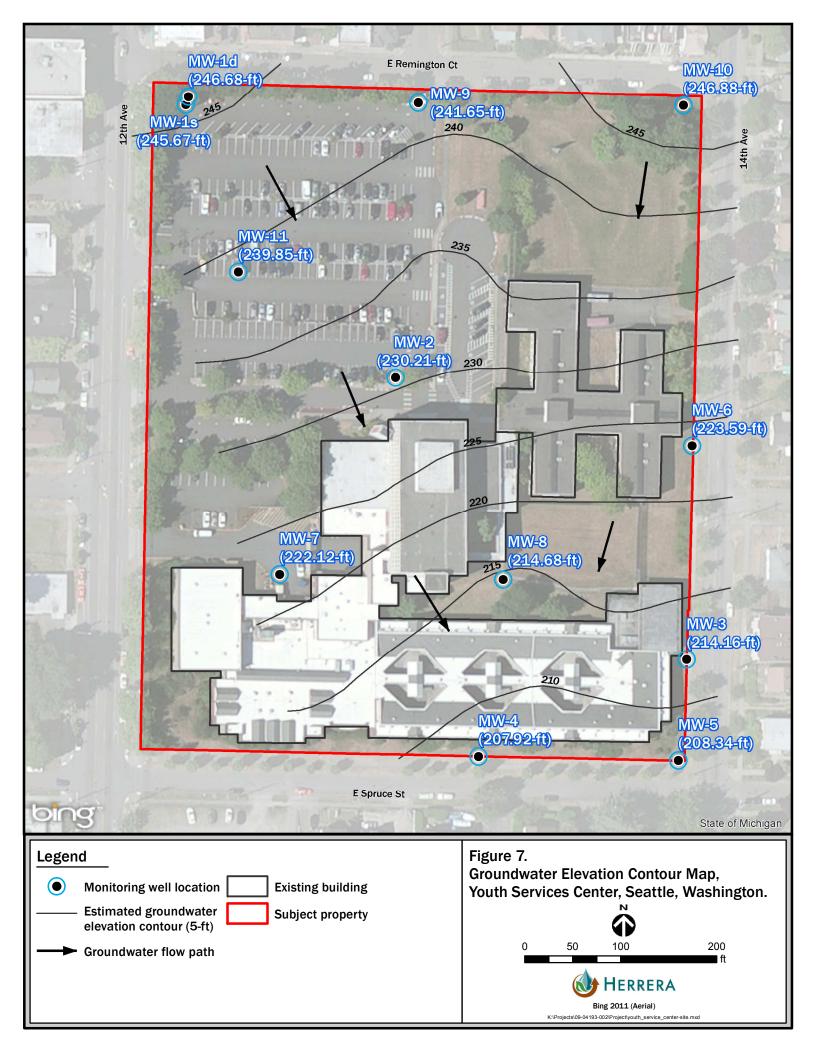
- Courthouse location (YSCGP-19, -20, -21, -25, -26, and -27; and MW-2, and -11) indicate saturated conditions generally between 12 and 14 feet deep
- Parking garage location (YSCGP-7 and MW-7 and -8) indicate saturated conditions generally between 13 and 20 feet deep
- Detention facility location (YSCGP-16, -17, -18, -22, -23, -24, -28, -29, -30, -33, and -34; and MW-6) indicate saturated conditions generally between 14 and 18 feet deep along the western building edge, between 6 to 9 feet deep along the center of the building, and between 7 to 14 feet deep along the eastern building edge.

Contaminants of Concern

Initial sampling indicated the presence of dry cleaning solvents along the north property boundary, immediately south of historical dry cleaners identified in the Phase I ESA. Starting in the mid-1930s, tetrachloroethylene (also known as perchloroethylene, "PCE", or "perc") became the primary dry cleaning solvent of use. It is a chlorinated volatile compound, degraded in the environment by reductive dechlorination under anaerobic conditions to trichloroethylene, which degrades to dichloroethylene (both cis- and transisomers), which degrades to vinyl chloride. The degradation compounds are called daughter products; each is considered an HVOC quantified by EPA method 8260. The specific gravities of dichloroethylene, trichloroethylene, and tetrachloroethylene range from 1.3 to 1.6, which are greater than water at 1.0. If found at high enough concentrations, these compounds may sink through the water column until impeded by a confining surface.







Initial sampling also indicated the presence of diesel-range petroleum hydrocarbons adjacent to an historical UST used to store diesel fuel for an emergency generator. Diesel fuel is quantified by the NWTPH-Dx method.

Analytical Results

Groundwater samples were collected at 20 probe locations and 12 monitoring well locations. A summary of analytical results for dry cleaner solvent HVOCs is provided in Table 3 and depicted in Figure 8. HVOCs unrelated to dry cleaning operations detected in groundwater are discussed separately in the narrative below.

Soil samples were collected at three onsite historical potential source areas, at one location where high dry cleaning solvents concentrations were detected in groundwater, at one location where sheen was observed while drilling for groundwater, and at 22 locations in and surrounding planned excavation areas.

Air samples were collected at three indoor and two outdoor locations.

Laboratory reports and chain-of-custody records are provided in Appendix D and a Data Quality Assurance Review is provided in Appendix C. All data were deemed acceptable, based on *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA 2002); however, HVOC holding times for groundwater samples collected at probes YSCGP-2 and YSCGP-3 were exceeded by 18 and 19 days, respectively, and were qualified as estimated non-detects (these samples were analyzed after it appeared that dry cleaner solvents may have migrated south along the west side of the property during the first field event and were used to help position probes and monitoring wells during later field events).

Groundwater Sampling

Groundwater sampling at probes and monitoring wells was conducted to define the extent of dry cleaning solvent contamination first identified at the northwest corner of the property:

- Eighteen probes were installed during three field events to determine the apparent length and width of the contaminant plume across the north half of the property.
- Three monitoring wells installed as part of geotechnical investigations indicated contamination in the center of the site.
- Nine more monitoring wells were installed to further define plume boundaries and to provide for long-term monitoring across the site.

Probe Results

Five probes identified dry cleaning solvents and daughter breakdown products emanating from a source or sources located north of the YSC property, probably at historical site Nos. 10 and 11 (Law's Cleaners and Hatters listed at 452 12th Avenue and Robertson's Cleaners listed



Table 3. Groundwater Dry Cleaner Solvent Analytical Results Summary (µg/L), Youth Services Center, Seattle, Washington.						
Sample	Date			Analytical Parameters	1	
Identification	Sampled	Tetrachloroethylene	Trichloroethylene	cis-1, 2 dichloroethylene	trans-1, 2 dichloroethylene	Vinyl chloride
YSCGP-2	6/27/13	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
YSCGP-3	6/27/13	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
YSCGP-4	6/27/13	8,200	91	160	ND (50)	ND (50)
YSCGP-4A	8/2/13	2,800	ND (20)	ND (20)	ND (20)	ND (20)
YSCGP-5	6/27/13	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
YSCGP-6	6/27/13	0.40	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
YSCGP-8	8/2/13	73	22	1.3	0.8	ND (0.40)
YSCGP-9	8/2/13	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
YSCGP-10	8/2/13	2,100	ND (10)	ND (10)	ND (10)	ND (10)
YSCGP-11	8/2/13	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
YSCGP-12	8/2/13	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
YSCGP-19	9/4/13	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
YSCGP-20A	9/5/13	2,000	15	ND (10)	ND (10)	ND (10)
YSCGP-21	9/4/13	74	ND (1.0)	ND (1.0)	ND (1.0)	ND (1.0)
YSCGP-22	9/4/13	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
YSCGP-26	9/4/13	26	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
YSCGP-28	9/5/13	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
YSCGP-29	9/5/13	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
MW-1s	9/23/13	3,900	21	26	ND (20)	ND (20)
MW-1d	9/23/13	2.7	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
MW-2	9/23/13	3,000	ND (20)	ND (20)	ND (20)	ND (20)
MW-3	9/23/13	ND(1.0)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)

Table 3 (continued). Groundwater Dry Cleaner Solvent Analytical Results Summary (µg/L), Youth Services Center, Seattle, Washington.

Sample	Date	Analytical Parameters				
Sample Identification	Sampled	Tetrachloroethylene	Trichloroethylene	cis-1, 2 dichloroethylene	trans-1, 2 dichloroethylene	Vinyl chloride
MW-4	9/23/13	66	1.8	ND (0.20)	ND (0.20)	ND (0.20)
MW-5	9/23/13	1.7	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
MW-6	7/30/13	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
MW-6	9/23/13	ND (1.0)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
MW 7	7/30/13	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
MW 7	9/23/13	ND (1.0)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
MW-8	7/30/13	150	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)
MW-8	9/23/13	98	1.9	ND (1.0)	ND (1.0)	ND (1.0)
MW-9	9/23/13	230	16	ND (2.0)	ND (2.0)	ND (2.0)
MW-10	9/23/13	ND (1.0)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
MW-11	9/23/13	3,000	ND (20)	ND (20)	ND (20)	ND (20)
MTCA Cleanup Level		5.0 ª	5.0 ª	16.0 ^b	160 b	0.20 ª

^a MTCA method A cleanup level for unrestricted land use

μg/L - micrograms per liter

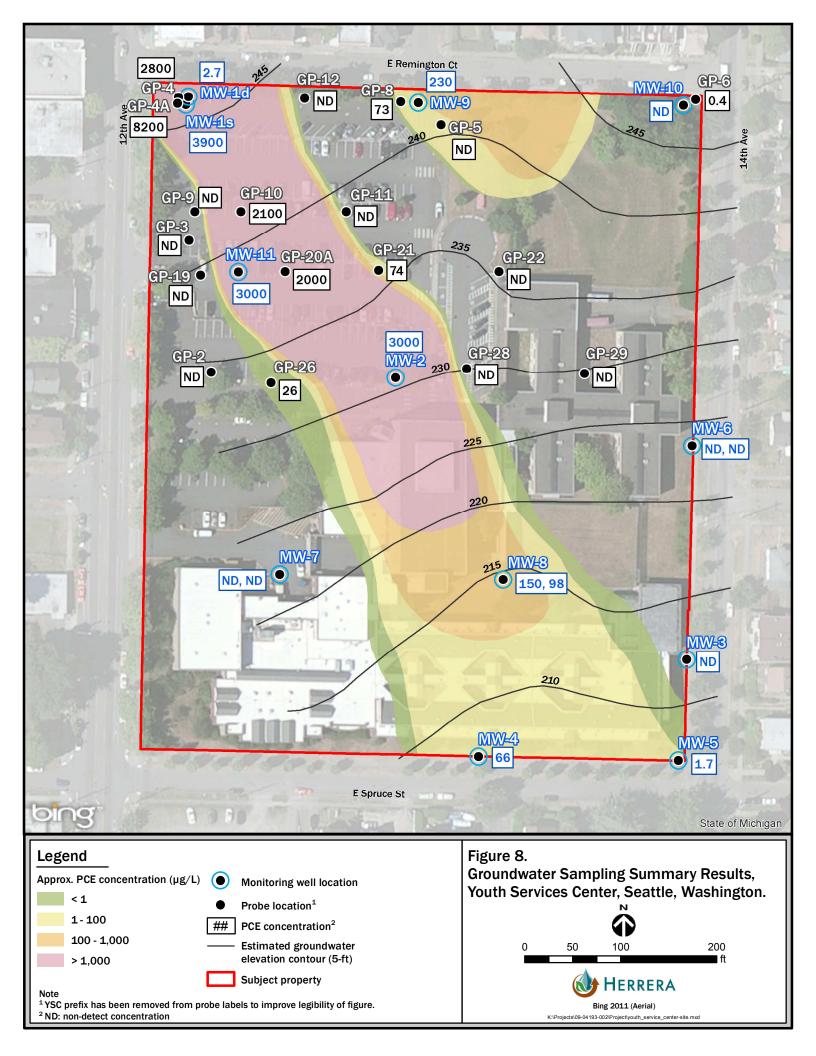
Bold values were detected

Bold values exceed MTCA cleanup level

ND - Constituent not detected (detection limit).



^b MTCA method B cleanup level



at 460 12th Avenue - see Figure 2). The chemicals of concern include tetrachloroethylene, trichloroethylene, cis-1,2-dichloroethylene, trans-1,2-dichloroethylene, and vinyl chloride; no vinyl chloride was detected (although the detection limit was often elevated due to high concentrations of tetrachloroethylene). The probes define a contaminant plume extending from the northwest corner through the center of the property.

Dry cleaner solvents also were found at probes YSCGP-6 and YSCGP-8, located at the east and center of the north property boundary, respectively. No solvents were detected in groundwater at probe YSCGP-12, located approximately half-way between contamination found at YSCGP-4 and YSCGP-8, or in GP-11 further south, indicating the potential for contamination to be entering the property from a different source. Historical dry cleaner sites Nos. 13 and 14 (Lee Wing Hand Laundry and Dong Gom) were reportedly located one block north in the center of the block on East Jefferson Street (see Figure 2).

Samples from probes YSCGP-5 and YSCGP-22 in the north-central part of the property identified the presence of chemicals apparently unrelated to dry cleaning operations, with 1,1-dichloroethane identified at 0.45 μ g/L and 0.27 μ g/L, respectively; both results were well below the MTCA method B cleanup level of 1,600 μ g/L.

Monitoring Well Results

The three monitoring wells (MW-6, MW-7, and MW-8) sampled during the second field event on July 30 indicated tetrachloroethylene at a concentration 30 times the MTCA cleanup level in MW-8 near the south end of the property; no HVOCs were detected in the other two wells. These results helped to focus probe installations to the north and additional monitoring well installations to the south to further define the apparent plume dimensions. Samples from wells MW-7 and MW-8, located west and east of the historical UST release identified in probe YSCGP-7, were also screened for petroleum hydrocarbons; none were detected.

Sampling results from all 12 monitoring wells on September 23 indicate that the dry cleaner solvent plume follows a relatively narrow north-to-south path through the site. Coupled with groundwater flow information, it appears that an area of high solvent concentration extends from the northwest corner to the center of the property, with concentrations diminishing almost two orders of magnitude at the south property boundary (still exceeding the cleanup level). The plume represented in Figure 7 is based on tetrachloroethylene concentrations measured at monitoring wells and probes; where both existed side-by-side along the north property boundary, only monitoring well results were used (concentrations in adjacent wells and probes were found to be quite variable - see Table 2).

The low tetrachloroethylene concentration (2.7 μ g/L) collected at MW-1d from 37 feet below the water table using low-flow sampling indicates that the solvent does not appear to be accumulating deep in the aquifer near the apparent source at historical sites Nos. 10 and 11.

HVOC analysis identified chloroform (unrelated to dry cleaning) at the north property boundary in MW-1d (0.21 μ g/L) and at the south property boundary in MW-5 (0.80 μ g/L); neither concentration exceeds the MTCA method B cleanup level of 80 μ g/L. Chloroform is



often found in disinfected drinking water as a by-product of the chlorination process and may be present as a result of leaking water mains.

Groundwater samples collected from MW-7 and MW-8 were analyzed for diesel-range petroleum hydrocarbons to evaluate the potential for migration of fuel oil from historical and currently used emergency generator USTs in the sally port; none were detected.

A groundwater sample collected from MW-9 was analyzed for diesel-range petroleum hydrocarbons to further evaluate their presence identified at the north-central property boundary during probe sampling; none were detected.

Soil Sampling

Soil was sampled at 23 probe locations across the site to assess conditions associated with identified historical sites of concern and to address the potential for contaminated fill expected to be removed during site development excavations; samples with detected contaminants of concern are summarized in Table 4. Probes installed near the three historical sites of concern located on the YSC property included:

- Boring YSCGP-1 drilled adjacent to historical site No. 1 (auto repair facility) in the southwest corner of the property-no petroleum compounds were detected, based on screening analysis at either 2 or 10 feet deep.
- Boring YSCGP-7 drilled adjacent to the historical Alder Tower emergency generator UST in the southwest corner of the property-diesel-range petroleum hydrocarbons were detected at 61 mg/kg at 9 feet deep, which does not exceed the MTCA method A cleanup level of 2,000 mg/kg.
- Boring YSCGP-8 drilled along the north central property boundary to determine the eastern limit of dry cleaning solvents initially found at YSCGP-4; petroleum was analyzed based on a sheen observed on saturated soil-no petroleum compounds were detected based on screening analysis at 9 feet deep.

A probe was installed adjacent to probe YSCGP-4, where high dry cleaning solvents concentrations had previously been detected in groundwater:

• Boring YSCGP-4A drilled adjacent to historical sites No. 10/11 (dry cleaner facilities) in the northwest corner of the property-tetrachloroethylene was detected at 1.2 μ g/kg at 8.5 feet deep, which does not exceed the Model Toxics Control Act (MTCA) method A cleanup level of 50 μ g/kg.

A probe was installed at a location where sheen was observed while drilling for groundwater:

• Boring YSCGP-8 at the north-central property boundary-no petroleum hydrocarbons were detected based on screening analysis at 9 feet deep.



Table 4. Soil Sampling Analytical Results Summary, Youth Services Center, Seattle, Washington.

		Analytical Parameters				
Sample Identification	Depth (feet)	Diesel-range Petroleum Hydrocarbons (mg/kg)	Heavy Oil-range Petroleum Hydrocarbons (mg/kg)	Tetrachloroethylene (µg/kg)	Trichloroethylene (μg/kg)	
YSCGP-4A	8.5			1.2		
YSCGP-7	9.0	61				
YSCGP-14	3.0			38		
YSCGP-14	9.0			560	5.0	
YSCGP-19	2.0		340			
YSCGP-20	12.0			37		
YSCGP-22	8.0		93			
YSCGP-26	3.0		190			
YSCGP-26	24.0			6.1		
YSCGP-27	3.0		140			
YSCGP-28	9.0	120	1,500			
YSCGP-32	3.0		330			
YSCGP-24	3.0		540			
MTCA Cleanup Level ^a		2,000	2,000	50	30	

^a MTCA method A cleanup level for unrestricted land use

Bold value exceeds MTCA cleanup level

Nineteen borings installed across the area planned for new courthouse and detention facility construction were sampled from both the fill layer and from deeper native soil to determine disposal requirements; two borings were only sampled from the deeper native soil, due to absence of fill, and one boring was only sampled from fill, due to absence of groundwater in deeper native soil. Diesel- and/or heavy oil-range petroleum hydrocarbons were detected at seven locations; no concentrations exceeded the MTCA method A cleanup level of 2,000 mg/kg:

- Boring YSCGP-19-heavy oil-range hydrocarbons were found 2 feet deep at 340 mg/kg.
- Boring YSCGP-22-heavy oil-range hydrocarbons were found 8 feet deep at 93 mg/kg.
- Boring YSCGP-26-heavy oil-range hydrocarbons were found 3 feet deep at 190 mg/kg.
- Boring YCSGP-27-heavy oil-range hydrocarbons were found 3 feet deep at 140 mg/kg.
- Boring YSCGP-28-diesel- and heavy oil-range hydrocarbons were found 9 feet deep at 120 mg/kg and 1,500 mg/kg, respectively.
- Boring YSCGP-32-heavy oil-range hydrocarbons were found 3 feet deep at 330 mg/kg.
- Boring YSCGP-34-heavy oil-range hydrocarbons were found 3 feet deep at 540 mg/kg.



Several of these borings were located within the apparent dry cleaner solvent plume, three of which were found to have detectable levels of solvents:

- Boring YSCGP-14-tetrachloroethylene was found 3 feet deep at 38 μg/kg and trichloroethylene and tetrachloroethylene were found 9 feet deep at 5 μg/kg and 560 μg/kg, respectively (the MTCA method A cleanup level for tetrachloroethylene is 50 μg/kg).
- Boring YSCGP-20-tetrachloroethylene was found 12 feet deep at 37 μg/kg.
- Boring YSCGP-26-tetrachloroethylene was found 24 feet deep at $6.1 \mu g/kg$.

Each shallow (fill) sample collected from the 22 locations was analyzed for lead, with concentrations ranging from non-detect (minimal practical quantitation limit of 5.6 mg/kg) to 200 mg/kg. Two samples with the highest concentrations (YSCGP-19-2 and YSCGP-20-4) were analyzed for TCLP lead; no lead was detected.

Air Sampling

Air samples were tested for tetrachloroethylene, trichloroethylene, and their common degradation products in the environment (the dichloroethylene isomers and vinyl chloride). Results are presented in Table 5. The degradation products were not detected in any samples, consistent with their very low concentrations in groundwater. Tetrachloroethylene, the primary contaminant in groundwater, was not detected in indoor air samples, even though the locations selected for sampling were chosen to represent worst case exposure conditions (subsurface locations closest to groundwater). Tetrachloroethylene was detected in a single roof sample; it is routinely found in background ambient air in urban environments (data for Beacon Hill sampling compiled for the Puget Sound Clean Air Agency is provided in Table 5). Trichloroethylene, the other volatile organic commonly detected in groundwater, was detected in a single indoor sample in a storage room. Since trichloroethylene is still a fairly common solvent in office and cleaning products, it is not known whether the detection represents vapor intrusion or the presence of the trichloroethylene-containing product in the storage room.

Risk-based equations from MTCA were used to calculate site-specific screening levels to better understand the context of the detected results. The following values were calculated and are presented at the bottom of Table 5:

- Adult worker exposure based on a 50-hour work week, for 50 weeks per year for 30 years with a 1 in 100,000 cancer risk - this is an unusually long exposure period compared to typical staffing at the facility and represents worst-case conditions. As shown in Table 5, detected concentrations were much lower than the screening level, indicating that conditions are protective under MTCA for site workers.
- Youth resident exposure based on a 24-hour per day stay of up to 6 weeks tetrachloroethylene and trichloroethylene have adjusted toxicities based on early life exposure consistent with new (2012) EPA protocols; the adjustments assumed youths between the ages of 8 and 16 at the facility and a 1 in a 1,000,000 cancer risk.



- As shown in Table 5, detected concentrations were much lower than the screening level, indicating that conditions are protective under MTCA for youth residents.
- A standard Method B (residential) screening level has been calculated by Ecology for tetrachloroethylene and trichloroethylene that assumes humans over the age of 6 live full-time (24 hours per day all year) at a site for 70 years. The trichloroethylene concentration in the storage room is above this value. Since nobody lives on site for 70 years, the exceedance does not represent an actual risk.

Table 5. Air Monitoring Analytical Results Summary, Youth Services Center, Seattle, Washington.								
				Analytica	I Parameters			
Sample Identification	Date Sampled	Tetrachloroethylene µg/m³	Trichloroethylene μg/m³	1,1-Dichloroethane µg/m³	cis-1,2-Dichloroethylene μg/m³	trans-1,2-Dichloroethylene µg/m³	Vinyl chloride µg/m³	
Background Locations								
Alder Tower Penthouse HVAC Air Intake	8/21/2013	ND (2.0)	ND (1.1)	ND (0.81)	ND (0.79)	ND (0.79)	ND (0.51)	
Spruce Wing Roof Above Unit 4 (Sample 2)	8/21/2013	7.4	ND (1.1)	ND (0.81)	ND (0.79)	ND (0.79)	ND (0.51)	
Seattle Background Air Monitoring (Beacon Hill)	2008-2009	0.16						
			Indoor Locations					
Alder Tower Basement Mech Room	8/21/2013	ND (2.0)	ND (1.1)	ND (0.81)	ND (0.79)	ND (0.79)	ND (0.51)	
Alder Tower Basement Storage Room	8/21/2013	ND (2.0)	1.55	ND (0.81)	ND (0.79)	ND (0.79)	ND (0.51)	
Spruce Wing Detention Wing L, Unit 4	8/21/2013	ND (2.0)	ND (1.1)	ND (0.81)	ND (0.79)	ND (0.79)	ND (0.51)	
Cleanup Level/Site-Specific Exposure (modified Me	ethod B for youth)	300	14.2	_	-	496	17.1	
Cleanup Level/Site-Specific Exposure (modified Meth	od C for workers)	138	6.9	_	-	205	18.9	
Cleanup Level/Criteria (MTCA Metho	d B age 7 and up)	9.6	0.37		NA	27	0.56	

Notes:

Bold values were detected

ND Analyte not detected (detection limit)

Method B Modified for youth assumes children between the ages of 10 and 18, in 24-hour, 7-day per week residence for up to 6 weeks per year. A reasonable maximum exposure given existing legal limitations at the facility.

2 Method C Modified for on-site workers assumes adults working up to 50 hr/wk, for 50 wk/yr for 30 years. A reasonable maximum exposure for the facility.

3 Seattle background air data from the Puget Sound Clean Air Agency, as reported in http://www.pscleanair.org/news/library/reports/2010_Tacoma-Seattle_Air_Toxics_Report.pdf.



CONCLUSIONS

The purpose of this Phase II ESA was to verify potential contaminant sources based on earlier Phase I ESA efforts and to determine the extent of contamination associated with those sources. Thirty-six probes were installed, with groundwater collected at 20 locations and soil collected at 25 locations. Nine monitoring wells were installed onsite for this effort and three additional monitoring wells were installed concurrently as part of geophysical investigations. A summary of site characterization results follows.

Groundwater

- Groundwater collected from probes identified and delineated dry cleaner solvent entering the northwest corner of the YSC property, extending to the center of the property at concentrations exceeding MTCA method A and B cleanup levels; a potential source has been identified as historical sites Nos. 10 and 11 on 12th Avenue.
- Groundwater collected from 12 monitoring wells indicate dry cleaning solvents
 exceeding MTCA cleanup levels migrating along a narrow band from the northwest
 corner to the southeast corner of the YSC property. The presence of
 tetrachloroethylene and the low level of the dichloroethylene isomers indicate that
 the groundwater conditions are aerobic; otherwise, the parent compounds would be
 degrading and they are not.
- Dewatering required during construction of buildings at proposed locations will require management of hazardous waste associated with the contaminant plume if solvents are detected.
- Groundwater collected from probes located along the north-central and northeast property boundary identified tetrachloroethylene, which may not be a part of the plume originating near the northwest corner of the property; a potential source has been identified as historical sites Nos. 13 and 14 on East Jefferson Street. This interpretation is based on no contaminants of concern detected in probes YSCGP-11, YSCGP-12, and YSCGP-22.
- Low concentrations of 1,1-dichloroethane were found in groundwater at the north-central property boundary and 150 feet to the south; no source has been identified, but it appears to be offsite to the north (1,1-dichloroethane is mainly used as a feedstock in chemical synthesis and as a solvent for plastics, oils, and fats; as a degreaser; as a fumigant in insecticide sprays; in halon fire extinguishers; and in cementing of rubber).
- An historical emergency generator UST, located at the southwest corner of the Alder Tower, appears to have released diesel fuel to adjacent soil and groundwater; no petroleum hydrocarbons were detected in groundwater crossgradient at monitoring

- well MW-7 (65 feet west-southwest) or downgradient at monitoring well MW-8 (165 feet east-southeast), indicating that the release is likely contained onsite (although it may have migrated beneath the Spruce Wing).
- An estimated 50-gallon release of hydraulic fluid to an elevator sump located at the
 northeast corner of the Alder Tower has been reported, most of which is assumed to
 have leaked to the soil below; the building blocks access to the impacted soil, but
 no petroleum hydrocarbons were detected in groundwater at monitoring well MW-8,
 approximately 150 feet downgradient.

Soil

- The soil sample collected near the historical emergency generator UST adjacent to the southwest corner of the Alder Tower identified diesel fuel at a concentration below the MTCA method A cleanup level; however, some soil surrounding the tank can be expected to exceed the cleanup level and will require removal.
- Diesel- or heavy oil-range petroleum hydrocarbons found in 7 of the 20 boring location samples collected from fill across the proposed construction zone did not identify concentrations exceeding the MTCA method A cleanup level, indicating a low probability of contamination during planned excavations. Although concentrations were below the cleanup level, offsite disposal would still be restricted to facilities or locations that meet Ecology requirements for reuse of petroleum-contaminated soils (Ecology 2011). Also, soils could exhibit petroleum odors, which may impact reuse onsite.
- Lead found in most of the 20 boring location samples collected from fill across the
 proposed construction zone did not identify concentrations exceeding the MTCA
 method A cleanup level, indicating a low probability of contamination during planned
 excavations; TCLP testing of the sample with the highest concentration (200 mg/kg)
 indicates that none of this material will qualify as a hazardous waste.
- Dry cleaner solvents found in soil at three boring locations across the proposed construction zone did not identify concentrations exceeding the MTCA method A cleanup level; however, their presence indicates a potential for classifying the soil as a hazardous waste once excavated. Depth to groundwater measurements indicate saturated soil 12 to 14 feet deep across the proposed courthouse footprint, where high concentrations of dry cleaner solvents were found in groundwater. If soil containing dry cleaner solvents at concentrations below MTCA cleanup levels is to be excavated, a "contained-out" designation should be obtained from Ecology (this would allow soil with low concentrations of dry cleaner solvents to be disposed of at a municipal waste landfill, as opposed to a hazardous waste landfill).

Indoor Air

• Air samples were tested for dry cleaner solvent and its degradation by-products. Tetrachloroethylene, the primary contaminant in groundwater, was not detected in



indoor air samples, even though the locations selected for sampling were chosen to represent worst case exposure conditions. Trichloroethylene was found at one indoor location; however, it is a fairly common solvent in office and cleaning products, which may explain its presence in the storage room.

- Risk-based equations from MTCA were used to calculate site-specific screening levels
 to better understand the context of the detected results. Results indicate that
 conditions are protective under MTCA both for site workers and youth residents.
- Proposed construction would result in structures situated either within or above contaminated groundwater. Although VI does not appear to currently affect existing buildings, it must be taken into account as a contaminant pathway with the potential to impact indoor air that may require mitigation measures.



LIMITATIONS

This report has been prepared for exclusive use by the King County. The analyses and conclusions included in this report are based on conditions encountered at the time of the field investigation, as well as professional experience and judgment. Herrera cannot be responsible for interpretation by others of the data contained in this report.

Herrera's services were performed with due diligence in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the area. No other warranty, express or implied, is made.



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APPENDIX A

Field Procedures



FIELD PROCEDURES

Field procedures used to perform the Phase II Environmental Site Assessment (ESA) at the Youth Services Center (YSC) addressed the following:

- Drilling and sampling of soil and groundwater with the push-probe drilling method
- Monitoring well installation with the hollow-stem auger drilling method
- Groundwater sampling from monitoring wells
- Sample handling and documentation
- Field sampling equipment decontamination

The field investigation consisted of drilling 36 push-probe borings and collecting soil samples and/or groundwater samples from those borings. Twelve monitoring wells also were installed and groundwater samples were collected from those wells. Probe-boring logs and monitoring well construction logs are included in Appendix B.

Sample Designation

Samples were designated by an alphanumeric system. Push-probe borings began with (YSC)GP-1 and the numeric suffix denotes the depth interval of the soil sample. Monitoring wells began with MW-1, s and d indicating shallow and deep, respectively.

Drilling and Sampling Procedures

Pre-Drilling Activities

Prior to commencing drilling and sampling activities, Underground Utility Location Service (UULS) was notified of the intent to drill soil borings at the subject property. UULS subsequently contacted participating agencies or companies with underground utilities in the area. These utility companies marked the locations of their utility lines and equipment along the property boundaries.

A private utility locating company, APS of North Bend, Washington, was used to locate underground utilities at each proposed boring location.

Utility drawings available through Seattle Public Utilities also were reviewed.

Soil Sampling from Probe-Drilled Borings

Probe borings were advanced using a probe-drive sampler attached to driven probe rods. During drilling, discrete soil samples for soil classification, field screening, and chemical



analysis were collected continuously at 5-foot intervals using a probe-drive sampler 5 feet long by 2 inches outside diameter and lined with dedicated clear Lexan® liners. The sampler was sealed with a piston stop pin while being pushed or driven to the desired sampling depth. The piston stop pin was retracted into the sampler while the sampler was pushed or driven to obtain a soil sample. Following retrieval, the soil-filled Lexan® liner was removed from the sampler and cut open to expose the soil core. Soil encountered during drilling was visually inspected and classified in accordance with the Unified Soil Classification System (USCS; American Society for Testing and Materials [ASTM] D2488-08).

Samples were prepared for chemical analysis by removing soil from the liner and placement directly into jars provided by the analytical laboratory. Pre-weighed sample vials were filled to comply with the 5035A method for sample collection for Northwest Total Petroleum Hydrocarbons-Gasoline/Benzene, Toluene, Ethylbenzene, and Total Xylenes (NWTPH-G/BTEX) and Halogenated Volatile Organic Compound (HVOC) analyses. Each sample was uniquely labeled denoting sample identification number and depth, date and time sampled, and job number. Soil samples were then placed into a chilled cooler for storage prior to delivery to the analytical laboratory.

If no groundwater was to be collected, after soil sampling was completed, each probe borehole was backfilled from the bottom to ground surface with bentonite chips and then capped at the surface with soil or asphalt.

Groundwater Sample Collection from Push Probe Borings

Groundwater samples were collected from probe borings by driving a sealed stainless steel screened probe point to the desired depth, opening the screen, and drawing water via clean dedicated polyethylene tubing connected to a peristaltic pump at the surface. Initial depth to water was determined by the field geologist based on observations of moisture content and permeability of soil samples collected at each probe boring location. Once the water level stabilized and after development (approximately 1/2 to 2 gallons water purged from each boring), water samples were collected directly from the tubing into sample containers provided by the laboratory. Care was taken to ensure that no bubbles or headspace were present in the 40 ml vials for G/BTEX and HVOC analyses. Immediately upon filling, each container was securely capped, labeled, and stored in a chilled cooler prior to delivery to the laboratory.

Following groundwater collection, each probe borehole was backfilled from the bottom to ground surface with bentonite chips and then capped at the surface with soil or asphalt.

Monitoring Well Installations from Hollow-Stem Auger Borings

Borings were drilled using an auger drill rig equipped with 4.25-inch inside diameter hollowstem auger flights. Discrete soil samples were collected at 5-foot depth intervals using a drive split-spoon sampler 18 inches long by 3-inch outside diameter for soil classification, field screening, and chemical analysis. The sampler was driven using a 300-pound downhole hammer with a drop of 24 inches. Following retrieval, each sample was logged by a geologist for soil lithology. Soils encountered during drilling were visually inspected for staining,



screened for the presence of volatile organic vapors using a Photovac® Minirae photoionization detector (PID), and classified in accordance with the Unified Soil Classification System (USCS; American Society for Testing and Materials [ASTM] D2488-08).

Each well was constructed of 2-inch diameter Schedule 40 polyvinyl chloride (PVC) blank well casing flush threaded with a 10-foot section of 0.010-inch slotted machine cut well screen casing at the base. A filter pack of clean silica sand was placed in the annular space between the screened casing and borehole to a height approximately 2 feet above the top of the screened well casing. Bentonite chips were placed above the filter pack to within 2 feet of the ground surface. Each well was completed below grade with a water-tight well monument box set in a concrete surface seal.

Samples were prepared for chemical analysis by removing soil from the sampler and placement directly into jars provided by the analytical laboratory.

Well Development

Following installation, monitoring wells were developed with a submersible pump. Development continued until levels of sand and silt were reduced and water removed from the well was generally of clear quality. Development water from each well was contained in 55-gallon drums and stored temporarily at the site.

Groundwater Sampling from Monitoring Wells

General procedures for collecting groundwater samples from monitoring wells were as follows:

- The well monument cover was removed and condition of the well and surrounding area were inspected. Note observations in the field notebook and well sampling log. Remove the well casing plug.
- Depth to groundwater was measured to the nearest 0.01 foot using an electronic water level indicator. Measurements were taken relative to the surveyed reference mark at the top of the PVC well casing. Date, time, and measurements were recorded on the well sampling log.
- Monitoring wells MW-6, MW-7, and MW-8 were sampled on July 30, 2013 with disposable bailers. During purging, pH, water temperature, dissolved oxygen, and specific conductivity were measured. The amount of water purged, water parameter measurements, and time of collection were recorded on the well sampling log. Five casing volumes of standing water were removed prior to sampling. Purged water removed during development was placed into 55-gallon drums stored onsite.
- Samples were collected with the same dedicated disposable bailers used to purge the well by filling sample containers provided by the analytical laboratory. Care was taken to ensure that no bubbles or headspace were present for the HVOC samples. Containers were securely capped, labeled, and placed into a chilled cooler for storage prior to delivery to the laboratory. The date and time sample collected was recorded on the well sampling log and chain-of-custody form.



- The twelve wells sampled on September 23, 2013 were purged of standing water using a low-flow purge method ranging from 0.1 to 0.5 liters per minute with clean, dedicated polyethylene tubing and a peristaltic pump. Tubing was placed within several inches of the bottom of each well. During purging, pH, water temperature, dissolved oxygen, specific conductivity, water level, and pumping rate were measured. The amount of water purged, water parameter measurements, and time of collection were recorded on the well sampling log. Recharge for 11 of the wells, excluding MW-10, was very slow; the water levels never stabilized and continued to drop during purging. These wells were purged until field readings had stabilized, with a maximum of three casing volumes of standing water removed prior to sampling. Well MW-2 was purged dry and sampled when the water level recovered. The water level did stabilize for well MW-10 and it was sampled when the parameters had stabilized, prior to removal of three casing volumes. Purged water removed during development was placed into 55-gallon drums stored onsite.
- Samples were collected with the same dedicated polyethylene tubing used to purge
 the well by pumping directly into sample containers provided by the analytical
 laboratory. Sample collection and handling was comparable to the procedures
 discussed above during bailer sampling.
- The well casing plug was replaced and the well monument cover secured.

Decontamination Procedures

Drilling equipment, including probe and auger core barrel sections, probe well screens, and other downhole equipment, were decontaminated between each boring using a pressure washer. Decontamination fluids generated during decontamination of drilling equipment were placed into 55-gallon drums for disposal. In addition, chemical-resistant gloves worn by sample handlers were changed between sampling locations.

Sample Handling

All samples collected during this investigation were handled according to the procedures described in this section.

Sample Containers and Labeling

Samples were placed in containers supplied by the analytical laboratory appropriate for the analyses to be performed. Sample container labels were completed at the time of collection using a permanent waterproof pen or marker. Sample labels included the following information:

- Project name
- Sample identification (including site designation, sample number, and depth interval collected)
- Date and time of collection



Sample Storage

Immediately following sample collection, sample containers were placed into a chilled cooler containing ice for storage prior to delivery to the analytical laboratory. Care was taken to ensure that sample holding times were not exceeded. Soil sample containers were placed into plastic Ziploc bags to protect labels from moisture in the cooler.

Chain of Custody

Following collection, sample information was recorded on a chain-of-custody form. The purpose of this record is to account for the possession (or custody) of each sample from the time it is collected until laboratory testing and reporting is complete. The signature of each person in possession of the samples was recorded on the chain-of-custody form. Information recorded on the chain-of-custody record included the following:

- Project name and location
- Project number
- Names of project manager and sampling personnel
- Sample identification
- Sample matrix (soil or water)
- Date and time of collection (for each sample)
- Analysis requested (for each sample)
- Number of sample containers (for each sample)
- Signature, date, and time (for each person releasing or accepting sample custody)

Sample Shipment and Delivery

Samples collected during this field investigation were couriered from the site or Herrera's office to the analytical laboratory.

Sample Documentation

All sampling activities during this investigation were documented in a dedicated field notebook. The notebook was labeled with the project name, project identification number, dates of field activities, and name of the field coordinator. All relevant activities were recorded in the field notebook during the period of the field investigation. Entries into the field notebook were made in permanent ink. Corrections were made by placing a single line through the original entry accompanied by the initials of the person entering the correction. At a minimum, information in the field notebook included:

- Date and atmospheric conditions
- Major activities to be performed



- Names of sampling personnel present (including subcontractors)
- Time of arrival at site, set-up, sample collection, and completion at each sample station
- Soil descriptions (except where recorded on boring logs)
- Start and stop times of work by subcontractors
- Any unusual events or occurrences

Disposal of Investigation-Derived Waste

Disposal of Incidental Trash

Incidental trash generated during this investigation (including discarded gloves, used polyethylene tubing, plastic soil liners, polyethylene bailers, used Ziploc bags, paper towels, and food packaging) were placed in plastic trash bags and disposed of as solid waste into a dumpster at the Herrera office building in Seattle, Washington or at Cascade Drilling's shop in Woodinville, Washington.

Disposal of Soil Cuttings

Soil cuttings generated during drilling activities were placed in 55-gallon drums and stored onsite pending arrangement of disposal.

Decontamination Fluids and Purge Water Disposal

Decontamination fluids and purge water generated during drilling were placed into 55-gallon drums pending arrangement of disposal.



APPENDIX B

Soil Boring and Monitoring Well Construction Records





Boring ID	YSCGP-1
Total depth	20 feet
Sheet 1	of 1

Project name	YSC Phase II ESA	Drilling Co	ntractor Cascade	Drilling method Pu	sh-probe rig
Project numb	er 09-04193-017	Location	SW corner of property, 23 ft	Sampling method	5 ft core with plastic liner
Client KC	Capital Planning & Dev	West of b	puilding	Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date	June 26, 2013	Instrument(s)	NA

Sample type,	%	Water	Depth (feet,	Soil	Soil description
interval	recovery	(feet)	BGS)	group	Grass/Topsoil
			1	SM	Light brown silty SAND, with a trace of gravel, (Fill), dry
~ 6 .			2		G TIG LL WGGGDL A LLO LO
5-foot core	80		2		Soil Sample YSCGP1-2 at 10:10
with	00		3		
liner			4		
			4	ML	Brown sandy SILT, with a trace of gravel, damp
			5	IVIL	Brown standy Brib's, with a date of graver, damp
				CM	G I GRAVEL I
			6	GM	Gray-brown sandy GRAVEL, dry
5-foot			7		
core		5	8		
with liner			8		
			9		
			10		Soil Sample YSCGP1-10 at 10:20
			10		Son Sample 13eOf 1-10 at 10.20
			11		
5-foot			12		
core	5	5	12		
with			13		
liner			14		
			15		
		<u>▼</u>	16		Water encountered at 16 feet during drilling.
					Gray silty SAND, with a trace of clay, wet
5-foot	80		17		
core with	00		18		
liner					
			19		Set screen from 16 ft to 20 ft in temporary well. Backfilled borehole with
			20		bentonite chips.



 Boring ID
 YSCGP-2

 Total depth
 25 feet

 Sheet
 1
 of
 2

Project name	YSC Phase II ESA	Drilling Co	ontractor Cascade	Drilling method Pu	sh-probe rig
Project numbe	r <u>09-04193-017</u>	Location	N of N sidewalk at main	Sampling method	5 ft core with plastic liner
Client KC	Capital Planning & Dev	entrance		Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date	June 26, 2013	Instrument(s)	NA

Sample type,	%	Water	Depth (feet,	Soil	Soil description
interval	recovery	(feet)	BGS)	group	Asphalt/crushed rock
			1	SW	Brown medium SAND, with a trace of gravel, silt, (Fill), dry
5-foot			2		
core	50				
with			3		
liner			4		
			- 4	SW	Brown gravelly SAND, with a trace of silt, wood fragment, damp
			5	5	Biowin gravery of inver, want a nace of sin, wood magnitude, damp
			6		
5-foot			7		
core	80		7		
with			8		
liner					
			9	3.07	W 1 1 1 U CH TO 11 CH
			10	ML	Very dark brown gravelly SILT, with a trace of clay, sand, organic material, damp
			10		Tan-light brown gravelly sandy SILT, with a trace of clay, damp,
			11		
5-foot	100		12		Gray brown gravelly sandy SILT, with a trace of clay, damp,
core with	100		13		Gray brown graveny sandy SiL1, with a trace of cray, damp,
liner			15		
			14		
			1.7		
			15		
			16		
			10		
5-foot			17		
core	80		10	03.4	D. I. GAND I
with liner			18	SM	Dark gray silty SAND, damp
IIICI			19		Small cobbles
		▼	20		Water encountered at 20 feet during drilling.



Boring ID YSCGP-2
Total depth 25 feet
Sheet 2 of 2

Project name YSC Phase II ESA				Drilling Contra	actor Cascade	Drilling method Push-probe rig		
Project number <u>09-04193-017</u>				Location N of N sidewalk at main		Sampling method	5 ft core with plastic liner	
Client k	C Capital Pl	anning & [Dev	entrance		Air monitoring (Y/N)	No	
HEC rep.	Bruce Ca	arpenter		Date Jun	e 26, 2013	Instrument(s)	NA	
Sample type,	%	Water level	Depth (feet,	Soil				
interval	recovery	(feet)	BGS)	group	Soil description			
	•	,	,	SM	Brown silty SAND, wet			
			21					
5-foot	100		22	-				
core	100		22	М	Casa bassas sanda CH T	41- a 4mana af amana1	James	
with liner			23	ML	Gray brown sandy SILT, wi	ın a trace of gravef	, damp	
IIIIei			24		Gray sandy SILT, damp			
			24		Gray Sandy SILT, damp			
			25	-				
		İ			Set screen from 21 ft to 25 f	t in temporary well	. Backfilled borehole with	
					bentonite chips.			
				1				



 Boring ID
 YSCGP-3

 Total depth
 20 feet

 Sheet
 1
 of
 1

Project name	YSC Phase II ESA	Drilling Co	ontractor <u>Cascade</u>	Drilling method Pu	ush-probe rig
Project numbe	er <u>09-04193-017</u>	Location	N of northernmost gate at	Sampling method	5 ft core with plastic liner
Client KC	Capital Planning & Dev	West en	d of parking lot adjacent to 12 th	Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date	June 27, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
		(1001)		<u> </u>	Asphalt/Crushed Rock
			1	SW	Brown gravelly SAND, (Fill), dry
				SM	Tan fine SAND with a trace of silt and gravel, damp
5-foot			2		Red brown silty gravelly SAND, damp
core	70				
with			3		
liner					
			4		
			5		D 11 (4.1.1) 11 CAND 1
			6		Red brown mottled silty gravelly SAND, damp
			0		
5-foot			7		Gray and red-brown mottled silty, gravelly, SAND, damp
core	90		/		Gray and red-brown moduled strty, graverry, SAND, damp
with	90		8		
liner			0		Gray brown gravelly silty SAND with a trace of clay, damp
mici			9		Gray Grown gravery sitty 571142 with a trace of citay, damp
			10		
			11		
5-foot			12		
core	100				
with			13		
liner					
		_	14		***
		<u>▼</u>	1.7		Water encountered at 14.5 feet during drilling.
		∇	15		Gray gravelly SAND with a trace of silt, wet Static water level measured at 15.3 feet.
		$\overline{\triangle}$	16		Stand water level measured at 15.5 feet.
			10		
5-foot			17		
core	100		1/		
with	130		18		
liner					
			19		
					Set screen from 16 ft to 20 ft in temporary well. Backfilled borehole with
			20		bentonite chips.



Boring ID YSCGP-4
Total depth 15 feet
Sheet 1 of 1

Project name _	YSC Phase II ESA	Drilling Co	ntractor Cascade	Drilling method Pu	ush-probe rig
Project number	09-04193-017	Location	NW corner of parking lot	Sampling method	5 ft core with plastic liner
Client KC Ca	apital Planning & Dev			Air monitoring (Y/N)	No
HEC rep. E	Bruce Carpenter	Date	June 27, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
5-foot core with liner	100		1 2 3 4	ML	Asphalt/Crushed Rock Brown sandy SILT with a trace of gravel, occasional red mottling, damp
5-foot core with liner	100	<u> </u>	5 6 7 8 9	SP ML	Static water level measured at 7.3 feet. Coarse 4-inch SAND interbed Brown gravelly SILT with a trace of clay and sand, damp Water encountered at 10 feet during drilling. Gray fine to medium SAND with a trace of gravel, damp
5-foot core with liner	100		11 12 13 14		Gray brown gravelly silty SAND with a trace of clay, wet
					Set screen from 6 ft to 10 ft in temporary well due to presence of heaving sand. Backfilled borehole with bentonite chips.



Boring ID	YSCGP-4A		
Total depth	10 feet		
Sheet 1	of 1		

Project name	YSC Phase II ESA	Drilling Co	ntractor Cascade	Drilling method P	ush-probe rig
Project number	09-04193-017	Location	NW corner of parking lot	Sampling method	5 ft core with plastic liner
Client KC C	Capital Planning & Dev	Adjacent	to YSCGP-4 (2' SW)	Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date	August 1, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
interval	recovery	(leet)	BG3)	group	Asphalt/Crushed Rock
			1	ML	Brown sandy SILT with a trace of gravel, occasional red mottling, damp
5-foot			2		
core with	55		3		
liner					
			4		
			5		
3-foot			6		
core	100			SP	Brown medium 4-inch SAND interbed, damp
with			7	ML	Brown gravelly SILT with a trace of sand and clay, damp
liner			8		
2-foot			8		
core	100	$\overline{\nabla}$	9	SP	Brown medium SAND, damp. Static water level measured at 8.85 feet.
with				ML	Brown sandy SILT with a trace of gravel, damp
liner			10		
					Set screen from 5 ft to 10 ft in temporary well. Backfilled borehole with bentonite chips.
					backfined objetiole with bentomic emps.



Boring ID	YSCGP-5
Total depth	20 feet
Sheet 1	of 1

Project name	YSC Phase II ESA	Drilling Co	ontractor Cascade	Drilling method Pu	sh-probe rig
Project numbe	09-04193-017	Location	East side of Remington Ct	Sampling method	5 ft core with plastic liner
Client KC (Capital Planning & Dev	Parking I	ot entrance	Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date	June 27, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
					Grass/Topsoil
			1	SM	Light brown silty SAND, with a trace of gravel, (Fill), dry
5-foot			2	ML	Brown sandy SILT, damp
core	90				
with liner			3		
IIIICI			4		
			5		Brown red brown mottled sandy SILT with a trace of gravel and clay, damp
			6		Brown red brown motified sandy StE1 with a face of graver and citay, damp
5 C			7		
5-foot core	100	$\overline{\nabla}$	7		Static water level measured at 7.7 feet.
with			8		
liner			9		
			10		
			11		Gray clayey sandy SILT, with a trace of gravel, damp
5-foot core	100		12		
with	100		13		
liner					
			14		
		<u> </u>	15		Water encountered at 15 feet during drilling.
			1.0	SM	Gray gravelly SAND, with a trace of silt, wet
			16		
5-foot			17		
core with	10		18		
liner			18		
			19		
			20		Set screen from 12 ft to 16 ft in temporary well. Backfilled borehole with
			20		bentonite chips.



Boring ID	YSCGP-6
Total depth	20 feet
Sheet 1	of 1

Project name	YSC Phase II ESA	Drilling Co	ontractor Cascade	Drilling method P	ush-probe rig
Project number	09-04193-017	Location	NE corner of property	Sampling method	5 ft core with plastic liner
Client KC C	Capital Planning & Dev			Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date _	June 26, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
					Grass/Topsoil
			1	SM	Gray brown silty gravelly SAND, brick fragments, (Fill), damp
5-foot			2		
core	60				
with			3		
liner			4		
			5		
			6		
			0		
5-foot			7		
core	75		0	CL	Gray blue silty CLAY, with a trace of gravel, damp
with liner			8		
IIIICI			9		
			10	ML	Gray blue to brown mottled clayey SILT, with a trace of gravel and sand, damp
			11	IVIL	Gray blue to brown mothed clayey SEL1, with a frace of graver and saild, damp
5-foot	00		12		
core with	90		13		
liner			13		
		_	14		
		$\overline{\triangle}$	15		Static water level measured at 14.2 feet.
		<u> </u>	13		Water encountered at 15.5 feet during drilling.
			16		
7 6 .			1.7		
5-foot core	100		17		Gray blue clayey SILT with a trace of sand and gravel, damp
with	100		18		Stay state stayey start with a time of sails and graver, samp
liner					
			19		Set screen from 15.5 ft to 19.5 ft in temporary well. Backfilled borehole with bentonite chips.
			20	SM	Gray silty SAND, damp



 Boring ID
 YSCGP-7

 Total depth
 25 feet

 Sheet
 1
 of
 2

Project name YSC Phase II ESA	Drilling Con	tractor Cascade	Drilling method Pu	ısh-probe rig
Project number <u>09-04193-017</u>	Location	SE corner of Sally Port	Sampling method	5 ft core with plastic liner
Client KC Capital Planning & Dev			Air monitoring (Y/N)	No
HEC rep. Bruce Carpenter	Date Ju	une 26, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
		(1001)		9	Asphalt/Crushed Rock
			1	SM	Brown silty gravelly SAND, (Fill), damp
5-foot			2		
core	60				
with liner			3		
			4		
			5	ML	Brown sandy SILT, with a trace of gravel, brick fragments, (Fill), damp
			6		
.					
5-foot core	60		7		
with	00		8		
liner					
			9		
				SM	Gray brown silty SAND, with a trace of gravel, fuel odor, damp. Soil Sample YSCGP7-
			10		9 at 8:40.
			11		
5-foot			12		
core	90		12		Light brown silty SAND, with a trace of gravel, damp
with			13		g ,
liner			14		
			1.5		
			15	ML	Gray weathered rock, dry Gray clayey SILT, with a trace of gravel and sand, damp
			16	IVIL	Gray crayey SIL1, with a trace of graver and saind, damp
5-foot			17		
core	100				
with liner			18		
inici			19		
			20		



 Boring ID
 YSCGP-7

 Total depth
 25 feet

 Sheet
 2
 of
 2

Project name _	YSC Phase II ESA	Drilling Co	ontractor Cascade	Drilling method Pu	sh-probe rig
Project number	09-04193-017	Location	SW corner of Sally Port	Sampling method	5 ft core with plastic liner
Client KC Ca	apital Planning & Dev			Air monitoring (Y/N)	No
HEC rep. E	Bruce Carpenter	Date _	June 26, 2013	Instrument(s)	NA

Sample type,	%	Water level	Depth (feet, BGS)	Soil	Soil description
interval	recovery	(feet)	BGS)	group ML	Gray clayey SILT, with a trace of gravel and sand, damp
			21	WIL	Oray crayey StD1, with a trace of graver and said, damp
5-foot			22		
core	100		22		
with liner		<u>▼</u>	23		Water anagyrtania at 22.5 feet dyning drilling
imer			24	SM	Water encountered at 23.5 feet during drilling. Gray silty SAND, with a trace of gravel, wet
				5111	Gray Shry Shrind, while a date of graves, wet
			25		
					Set screen from 21 ft to 25 ft in temporary well. Backfilled borehole with bentonite chips.



 Boring ID
 YSCGP-8

 Total depth
 15 feet

 Sheet
 1
 of
 1

Project name	YSC Phase II ESA	Drilling Co	ntractor Cascade	Drilling method Pu	sh-probe rig
Project number	09-04193-017	Location	98 feet East of YSCGP-12	Sampling method	5 ft core with plastic liner
Client KC C	apital Planning & Dev			Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date	August 1, 2013	Instrument(s)	NA

Sample	0.4	Water	Depth	0 1	
type, interval	% recovery	level (feet)	(feet, BGS)	Soil group	Soil description
	,	(1001)		9	Asphalt/Crushed rock
			1	SM	Brown to red-brown mottled silty SAND with a trace of gravel, damp
5-foot	4.00		2		
core	100		3		
with liner			3	ML	Brown to red-brown mottled sandy SILT with a trace of gravel, damp
IIIICI			4	IVIL	Brown to rea-brown mothed saildy StET with a trace of graver, damp
			5		
					Gray sandy SILT with a trace of gravel, damp, fuel odor
			6		
- C .					
5-foot core	100		7		
with	100		8		
liner			0		
			9		Soil sample YSCGP8-9
		$\overline{\nabla}$	10		Static water level measured at 9.9 feet.
			1.1		
		▼	11		Fuel odor, damp Water encountered at 11.5 feet during drilling.
5-foot			12	SW	Gray gravelly SAND, wet
core	100		12	511	Gray gravery Stard, wet
with	100		13		
liner					
			14		
			15		Set screen from 9 feet to 14 feet in temporary well. Backfilled borehole with
					bentonite chips.
					contonic emps.



 Boring ID
 YSCGP-9

 Total depth
 21 feet

 Sheet
 1
 of
 1

Project name	YSC Phase II ESA	Drilling Co	ontractor _	Cascade	Drilling method	Push-probe rig
Project number	09-04193-017	Location	96 feet S	South of GP-4	Sampling method	5 ft core with plastic liner
Client KC C	apital Planning & Dev				Air monitoring (Y/N)) _No
HEC rep.	Bruce Carpenter	Date	August 1, 20	013	Instrument(s)	NA

Sample type,	%	Water	Depth (feet,	Soil	Soil description
interval	recovery	(feet)	BGS)	group	Asphalt/Crushed Rock
			1	SM	Brown gravelly SAND, with a trace of silt, large brick fragments, (Fill), damp
5-foot			2		
core	75				
with liner			3		
IIIICI			4		
			-		
			5		
			_	ML	Light brown to red-brown mottled gravelly, sandy SILT, damp
			6		
5-foot			7		
core	100		,		
with			8	SM	Gray-brown gravelly silty SAND, damp
liner					
			9		
			10		
		<u> </u>	10		Wet, water encountered at 10.5 feet during drilling.
			11		
		$\overline{\nabla}$			Static water level measured at 11.05 feet.
4-foot	100		12		
core with	100		13		Gray gravelly SAND with a trace of silt, damp to wet, dense
liner			13		
			14		
			15		
F. C			1.6		
5-foot core	75		16		
with	73		17		
liner					
			18		
			10		
2-foot			19		
core	100		20		Unable to penetrate beyond 21 feet. Soil was very dense.
with	- 30				Set screen from 16 feet to 21 feet in temporary well. Backfilled borehole with
liner			21		bentonite chips.



 Boring ID
 YSCGP-10

 Total depth
 14 feet

 Sheet
 1
 of
 1

Project name _	YSC Phase II ESA	Drilling Co	ntractor	Cascade	Drilling method	Push-probe rig
Project number	09-04193-017	Location	117 feet	West of YSCGP-11	Sampling method	5 ft core with plastic liner
Client KC Ca	apital Planning & Dev				Air monitoring (Y/N)	
HEC rep. E	Bruce Carpenter	Date	August 1, 20	13	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
	,	(/		J	Asphalt/Crushed Rock
			1	ML	Dark brown silty SAND with a trace of gravel, brick fragments, (Fill), damp
					Light brown to red-brown mottled silty SAND with a trace of gravel, damp
5-foot			2		
core	100				
with			3		
liner					
			4		
				SP	2-inch coarse sand interbed, damp
			5	ML	Brown sandy SILT with a trace of gravel, damp
				SM	Light brown to red-brown mottled silty SAND, damp
			6		
5-foot			7	SP	Brown medium SAND with a trace of silt, damp
core	100				
with			8		
liner				SM	Gray brown gravelly silty SAND, damp
			9		
	$\overline{\nabla}$				
		$\frac{\nabla}{lacktriangle}$	10		Static water level measured at 9.8 feet.
		<u>▼</u>			Wet, water encountered at 10.5 feet during drilling.
			11		
4-foot			12		
core	100				
with			13		
liner					
			14		
					Set screen from 8.5 feet to 13.5 feet in temporary well. Backfilled borehole with
					bentonite chips.



 Boring ID
 YSCGP-11

 Total depth
 15 feet

 Sheet
 1
 of
 1

Project name	YSC Phase II ESA	Drilling Co	ntractor Cascade	Drilling method Pu	sh-probe rig
Project number	09-04193-017	Location	100 feet East of YSC GP-10	Sampling method	5 ft core with plastic liner
Client KC C	Capital Planning & Dev			Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date	August 1, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
iiitoi vai	10001019	(1001)	200)	group	Asphalt/Crushed Rock
			1	ML	Dark brown sandy SILT with a trace of gravel, brick fragments, (Fill), damp
					Brown sandy SILT with a trace of gravel, occasional red-brown mottling, damp
5-foot			2		
core	100				
with			3		
liner			4		
			4		
			5		
			6		
				SW	Brown fine to medium SAND, damp
5-foot			7		
core	100			ML	Brown sandy gravelly SILT, damp
with			8		
liner			- 0		
		∇	9		Static water level measured at 9.5 feet.
		$\overline{\nabla}$	10		Brown sandy SILT, damp
		<u></u>	10		Wet, water encountered at 10.5 feet during drilling.
			11		Brown sandy SILT with a trace of gravel, damp
5-foot			12		Brown silty CLAY with a trace of gravel, damp
core	100				
with			13		2-inch interbed of brown medium SAND, damp
liner			1.4		
			14		Gray silty CLAY with a trace of gravel, damp
			15		Gray sirty CLAT with a trace of graver, damp
			- 10		Set screen from 9 feet to 14 feet in temporary well. Backfilled borehole with
					bentonite chips.
					1



Boring ID	YSCGP-12
Total depth	10 feet
Sheet 1	of 1

Project name Y	SC Phase II ESA	Drilling Cor	ntractor Cascade	Drilling methodP	ush-probe rig
Project number	09-04193-017	Location	102 feet East of YSC GP-4	Sampling method	5 ft core with plastic liner
Client KC Cap	oital Planning & Dev			Air monitoring (Y/N)	No
HEC rep. Br	uce Carpenter	Date	August 1, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
5-foot core with liner	100		1 2 3 4	SM	Asphalt/Crushed Rock Gray and red-brown mottled silty SAND with a trace of clay and gravel, damp
5-foot core with liner	100	<u>▽</u> .	6 7 8 9	SP SW ML	Static water level measured at 6.9 feet. Water encountered at 7.5 feet during drilling. Gray brown medium SAND, wet Gray brown gravelly SAND, wet Gray brown gravelly SILT, damp Gray brown silty SAND with a trace of gravel, damp
					Set screen from 4.5 feet to 9.5 feet in temporary well. Backfilled borehole with bentonite chips.



Boring ID	YSCGP-13		
Total depth	15 feet		
Sheet 1	of 1		

Project name	YSC Phase II ESA	Drilling C	ontractor	Cascade	Drilling method	Push-probe rig
Project number	er <u>09-04193-017</u>	Location	61 feet	South and 32 feet	Sampling method	5 ft core with plastic liner
Client KC	Capital Planning & Dev_	West of	YSCGP-4A		Air monitoring (Y/N) _ No
HEC rep.	Bruce Carpenter	Date	September	6, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
	,	(/	/	J I	Asphalt/Crushed Rock
			1	ML	Brown-gray gravelly silty SAND, brick fragments, (Fill), dry
5-foot	0.7		2		
core	85		3		Light gray-brown silty SAND, white small plastic pieces, (Fill), dry
with liner			3		Soil Sample YSCGP13-3 at 10:15
IIIIei			4		Wood fragments
					Red-brown and gray mottled gravelly silty SAND, (Fill), dry
			5	SP	Gray-tan fine SAND, dry
				SM	Gray and red-brown mottled gravelly silty SAND, (Fill), dry
			6		
5-foot			7	GM	Gray-brown sandy GRAVEL, with a trace of silt, (Fill), damp
core	100		0	CM	Con Language III alle GAND Language
with liner			8	SM	Gray-brown gravelly silty SAND, damp
Imer			9		
			10		
			11		
					Gray gravelly silty SAND, damp
5-foot	00		12		
core with	80		13		
liner			13		
IIIICI			14		Soil Sample YSCGP13.5-14.5 at 10:25
		▼			Wet, water encountered at 14.5 feet during drilling.
			15		Gray silty SAND, with a trace of gravel, wet
					Backfilled borehole with bentonite chips.
<u> </u>			I .		



 Boring ID
 YSCGP-14

 Total depth
 10 feet

 Sheet
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Project nam	ne Y	SC Phase II ESA	Drilling Co	ontractor _	Cascade	Drilling method F	Push-probe rig
Project num	nber	09-04193-017	Location	104 feet	East and 10 feet	Sampling method	5 ft core with plastic liner
Client K	C Cap	oital Planning & Dev	South of	YSCGP-13		Air monitoring (Y/N)	No
HEC rep.	Br	uce Carpenter	Date	September 6	6, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
intorvar	10001019	(1001)	200)	group	Asphalt/Crushed Rock
			1	ML	Gray and red-brown mottled sandy SILT, with a trace of gravel, damp
5-foot			2		
core	100		2		G 11G 1 MGGGD14 G 140 45
with liner			3		Soil Sample YSCGP14-3 at 10:45
imer			4		
					Gray and red-brown mottled gravelly SILT, with a trace of sand, damp
			5		Gray and red gravery Sizit, with a duce of saina, damp
				SM	Gray-brown gravelly silty SAND, damp
			6		
5-foot	100		7	SP	Gray-brown medium SAND, damp
core with	100		8		
liner			0		Gray-brown gravelly SAND, with a trace of silt, damp
IIIICI		<u> </u>	9	SM	Water encountered at 9 feet during drilling.
				21.1	Soil Sample YSCGP14-9.5 at 10:55
			10		
					Backfilled borehole with bentonite chips.
			<u> </u>		



 Boring ID
 YSCGP-15

 Total depth
 15 feet

 Sheet
 1
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Project na	me YSC Phase II ESA	Drilling Co	ontractor Cascade	Drilling method Pu	sh-probe rig
Project nu	mber <u>09-04193-017</u>	Location	94 feet East of YSCGP-14	Sampling method	5 ft core with plastic liner
Client _	KC Capital Planning & Dev			Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date _	September 6, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
	,	(/	/	J I	Asphalt/Crushed Rock
			1	SM	Brown silty SAND, (Fill), damp
5-foot	100		2		Soil Sample YSCGP15-2 at 11:35
core with	100		3		
liner			3		
IIIICI			4	ML	Gray and red-brown mottled gravelly sandy SILT, damp
					g-m-r, m-r
			5		
			6		
5-foot			7		
core	100		/		
with	100		8		
liner					
			9		
		_		SP	Gray-brown medium SAND, damp
		<u>▼</u>	10		Wet, Soil Sample YSCGP15-10 at 11:50 Water encountered at 10 feet during
			11		drilling.
			11		
5-foot			12		
core	100				
with			13		
liner			1.4) //	
			14	ML SP	Gray and red-brown mottled gravelly sandy SILT, damp Gray-brown medium SAND, wet
			15	ML	Gray gravelly SILT, with a trace of sand, damp
			13	IVIL	Backfilled borehole with bentonite chips.



 Boring ID
 YSCGP-16

 Total depth
 15 feet

 Sheet
 1
 of
 1

Project name YSC Phase II ESA	Drilling Co	ontractor Cascade	Drilling method Pu	ush-probe rig
Project number <u>09-04193-017</u>	Location	145 feet East of YSCGP-15	Sampling method	5 ft core with plastic liner
Client KC Capital Planning & Dev_			Air monitoring (Y/N)	No
HEC rep. Bruce Carpenter	Date	September 6, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
		(1001)		<u> </u>	Grass/Topsoil
			1	SM	Brown gravelly silty SAND, (Fill), dry
					D. W. GLAND (TW)
5-foot	100		2		Brown-gray gravelly silty SAND, (Fill) damp
core with	100		3		Large brick fragment Soil Sample YSCGP16-3 at 12:35
liner			3		3011 Sample 13CO110-3 at 12.33
			4		
				ML	Gray and red-brown mottled sandy SILT, damp
			5		
			6		
			0		Gray and red-brown mottled gravelly sandy SILT, damp
5-foot			7		Gray and Ted-brown modiced graverry sandy STET, damp
core	100		-		
with			8		
liner					
			9		
			10		
			10		
			11	CL	Gray silty CLAY with a trace of gravel, damp
5-foot	100		12		
core with	100		13		
liner			13		
111101			14		Wet, water encountered at 14.5 feet during drilling.
		<u> </u>		SP	Gray medium SAND, wet, Soil Sample YSCGP16-14.5 at 12:45
			15	CL	Gray silty CLAY with a trace of gravel, damp
					Backfilled borehole with bentonite chips.



 Boring ID
 YSCGP-17

 Total depth
 10 feet

 Sheet
 1
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 1

Project name	YSC Phase II ESA	Drilling Co	ntractor _	Cascade	Drilling method _ F	ush-probe rig
Project number	09-04193-017	Location	75 feet E	East of YSCGP-17	Sampling method	5 ft core with plastic liner
Client KC C	apital Planning & Dev				Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date _	September (6, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
IIICIVAI	recovery	(loct)	<i>B</i> 00)	group	Grass/Topsoil
			1	SM	Brown gravelly SAND with a trace of silt, (Fill), damp. Soil Sample YSCGP17-1
			_	SP	at 13:25
5-foot			2		Brown medium SAND, (Fill), damp
core	100				, , , , , , , , , , , , , , , , , , ,
with			3	ML	Gray and red-brown mottled sandy SILT, with a trace of gravel, damp
liner			_		, , , , , , , , , , , , , , , , , , , ,
			4		
			5		
			6		
					Brown gravelly sandy SILT, damp
5-foot			7		Gray clayey SILT with a trace of sand, damp
core	100				
with			8		
liner					
		<u>▼</u>	9		Water encountered at 9 feet during drilling.
				SM	Soil Sample YSCGP17-9.5 at 13:35 Gray gravelly SAND, wet
			10	SP	Gray medium SAND, wet
					Backfilled borehole with bentonite chips.



 Boring ID
 YSCGP-18

 Total depth
 15 feet

 Sheet
 1
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Project name YSC Phase II ESA	Drilling Contractor Cascade	Drilling method Push-probe rig
Project number <u>09-04193-017</u>	Location 90 feet North and 16 feet West	Sampling method 5 ft core with plastic liner
Client KC Capital Planning & Dev	of YSCGP-24	Air monitoring (Y/N) No
HEC rep. Bruce Carpenter	Date September 4, 2013	Instrument(s) NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
	,		,	<u> </u>	Grass/Topsoil
			1	SM	Brown silty SAND with a trace of gravel, (Fill), dry
5-foot			2		
core	100		2		G 110 1 MGGGD10 2 115 15
with			3		Soil Sample YSCGP18-3 at 15:15
liner			4		
			4		
			5		
			6		
				SW	Gray-brown mottled gravelly SAND, damp
5-foot			7		
core	100			ML	Gray gravelly SILT with a trace of sand, damp
with			8		
liner			0		
			9		
		▼	10		Water encountered at 10 feet during drilling.
			10	SW	Gray gravelly SAND, wet
			11	2	Soil Sample YSCGP18-11 at 15:25
					•
5-foot			12		
core	100				
with			13		
liner			4.4		
			14		
			15		
			13		Backfilled borehole with bentonite chips.
					Buckfined objection with beintomic emps.



 Boring ID
 YSCGP-19

 Total depth
 15 feet

 Sheet
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Project nai	me \	/SC Phase II ESA	Drilling C	Contractor	Cascade	Drilling method	Push-probe rig
Project nui	mber	09-04193-017	Location	78 feet	South and 48 feet	Sampling method	5 ft core with plastic liner
Client _	KC Ca	pital Planning & Dev	East of	YSCGP-25		Air monitoring (Y/N	N) No
HEC rep.	В	ruce Carpenter	Date	September	4, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
5-foot	100	(1901)	1 2	SM	Asphalt/Crushed Rock Dark brown silty SAND with a trace of gravel, brick fragments, piece of a Sneaker, (Fill), damp Soil Sample YSCGP19-2 at 10:45
with liner	100		3	SP	Brown-tan medium SAND, (Fill),
5-foot core with liner	100		5 6 7 8 9	SM	Gray and red-brown mottled silty gravelly SAND, damp
5-foot core with liner	100	<u>▼</u>	11 12 13 14		Static water level measured at 10.45 feet. Water encountered at 12.5 feet during drilling. Tan-gray gravelly SAND with a trace of silt, wet Soil Sample YSCGP19-14 at 11:05
			13		Set screen from 11 ft to 15 ft in temporary well. Backfilled borehole with bentonite chips.



Boring ID	YSCGP-20		
Total depth	15 feet		
Sheet 1	of 1		

Project name _	YSC Phase II ESA	Drilling Co	ntractor Cascade	Drilling method Po	ush-probe rig
Project number	09-04193-017	Location	91 feet East of YSCGP-19	Sampling method	5 ft core with plastic liner
Client KC Ca	apital Planning & Dev			Air monitoring (Y/N)	No
HEC rep. E	Bruce Carpenter	Date _	September 5, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
					Asphalt/crushed rock
			1	ML	Dark brown sandy SILT with a trace of gravel, (Fill), damp
5-foot core	100		2		Tan and red-brown mottled sandy SILT with a trace of gravel, (Fill), damp
with	100		3	SM	
liner				51.1	Dark brown gravelly SAND, with a trace of silt, damp
			4		Soil Sample YSCGP20-4 at 12:00
			5	ap.	
				SP	Gray medium SAND, damp, 1-inch silt interbed.
			6	ML	Gray and red-brown mottled sandy SILT with a trace of gravel, damp
5-foot	100		7		
core with	100		8		
liner					
			9		
			10		
		$\overline{\nabla}$	4.4	SP	Static water level measured at 10.4 feet.
		_	11	M	Brown medium SAND, damp to wet
5-foot		<u>▼</u>	12	ML	Water encountered at 11 feet during drilling. Gray and red-brown mottled sandy SILT with a trace of gravel, damp
core	100		12		Soil Sample YSCGP20-12 at 12:20
with liner			13		
inter			14		
			15		Rock at bottom of borehole. Unable to drill deeper than 15 feet.
			_		Set screen from 11 to 15 feet in temporary well. Well did not produce sufficient
			16		water to collect sample.
					Backfilled with bentonite pellets.
			17		
			18		
			19		
			20		



Boring ID	YSCGP-20A		
Total depth	20 feet		
Sheet 1	of 1		

Project nam	e YSC Phase II ESA	Drilling Co	ontractor _	Cascade	Drilling method F	Push-probe rig
Project num	ber <u>09-04193-017</u>	Location	96.5 feet	t East of YSCGP-19	Sampling method	5 ft core with plastic liner
Client K	C Capital Planning & Dev				Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date	September 5	5, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
	ĺ		,	<u> </u>	Asphalt/crushed rock
			1	ML	Dark brown sandy SILT with a trace of gravel, (Fill), damp
5-foot core	60		2		Tan and red-brown mottled sandy SILT with a trace of gravel, (Fill), damp
with liner	00		3	SM	Dark brown gravelly SAND, with a trace of silt, damp
			4		
			5		
			6	SP	Gray medium SAND, damp
5-foot			7	ML	Gray and red-brown mottled sandy SILT, damp
	90		/	MIL	Gray and red-brown modified sandy STL1, damp
core	90		8		
with			8		
liner			0	CD	Danner and John CAND James
			9	SP	Brown medium SAND, damp
			10	ML	Gray and red-brown mottled sandy SILT with a trace of gravel, damp
			11		
		<u>▼</u>	11	SP	Gray medium SAND damp to wet. Water encountered at 11.5 feet during drilling.
5-foot			12		
core with	80		13	ML	Gray and red-brown mottled sandy SILT
liner		∇			Static water level measured at 13.58 feet.
		_	14		
			15		
			13	SM	Gray-brown gravelly silty SAND. wet
			16	SIVI	Gray brown graveny snry Srivib. wer
5-foot	100		17		
core with	100		18		
liner			19		
			20		Set screen from 16 to 20 feet in temporary well. Backfilled with bentonite pellets.



 Boring ID
 YSCGP-21

 Total depth
 20 feet

 Sheet
 1
 of
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Project nam	ne YSC Phase II ESA	Drilling C	ontractor Cascade	Drilling method Po	ush-probe rig
Project num	nber 09-04193-017	Location	100 feet East of YSCGP-20	Sampling method	5 ft core with plastic liner
Client K	C Capital Planning & Dev			Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date	September 4, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
	,	, ,	,	<u> </u>	Asphalt/crushed rock
			1	ML	Dark brown sandy SILT with a trace of gravel, (Fill), damp
5-foot			2		
core	60				
with			3		Soil Sample YSCGP21-3 at 13:15
liner			4		
			4		
			5		
			3		
			6		
					Gray-green clayey SILT with a trace of gravel and sand, damp
5-foot			7		Stuff grown stuffer state a unit of grants and saite, dump
core	90				
with			8	SM	Gray and red-brown mottled silty SAND with a trace of gravel, damp
liner					
			9		
			10		
			11	CD.	D " CAND I
5 foot			12	SP	Brown medium SAND, damp
5-foot core	100		12	SM	Gray and red-brown mottled silty SAND with a trace of gravel, damp
with	100		13	SIVI	Oray and red-brown mothed sifty SAND with a trace of graver, damp
liner		<u> </u>	13	SP	Water encountered at 13.5 feet during drilling.
IIIICI		<u> </u>	14	SI.	Brown medium SAND, damp
				ML	Gray and red-brown mottled sandy SILT with a trace of gravel, damp
		$\overline{\nabla}$	15		Static water level measured at 15.02 feet.
				SM	Soil Sample YSCGP21-15 at 13:25
			16		Gray-brown silty SAND with a trace of gravel, wet
5-foot			17	ML	Gray sandy SILT, damp
core	100				
with			18	G2. 7	
liner			10	SM	Gray gravelly silty SAND, wet
			19		Set conseq from 15 to 10 feet in terms on 11
			20		Set screen from 15 to 19 feet in temporary well.
			20		Backfilled with bentonite pellets.



 Boring ID
 YSCGP-22

 Total depth
 20 feet

 Sheet
 1
 of
 1

Project nam	e YSC Phase II ESA	Drilling C	ontractor Cascade	Drilling method P	ush-probe rig
Project num	ber <u>09-04193-017</u>	Location	120 feet West and 13 feet	Sampling method	5 ft core with plastic liner
Client K	C Capital Planning & Dev	South o	f YSCGP-23	Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date	September 4, 2013	Instrument(s)	NA

Sample	%	Water level	Depth (feet,	Soil	
type, interval	% recovery	(feet)	BGS)	group	Soil description
					Grass/Topsoil
			1	SM	Brown gravelly SAND with a trace of silt, (Fill), dry
5-foot			2		
core	95				
with			3		Soil Sample YSCGP21-3 at 13:15
liner					
			4		
			5		
				ML	Brown sandy SILT with a trace of gravel, brick fragments, (Fill), damp
			6		
- C					
5-foot core	100		7		
with	100		8		
liner					
			9		
			10		
			1.1		
			11		
5-foot			12		
core	100				
with liner			13		
imer			14		2-inch zone of black gravelly SAND, (Fill), dry
				SW	Brown gravelly SAND, damp
		_	15		
		$\overline{\nabla}$	16	GW	Static water level measured at 15.68 feet. Brown sandy GRAVEL, wet
		<u> </u>	10	UW.	Water encountered at 16.5 feet during drilling.
5-foot		<u> </u>	17		was shown as too same and any
core	100				
with			18		Soil Sample YSCGP22-18 at 14:45
liner			19		Gray sandy GRAVEL, wet
			17		Set screen from 15 to 19 feet in temporary well.
			20		Backfilled with bentonite pellets.



Boring ID	YSCGP-23
Total depth	9 feet
Sheet 1	of 1

Project name	YSC Phase II ESA	Drilling Co	ontractor Cascade	Drilling method P	Push-probe rig
Project numbe	r <u>09-04193-017</u>	Location	24 feet West and 26 feet North	Sampling method	5 ft core with plastic liner
Client KC (Capital Planning & Dev	of the NE	E corner of the building.	Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date	September 5, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
inicivai	recovery	(IGGI)	1000)	group	Grass/Topsoil
			1	ML	Gray and red-brown mottled sandy SILT, with a trace of gravel, damp
5-foot			2		
core	100				
with			3		
liner			4		
			4		
			5		
		<u></u>	6		Water encountered at 6 feet during drilling.
				SW	Soil Sample YSCGP23-6 at 14:30
4-foot	4.00		7		Gray gravelly SAND, wet
core	100		8		
with liner			0		
IIIICI			9		
					Backfilled borehole with bentonite chips.



 Boring ID
 YSCGP-24

 Total depth
 8.5 feet

 Sheet
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Project name	YSC Phase II ESA	Drilling Co	ontractor Cascade	Drilling method Pu	ısh-probe rig
Project number	09-04193-017	Location	100 feet East of YSCGP-23	Sampling method	5 ft core with plastic liner
Client KC C	Capital Planning & Dev			Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date	September 5, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
interval	recovery	(ICCI)	500)	group	Grass/Topsoil
			1	SM	Brown silty SAND with a trace of gravel (Fill), dry Soil Sample YSCGP-24-0.5
			1	ML	at 14:00
5-foot			2	IVIL	Gray and red-brown mottled sandy SILT, with a trace of gravel, damp
core	100				Gray and red-brown modera sandy StET, with a trace of graver, damp
with	100		3		
liner					
IIIICI			4		
			-		
			5		
3.5-foot			6		
core	75				
with	7.5	_	7		Water encountered at 7 feet during drilling.
liner			,	SM	Soil Sample YSCGP24-7.5 at 14:10
111141			8	51.1	Gray-brown silty SAND, wet
			-	ML	Gray and red-brown mottled sandy SILT with a trace of gravel, damp
					Backfilled borehole with bentonite chips.



Boring ID	YSCGP-25
Total depth	15 feet
Sheet 1	of 1

Project nar	me <u>\</u>	/SC Phase II ESA	Drilling Co	ontractor	Cascade	Drilling method	Push-probe rig
Project nur	mber	09-04193-017	Location	24 feet	North and 40 feet West	Sampling method	5 ft core with plastic liner
Client _	KC Ca _l	pital Planning & Dev	of YSC	SP-24		Air monitoring (Y/N) No
HEC rep.	Ві	ruce Carpenter	Date	September	5, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
	j				Asphalt/crushed rock
			1	SM	Brown gravelly SAND with a trace of silt, brick fragments, (Fill), damp
5-foot	400		2		
core	100		2		
with liner			3		Soil Sample YSCGP25-3 at 16:00
IIIICI			4		3011 Sample 13CO123-3 at 10.00
			'		
			5		
			6		
5-foot	100		7		
core with	100		8		Gray and red-brown mottled silty SAND, with a trace of gravel, damp
liner			0		
IIIICI			9		
			10		
			11		
7. C			10		
5-foot	100		12		Gray and red-brown mottled gravelly SAND with a trace of silt, damp
core with	100		13		Gray and red-brown modified graverry SAND with a trace of snt, damp
liner			13		
111101		_	14		Water encountered at 14 feet during drilling.
		_			Soil Sample YSCGP25-14 at 16:10
			15	ML	Gray-brown gravelly SILT with a trace of sand, wet
			4.5		Backfilled with bentonite pellets.
			16		
			17		
			1 /		
			18		
			19		
			20		



Boring ID YSCGP-26
Total depth 25 feet
Sheet 1 of 2

Project name	YSC Phase II ESA	Drilling Cor	ntractor Cascade	Drilling method Po	ush-probe rig
Project number	er 09-04193-017	Location	27 feet South and 103 feet	Sampling method	5 ft core with plastic liner
Client KC	ent KC Capital Planning & Dev East or YSCGP-25				No
HEC rep.	Bruce Carpenter	Date S	September 4, 2013	Instrument(s)	NA

Asphalt/crushed rock Gray-brown silty SAND with a trace of gravel, brick fragments, (Fill), damp Brown SAND with a trace of silt and gravel, (Fill), dry Soil Sample YSCGP26-3 at 9:10 S-foot core with liner Brown SAND with a trace of silt and gravel, (Fill), dry Soil Sample YSCGP26-3 at 9:10 Asphalt/crushed rock Gray-brown silty SAND with a trace of silt and gravel, (Fill), dry Soil Sample YSCGP26-3 at 9:10 Asphalt/crushed rock Gray-brown silty SAND with a trace of silt and gravel, (Fill), dry Soil Sample YSCGP26-3 at 9:10 Asphalt/crushed rock Gray-brown silty SAND with a trace of silt and gravel, (Fill), dry Soil Sample YSCGP26-3 at 9:10 Asphalt/crushed rock Gray-brown silty SAND with a trace of silt and gravel, (Fill), dry Soil Sample YSCGP26-3 at 9:10 Asphalt/crushed rock Gray-brown silty SAND with a trace of silt and gravel, (Fill), dry Soil Sample YSCGP26-3 at 9:10 Gray-green sandy SILT, brick fragments, with a trace of gravel and some Organic material, (Fill), damp Gray-green sandy SILT with a trace of gravel, (Fill), damp Gray-green sandy SILT with a trace of gravel, damp Gray and red-brown mottled sandy SILT with a trace of gravel, damp Static water level measured at 14.2 feet.	Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
5-foot core with liner 5-foot core with liner 100 5-foot core with liner 5-foot line with liner 5-foot line with liner 5-foot line with liner line with liner line with line with liner line with line with line line line with line line line with line line line line with line line line line line line line line						
Brown SAND with a trace of silt and gravel, (Fill), dry					SM	Gray-brown silty SAND with a trace of gravel, brick fragments, (Fill), damp
with liner 3	5-foot			2		
Soil Sample YSCGP26-3 at 9:10 Soil Sample YSCGP26-3 at 9:10		100				Brown SAND with a trace of silt and gravel, (Fill), dry
5-foot core with liner 5				3		g li g I yaggpas a a ta
5-foot core with liner 9 ML Dark brown-black sandy SILT, brick fragments, with a trace of gravel and some Organic material, (Fill), damp Gray-green sandy SILT with a trace of gravel, (Fill), damp Gray and red-brown mottled sandy SILT with a trace of gravel, damp Gray and red-brown mottled sandy SILT with a trace of gravel, damp S-foot core with liner V 14 Static water level measured at 14.2 feet.	liner			4		Soil Sample YSCGP26-3 at 9:10
5-foot core with liner Solution Solutio				4		
5-foot core with liner Solution Solutio						
5-foot core with liner Solution Solutio				3		
5-foot core with liner Solution Solutio						
core with liner 100 with liner 3.5-inch piece of brick 9 ML Dark brown-black sandy SILT, brick fragments, with a trace of gravel and some Organic material, (Fill), damp 10 Gray-green sandy SILT with a trace of gravel, (Fill), damp 5-foot core with liner 12 3.5-inch piece of brick 9 ML Dark brown-black sandy SILT, brick fragments, with a trace of gravel and some Organic material, (Fill), damp Gray-green sandy SILT with a trace of gravel, (Fill), damp 5-foot core with liner 12 3.5-inch piece of brick Gray-green sandy SILT with a trace of gravel, (Fill), damp The static water level measured at 14.2 feet. Static water level measured at 14.2 feet.				0		
core with liner 100 with liner 3.5-inch piece of brick 9 ML Dark brown-black sandy SILT, brick fragments, with a trace of gravel and some Organic material, (Fill), damp 10 Gray-green sandy SILT with a trace of gravel, (Fill), damp 5-foot core with liner 12 3.5-inch piece of brick 9 ML Dark brown-black sandy SILT, brick fragments, with a trace of gravel and some Organic material, (Fill), damp Gray-green sandy SILT with a trace of gravel, (Fill), damp 5-foot core with liner 12 3.5-inch piece of brick Gray-green sandy SILT with a trace of gravel, (Fill), damp The static water level measured at 14.2 feet. Static water level measured at 14.2 feet.	5 foot			7		
with liner Saction Substitute Static water level measured at 14.2 feet. Substitute Su		100		/		
liner 3.5-inch piece of brick 9		100		0		
9 ML Dark brown-black sandy SILT, brick fragments, with a trace of gravel and some Organic material, (Fill), damp 10 Gray-green sandy SILT with a trace of gravel, (Fill), damp 5-foot core with liner □ 100 Static water level measured at 14.2 feet. Static water level measured at 14.2 feet.				0		2.5 inch piece of briek
Organic material, (Fill), damp Gray-green sandy SILT with a trace of gravel, (Fill), damp 5-foot core to the state of gravel of gravel, damp The static water level measured at 14.2 feet. Organic material, (Fill), damp Gray-green sandy SILT with a trace of gravel, damp Static water level measured at 14.2 feet.	illiei			0	MI	Dark brown black candy SILT brick fragments, with a trace of gravel and some
To Gray-green sandy SILT with a trace of gravel, (Fill), damp S-foot Core 100 With Is Is Is Is Is Is Is I				,	IVIL	•
Gray-green sandy SILT with a trace of gravel, (Fill), damp 5-foot core with liner □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □				10		Organic material, (1111), damp
5-foot core with liner				10		Gray-green sandy SILT with a trace of gravel (Fill) damp
5-foot core with liner				11		Gray-green sailey SILT with a trace of graver, (1 m), damp
5-foot core with liner				- 11		Gray and red-brown mottled sandy SILT with a trace of grayel, damp
core with liner	5-foot			12		Gray and red-brown mothed sandy STET with a trace of graver, damp
with liner		100		12		
liner □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		100		13		
$\overline{\bigcirc}$ 14 Static water level measured at 14.2 feet.				13		
	IIIICI		∇	1/1		Static water level measured at 14.2 feet
15				14		Static water level incastred at 14.2 feet.
				15		
				13		
16				16		
				10		
5-foot 17	5 foot			17		
core 100		100		1 /		
with 18		100		18		
liner				10		
Gray clayey SILT with a trace of sand and gravel, damp	111101			19		Gray clavey SILT with a trace of sand and grayel damp
Oray Gray State with a trace of saint and graver, damp				17		oray orayo, order with a trace of saint and graver, tamp
		1		20		



 Boring ID
 YSCGP-26

 Total depth
 25 feet

 Sheet
 2
 of
 2

Project name	YSC Phase II ESA	Drilling Cor	ntractor Cascade	Drilling method Pu	sh-probe rig
Project numb	er 09-04193-017	Location	27 feet South and 103 feet	Sampling method	5 ft core with plastic liner
Client KC	Capital Planning & Dev	East or Y	SCGP-25	Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date S	September 4, 2013	Instrument(s)	NA

type, interval recovery (feet) Soil group Soil description	
21	
5-foot <u>22</u>	
core 100	
with <u>▼ 23</u> Water encountered at 23 feet during drilling.	
liner	
24 SM Gray-brown silty SAND with a trace of gravel, wet	
Soil Sample YSCGP26-24 at 9:30	
Set screen from 19.5 to 23.5 feet in temporary well.	
Backfilled with bentonite pellets.	
Backfilled with bentonite penets.	



 Boring ID
 YSCGP-27

 Total depth
 15 feet

 Sheet
 1
 of
 1

Project name	YSC Phase II ESA	Drilling Co	ontractor Cascade	Drilling method Pu	ısh-probe rig
Project number	09-04193-017	Location	104 feet East of YSCGP-26	Sampling method	5 ft core with plastic liner
Client KC C	apital Planning & Dev			Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date _	September 5, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
					Grass/Topsoil
			1	SM	Gray-brown silty SAND with a trace of gravel, (Fill), damp
5-foot			2		
core	90				
with			3	3.67	
liner				ML	Soil Sample YSCGP27-3 at 16:45
			4		Gray-green sandy SILT with a trace of gravel, (Fill), damp
			5		
			3		
			6		
			0		
5-foot			7		
core	80		,	SM	Gray SAND with a trace of silt, damp
with			8	51.1	City bill is with a time of bill, dump
liner					
			9	ML	Brown gravelly SILT, damp
					Gray gravelly SILT, damp
			10		Black gravelly SILT, damp
				SP	Gray medium SAND, damp
			11	ML	Gray SILT, with a trace of sand, damp
				SP	Gray medium SAND, damp
5-foot			12	SM	Gray and brown mottled silty SAND, damp
core	100		10		
with			13		
liner			14		
			14		Water encountered at 14.5 feet during drilling.
			15	SP	Gray medium SAND, wet Soil Sample YSCGP27-14.5 at 16:55
			13	51	Backfilled borehole with bentonite chips.
					Backfined objection with bentomic emps.
		I	I		<u>I</u>



Boring ID	YSCGP-28
Total depth	20 feet
Sheet 1	of 1

Project name YSC Phase II ESA	Drilling Contractor Cascade	Drilling method Push-probe rig
Project number <u>09-04193-017</u>	Location Gated Facility North of main	Sampling method 5 ft core with plastic liner
Client KC Capital Planning & Dev	entrance, 15 ft S and 11 ft E of NW corner	Air monitoring (Y/N) No
HEC rep. Bruce Carpenter	Date September 5, 2013	Instrument(s) NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
		(.001)	200)	9.04	Asphalt/Crushed Rock
			1	SM	Brown silty SAND, (Fill), dry
5-foot			2		
core	20				
with			3		
liner					
			4		
			5		
				ML	Gray-green sandy SILT with a trace of gravel, (Fill), damp
			6		
5-foot			7		
core	20		/		
with			8		
liner					
			9		Soil Sample YSCGP28-9 at 8:30
			10		
			11		
5-foot			12		
core	60				Brown-dark brown sandy SILT, damp
with			13		
liner			14		
			11		
			15		
		$\overline{\triangle}$	16		Static water level measured at 15.65 feet.
			10		
5-foot			17		
core	70	<u>▼</u>			Water encountered at 17.5 feet during drilling.
with liner			18		Soil Sample YSCGP28-18 at 8:45 Gray-brown sandy SILT, wet
iner			19		Gray-blown sandy StL1, wet
			17		Set screen from 16 to 20 feet in temporary well.
			20		Backfilled with bentonite pellets.



 Boring ID
 YSCGP-29

 Total depth
 10 feet

 Sheet
 1
 of
 1

Project name _	YSC Phase II ESA	Drilling Cor	ntractor _	Cascade	Drilling methodF	Push-probe rig
Project number	09-04193-017	Location	South of	YSCGP-23	Sampling method	5 ft core with plastic liner
Client KC C	apital Planning & Dev				Air monitoring (Y/N)	No
HEC rep. E	Bruce Carpenter	Date S	September 5	5, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
interval	recovery	(ICCI)	500)	group	Grass/Topsoil
			1	ML	Brown gravelly sandy SILT, dry
5-foot			2		
core	60				
with			3		
liner					
			4		
			5		
			6		
			0		
5-foot			7		
core	70		,		
with			8		
liner		$\overline{\nabla}$		CL	Static water level measured at 8.7 feet. Gray brown silty CLAY, damp
		∇	9		Water encountered at 9 feet during drilling.
					Soil Sample YSCGP29-9 at 11:05
			10	SM	Gray gravelly SAND with a trace of silt, wet
					Set screen from 6 to 10 feet in temporary well.
					Backfilled borehole with bentonite chips



 Boring ID
 YSCGP-30

 Total depth
 15 feet

 Sheet
 1
 of
 1

Project name	YSC Phase II ESA	Drilling Co	ontractor Cascade	Drilling method Pu	sh-probe rig
Project number	r 09-04193-017	Location	NE corner of building along	Sampling method	5 ft core with plastic liner
Client KC	Capital Planning & Dev	14 th Ave	nue	Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date	September 5, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
5-foot core with liner	95		1 2 3 4	SM	Grass/Topsoil Brown silty SAND with a trace of gravel, (Fill), dry Soil Sample YSCGP30-1 at 13:15 2-inch piece of brick Brown silty SAND with a trace of gravel, (Fill), dry
5-foot core with liner	100		5 6 7 8 9	ML	Gray and red-brown mottled sandy SILT with a trace of gravel, damp
5-foot core with liner	95	<u>▼</u>	11 12 13 14	CL	Gray silty CLAY, damp Water encountered at 14 feet during drilling. Soil Sample YSCGP30-14 at 13:25
					Backfilled borehole with bentonite chips.



Boring ID	YSCGP-31
Total depth	20 feet
Sheet 1	of 1

Project na	me Y	SC Phase II ESA	Drilling C	Contractor	Cascade	Drilling method	Push-probe rig
Project nu	mber	09-04193-017	Location	East en	nd of southernmost	Sampling method	5 ft core with plastic liner
Client _	KC Cap	oital Planning & Dev	Parking	area		Air monitoring (Y/N	No No
HEC rep.	Br	uce Carpenter	Date	September	6, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
	,		,		Asphalt/Crushed Rock
			1	SM	Gray-brown silty SAND with a trace of gravel, wood fragments, (Fill), dry
5-foot	00		2		
core with	90		3		
liner			3		Soil Sample YSCGP31-3 at 9:00
			4		Brown silty SAND with a trace of gravel, (Fill), dry
			5		
			6	ML	Construction of the constr
5-foot			7	ML	Gray and red-brown mottled sandy SILT with a trace of gravel, dry
core	100		,		
with			8		
liner					
			9		
			10		Gray and red-brown mottled gravelly, sandy SILT, dry
			10		
			11		damp
5-foot			12		
core	95				
with			13		
liner			14		
			14		
			15	CL	Gray silty CLAY, damp
				SM	Gray-brown silty SAND with a trace of gravel, damp
		<u>▼</u>	16		Water encountered at 16 feet during drilling.
			1.7		Soil Sample YSCGP31-16 at 9:20
5-foot	100		17		
core with	100		18		
liner			10		
			19		
					Gray silty SAND with a trace of gravel, wet
			20		Backfilled with bentonite pellets.



Boring ID	YSCGP-32
Total depth	20 feet
Sheet 1	of 1

Project name	e YSC Phase II ESA	Drilling C	contractor Cascade	Drilling methodF	Push-probe rig
Project num	ber <u>09-04193-017</u>	Location	16 feet South and 112 feet	Sampling method	5 ft core with plastic liner
Client K	C Capital Planning & Dev	East of	YSCGP-31	Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date	September 6, 2013	Instrument(s)	NA

Sample type, interval	% recovery	Water level (feet)	Depth (feet, BGS)	Soil group	Soil description
	,	(= = 1)	/	9 1	Asphalt/Crushed Rock
			1	SM	Gray-Brown silty SAND with a trace of gravel, (Fill), dry
5-foot	100		2		
core with	100		3		Soil Sample YSCGP32-3 at 8:10
liner			3		3011 Sample 13eOf 32-3 at 0.10
			4		
					Brown-tan silty SAND with a trace of gravel, (Fill), dry
			5		
			6	ML	Gray and red-brown mottled sandy SILT with a trace of gravel, damp
			0		4-inch sand interbed
5-foot			7		7-men sand meroed
core	100				
with			8		
liner					
			9		
			10		
			11		
5-foot	100		12	M	4-inch sand interbed
core with	100		13	ML	Brown-gray clayey SILT, damp
liner			13		Gray-brown sandy SILT with a trace of gravel, damp
111101			14		Stay 610 m sailey 8121 mar a date of graves, damp
			15		
			1.6		Sail Samuela VSCOD22 16 5 at 9:20
		<u>▼</u>	16		Soil Sample YSCGP32-16.5 at 8:20 Water encountered at 16.5 feet during drilling.
5-foot			17	SP	Gray medium SAND with a trace of silt, wet
core	100			SM	Gray silty SAND with a trace of gravel, wet
with			18		
liner			10		
			19		
			20		Backfilled with bentonite pellets
			20		Backfilled with bentonite pellets.



 Boring ID
 YSCGP-33

 Total depth
 11 feet

 Sheet
 1
 of
 1

Project name	YSC Phase II ESA	Drilling Co	ontractor Cascade	Drilling method P	ush-probe rig
Project number	09-04193-017	Location	20 feet south of courtyard in	Sampling method	5 ft core with plastic liner
Client KC C	Capital Planning & Dev	SE field		Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date	September 6, 2013	Instrument(s)	NA

Sample		Water	Depth		
type,	%	level	(feet,	Soil	Soil description
interval	recovery	(feet)	BGS)	group	
					Grass/Topsoil
			1	SM	Brown silty SAND with a trace of gravel, (Fill), damp
5-foot			2		
core	100				
with			3		
liner					
			4		Soil Sample YSCGP33-4 at 15:35
			5		
				ML	Gray and red-brown mottled sandy SILT, dry
			6		
				SM	Brown silty SAND with a trace of gravel, damp
5-foot			7		
core	100		_	SP	Brown-gray coarse SAND, dry
with			8	ML	Gray and red-brown mottled sandy SILT, damp
liner				~~	21372
			9	SP	Brown-gray coarse SAND, dry
			10	ML	Gray and red-brown mottled sandy SILT, damp
1.0	2.7		10		
1-foot	25		11		Gray and red-brown mottled sandy SILT with a trace of gravel and cobbles, dry
core w/l			11		Probe unable to penetrate beyond 11 feet.
					Backfilled borehole with bentonite chips.



 Boring ID
 YSCGP-34

 Total depth
 15 feet

 Sheet
 1
 of
 1

Project nam	e YSC Phase II ESA	Drilling Co	ntractor Cascade	Drilling method Pu	sh-probe rig
Project num	ber <u>09-04193-017</u>	Location	20 feet east of SE corner of	Sampling method	5 ft core with plastic liner
Client K	C Capital Planning & Dev	building a	along 14 th Avenue	Air monitoring (Y/N)	No
HEC rep.	Bruce Carpenter	Date :	September 5, 2013	Instrument(s)	NA

Sample type,	%	Water level	Depth (feet,	Soil	Soil description
interval	recovery	(feet)	BGS)	group	
			1	CM	Grass/Topsoil
			1	SM	Brown gravelly SAND with a trace of silt, (Fill), dry
5-foot			2		
core	70				
with			3		Soil Sample YSCGP34-3 at 12:05
liner					
			4		
				ML	Gray and red-brown mottled sandy SILT with a trace of gravel, damp
			5		
			6		
			0		
5-foot			7		
core	100				
with			8		
liner					
			9		
			10		
			10		
			11		
5-foot			12		
core	100				
with		_▼	13	ap.	Water encountered at 13 feet during drilling.
liner			1.4	SP	Soil Sample YSCGP34-13 at 12:15
			14	ML	Brown-gray medium SAND with a trace of gravel and silt, wet Gray and red-brown mottled sandy SILT with a trace of gravel, wet
			15	IVIL	Gray and red-orown motified sandy STET with a trace of graver, wet
			15		Backfilled borehole with bentonite chips.



Monitoring Well _ MW-1d Total depth: ____ 46 feet Sheet 1 of 3

Drilling Contractor: Cascade

Drilling method: Hollow Stem Auger Sampling method: **D+M Sampler**

Air monitoring (y/n): Y

Instrument(s): Photoionization Detector (PID)

Project number: <u>09-04193-017</u> Client: King County Facilities Management Division Location: 4 feet East of YSCGP-4 NW corner HEC rep.: Bruce Carpenter

Project name: YSC

Date: **09/19/2013**

PID Reading (ppm)	Sample Interval	Sample % Interval Recovery		Depth (feet, BGS)	Water Level (feet)	Soil Group	Soil Description	Monitoring Well Construction Detail	
				0				Concrete _	
				1			Asphalt/Crushed rock		
				2					700
				3					
				4 5					
0		100	8 10	6		ML	Red-brown, mottled, sandy SILT, tr. gravel, damp		
			10	7					
				8	V		Static water level 7.94 feet (9/23/2013)		
				9					
0		100	16 29	10 11		SM	Gray-Brown gravelly silty SAND, damp		
		. – – – –	21	12		_	Water encountered during drilling	Hydrated	
				13			between 12 and 15 feet	bentonite chips	
				14					
0	><	100	50/6	15		SM	Gray-brown gravelly silty SAND, wet		
				16					
				17					
				18 19					
				20					
0	\times	100	21 50/6	21		SM	Gray fine to coarse gravelly SAND, tr. silt, wet		
				22					



Monitoring Well MW-1d Total depth: 46 feet Sheet 2 of 3

Project name: YSC Project number: <u>09-04193-017</u> Client: King County Facilities Management Division Drilling Contractor: Cascade Drilling method: Hollow Stem Auger Sampling method: **D+M Sampler**

Location: 4 feet East of YSCGP-4 NW corner HEC rep.: Bruce Carpenter Air monitoring (y/n): Y

Date: **09/18/2013**

Instrument(s): Photoionization Detector (PID)

PID Sa Reading (ppm)	Sample Interval	% Recovery	% Recovery	% Recovery	% Recovery	Blow Counts	Depth (feet, BGS)	Water Level (feet)	Soil Group	Soil Description	Monitoring Well Construction Detail		
				23				Hydrated~					
				24				bentonite chips					
0	><	100	50/6	25		SM	Gray fine to coarse gravelly SAND,	_					
				26 27			tr. silt	_					
				28				_					
				29									
				30				_					
0		100	50/6	31		SW	Gray fine to medium SAND, tr. fine gravel, wet						
				32									
				33						<u>/</u>			
	-			34 35				#2/12 \cdot sand filter					
0	>><	100	50/6	36			Cobble, 2"	pack					
				37									
				38									
				39									
0	><	100	50/6	40		ML	Gray fine to coarse gravelly sandy	2-inch — diameter schedule 40					
				41			SILT, wet	PVC 10-slot well screen					
				42				35'-45'					
				44									
				45		CL	Gray silty CLAY, damp	_					



Monitoring Well	MW-1d								
Total depth:	46 feet								
Sheet 3 of	3								
ntractor: Cascade									
thod: Hollow Stem Auger									
method: D+M Sample	r								

Project name: YSC	Drilling Contractor: Cascade
Project number: <u>09-04193-017</u>	Drilling method: Hollow Stem Auger
Client: King County Facilities Management Division	Sampling method: <u>D+M Sampler</u>
Location: 4 feet East of YSCGP-4 NW corner	Air monitoring (y/n): Y
HEC rep.: Bruce Carpenter	Instrument(s): Photoionization Detector (PID)
Date: 09/18/2013	

PID Reading (ppm)	Sample Interval	% Recovery	Blow Counts	Depth (feet, BGS)	Water Level (feet)	Soil Group	Soil Description	Monitoring Well Construction Detail
- 0	\times	-100	34 50/6	46		CL	Gray silty CLAY, damp	



Monitoring Well MW-1s
Total depth: 16 feet
Sheet 1 of 1

Project name: YSC
Project number: <u>09-04193-017</u>
Client: King County Facilities Management Division

Drilling Contractor: Cascade

Drilling method: Hollow Stem Auger

Sampling method: D+M Sampler

Air monitoring (y/n): Y

Location: 4.5 feet SW of YSCGP-4A

HEC rep.: Bruce Carpenter

Instrument(s): Photoionization Detector (PID)

Date: **09/19/2013**

PID Reading (ppm)	Sample Interval	% Recovery	Blow Counts	Depth (feet, BGS)	Water Level (feet)	Soil Group	Soil Description	Cons	oring Well truction etail
No	sample	s collecte	d	0				Concrete ~	
				1_			Asphalt/Crushed rock	`	
				2				_	
	 			3				_	
				4					
				5				Hydrated bentonite	
				6		ML	Red-brown, mottled, sandy SILT, tr. gravel, damp	chips	
				7				#2/12 ~ sand filter	
	 			8				pack	
				9	7		Static water level 7.94 feet (9/23/2013)		
	ļ			10		SM	Gray-brown gravelly silty SAND,		
				11			damp	_	
				12				-	
				13				2-inch —	
				14				schedule 40 PVC 10-slot well screen	
				15				6'-16'	
				16		SM	Gray-brown gravelly silty SAND, wet		



Monitoring Well MW-2
Total depth: 26 feet
Sheet 1 of 2

Project name: YSC Drilling Contractor: Cascade
Project number: 09-04193-017
Drilling method: Hollow Sten

Project number: 09-04193-017 Drilling method: Hollow Stem Auger
Client: King County Facilities Management Division Sampling method: D+M Sampler

Location: 44 feet East of YSCGP-27 Air monitoring (y/n): Y

HEC rep.: Bruce Carpenter Instrument(s): Photoionization Detector (PID)

Date: 09/18/2013

PID Reading (ppm)	Sample Interval	% Recovery	% Blow Counts (feet, Level BGS) (feet) Soil Soil Description		Monitoring Well Construction Detail						
				0				Concrete ~	r S		
				1_			Asphalt/Crushed rock	`			
				2							
				3							
				4				l lively ata de-			
				5				Hydrated > bentonite chips			
0	\times	10	19 50/6	6		SM	Dark Brown silty SAND (Fill), damp, large cobble in tip	Спрэ			
				7			of sampler				
				8							
				9							
							Fill				
		100	9	10		ML	Red-brown and gray fine to coarse				
0		100	11 15	11			gravelly sandy SILT, damp				
				12							
				13							<u>///</u>
				14				#2/12~			
			10	15		CM	Ded hygym and gray allty CAND dagge	sand filter pack			
0	X	100	14	16		SM ML	Red-brown and gray, silty SAND, damp Red-brown and gray sandy, SILT, damp				
			16	17							
				18	V		Static water level 17.95 feet (9/23/13)				
				19			Very dense				
				20			Very dense	2-inch =			
				21				schedule 40 PVC 10-slot well screen			
				22				16'-26'			
O G:\Graphics\Y20	009\09-04193-0	100 17\MW2.ai	27 Last Modifie	d: 10/08/2013		SM	Gray-Brown med SAND, tr. silt, gravel, wet				



Project name: **YSC**

SOIL BORING AND MONITORING WELL **CONSTRUCTION RECORD**

Monitoring Well _ Total depth: ____ 26 feet Sheet 2 of 2

Drilling Contractor: **Cascade**

d: Hollow Stem Auger hod: **D+M Sampler**

(y/n): **Y**

Photoionization Detector (PID)

Trojost hamor	Brilling contract
Project number: 09-04193-017	Drilling method
Client: King County Facilities Management Division	Sampling meth
Location: 44' feet East of YSCGP-27	Air monitoring
HEC rep.: Bruce Carpenter	Instrument(s):
Date: 09/18/2013	

PID Reading (ppm)	Sample Interval	% Recovery	Blow Counts	Depth (feet, BGS)	Water Level (feet)	Soil Group	Soil Description	Const	ring Well truction etail
0	\times	100	27 50/6	23			Gray-brown medium SAND, tr. silt, gravel wet	#2/12 -	
				24				pack	
0	>><	100	50/6	25 26		GM	Gray-brown sandy GRAVEL, tr. silt, damp-wet	2-inch — diameter schedule 40	
								PVC 10-slot well screen 16'-26'	



Monitoring Well MW-3
Total depth: 31 feet
Sheet 1 of 2

Project name: YSC Drilling Contractor: Cascade
Project number: 09-04193-017
Drilling method: Hollow Sten

Project number: 09-04193-017 Drilling method: Hollow Stem Auger
Client: King County Facilities Management Division Sampling method: D+M Sampler

Location: **100 feet North of MW-5** Air monitoring (y/n): Y

HEC rep.: Bruce Carpenter Instrument(s): Photoionization Detector (PID)

Date: 09/20/2013

PID eading ppm)	Sample Interval	% Recovery	Blow Counts	Depth (feet, BGS)	Water Level (feet)	Soil Group	Soil Description	Monitoring Well Construction Detail		
				0			Grass topsoil	Concrete ~		
				1		SM	Drawn drawith sile CAND			
				2		SIVI	Brown gravelly silty SAND pieces of concrete (Fill), dry			7
							pieces of concrete (rin), dry			
				3						
				4				Hydrated∽		
				5		SM	Brown-dark brown fine, gravelly silty	bentonite chips		
	\setminus /	1.5	10				SAND, wood fragments (Fill), damp			
0		10	10	6		SM	Brown-red-brown mottled			
			12	7			gravelly silty SAND, damp			
		. – – – –								
				8						
				9	7		Static Water Level 9.18 feet			
				10			(09/23/2013)			
			8	10		ML	Gray-brown gravelly SILT, w/tr.			
0	X	100	9	11			clay and sand, damp			
			9			CL	Gray fine to coarse gravelly silty CLAY,			
				12			damp			
				13						
				14						
_		400	FO /O	15						
0	<u>~</u>	100	50/6	16		CI	Croy fine to ecore a gravally silky OLAY			
				16		CL	Gray fine to coarse gravelly silty CLAY, damp			
				17						
		 		18						
				19						
								#2/12¬		-
			200	20				sand filter pack		
0	\times	100	36 50/6	24		CNA	Outside by service all the CAND to service!	-		:
			3U/6	21		SM	Gray-brown silty, SAND, tr. gravel, wet	2-inch – diameter		₫.
				22			WEL	schedule 40	1	



Monitoring Well MW-3
Total depth: 31 feet
Sheet 2 of 2

Project name: YSC
Project number: 09-04193-017
Client: King County Facilities Management Division
Location: 100 feet North of MW-5

Drilling Contractor: Cascade

Drilling method: Hollow Stem Auger

Sampling method: D+M Sampler

HEC rep.: Bruce Carpenter

Date: 09/20/2013

Sampling metho	d: D+M Sampler
Air monitoring (y	/n): Y
Instrument(s): P	Photoionization Detector (PID)
_	,

PID Reading (ppm)	Sample Interval	% Recovery	Blow Counts	Depth (feet, BGS)	Water Level (feet)	Soil Group	Soil Description	Cons	oring Well truction etail
0		100	50/6	23 24 25		SM	Gray-silty, fine to coarse gravelly		
				26 27 28 29			SAND, wet	#2/12 ¬ sand filter pack 2-inch ¬	
0	><	100	50/6	31		ML	Gray SILT, hard, damp	diameter schedule 40 PVC 10-slot well screen 21'-31'	



Monitoring Well MW-4 Total depth: 19 feet Sheet 1 of 1

Project name: YSC Project number: <u>09-04193-017</u> Client: King County Facilities Management Division

Drilling method: Hollow Stem Auger Sampling method: **D+M Sampler**

Location: 68 feet East of Boring B-9

Air monitoring (y/n): Y

Drilling Contractor: Cascade

Instrument(s): Photoionization Detector (PID)

HEC rep.: _ Bruce Carpenter Date: 09/17/2013

PID eading opm)	Sample Interval	% Recovery	Blow Counts (feet, BGS) (feet) Soil Soil Description Soil Description		Soil Description	Monitoring Well Construction Detail			
				0			Grass topsoil	Concrete ~	
				12			Fill	`	
				3			<u></u>		
				4 5				Hydrated > bentonite chips	
30	X	100	17 24 20	6		SM	Brown-red to brown-gray gravelly, medium to coarse SAND, tr. silt, damp		
				8	7		Static Water Level 7.99 feet	#2/12~	
				9			(09/23/2013)	sand filter	
L00	X	100	12 24 27	10		SM	Water encountered at 10 feet during drilling Gray-brown-fine to medium SAND w/ silt, wet		
				12 13					
				14					
75		100	19 17	15 16		SM	Gray-Brown fine to medium SAND		
			20	17			_w/_tr. silt, wet	2-inch – diameter	
			14	18		SM	Gray-Brown fine to medium sand	schedule 40 PVC 10-slot well screen	
.20		100	50/6	19 20			tr. silt and gravel, wet	8'-18'	



Monitoring Well _ Total depth: ____ 55 feet Sheet 1 of 3

Project name: _ T	50
Project number:	09-04193-017
•	ounty Facilities Management Division

Drilling Contractor: **Cascade** Drilling method: Hollow Stem Auger Sampling method: **D+M Sampler**

Location: NW corner of East Spruce & 14th

Air monitoring (y/n): Y

HEC rep.: Bruce Carpenter

Instrument(s): Photoionization Detector (PID)

Date: 09/17/2013

PID Reading (ppm)	Sample Interval		mple % erval Recovery	Blow Counts	Depth (feet, BGS)	Water Level (feet)	Soil Group	Soil Description	Cons	oring Well struction Detail
				0			Grass/Topsoil	Concrete ~		
				1						
				2						
				3			<u> </u>			
				4				Hydrated > bentonite		
				5		SM	Dark brown silty SAND, damp (Fill)	chips		
0		100	4	6			Gray-brown gravelly silty SAND, brick fragments, damp			
			7			CL	Gray coarse gravelly silty CLAY, damp			
				7	- - - - - -		coarse gravel Static Water Level 7.16 feet			
				8			(09/23/2013)			
				9						
				10						
0		100	7	11		CL ML	Gray fine gravelly silty CLAY, damp Brown fine gravelly sandy SILT, damp,			
		100_	9	12			iron staining			
								#2/12 ¬		
				13				sand filter pack		
				14			Water encountered at 14 feet during drilling			
		•	44	15						
77	X	100	11 16 20	16		SM	Gray-brown fine to medium SAND, tr. silt and fine gravel, wet			
				17				2-inch – diameter		
				18				schedule 40 PVC 10-slot		
								well screen		
				19			heaving sand	12.5'-22.5'		
		400	E6 / 2	20						
22		100	50/6	21		SM	Gray-brown fine to medium SAND, tr. gravel, silt, wet			
				22						
-\ Graphics\ V20	009\09-04193-0	17\ M\W5 ai	Last Modifie	d: 10/09/2013						



Monitoring Well MW-5
Total depth: 55 feet
Sheet 2 of 3

Project name: YSC Drilling Contractor: Cascade
Project number: 09-04193-017
Drilling method: Hollow Stem

Drilling method: Hollow Stem Auger
Sampling method: D+M Sampler

Client: King County Facilities Management Division
Location: NW corner of East Spruce & 14th

Air monitoring (y/n): Y

HEC rep.: Bruce Carpenter

Instrument(s): Photoionization Detector (PID)

Date: 09/17/2013

PID Reading (ppm)	Sample Interval	ample terval Recovery Blow Counts (feet, Level Group BGS) (feet)		Soil Description	Monitoring Well Construction Detail			
				23	 			
				24	 			
				27			#2/12~	
				25			sand filter pack	•
75		100	31		 SW	Gray-brown fine to medium gravelly	pack	
			50/6	26		fine to coarse SAND, wet		
				27				
				28	 		Hydrated	
				28			bentonite chips	> ////////////////////////////////////
				29	 		Chips	
				30	 			
35	\sim	100	50/6		SW	Gray-brown fine to medium gravelly		
				31		fine to coarse SAND, wet		
						,		
				32				
			12	33	ML	Gray sandy SILT, damp		
54	X	100	15		 SW	Gray, fine to medium SAND, wet		
			40	34	 ML	Gray sandy SILT, tr. gravel		
07		400	F0 /C	35				
27		100	50/6	36	 ML	Crev and CIIT to fine gravel wat		
				30	IVIL	Gray sandy SILT, tr. fine gravel, wet		
				37	 			
				31				
7	$\overline{}$	100	50/6	38	 SM	Gray silty fine SAND, wet		
-			00,0			5.03, 5.03,5 ,5		
				39				
	Ļ.,			40			Backfill/ ~ Sand	
0	$>\!\!<$	100	50/6		 SM	Gray silty fine SAND, wet	Saliu	
				41				
				42				
0		100	F0 /0		 CR4	Cycy city fine SAND		
0		100	50/6	43	SM	Gray silty fine SAND, wet		
				44	 			
				44				
				45	 			



SOIL BORING AND MONITORING WELL CONSTRUCTION RECORD

Monitoring Well MW-5
Total depth: 55 feet
Sheet 3 of 3

roject name: YSC
roject number: _09-04193-017
lient: King County Facilities Management Division
ocation: NW corner of Fast Spruce & 14th

Drilling Contractor: Cascade

Drilling method: Hollow Stem Auger

Sampling method: D+M Sampler

Air monitoring (y/n): Y

HEC rep.: Bruce Carpenter

Date: **09/17/2013**

Instrument(s): Photoionization Detector (PID)

PID Reading (ppm)	Sample Interval	% Recovery	Blow Counts	Depth (feet, BGS)	Water Level (feet)	Soil Group	Soil Description	Const	ring Well ruction etail
0	>><	100	50/6			SM	Gray silty fine SAND		
				46					
				47					
0	$>\!\!<$	100	50/6	48		ML	Gray sandy SILT, wet		
				49					
		100		50				D 1611/	
0		100	50/6	51		ML	Gray sandy SILT, wet	Backfill/ \ Sand	
				52			Very dense		
0	>	100	50/6	53		ML	Gray sandy SILT, wet		
				54					
		400	F0 /C				Organization CHT must		
0		100	50/6	55		ML	Gray sandy SILT, wet		<u> </u>
. – – – -									



SOIL BORING AND MONITORING WELL **CONSTRUCTION RECORD**

Monitoring Well MW-9 Total depth: _____ 27 feet Sheet 1 of 2

Drilling Contractor: Cascade

Instrument(s): _ -

Project name: .	136	
Project number	09-04193-017	
,		

Drilling method: Hollow Stem Auger Client: King County Facilities Management Division Sampling method: **D+M Sampler** Air monitoring (y/n): N

Location: 15 feet East of YSCGP-8 between YSCGP-5 and YSCGP-8 HEC rep.: Bruce Carpenter

Date: **09/19/2013**

PID Reading (ppm)	Sample Interval	% Recovery	Blow Counts	Depth (feet, BGS)	Water Level (feet)	Soil Group	Soil Description	Cons	oring Well truction etail
				0			Asphalt/crushed rock	Concrete ~	
				1		SM	Brown to red-brown mottled silty SAND, tr. gravel, damp	_	
				3					
		100	5 9 7	6 7		ML	Gray and red-brown mottled sandy SILT, tr. fine gravel, damp fuel like odor	Hydrated > bentonite chips	
				9	7		Static Water Level 8.57 feet (09/23/2013)	-	
		100	26 50/6	11 12		SP ML	Gray coarse SAND, damp Gray gravelly sandy SILT, damp fuel like odor Water encountered at 12 feet during drilling	-	
				13 14 15				-	
	X	100	23 24 27	16 17		SW	Gray fine to coarse gravelly SAND, large cobble, 2-1/2", wet fuel odor	#2/12 ~ sand filter pack	
				18 19					
	><	100	50/6	20		SM	Gray fine to coarse gravelly SAND, tr. silt, large cobble 3", wet	2-inch — diameter schedule 40 PVC 10-slot	
				22				well screen 17'-27'	



Date: **09/19/2013**

SOIL BORING AND MONITORING WELL CONSTRUCTION RECORD

Monitoring Well MW-9
Total depth: 27 feet
Sheet 2 of 2

Project name: YSC	Drilling Contractor: Cascade
Project number: <u>09-04193-017</u>	Drilling method: Hollow Stem Auger
Client: King County Facilities Management Division	Sampling method: D+M Sampler
Location: 15 feet East of YSCGP-8 between YSCGP-5 and YSCGP-8	Air monitoring (y/n): N
HEC ren · Bruce Carpenter	Instrument(s): -

PID Reading (ppm)	Sample Interval	% Recovery	Blow Counts	Depth (feet, BGS)	Water Level (feet)	Soil Group	Soil Description	Cons	oring Well truction etail
				23			Gray fine to coarse gravelly SAND, cobbles, wet	#2/12 \sand filter pack	
	>	100	50/6	25 26		ML	Gray SILT, tr. sand, damp	2-inch — diameter	
		100	26/3	27			Very hard	schedule 40 PVC 10-slot well screen 17'-27'	
				29					



SOIL BORING AND MONITORING WELL **CONSTRUCTION RECORD**

Monitoring Well ____MW-10 Total depth: 31 feet Sheet 1 of 2

Project name:	YSC	Drilling Contracto	or: Cascade
	09-04193-017	Drilling method:	Hollow Stem

ng method: Hollow Stem Auger Sampling method: **D+M Sampler**

Client: King County Facilities Management Division Location: NE corner of site, adjacent to YSCGP-6

Air monitoring (y/n): Y

HEC rep.: Bruce Carpenter

Instrument(s): Photoionization Detector (PID)

Date: 09/20/2013

PID Reading (ppm)	Sample Interval	% Recovery	Blow Counts	Depth (feet, BGS)	Water Level (feet)	Soil Group	Soil Description	Cons	oring Well truction etail
				0			Grass/Topsoil	Concrete ¬	
				2		SM	Gray-brown silty gravelly SAND, brick fragments (Fill)	`	
				3					
				4	V		Static Water Level 4.75 feet (09/23/2013)		
0		60	12 20	5 6		SM	Gray-brown silty gravelly SAND, brick fragments (Fill), damp		
			20	7				Hydrated > bentonite chips	
				9					
			6	10		ML	Cray blue clayer SUT wood frogments		
0	X	35	7	11			Gray-blue clayey SILT, wood fragments, damp		
				12					
				14					
0		80	8	15 16		CL	Water encountered at 15 feet during drilling Gray-brown gravelly silty CLAY, damp	#2/12¬	
			7	17				pack	
				18				2-inch –	
		400		19 20				diameter schedule 40 PVC 10-slot	
0		100	50/6	21		ML	Gray gravelly silty SAND, wet	well screen 16-26'	
	009\09-04193-0:			22 ed: 10/22/2013					



SOIL BORING AND MONITORING WELL CONSTRUCTION RECORD

Monitoring Well MW-10
Total depth: 31 feet
Sheet 2 of 2

Project name: YSC
Project number: 09-04193-017
Client: King County Facilities Management Division
Location: NE corner of site, adjacent to YSCGP-6

Drilling Contractor: Cascade

Drilling method: Hollow Stem Auger

Sampling method: D+M Sampler

Air monitoring (y/n): Y

HEC rep.: Bruce Carpenter

Date: 09/20/2013

Instrument(s): Photoionization Detector (PID)

PID Reading (ppm)	Sample Interval	% Recovery	Blow Counts	Depth (feet, BGS)	Water Level (feet)	Soil Group	Soil Description	Cons	ring Well truction etail
				23				#2/12¬ sand filter pack	
00			25 100 31 50/6 26 27		SM	Gray-gravelly silty SAND, wet Gray silt 3" layer	2-inch — diameter schedule 40 PVC 10-slot well screen		
				28 29 30				16-26'	
0		NR 100	50/4 100/6	31		ML	Gray gravelly sandy SILT, damp hard		
· ·									
								-	



SOIL BORING AND MONITORING WELL CONSTRUCTION RECORD

Monitoring Well MW-11 Total depth: 26.5 feet Sheet 1 of 2

Drilling Contractor: Cascade Project name: YSC Project number: <u>09-04193-017</u>

Drilling method: Hollow Stem Auger Sampling method: **D+M Sampler**

Client: King County Facilities Management Division Location: 19 feet West of B-1, 45 feet West of GP-20 HEC rep.: Bruce Carpenter

Air monitoring (y/n): Y

Date: **09/19/2013**

Instrument(s): Photoionization Detector (PID)

PID Reading (ppm)	Sample Interval	% Recovery	Blow Counts	Depth (feet, BGS)	Water Level (feet)	Soil Group	Soil Description	Cons	ring Well truction etail	
				0			Asphalt/crushed rock	Concrete -	<i>(7)</i>	
				1			Fill			
				2						7
				3						
				4						
							<u></u>			
				5		ML	Dark brown sandy SILT, tr. gravel, brick fragments (Fill), damp			
0	\bigvee	100	3	-		ML	Green-Gray-brown sandy SILT tr. gravel, damp			
		100	3	6				Hydrated —		
				7				bentonite	> //	
								chips		
				8						
				9						
				10						
			12			SM	Gray and red-brown mottled silty			
0	\times	100	20 20	11			SAND, damp			
				12	1		Static Water Level 12.14 feet (09/23/2013)			
							Water encountered at 12.5 feet			
				13			during drilling		///	/
				14						
										:
				15		SM	Gray-brown gravelly silty SAND,		:::: <u> </u>	-∤∵
	\setminus /		21				wet	#2/12 \rightarrow sand filter		
0	-X	100	27	16				pack		₫:
			26	4=				1,		<u></u>
				17						<u> </u>
				18						.
				19				2-inch — diameter		
				20				schedule 40		<u></u>
			19	20		SM	Croy drovelly city CAND	PVC 10-slot well screen] :
_		100	29	21		SIVI	Gray gravelly silty SAND, wet, occasional fine sand and silt	15'-25'		<u> </u>
			32	<u></u>			layers, damp		.:: =	ļ.
				22			iayora, uarrip	1	I	



SOIL BORING AND MONITORING WELL CONSTRUCTION RECORD

Monitoring Well MW-11
Total depth: 26.5 feet
Sheet 2 of 2

Project name: YSC Drilling Contractor: Cascade
Project number: 09-04193-017
Drilling method: Hollow Stem

Drilling method: Hollow Stem Auger
Sampling method: D+M Sampler

 Location:
 19 feet West of B-1, 45 feet West of GP-20
 Air monitoring (y/n): __Y

 HEC rep.:
 Bruce Carpenter
 Instrument(s): Photoionization Detector (PID)

HEC rep.: Bruce Carpenter
Date: 09/19/2013

Client: King County Facilities Management Division

PID Reading (ppm)	Sample Interval	% Recovery	Blow Counts	Depth (feet, BGS)	Water Level (feet)	Soil Group	Soil Description	Cons	oring Well truction etail
				23				#2/12 ¬ sand filter pack	
				24				•	
-	>><	0	50/6	25			No recovery	2-inch	
	><	100	50/6	26		SM	Gray-gravelly silty SAND, damp occasional sand and silt layers, wet	diameter schedule 40	
				27				PVC 10-slot well screen 15'-25'	
				28 29					
				30					

APPENDIX C

Data Quality Assurance Review



Herrera Environmental Consultants, Inc.

Memorandum

To Project File 09-04193-017

From Gina Catarra, Herrera Environmental Consultants

Date September 30, 2013

Subject Data Quality Assurance Review of Youth Services Center Phase II Environmental

Site Assessment Data

This memorandum presents a review of data quality for soil, groundwater, and air samples collected at the Youth Services Center Phase II Environmental Site Assessment site between June 26 and September 23, 2013. Soil and groundwater samples were analyzed by OnSite Environmental of Redmond, Washington by the following methods:

- Total petroleum hydrocarbons by Ecology's NWTPH-HCID method
- Total petroleum hydrocarbons by Ecology's NWTPH-Dx method
- Halogenated volatiles (HVOC) by EPA method 8260C
- Total lead by EPA method 6010C

Air samples were analyzed by Fremont Analytical of Seattle, Washington for volatile organic compounds (VOC) by EPA method TO-15.

Results for the following samples were validated.

Sample ID	Date Collected	Matrix	Laboratory Batch No.	Analyses
YSCGP7-9	6/26/2013	Soil	1306-255	HCID, Dx
YSCGP-1	6/26/2013	Groundwater	1306-255	HCID
YSCGP1-2	6/26/2013	Soil	1306-255	HCID
YSCGP1-10	6/26/2013	Soil	1306-255	HCID
YSCGP-2	6/26/2013	Groundwater	1306-255	HCID, HVOC
YSCGP-3	6/27/2013	Groundwater	1306-255	HCID, HVOC
YSCGP-4	6/27/2013	Groundwater	1306-255	HCID, HVOC
YSCGP-5	6/27/2013	Groundwater	1306-255	HCID, HVOC
YSCGP-6	6/26/2013	Groundwater	1306-255	HCID, HVOC
YSCGP-7	6/26/2013	Groundwater	1306-255	HCID, HVOC
MW-6	7/30/2013	Groundwater	1307-205	HCID
MW-7	7/30/2013	Groundwater	1307-205	HCID, HVOC
MW-8	7/30/2013	Groundwater	1307-205	HCID, HVOC

Sample ID	Date Collected	Matrix	Laboratory Batch No.	Analyses
YSCGP-8	8/01/2013	Groundwater	1308-015	HCID, Dx, HVOC
YSCGP-9	8/01/2013	Groundwater	1308-015	HVOC
YSCGP-10	8/01/2013	Groundwater	1308-015	HVOC
YSCGP-11	8/01/2013	Groundwater	1308-015	HVOC
YSCGP-12	8/01/2013	Groundwater	1308-015	HVOC
YSCGP8-9	8/01/2013	Soil	1308-015	HCID
YSCGP-4A	8/01/2013	Soil	1308-015	HVOC
YSC Soil Cutting Comp	8/02/2013	Soil	1308-015	Lead
YSCGP-4A	8/01/2013	Groundwater	1308-015	HVOC
13967	8/21/2013	Air	1308-140	VOC
13968	8/21/2013	Air	1308-140	VOC
13972	8/21/2013	Air	1308-140	VOC
13975	8/21/2013	Air	1308-140	VOC
GP19-2	9/04/2013	Soil	1309-028	HCID, Dx, HVOC, Lead
GP19-14	9/04/2013	Soil	1309-028	HVOC
GP19	9/04/2013	Groundwater	1309-028	HVOC
GP20-4	9/04/2013	Soil	1309-028	HCID, HVOC, Lead
GP20-12	9/04/2013	Soil	1309-028	HVOC
GP21-3	9/04/2013	Soil	1309-028	HCID, HVOC, Lead
GP21-15	9/04/2013	Soil	1309-028	HVOC
GP21	9/04/2013	Groundwater	1309-028	HVOC
GP22-8	9/04/2013	Soil	1309-028	HCID, Dx, HVOC, Lead
GP22-18	9/04/2013	Soil	1309-028	HVOC
GP22	9/04/2013	Groundwater	1309-028	HVOC
GP26-3	9/04/2013	Soil	1309-028	HCID, Dx, HVOC, Lead
GP26-24	9/04/2013	Soil	1309-028	HVOC
GP26	9/04/2013	Groundwater	1309-028	HVOC
GP33-4	9/04/2013	Soil	1309-028	HCID, HVOC, Lead
GP28-9	9/05/2013	Soil	1309-028	HCID, HVOC, Lead
GP28-18	9/05/2013	Soil	1309-028	HVOC
GP28	9/05/2013	Groundwater	1309-028	HVOC
GP20A	9/05/2013	Groundwater	1309-028	HVOC
GP29	9/05/2013	Groundwater	1309-028	HVOC
GP13-3	9/06/2013	Soil	1309-048	HCID, HVOC, Lead
GP13-14.5	9/06/2013	Soil	1309-048	HVOC
GP14-3	9/06/2013	Soil	1309-048	HCID, HVOC, Lead
GP14-9.5	9/06/2013	Soil	1309-048	HVOC

Sample ID	Date Collected	Matrix	Laboratory Batch No.	Analyses
GP15-2	9/06/2013	Soil	1309-048	HCID, HVOC, Lead
GP15-10	9/06/2013	Soil	1309-048	HVOC
GP16-3	9/06/2013	Soil	1309-048	HCID, HVOC, Lead
GP16-14.5	9/06/2013	Soil	1309-048	HVOC
GP17-1	9/06/2013	Soil	1309-048	HCID, HVOC, Lead
GP17-9.5	9/06/2013	Soil	1309-048	HVOC
GP18-3	9/05/2013	Soil	1309-048	HCID, Dx, HVOC, Lead
GP18-11	9/05/2013	Soil	1309-048	HVOC
GP-23-6	9/05/2013	Soil	1309-048	HVOC
GP24-0.5	9/05/2013	Soil	1309-048	HCID, HVOC, Lead
GP-24-7.5	9/05/2013	Soil	1309-048	HVOC
GP25-3	9/05/2013	Soil	1309-048	HCID, HVOC, Lead
GP25-14	9/05/2013	Soil	1309-048	HVOC
GP27-3	9/05/2013	Soil	1309-048	HCID, Dx, HVOC, Lead
GP27-14.5	9/05/2013	Soil	1309-048	HVOC
GP29-9	9/05/2013	Soil	1309-048	HVOC
GP30-1	9/05/2013	Soil	1309-048	HCID, HVOC, Lead
GP30-14	9/05/2013	Soil	1309-048	HVOC
GP31-3	9/06/2013	Soil	1309-048	HCID, HVOC, Lead
GP31-16	9/06/2013	Soil	1309-048	HVOC
GP32-3	9/06/2013	Soil	1309-048	HCID, Dx, HVOC, Lead
GP32-16.5	9/06/2013	Soil	1309-048	HVOC
GP34-3	9/05/2013	Soil	1309-048	HCID, Dx, HVOC, Lead
GP34-13	9/05/2013	Soil	1309-048	HVOC
MW1-D	9/23/2013	Groundwater	1309-205	HVOC
MW1-S	9/23/2013	Groundwater	1309-205	HVOC
MW-2	9/23/2013	Groundwater	1309-205	HVOC
MW-3	9/23/2013	Groundwater	1309-205	HVOC
MW-4	9/23/2013	Groundwater	1309-205	Dx, HVOC
MW-5	9/23/2013	Groundwater	1309-205	HVOC
MW-6	9/23/2013	Groundwater	1309-205	HVOC
MW-7	9/23/2013	Groundwater	1309-205	HVOC
MW-8	9/23/2013	Groundwater	1309-205	HVOC
MW-9	9/23/2013	Groundwater	1309-205	Dx. HVOC
MW-10	9/23/2013	Groundwater	1309-205	HVOC
MW-11	9/23/2013	Groundwater	1309-205	HVOC

Custody, Preservation, Holding Times, and Completeness—Acceptable with Qualification

The samples were properly preserved and sample custody was maintained from sample collection to receipt at the laboratory. With the exceptions noted below, all samples were analyzed within the required holding times. The laboratory reports were complete and contained results for all samples and tests requested on the chain-of-custody (COC) forms.

The holding times for samples YSCGP-2 and YSCGP-3 were exceeded by 18 and 19 days, respectively, for HVOC analysis. As shown in the following table, sample results for all compounds were qualified as estimated non-detects (UJ), due to holding time exceedance.

Sample ID	Date Collected	Matrix	Parameter	Reason for Qualification	Qualifie r
YSCGP-2	7/26/2013	Groundwater	All HVOC compounds	Holding time exceedance	UJ
YSCGP-3	7/27/2013	Groundwater	All HVOC compounds	Holding time exceedance	UJ

Laboratory Reporting Limits—Acceptable

The laboratory reporting limits were reasonable for the specified analytical methods.

Method Blank Analysis - Acceptable

Method blanks were analyzed at the required frequency for all analytical methods. Method blanks did not contain levels of target analytes above the laboratory reporting limits.

Laboratory Control Sample Analysis—Acceptable

Laboratory control samples or laboratory control sample/laboratory control sample duplicates (LCS/LCSD) were analyzed with each sample batch for HVOC analysis. The percent recovery values for all compounds met the control limits established by the laboratory.

Surrogate Analysis—Acceptable

Surrogates were analyzed with each sample for TPH, HVOC, and VOC analyses. The percent recovery values for all samples met the control limits established by the method or laboratories.

Matrix Spike Analysis—Acceptable

Matrix spike/matric spike duplicate (MS/MSD) samples were analyzed with each batch for total lead, as specified by the method. The percent recovery values for all samples met the control limits established by the method.

Laboratory Duplicate Analysis—Acceptable

Laboratory duplicates were analyzed for NWTPH-Dx, VOCs, and total lead at the required frequency. LCS/LCSD samples were analyzed for HVOCs at the required frequency. MS/MSD samples were analyzed for total lead at the required frequency. The relative percent difference (RPD) values met the control limits established by the laboratory or analytical methods. The RPD was not calculated for sample and duplicate when one or both values were less than the reporting limit.

Data Quality Assessment Summary

The data quality for all samples was found to be acceptable based on holding time, reporting limit, method blank, surrogate, and laboratory duplicate criteria. Usability of the data is based on the guidance documents previously noted. HVOC results for two samples were qualified as estimated non-detect (UJ) due to holding time. Upon consideration of the information presented here, the data are acceptable as qualified.

Definition of Data Qualifiers

The following data qualifier definitions are taken from *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA 2002):

- U The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.
- **J** The associated value is an estimated quantity.
- **UJ** The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
- **R** The data are unusable. (Note: analyte may or may not be present.)

References

USEPA. 2002. Contract laboratory program national functional guidelines for inorganic data review. US Environmental Protection Agency, Office of Emergency and Remedial Response, Washington, D.C. (EPA-540/R-01/008).

APPENDIX D

Analytical Laboratory Reports





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

July 10, 2013

Bruce Carpenter Herrera Environmental Consultants, Inc. 2200 6th Avenue, Suite 1100 Seattle, WA 98121

Re: Analytical Data for Project 09-04193-017/002-001

Laboratory Reference No. 1306-255

Dear Bruce:

Enclosed are the analytical results and associated quality control data for samples submitted on June 27, 2013.

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,

David Baumeister Project Manager

Enclosures

Case Narrative

Samples were collected on June 26 and 27, 2013 and received by the laboratory on June 27, 2013. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

NWTPH-HCID

Matrix: Soil

Units: mg/Kg (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP7-9					
Laboratory ID:	06-255-01					
Gasoline Range Organics	ND	24	NWTPH-HCID	7-1-13	7-2-13	
Diesel Range Organics	Detected	60	NWTPH-HCID	7-1-13	7-2-13	
Lube Oil Range Organics	ND	120	NWTPH-HCID	7-1-13	7-2-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	88	50-150				
Client ID.	VCCCD4 2					
Client ID:	YSCGP1-2					
Laboratory ID:	06-255-03					
Gasoline Range Organics	ND	22	NWTPH-HCID	7-1-13	7-1-13	
Diesel Range Organics	ND	56	NWTPH-HCID	7-1-13	7-1-13	
Lube Oil Range Organics	ND	110	NWTPH-HCID	7-1-13	7-1-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	54	50-150				
Client ID:	YSCGP1-10					
Laboratory ID:	06-255-04					
Gasoline Range Organics	ND	23	NWTPH-HCID	7-1-13	7-1-13	
Diesel Range Organics	ND	57	NWTPH-HCID	7-1-13	7-1-13	
Lube Oil Range Organics	ND	110	NWTPH-HCID	7-1-13	7-1-13	
Surrogate:	Percent Recovery	Control Limits		<u> </u>		
o-Terphenyl	66	50-150				

NWTPH-HCID QUALITY CONTROL

Matrix: Soil

Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK				. торанов	7uyou	ge
Laboratory ID:	MB0701S1					
Gasoline Range Organics	ND	20	NWTPH-HCID	7-1-13	7-1-13	
Diesel Range Organics	ND	50	NWTPH-HCID	7-1-13	7-1-13	
Lube Oil Range Organics	ND	100	NWTPH-HCID	7-1-13	7-1-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	72	50-150				

NWTPH-HCID

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	YSCGP-1					110.90
Laboratory ID:	06-255-02					
Gasoline Range Organics	ND	0.10	NWTPH-HCID	7-3-13	7-5-13	
Diesel Range Organics	ND	0.26	NWTPH-HCID	7-3-13	7-5-13	
Lube Oil Range Organics	ND	0.42	NWTPH-HCID	7-3-13	7-5-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	73	50-150				
Client ID:	YSCGP-2					
Laboratory ID:	06-255-05					
Gasoline Range Organics	ND	0.10	NWTPH-HCID	7-3-13	7-5-13	
Diesel Range Organics	ND	0.26	NWTPH-HCID	7-3-13	7-5-13	
Lube Oil Range Organics	ND	0.41	NWTPH-HCID	7-3-13	7-5-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	76	50-150				
Client ID:	YSCGP-3					
Laboratory ID:	06-255-06					
Gasoline Range Organics	ND	0.10	NWTPH-HCID	7-3-13	7-5-13	
Diesel Range Organics	ND	0.26	NWTPH-HCID	7-3-13	7-5-13	
Lube Oil Range Organics	ND	0.42	NWTPH-HCID	7-3-13	7-5-13	
Surrogate: o-Terphenyl	Percent Recovery 69	Control Limits 50-150				
0-Terprienyi	69	50-150				
Client ID:	YSCGP-4					
Laboratory ID:	06-255-07					
Gasoline Range Organics	ND	0.10	NWTPH-HCID	7-3-13	7-5-13	
Diesel Range Organics	ND	0.26	NWTPH-HCID	7-3-13	7-5-13	
Lube Oil Range Organics	ND	0.41	NWTPH-HCID	7-3-13	7-5-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	68	50-150				
Client ID:	YSCGP-5					
Laboratory ID:	06-255-08					
Gasoline Range Organics	ND	0.10	NWTPH-HCID	7-3-13	7-5-13	
Diesel Range Organics	ND	0.26	NWTPH-HCID	7-3-13	7-5-13	
Lube Oil Range Organics	ND	0.41	NWTPH-HCID	7-3-13	7-5-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	68	50-150				
* I* * J						

NWTPH-HCID

Matrix: Water Units: mg/L (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-6					
Laboratory ID:	06-255-09					
Gasoline Range Organics	ND	0.10	NWTPH-HCID	7-3-13	7-5-13	
Diesel Range Organics	ND	0.26	NWTPH-HCID	7-3-13	7-5-13	
Lube Oil Range Organics	ND	0.41	NWTPH-HCID	7-3-13	7-5-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	70	50-150				
Client ID:	YSCGP-7					
Laboratory ID:	06-255-10					
Gasoline Range Organics	ND	0.10	NWTPH-HCID	7-3-13	7-5-13	
Diesel Range Organics	ND	0.26	NWTPH-HCID	7-3-13	7-5-13	
Lube Oil Range Organics	ND	0.41	NWTPH-HCID	7-3-13	7-5-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	74	50-150				

NWTPH-HCID QUALITY CONTROL

Matrix: Water Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0703W1					
Gasoline Range Organics	ND	0.10	NWTPH-HCID	7-3-13	7-5-13	
Diesel Range Organics	ND	0.25	NWTPH-HCID	7-3-13	7-5-13	
Lube Oil Range Organics	ND	0.40	NWTPH-HCID	7-3-13	7-5-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	71	50-150				

NWTPH-Dx

Matrix: Soil

Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	YSCGP7-9					_
Laboratory ID:	06-255-01					
Diesel Range Organics	61	30	NWTPH-Dx	7-9-13	7-9-13	
Lube Oil Range Organics	ND	60	NWTPH-Dx	7-9-13	7-9-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	93	50-150				

NWTPH-Dx QUALITY CONTROL

Matrix: Soil

Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK				•	-	-
Laboratory ID:	MB0709S1					
Diesel Range Organics	ND	25	NWTPH-Dx	7-9-13	7-9-13	
Lube Oil Range Organics	ND	50	NWTPH-Dx	7-9-13	7-9-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	95	50-150				

			Per	cent	Recovery		RPD	
Analyte	Result		Recovery		Limits	RPD	Limit	Flags
DUPLICATE								
Laboratory ID:	07-05	51-01						
	ORIG	DUP						
Diesel Range Organics	ND	ND				NA	NA	
Lube Oil Range Organics	ND	ND				NA	NA	
Surrogate:								
o-Terphenyl			69	71	50-150			

HALOGENATED VOLATILES by EPA 8260C page 1 of 2

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-4					
Laboratory ID:	06-255-07					
Dichlorodifluoromethane	ND	50	EPA 8260C	7-2-13	7-2-13	
Chloromethane	ND	250	EPA 8260C	7-2-13	7-2-13	
Vinyl Chloride	ND	50	EPA 8260C	7-2-13	7-2-13	
Bromomethane	ND	50	EPA 8260C	7-2-13	7-2-13	
Chloroethane	ND	250	EPA 8260C	7-2-13	7-2-13	
Trichlorofluoromethane	ND	50	EPA 8260C	7-2-13	7-2-13	
1,1-Dichloroethene	ND	50	EPA 8260C	7-2-13	7-2-13	
Iodomethane	ND	250	EPA 8260C	7-2-13	7-2-13	
Methylene Chloride	ND	250	EPA 8260C	7-2-13	7-2-13	
(trans) 1,2-Dichloroethene	ND	50	EPA 8260C	7-2-13	7-2-13	
1,1-Dichloroethane	ND	50	EPA 8260C	7-2-13	7-2-13	
2,2-Dichloropropane	ND	50	EPA 8260C	7-2-13	7-2-13	
(cis) 1,2-Dichloroethene	160	50	EPA 8260C	7-2-13	7-2-13	
Bromochloromethane	ND	50	EPA 8260C	7-2-13	7-2-13	
Chloroform	ND	50	EPA 8260C	7-2-13	7-2-13	
1,1,1-Trichloroethane	ND	50	EPA 8260C	7-2-13	7-2-13	
Carbon Tetrachloride	ND	50	EPA 8260C	7-2-13	7-2-13	
1,1-Dichloropropene	ND	50	EPA 8260C	7-2-13	7-2-13	
1,2-Dichloroethane	ND	50	EPA 8260C	7-2-13	7-2-13	
Trichloroethene	91	50	EPA 8260C	7-2-13	7-2-13	
1,2-Dichloropropane	ND	50	EPA 8260C	7-2-13	7-2-13	
Dibromomethane	ND	50	EPA 8260C	7-2-13	7-2-13	
Bromodichloromethane	ND	50	EPA 8260C	7-2-13	7-2-13	
2-Chloroethyl Vinyl Ether	ND	250	EPA 8260C	7-2-13	7-2-13	
(cis) 1,3-Dichloropropene	ND	50	EPA 8260C	7-2-13	7-2-13	
(trans) 1,3-Dichloropropene	ND	50	EPA 8260C	7-2-13	7-2-13	

HALOGENATED VOLATILES by EPA 8260C

page 2 of 2

Amalada	Daniel	DOL	Mathad	Date	Date	-
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-4					
Laboratory ID:	06-255-07					
1,1,2-Trichloroethane	ND	50	EPA 8260C	7-2-13	7-2-13	
Tetrachloroethene	8200	50	EPA 8260C	7-2-13	7-2-13	
1,3-Dichloropropane	ND	50	EPA 8260C	7-2-13	7-2-13	
Dibromochloromethane	ND	50	EPA 8260C	7-2-13	7-2-13	
1,2-Dibromoethane	ND	50	EPA 8260C	7-2-13	7-2-13	
Chlorobenzene	ND	50	EPA 8260C	7-2-13	7-2-13	
1,1,1,2-Tetrachloroethane	ND	50	EPA 8260C	7-2-13	7-2-13	
Bromoform	ND	250	EPA 8260C	7-2-13	7-2-13	
Bromobenzene	ND	50	EPA 8260C	7-2-13	7-2-13	
1,1,2,2-Tetrachloroethane	ND	50	EPA 8260C	7-2-13	7-2-13	
1,2,3-Trichloropropane	ND	50	EPA 8260C	7-2-13	7-2-13	
2-Chlorotoluene	ND	50	EPA 8260C	7-2-13	7-2-13	
4-Chlorotoluene	ND	50	EPA 8260C	7-2-13	7-2-13	
1,3-Dichlorobenzene	ND	50	EPA 8260C	7-2-13	7-2-13	
1,4-Dichlorobenzene	ND	50	EPA 8260C	7-2-13	7-2-13	
1,2-Dichlorobenzene	ND	50	EPA 8260C	7-2-13	7-2-13	
1,2-Dibromo-3-chloropropane	ND	250	EPA 8260C	7-2-13	7-2-13	
1,2,4-Trichlorobenzene	ND	65	EPA 8260C	7-2-13	7-2-13	
Hexachlorobutadiene	ND	68	EPA 8260C	7-2-13	7-2-13	
1,2,3-Trichlorobenzene	ND	68	EPA 8260C	7-2-13	7-2-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromoflyoromothono	107	62 122				

Surrogate: Percent Recovery Control Limi
Dibromofluoromethane 107 62-122
Toluene-d8 103 70-120
4-Bromofluorobenzene 103 71-120

HALOGENATED VOLATILES by EPA 8260C Page 1 of 2

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-5					
Laboratory ID:	06-255-08					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Chloromethane	ND	1.0	EPA 8260C	7-2-13	7-2-13	
Vinyl Chloride	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Bromomethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Chloroethane	ND	1.0	EPA 8260C	7-2-13	7-2-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Iodomethane	ND	1.0	EPA 8260C	7-2-13	7-2-13	
Methylene Chloride	ND	1.0	EPA 8260C	7-2-13	7-2-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,1-Dichloroethane	0.45	0.20	EPA 8260C	7-2-13	7-2-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Bromochloromethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Chloroform	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Trichloroethene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Dibromomethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Bromodichloromethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-2-13	7-2-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-2-13	7-2-13	

HALOGENATED VOLATILES by EPA 8260C Page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-5					
Laboratory ID:	06-255-08					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Tetrachloroethene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Dibromochloromethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Chlorobenzene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Bromoform	ND	1.0	EPA 8260C	7-2-13	7-2-13	
Bromobenzene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260C	7-2-13	7-2-13	
1,2,4-Trichlorobenzene	ND	0.26	EPA 8260C	7-2-13	7-2-13	
Hexachlorobutadiene	ND	0.27	EPA 8260C	7-2-13	7-2-13	
1,2,3-Trichlorobenzene	ND	0.27	EPA 8260C	7-2-13	7-2-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	102	62-122				
Toluene-d8	98	70-120				
4-Bromofluorobenzene	96	71-120				

HALOGENATED VOLATILES by EPA 8260C Page 1 of 2

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-6					
Laboratory ID:	06-255-09					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Chloromethane	ND	1.0	EPA 8260C	7-2-13	7-2-13	
Vinyl Chloride	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Bromomethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Chloroethane	ND	1.0	EPA 8260C	7-2-13	7-2-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Iodomethane	ND	1.0	EPA 8260C	7-2-13	7-2-13	
Methylene Chloride	ND	1.0	EPA 8260C	7-2-13	7-2-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Bromochloromethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Chloroform	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Trichloroethene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Dibromomethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Bromodichloromethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-2-13	7-2-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-2-13	7-2-13	

HALOGENATED VOLATILES by EPA 8260C Page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-6					
Laboratory ID:	06-255-09					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Tetrachloroethene	0.40	0.20	EPA 8260C	7-2-13	7-2-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Dibromochloromethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Chlorobenzene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Bromoform	ND	1.0	EPA 8260C	7-2-13	7-2-13	
Bromobenzene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260C	7-2-13	7-2-13	
1,2,4-Trichlorobenzene	ND	0.26	EPA 8260C	7-2-13	7-2-13	
Hexachlorobutadiene	ND	0.27	EPA 8260C	7-2-13	7-2-13	
1,2,3-Trichlorobenzene	ND	0.27	EPA 8260C	7-2-13	7-2-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	103	62-122				
Toluene-d8	99	70-120				
4-Bromofluorobenzene	96	71-120				

HALOGENATED VOLATILES by EPA 8260C METHOD BLANK QUALITY CONTROL

Page 1 of 2

Matrix: Water Units: ug/L

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0702W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Chloromethane	ND	1.0	EPA 8260C	7-2-13	7-2-13	
Vinyl Chloride	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Bromomethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Chloroethane	ND	1.0	EPA 8260C	7-2-13	7-2-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Iodomethane	ND	1.0	EPA 8260C	7-2-13	7-2-13	
Methylene Chloride	ND	1.0	EPA 8260C	7-2-13	7-2-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Bromochloromethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Chloroform	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Trichloroethene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Dibromomethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Bromodichloromethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	7-2-13	7-2-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-2-13	7-2-13	

HALOGENATED VOLATILES by EPA 8260C METHOD BLANK QUALITY CONTROL

Page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0702W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Tetrachloroethene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Dibromochloromethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Chlorobenzene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
Bromoform	ND	1.0	EPA 8260C	7-2-13	7-2-13	
Bromobenzene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-2-13	7-2-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-2-13	7-2-13	
1,2-Dibromo-3-chloropropane	ND ND	1.0	EPA 8260C	7-2-13	7-2-13	
1,2,4-Trichlorobenzene	ND	0.26	EPA 8260C	7-2-13	7-2-13	
Hexachlorobutadiene	ND	0.27	EPA 8260C	7-2-13	7-2-13	
1,2,3-Trichlorobenzene	ND	0.27	EPA 8260C	7-2-13	7-2-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	102	62-122				
Toluene-d8	97	70-120				
4-Bromofluorobenzene	95	71-120				

HALOGENATED VOLATILES by EPA 8260C SB/SBD QUALITY CONTROL

Matrix: Water Units: ug/L

	Result				Per	Percent		RPD		
Analyte			Spike Level		Recovery		Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0702W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	11.9	11.1	10.0	10.0	119	111	63-142	7	17	
Benzene	10.8	10.3	10.0	10.0	108	103	78-125	5	15	
Trichloroethene	9.39	8.80	10.0	10.0	94	88	80-125	6	15	
Toluene	10.3	9.62	10.0	10.0	103	96	80-125	7	15	
Chlorobenzene	11.0	10.2	10.0	10.0	110	102	80-140	8	15	
Surrogate:										
Dibromofluoromethane					96	99	62-122			
Toluene-d8					95	96	70-120			
4-Bromofluorobenzene					92	96	71-120			

% MOISTURE

Date Analyzed: 7-1-13

Client ID	Lab ID	% Moisture
YSCGP7-9	06-255-01	16
YSCGP1-2	06-255-03	10
YSCGP1-10	06-255-04	12



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) 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

CATA OnSite Environmental Inc. Analytical Laboratory Testing Services

Chain of Custody

Moisture % 5 X) Added 7/3/13. 28 (STA) 5 12 90 sent Via Cornel HEM (oil and grease) 1664A **TCLP Metals** Chromatograms with final report Comments/Special Instructions Total RCRA Metals/ MTCA Metals (circle one) Af&f8 sebicidaeH bioA betsniroldC MIS/Q07S8 sebicides Pesticides 8270D/SIM (lovel-wol) MIS/Q0YS8 sHA9 Electronic Data Deliverables (EDDs) (sHA9 level-wol dfiw) 1500 Laboratory Number: Semivolatiles 8270D/SIM Halogenated Volatiles 8260C Time 2 8 **NMTPH-D**x VWTPH-Gx Date NWTPH-Gx/BTEX **AWTPH-HCID** # 3 Number of Containers 3 3 3 Days 1 Day Matrix Data Package: Level III

Level IV S 3 5 **Turnaround Request** Standard (7 Days)
(TPH analysis 5 Days) (in working days) Reviewed/Date (Check One) 2:00 6/26/13 11:00 06:01 8/20 6/27/13/11:30 9:50 5/20/20/20/25 (other) 6/26/13 10:10 6/26/13 14:00 6/27/13 8:30 9:00 Sampled Time Company Same Day 2 Days 6/24/3 676/3 6/37/13 Date 0 Phone: (425) 883-3881 • www.onsite-env.com 14648 NE 95th Street • Redmond, WA 98052 0 8 Sample Identification Analytical Laboratory Testing Services 09-04193-017 5.CGP1-2 15CGP1-10 Signature 15C6P.7 3c68-6 56 GP-7 SC681-15C6 P.4 15C6P-3 15CGP-5 Drice BNG Leriera Reviewed/Date Relinquished Relinquished Relinquished Received Received Received Company: Lab ID 0 Ò



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

July 31, 2013

Bruce Carpenter Herrera Environmental Consultants, Inc. 2200 6th Avenue, Suite 1100 Seattle, WA 98121

Re: Analytical Data for Project 09-04193-017/002-001

Laboratory Reference No. 1306-255B

Dear Bruce:

Enclosed are the analytical results and associated quality control data for samples submitted on June 27, 2013.

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,

David Baumeister Project Manager

Enclosures

Case Narrative

Samples were collected on June 26 and 27, 2013 and received by the laboratory on June 27, 2013. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

Halogenated Volatiles EPA 8260C Analysis

The holding times for samples YSCGP-2 and YSCGP-3 were exceeded by 18 and 19 days, respectively.

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.

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ome. ag/L				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-2			_		
Laboratory ID:	06-255-05					
Dichlorodifluoromethane	ND	0.26	EPA 8260C	7-29-13	7-29-13	
Chloromethane	ND	1.0	EPA 8260C	7-29-13	7-29-13	
Vinyl Chloride	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Bromomethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Chloroethane	ND	1.0	EPA 8260C	7-29-13	7-29-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Iodomethane	ND	1.3	EPA 8260C	7-29-13	7-29-13	
Methylene Chloride	ND	1.0	EPA 8260C	7-29-13	7-29-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Bromochloromethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Chloroform	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Trichloroethene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Dibromomethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Bromodichloromethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260C	7-29-13	7-29-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-29-13	7-29-13	

4-Bromofluorobenzene

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-2					
Laboratory ID:	06-255-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Tetrachloroethene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Dibromochloromethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Chlorobenzene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Bromoform	ND	1.0	EPA 8260C	7-29-13	7-29-13	
Bromobenzene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,1,2,2-Tetrachloroethane	ND	0.43	EPA 8260C	7-29-13	7-29-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,2-Dibromo-3-chloropropane	e ND	1.3	EPA 8260C	7-29-13	7-29-13	
1,2,4-Trichlorobenzene	ND	0.28	EPA 8260C	7-29-13	7-29-13	
Hexachlorobutadiene	ND	0.33	EPA 8260C	7-29-13	7-29-13	
1,2,3-Trichlorobenzene	ND	0.42	EPA 8260C	7-29-13	7-29-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	97	62-122				
Toluene-d8	100	70-120				

71-120

96

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ome. ag/L				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-3			-		
Laboratory ID:	06-255-06					
Dichlorodifluoromethane	ND	0.26	EPA 8260C	7-29-13	7-29-13	
Chloromethane	ND	1.0	EPA 8260C	7-29-13	7-29-13	
Vinyl Chloride	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Bromomethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Chloroethane	ND	1.0	EPA 8260C	7-29-13	7-29-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
lodomethane	ND	1.3	EPA 8260C	7-29-13	7-29-13	
Methylene Chloride	ND	1.0	EPA 8260C	7-29-13	7-29-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Bromochloromethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Chloroform	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Trichloroethene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Dibromomethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Bromodichloromethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260C	7-29-13	7-29-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-29-13	7-29-13	

4-Bromofluorobenzene

97

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-3					
Laboratory ID:	06-255-06					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Tetrachloroethene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Dibromochloromethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Chlorobenzene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Bromoform	ND	1.0	EPA 8260C	7-29-13	7-29-13	
Bromobenzene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,1,2,2-Tetrachloroethane	ND	0.43	EPA 8260C	7-29-13	7-29-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,2-Dibromo-3-chloropropane	e ND	1.3	EPA 8260C	7-29-13	7-29-13	
1,2,4-Trichlorobenzene	ND	0.28	EPA 8260C	7-29-13	7-29-13	
Hexachlorobutadiene	ND	0.33	EPA 8260C	7-29-13	7-29-13	
1,2,3-Trichlorobenzene	ND	0.42	EPA 8260C	7-29-13	7-29-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	101	62-122				
Toluene-d8	94	70-120				

71-120

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0729W1					
Dichlorodifluoromethane	ND	0.26	EPA 8260C	7-29-13	7-29-13	
Chloromethane	ND	1.0	EPA 8260C	7-29-13	7-29-13	
Vinyl Chloride	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Bromomethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Chloroethane	ND	1.0	EPA 8260C	7-29-13	7-29-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Iodomethane	ND	1.3	EPA 8260C	7-29-13	7-29-13	
Methylene Chloride	ND	1.0	EPA 8260C	7-29-13	7-29-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Bromochloromethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Chloroform	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Trichloroethene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Dibromomethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Bromodichloromethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260C	7-29-13	7-29-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-29-13	7-29-13	

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0729W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Tetrachloroethene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Dibromochloromethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Chlorobenzene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
Bromoform	ND	1.0	EPA 8260C	7-29-13	7-29-13	
Bromobenzene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,1,2,2-Tetrachloroethane	ND	0.43	EPA 8260C	7-29-13	7-29-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-29-13	7-29-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-29-13	7-29-13	
1,2-Dibromo-3-chloropropane	ND ND	1.3	EPA 8260C	7-29-13	7-29-13	
1,2,4-Trichlorobenzene	ND	0.28	EPA 8260C	7-29-13	7-29-13	
Hexachlorobutadiene	ND	0.33	EPA 8260C	7-29-13	7-29-13	
1,2,3-Trichlorobenzene	ND	0.42	EPA 8260C	7-29-13	7-29-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	85	62-122				
Toluene-d8	91	70-120				
4-Bromofluorobenzene	92	71-120				

HALOGENATED VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Rece	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB07	29W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	8.72	9.00	10.0	10.0	87	90	63-142	3	17	
Benzene	8.54	8.85	10.0	10.0	85	89	78-125	4	15	
Trichloroethene	8.36	7.96	10.0	10.0	84	80	80-125	5	15	
Toluene	8.58	7.99	10.0	10.0	86	80	80-125	7	15	
Chlorobenzene	9.29	9.17	10.0	10.0	93	92	80-140	1	15	
Surrogate:										
Dibromofluoromethane					93	90	62-122			
Toluene-d8					99	90	70-120			
4-Bromofluorobenzene					100	98	71-120			



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) 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

Environmental Inc.

Chain of Custody

Analytical Laboratory Testing Services 14648 NE 95th Street • Redmond, WA 98052	Turnaround Request (in working days)	Laboratory Number:	06-255	
Phone: (425) 883-3881 • www.onsite-env.com	(Check One)			
Company:	Same Day 1 Day			
Project Number:	2 Days 3 Days		2\00\28	
Project Name: VSC	Standard (7 Days)	8S60C	ticides 8	
Project Manager: Sive Carpenger		TEX Olatiles	e Pestici orus Peri dra Herb M \elsi	
Sampled by Free Carpente	(other)	- Gx/B. - Gx/B. - Gx/B.	chlorin	
Lab ID Sample Identification	Date Time Sampled Sampled Matrix	HATWN HATWN HATWN HATWN SegolsH oovimeS	Organo Chlorin Total R	
1/5667-9	30:45	8 8		
J. (15CGP-1	6/56/13 11:00 W &	C T		
3 1/5(601-2	6/26/13 10:10 5	X X		
4 VSCGP1-10	6/26/13 10:30 5	X		V
5 45(68-2	6/26/13 1245 W	*		
6 VSC6P-3	6/27/13 11:30			
7 YSC6P4	6/37/13 9:50	× 1		
8 (15CGP-5	W	X		
9 VSCGP-6	(H. &	X		
10 YSC6P.7	F >1 512 8 (40)	X		
Signature	Company	Date Time Cor	Comments/Special Instructions	
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Received	280	215181KB	7	
Relinquished				
Received			4) N. 1600 7/2/13 BB	
Relinquished			F SV	
Received				
Reviewed/Date	Reviewed/Date	Chre	Chromatograms with final report	
	VI level III level	Flectronic Data Deliverables (EDDs)		



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

July 31, 2013

Peter Jowise Herrera Environmental Consultants, Inc. 2200 6th Avenue, Suite 1100 Seattle, WA 98121

Re: Analytical Data for Project 09-04193-017/003-001

Laboratory Reference No. 1307-205

Dear Peter:

Enclosed are the analytical results and associated quality control data for samples submitted on July 30, 2013.

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,

David Baumeister Project Manager

Enclosures

Case Narrative

Samples were collected on July 30, 2013 and received by the laboratory on July 30, 2013. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

NWTPH-HCID

Matrix: Water Units: mg/L (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-7					
Laboratory ID:	07-205-02					
Gasoline Range Organics	ND	0.10	NWTPH-HCID	7-31-13	7-31-13	
Diesel Range Organics	ND	0.26	NWTPH-HCID	7-31-13	7-31-13	
Lube Oil Range Organics	ND	0.42	NWTPH-HCID	7-31-13	7-31-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	76	50-150				
Client ID:	MW-8					
Laboratory ID:	07-205-03					
Gasoline Range Organics	ND	0.10	NWTPH-HCID	7-31-13	7-31-13	
Diesel Range Organics	ND	0.26	NWTPH-HCID	7-31-13	7-31-13	
Lube Oil Range Organics	ND	0.42	NWTPH-HCID	7-31-13	7-31-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	79	50-150				

NWTPH-HCID QUALITY CONTROL

Matrix: Water Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0731W1					
Gasoline Range Organics	ND	0.10	NWTPH-HCID	7-31-13	7-31-13	_
Diesel Range Organics	ND	0.25	NWTPH-HCID	7-31-13	7-31-13	
Lube Oil Range Organics	ND	0.40	NWTPH-HCID	7-31-13	7-31-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	71	50-150				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-6					
Laboratory ID:	07-205-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Chloromethane	ND	1.0	EPA 8260C	7-31-13	7-31-13	
Vinyl Chloride	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Bromomethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Chloroethane	ND	1.0	EPA 8260C	7-31-13	7-31-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Iodomethane	ND	1.0	EPA 8260C	7-31-13	7-31-13	
Methylene Chloride	ND	1.0	EPA 8260C	7-31-13	7-31-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Bromochloromethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Chloroform	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Trichloroethene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Dibromomethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Bromodichloromethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260C	7-31-13	7-31-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-31-13	7-31-13	

4-Bromofluorobenzene

95

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-6					
Laboratory ID:	07-205-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Tetrachloroethene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Dibromochloromethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Chlorobenzene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Bromoform	ND	1.0	EPA 8260C	7-31-13	7-31-13	
Bromobenzene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,1,2,2-Tetrachloroethane	ND	0.35	EPA 8260C	7-31-13	7-31-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,2-Dibromo-3-chloropropane	e ND	1.4	EPA 8260C	7-31-13	7-31-13	
1,2,4-Trichlorobenzene	ND	0.29	EPA 8260C	7-31-13	7-31-13	
Hexachlorobutadiene	ND	0.34	EPA 8260C	7-31-13	7-31-13	
1,2,3-Trichlorobenzene	ND	0.46	EPA 8260C	7-31-13	7-31-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	99	62-122				
Toluene-d8	97	70-120				

OnSite Environmental, Inc. 14648 NE 95th Street, Redmond, WA 98052 (425) 883-3881

71-120

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ome. ag. z				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-7			•	•	
Laboratory ID:	07-205-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Chloromethane	ND	1.0	EPA 8260C	7-31-13	7-31-13	
Vinyl Chloride	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Bromomethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Chloroethane	ND	1.0	EPA 8260C	7-31-13	7-31-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Iodomethane	ND	1.0	EPA 8260C	7-31-13	7-31-13	
Methylene Chloride	ND	1.0	EPA 8260C	7-31-13	7-31-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Bromochloromethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Chloroform	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Trichloroethene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Dibromomethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Bromodichloromethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260C	7-31-13	7-31-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-31-13	7-31-13	

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

Analyte Result PQL Method Prepared Analyzed Fla Client ID: MW-7 Laboratory ID: 07-205-02					Date	Date	
Laboratory ID: 07-205-02 1,1,2-Trichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Tetrachloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,3-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 Dibromochloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dibromoethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 Chlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,1,2-Tetrachloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromoform ND 1.0 EPA 8260C 7-31-13 7-31-13 Bromoforme ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromoforme ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichloropropane ND	Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
1,1,2-Trichloroethane	Client ID:	MW-7					
Tetrachloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,3-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 Dibromochloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dibromoethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,1,2-Tetrachloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromoform ND 1.0 EPA 8260C 7-31-13 7-31-13 Bromobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,2,2-Tetrachloroethane ND 0.35 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chlorotoluene ND 0.20 EPA 8260C 7-31-13 7-31-13 4-Chlorotoluene ND 0.20 EPA 8260C 7-31-13	Laboratory ID:	07-205-02					
1,3-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 Dibromochloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dibromoethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,1,2-Tetrachloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromoform ND 1.0 EPA 8260C 7-31-13 7-31-13 Bromobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,2,2-Tetrachloroethane ND 0.35 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chlorotoluene ND 0.20 EPA 8260C 7-31-13 7-31-13 4-Chlorotoluene ND 0.20 EPA 8260C 7-31-13	1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Dibromochloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dibromoethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,1,2-Tetrachloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromoform ND 1.0 EPA 8260C 7-31-13 7-31-13 Bromobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,2,2-Tetrachloroethane ND 0.35 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chlorotoluene ND 0.20 EPA 8260C 7-31-13 7-31-13 4-Chlorotoluene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,4-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13	Tetrachloroethene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,2-Dibromoethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,1,2-Tetrachloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromoform ND 1.0 EPA 8260C 7-31-13 7-31-13 Bromobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,2,2-Tetrachloroethane ND 0.35 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 4-Chlorotoluene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,3-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichlorobenzene ND 0.20 EPA 8260C 7	1,3-Dichloropropane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Chlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,1,2-Tetrachloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromoform ND 1.0 EPA 8260C 7-31-13 7-31-13 Bromobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,2,2-Tetrachloroethane ND 0.35 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chlorotoluene ND 0.20 EPA 8260C 7-31-13 7-31-13 4-Chlorotoluene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,3-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,4-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dibromo-3-chloropropane ND 0.29 EPA 8260C 7	Dibromochloromethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,1,1,2-Tetrachloroethane	1,2-Dibromoethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Bromoform ND 1.0 EPA 8260C 7-31-13 7-31-13 Bromobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,2,2-Tetrachloroethane ND 0.35 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chlorotoluene ND 0.20 EPA 8260C 7-31-13 7-31-13 4-Chlorotoluene ND 0.20 EPA 8260C 7-31-13 7-31-13 4-Chlorotoluene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,3-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,4-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Diblorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-A-Trichlorobenzene ND 0.29 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichlorobenzene ND 0.46 EPA 8260C 7-31-13<	Chlorobenzene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Bromobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,2,2-Tetrachloroethane ND 0.35 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chlorotoluene ND 0.20 EPA 8260C 7-31-13 7-31-13 4-Chlorotoluene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,3-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,4-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dibromo-3-chloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2,4-Trichlorobenzene ND 0.29 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichlorobenzene ND 0.34 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichlorobenzene ND 0.46 EPA 8260C 7-31-13 7-31-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 97 62-122 Toluene-d8 97 70-120	1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,1,2,2-Tetrachloroethane ND 0.35 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chlorotoluene ND 0.20 EPA 8260C 7-31-13 7-31-13 4-Chlorotoluene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,3-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,4-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dibromo-3-chloropropane ND 1.4 EPA 8260C 7-31-13 7-31-13 1,2,4-Trichlorobenzene ND 0.29 EPA 8260C 7-31-13 7-31-13 Hexachlorobutadiene ND 0.34 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichlorobenzene ND 0.46 EPA 8260C 7-31-13 7-31-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 97 62-122 Toluen	Bromoform	ND	1.0	EPA 8260C	7-31-13	7-31-13	
1,2,3-Trichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chlorotoluene ND 0.20 EPA 8260C 7-31-13 7-31-13 4-Chlorotoluene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,3-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,4-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dibromo-3-chloropropane ND 1.4 EPA 8260C 7-31-13 7-31-13 1,2,4-Trichlorobenzene ND 0.29 EPA 8260C 7-31-13 7-31-13 Hexachlorobutadiene ND 0.34 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichlorobenzene ND 0.46 EPA 8260C 7-31-13 7-31-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 97 62-122 Toluene-d8 97 70-120	Bromobenzene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
2-Chlorotoluene ND 0.20 EPA 8260C 7-31-13 7-31-13 4-Chlorotoluene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,3-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,4-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dibromo-3-chloropropane ND 1.4 EPA 8260C 7-31-13 7-31-13 1,2,4-Trichlorobenzene ND 0.29 EPA 8260C 7-31-13 7-31-13 Hexachlorobutadiene ND 0.34 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichlorobenzene ND 0.46 EPA 8260C 7-31-13 7-31-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 97 62-122 Toluene-d8 97 70-120	1,1,2,2-Tetrachloroethane	ND	0.35	EPA 8260C	7-31-13	7-31-13	
4-Chlorotoluene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,3-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,4-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dibromo-3-chloropropane ND 1.4 EPA 8260C 7-31-13 7-31-13 1,2,4-Trichlorobenzene ND 0.29 EPA 8260C 7-31-13 7-31-13 Hexachlorobutadiene ND 0.34 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichlorobenzene ND 0.46 EPA 8260C 7-31-13 7-31-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 97 62-122 Toluene-d8 97 70-120	1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,3-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,4-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dibromo-3-chloropropane ND 1.4 EPA 8260C 7-31-13 7-31-13 1,2,4-Trichlorobenzene ND 0.29 EPA 8260C 7-31-13 7-31-13 Hexachlorobutadiene ND 0.34 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichlorobenzene ND 0.46 EPA 8260C 7-31-13 7-31-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 97 62-122 Toluene-d8 97 70-120	2-Chlorotoluene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,4-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dibromo-3-chloropropane ND 1.4 EPA 8260C 7-31-13 7-31-13 1,2,4-Trichlorobenzene ND 0.29 EPA 8260C 7-31-13 7-31-13 Hexachlorobutadiene ND 0.34 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichlorobenzene ND 0.46 EPA 8260C 7-31-13 7-31-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 97 62-122 Toluene-d8 97 70-120	4-Chlorotoluene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,2-Dichlorobenzene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dibromo-3-chloropropane ND 1.4 EPA 8260C 7-31-13 7-31-13 1,2,4-Trichlorobenzene ND 0.29 EPA 8260C 7-31-13 7-31-13 Hexachlorobutadiene ND 0.34 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichlorobenzene ND 0.46 EPA 8260C 7-31-13 7-31-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 97 62-122 Toluene-d8 97 70-120	1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,2-Dibromo-3-chloropropane ND 1.4 EPA 8260C 7-31-13 7-31-13 1,2,4-Trichlorobenzene ND 0.29 EPA 8260C 7-31-13 7-31-13 Hexachlorobutadiene ND 0.34 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichlorobenzene ND 0.46 EPA 8260C 7-31-13 7-31-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 97 62-122 Toluene-d8 97 70-120	1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,2,4-Trichlorobenzene ND 0.29 EPA 8260C 7-31-13 7-31-13 Hexachlorobutadiene ND 0.34 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichlorobenzene ND 0.46 EPA 8260C 7-31-13 7-31-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 97 62-122 Toluene-d8 97 70-120	1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Hexachlorobutadiene ND 0.34 EPA 8260C 7-31-13 7-31-13 1,2,3-Trichlorobenzene ND 0.46 EPA 8260C 7-31-13 7-31-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 97 62-122 Toluene-d8 97 70-120	1,2-Dibromo-3-chloropropane	e ND	1.4	EPA 8260C	7-31-13	7-31-13	
1,2,3-Trichlorobenzene ND 0.46 EPA 8260C 7-31-13 7-31-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 97 62-122 Toluene-d8 97 70-120	1,2,4-Trichlorobenzene	ND	0.29	EPA 8260C	7-31-13	7-31-13	
Surrogate: Percent Recovery Control Limits Dibromofluoromethane 97 62-122 Toluene-d8 97 70-120	Hexachlorobutadiene	ND	0.34	EPA 8260C	7-31-13	7-31-13	
Dibromofluoromethane 97 62-122 Toluene-d8 97 70-120	1,2,3-Trichlorobenzene	ND	0.46	EPA 8260C	7-31-13	7-31-13	
Toluene-d8 97 70-120	Surrogate:	Percent Recovery	Control Limits				
	Dibromofluoromethane	97	62-122				
4-Bromofluorobenzene 95 71-120	Toluene-d8	97	70-120				
	4-Bromofluorobenzene	95	71-120				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-8					
Laboratory ID:	07-205-03					
Dichlorodifluoromethane	ND	0.40	EPA 8260C	7-31-13	7-31-13	
Chloromethane	ND	2.0	EPA 8260C	7-31-13	7-31-13	
Vinyl Chloride	ND	0.40	EPA 8260C	7-31-13	7-31-13	
Bromomethane	ND	0.40	EPA 8260C	7-31-13	7-31-13	
Chloroethane	ND	2.0	EPA 8260C	7-31-13	7-31-13	
Trichlorofluoromethane	ND	0.40	EPA 8260C	7-31-13	7-31-13	
1,1-Dichloroethene	ND	0.40	EPA 8260C	7-31-13	7-31-13	
Iodomethane	ND	2.0	EPA 8260C	7-31-13	7-31-13	
Methylene Chloride	ND	2.0	EPA 8260C	7-31-13	7-31-13	
(trans) 1,2-Dichloroethene	ND	0.40	EPA 8260C	7-31-13	7-31-13	
1,1-Dichloroethane	ND	0.40	EPA 8260C	7-31-13	7-31-13	
2,2-Dichloropropane	ND	0.40	EPA 8260C	7-31-13	7-31-13	
(cis) 1,2-Dichloroethene	ND	0.40	EPA 8260C	7-31-13	7-31-13	
Bromochloromethane	ND	0.40	EPA 8260C	7-31-13	7-31-13	
Chloroform	ND	0.40	EPA 8260C	7-31-13	7-31-13	
1,1,1-Trichloroethane	ND	0.40	EPA 8260C	7-31-13	7-31-13	
Carbon Tetrachloride	ND	0.40	EPA 8260C	7-31-13	7-31-13	
1,1-Dichloropropene	ND	0.40	EPA 8260C	7-31-13	7-31-13	
1,2-Dichloroethane	ND	0.40	EPA 8260C	7-31-13	7-31-13	
Trichloroethene	2.0	0.40	EPA 8260C	7-31-13	7-31-13	
1,2-Dichloropropane	ND	0.40	EPA 8260C	7-31-13	7-31-13	
Dibromomethane	ND	0.40	EPA 8260C	7-31-13	7-31-13	
Bromodichloromethane	ND	0.40	EPA 8260C	7-31-13	7-31-13	
2-Chloroethyl Vinyl Ether	ND	2.6	EPA 8260C	7-31-13	7-31-13	
(cis) 1,3-Dichloropropene	ND	0.40	EPA 8260C	7-31-13	7-31-13	
(trans) 1,3-Dichloropropene	ND	0.40	EPA 8260C	7-31-13	7-31-13	

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-8					
Laboratory ID:	07-205-03					
1,1,2-Trichloroethane	ND	0.40	EPA 8260C	7-31-13	7-31-13	
Tetrachloroethene	150	2.0	EPA 8260C	7-31-13	7-31-13	
1,3-Dichloropropane	ND	0.40	EPA 8260C	7-31-13	7-31-13	
Dibromochloromethane	ND	0.40	EPA 8260C	7-31-13	7-31-13	
1,2-Dibromoethane	ND	0.40	EPA 8260C	7-31-13	7-31-13	
Chlorobenzene	ND	0.40	EPA 8260C	7-31-13	7-31-13	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260C	7-31-13	7-31-13	
Bromoform	ND	2.0	EPA 8260C	7-31-13	7-31-13	
Bromobenzene	ND	0.40	EPA 8260C	7-31-13	7-31-13	
1,1,2,2-Tetrachloroethane	ND	0.70	EPA 8260C	7-31-13	7-31-13	
1,2,3-Trichloropropane	ND	0.40	EPA 8260C	7-31-13	7-31-13	
2-Chlorotoluene	ND	0.40	EPA 8260C	7-31-13	7-31-13	
4-Chlorotoluene	ND	0.40	EPA 8260C	7-31-13	7-31-13	
1,3-Dichlorobenzene	ND	0.40	EPA 8260C	7-31-13	7-31-13	
1,4-Dichlorobenzene	ND	0.40	EPA 8260C	7-31-13	7-31-13	
1,2-Dichlorobenzene	ND	0.40	EPA 8260C	7-31-13	7-31-13	
1,2-Dibromo-3-chloropropane	e ND	2.8	EPA 8260C	7-31-13	7-31-13	
1,2,4-Trichlorobenzene	ND	0.58	EPA 8260C	7-31-13	7-31-13	
Hexachlorobutadiene	ND	0.68	EPA 8260C	7-31-13	7-31-13	
1,2,3-Trichlorobenzene	ND	0.92	EPA 8260C	7-31-13	7-31-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	98	62-122				
Toluene-d8	103	70-120				

I oluene-d8 70-120 4-Bromofluorobenzene 97 71-120

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Page 1 of 2

	Offito. dg/L				Date	Date	
Dichlorodifluoromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chloromethane ND 1.0 EPA 8260C 7-31-13 7-31-13 Vinyl Chloride ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromomethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chloroethane ND 1.0 EPA 8260C 7-31-13 7-31-13 Trichlorofluoromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 I,1-Dichloroethane ND 1.0 EPA 8260C 7-31-13 7-31-13 Methylene Chloride ND 1.0 EPA 8260C 7-31-13 7-31-13 (trans) 1,2-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloroethane ND 0.20 EPA 8260C 7-31-13	Analyte	Result	PQL	Method			Flags
Dichlorodifluoromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chloromethane ND 1.0 EPA 8260C 7-31-13 7-31-13 Vinyl Chloride ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromomethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chloroethane ND 1.0 EPA 8260C 7-31-13 7-31-13 Trichlorofluoromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 I,1-Dichloroethane ND 1.0 EPA 8260C 7-31-13 7-31-13 Methylene Chloride ND 1.0 EPA 8260C 7-31-13 7-31-13 (trans) 1,2-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloroethane ND 0.20 EPA 8260C 7-31-13							
Chloromethane ND 1.0 EPA 8260C 7-31-13 7-31-13 Vinyl Chloride ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromomethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chloroethane ND 1.0 EPA 8260C 7-31-13 7-31-13 Trichlorofluoromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 Ichloroethane ND 1.0 EPA 8260C 7-31-13 7-31-13 Ichloroethane ND 1.0 EPA 8260C 7-31-13 7-31-13 Methylene Chloride ND 1.0 EPA 8260C 7-31-13 7-31-13 Methylene Chloride ND 1.0 EPA 8260C 7-31-13 7-31-13 Methylene Chloride ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13	Laboratory ID:	MB0731W1					
Vinyl Chloride ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromomethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chloroethane ND 1.0 EPA 8260C 7-31-13 7-31-13 Trichlorofluoromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 Icodomethane ND 1.0 EPA 8260C 7-31-13 7-31-13 Methylene Chloride ND 1.0 EPA 8260C 7-31-13 7-31-13 Methylene Chloride ND 1.0 EPA 8260C 7-31-13 7-31-13 Methylene Chloride ND 0.20 EPA 8260C 7-31-13 7-31-13 Methylene Chloride ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-1-Trichloroethane ND 0.20 EPA 8260C 7-31-13 <t< td=""><td>Dichlorodifluoromethane</td><td>ND</td><td>0.20</td><td>EPA 8260C</td><td>7-31-13</td><td>7-31-13</td><td></td></t<>	Dichlorodifluoromethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Bromomethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chloroethane ND 1.0 EPA 8260C 7-31-13 7-31-13 Trichlorofluoromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 lodomethane ND 1.0 EPA 8260C 7-31-13 7-31-13 Methylene Chloride ND 1.0 EPA 8260C 7-31-13 7-31-13 Methylene Chloride ND 1.0 EPA 8260C 7-31-13 7-31-13 Methylene Chloride ND 0.20 EPA 8260C 7-31-13 7-31-13 Methylene Chloride ND 0.20 EPA 8260C 7-31-13 7-31-13 Methylene Chloride ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Cis) 1,2-Dichloroethane ND 0.20 EPA 8260C 7-31-13	Chloromethane	ND	1.0	EPA 8260C	7-31-13	7-31-13	
Chloroethane ND 1.0 EPA 8260C 7-31-13 7-31-13 Trichlorofluoromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 Iodomethane ND 1.0 EPA 8260C 7-31-13 7-31-13 Methylene Chloride ND 1.0 EPA 8260C 7-31-13 7-31-13 (trans) 1,2-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 2,2-Dichloroptopane ND 0.20 EPA 8260C 7-31-13 7-31-13 2,2-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 3,1-2-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chloroform ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloroethane ND 0.20 EPA 8260C 7-31-13	Vinyl Chloride	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Trichlorofluoromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 Iodomethane ND 1.0 EPA 8260C 7-31-13 7-31-13 Methylene Chloride ND 1.0 EPA 8260C 7-31-13 7-31-13 (trans) 1,2-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 2,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 (cis) 1,2-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromochloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chloroform ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,1-Trichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Carbon Tetrachloride ND 0.20 EPA 8260C <	Bromomethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,1-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 lodomethane ND 1.0 EPA 8260C 7-31-13 7-31-13 Methylene Chloride ND 1.0 EPA 8260C 7-31-13 7-31-13 (trans) 1,2-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 2,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 (cis) 1,2-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromochloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chloroform ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,1-Trichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloropropene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloroethane ND 0.20 EPA 8260C 7-	Chloroethane	ND	1.0	EPA 8260C	7-31-13	7-31-13	
lodomethane ND 1.0 EPA 8260C 7-31-13 7-31-13 Methylene Chloride ND 1.0 EPA 8260C 7-31-13 7-31-13 (trans) 1,2-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 2,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 (cis) 1,2-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 (cis) 1,2-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromochloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chloroform ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,1-Trichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloropropene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloroethane ND 0.20 EPA 8260C	Trichlorofluoromethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Methylene Chloride ND 1.0 EPA 8260C 7-31-13 7-31-13 (trans) 1,2-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 2,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 (cis) 1,2-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromochloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chloroform ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,1-Trichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Carbon Tetrachloride ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloropropene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloropropane ND 0.20 EPA 8260C	1,1-Dichloroethene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
(trans) 1,2-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 2,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 (cis) 1,2-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromochloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chloroform ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,1-Trichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Carbon Tetrachloride ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloropropene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 Dibromomethane ND 0.20 EPA 8260C	lodomethane	ND	1.0	EPA 8260C	7-31-13	7-31-13	
1,1-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 2,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 (cis) 1,2-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromochloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chloroform ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,1-Trichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Carbon Tetrachloride ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloropropene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 Dibromomethane ND 0.20 EPA 8260C 7	Methylene Chloride	ND	1.0	EPA 8260C	7-31-13	7-31-13	
2,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 (cis) 1,2-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromochloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chloroform ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,1-Trichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Carbon Tetrachloride ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloropropene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 Dibromomethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromodichloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chloroethyl Vinyl Ether ND 1.3 EPA 8260C 7-31-13 7-31-13	(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
(cis) 1,2-Dichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromochloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chloroform ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,1-Trichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Carbon Tetrachloride ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloropropene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 Dibromomethane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chloroethyl Vinyl Ether ND 1.3 EPA 8260C 7-31-13 7-31-13	1,1-Dichloroethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Bromochloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Chloroform ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,1-Trichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Carbon Tetrachloride ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloropropene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chloroethyl Vinyl Ether ND 1.3 EPA 8260C 7-31-13 7-31-13	2,2-Dichloropropane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Chloroform ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1,1-Trichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Carbon Tetrachloride ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloropropene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 Dibromomethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromodichloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chloroethyl Vinyl Ether ND 1.3 EPA 8260C 7-31-13 7-31-13	(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,1,1-Trichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Carbon Tetrachloride ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloropropene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Trichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 Dibromomethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromodichloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chloroethyl Vinyl Ether ND 1.3 EPA 8260C 7-31-13 7-31-13	Bromochloromethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Carbon Tetrachloride ND 0.20 EPA 8260C 7-31-13 7-31-13 1,1-Dichloropropene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Trichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 Dibromomethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromodichloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chloroethyl Vinyl Ether ND 1.3 EPA 8260C 7-31-13 7-31-13	Chloroform	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,1-Dichloropropene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Trichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 Dibromomethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromodichloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chloroethyl Vinyl Ether ND 1.3 EPA 8260C 7-31-13 7-31-13	1,1,1-Trichloroethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,2-Dichloroethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Trichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 Dibromomethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromodichloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chloroethyl Vinyl Ether ND 1.3 EPA 8260C 7-31-13 7-31-13	Carbon Tetrachloride	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Trichloroethene ND 0.20 EPA 8260C 7-31-13 7-31-13 1,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 Dibromomethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromodichloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chloroethyl Vinyl Ether ND 1.3 EPA 8260C 7-31-13 7-31-13	1,1-Dichloropropene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,2-Dichloropropane ND 0.20 EPA 8260C 7-31-13 7-31-13 Dibromomethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromodichloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chloroethyl Vinyl Ether ND 1.3 EPA 8260C 7-31-13 7-31-13	1,2-Dichloroethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Dibromomethane ND 0.20 EPA 8260C 7-31-13 7-31-13 Bromodichloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chloroethyl Vinyl Ether ND 1.3 EPA 8260C 7-31-13 7-31-13	Trichloroethene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Bromodichloromethane ND 0.20 EPA 8260C 7-31-13 7-31-13 2-Chloroethyl Vinyl Ether ND 1.3 EPA 8260C 7-31-13 7-31-13	1,2-Dichloropropane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
2-Chloroethyl Vinyl Ether ND 1.3 EPA 8260C 7-31-13 7-31-13	Dibromomethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
<i>, ,</i>	Bromodichloromethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
	2-Chloroethyl Vinyl Ether	ND	1.3	EPA 8260C	7-31-13	7-31-13	
	(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
(trans) 1,3-Dichloropropene ND 0.20 EPA 8260C 7-31-13 7-31-13	(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	7-31-13	7-31-13	

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0731W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Tetrachloroethene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Dibromochloromethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Chlorobenzene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
Bromoform	ND	1.0	EPA 8260C	7-31-13	7-31-13	
Bromobenzene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,1,2,2-Tetrachloroethane	ND	0.35	EPA 8260C	7-31-13	7-31-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	7-31-13	7-31-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	7-31-13	7-31-13	
1,2-Dibromo-3-chloropropane	e ND	1.4	EPA 8260C	7-31-13	7-31-13	
1,2,4-Trichlorobenzene	ND	0.29	EPA 8260C	7-31-13	7-31-13	
Hexachlorobutadiene	ND	0.34	EPA 8260C	7-31-13	7-31-13	
1,2,3-Trichlorobenzene	ND	0.46	EPA 8260C	7-31-13	7-31-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	92	62-122				
Toluene-d8	86	70-120				
4-Bromofluorobenzene	100	71-120				

HALOGENATED VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Rece	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB073	31W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.92	9.55	10.0	10.0	99	96	63-142	4	17	
Benzene	9.71	9.73	10.0	10.0	97	97	78-125	0	15	
Trichloroethene	9.63	8.81	10.0	10.0	96	88	80-125	9	15	
Toluene	9.22	9.17	10.0	10.0	92	92	80-125	1	15	
Chlorobenzene	10.5	10.7	10.0	10.0	105	107	80-140	2	15	
Surrogate:										
Dibromofluoromethane					90	91	62-122			
Toluene-d8					90	<i>87</i>	70-120			
4-Bromofluorobenzene					97	107	71-120			



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) 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

Environmental Inc. OnSite

Chain of Custody

Laboratory Number:

Turnaround Request (in working days)

LO

07 - 20

of

% Moisture Sut Via Corre Chromatograms with final report Requested Analysis HEM by 1664 TCLP Metals (8) RAPA Metals (8) Herbicides by 8151A Pesticides by 8081A · k PCBs by 8082 MIS \ G07S8 vd sHA9 7/30/13 1500 Herea Eminorate 1730/12 14:15 Semivolatiles by 8270D / SIM Halogenated Volatiles by 8260B Volatiles by 8260B **XQ-H9TWN** NWTPH-Gx/BTEX **AWTPH-HCID** 3 Day (TPH analysis 5 working days) X 1 Day Comt S 17 Standard (7 working days) (Check One) Reviewed by/Date 7 (other) 1.33 8:6 シカ Sampled Company Same Day 2 Day 7130/13 Company: Her refa Enviormuntal Project Number: 14648 NE 95th Street • Redmond, WA 98052 Phone: (425) 883-3881 • www.onsite-env.com Sampled by Dwa Carpsonte Project Manager Peter Jourse Sample Identification MW-00 MW. 7 218.6 Project Name: VSC Reviewed by/Date Relinquished by Relinquished by Relinquished by Received by Received by Received by Lab ID

DISTRIBUTION LEGEND: White - OnSite Copy Yellow - Client Copy



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

August 12, 2013

Peter Jowise Herrera Environmental Consultants, Inc. 2200 6th Avenue, Suite 1100 Seattle, WA 98121

Re: Analytical Data for Project 09-04193-017/003-001

Laboratory Reference No. 1308-015

Dear Peter:

Enclosed are the analytical results and associated quality control data for samples submitted on August 2, 2013.

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,

David Baumeister Project Manager

Enclosures

Date of Report: August 12, 2013 Samples Submitted: August 2, 2013 Laboratory Reference: 1308-015 Project: 09-04193-017/003-001

Case Narrative

Samples were collected on August 1 and 2, 2013 and received by the laboratory on August 2, 2013. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

Halogenated Volatiles (soil) 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.

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: August 12, 2013 Samples Submitted: August 2, 2013 Laboratory Reference: 1308-015 Project: 09-04193-017/003-001

NWTPH-HCID

Matrix: Water Units: mg/L (ppm)

· /				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-8					
Laboratory ID:	08-015-01					
Gasoline Range Organics	ND	0.12	NWTPH-HCID	8-2-13	8-2-13	
Diesel Range Organics	Detected	0.30	NWTPH-HCID	8-2-13	8-2-13	
Lube Oil Range Organics	ND	0.48	NWTPH-HCID	8-2-13	8-2-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	87	50-150				

Date of Report: August 12, 2013 Samples Submitted: August 2, 2013 Laboratory Reference: 1308-015 Project: 09-04193-017/003-001

NWTPH-HCID QUALITY CONTROL

Matrix: Water
Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0802W1					
Gasoline Range Organics	ND	0.10	NWTPH-HCID	8-2-13	8-2-13	
Diesel Range Organics	ND	0.25	NWTPH-HCID	8-2-13	8-2-13	
Lube Oil Range Organics	ND	0.40	NWTPH-HCID	8-2-13	8-2-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	77	50-150				

NWTPH-HCID

Matrix: Soil

Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	YSCGP8-9					
Laboratory ID:	08-015-06					
Gasoline Range Organics	ND	24	NWTPH-HCID	8-5-13	8-5-13	
Diesel Range Organics	ND	59	NWTPH-HCID	8-5-13	8-5-13	
Lube Oil Range Organics	ND	120	NWTPH-HCID	8-5-13	8-5-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	83	50-150				

NWTPH-HCID QUALITY CONTROL

Matrix: Soil

Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK					,	- 3-
Laboratory ID:	MB0805S1					
Gasoline Range Organics	ND	20	NWTPH-HCID	8-5-13	8-5-13	
Diesel Range Organics	ND	50	NWTPH-HCID	8-5-13	8-5-13	
Lube Oil Range Organics	ND	100	NWTPH-HCID	8-5-13	8-5-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	80	50-150				

NWTPH-Dx

Matrix: Water Units: mg/L (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	YSCGP-8			•	•	
Laboratory ID:	08-015-01					
Diesel Range Organics	0.41	0.30	NWTPH-Dx	8-2-13	8-2-13	
Lube Oil Range Organics	ND	0.48	NWTPH-Dx	8-2-13	8-2-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	87	50-150				

NWTPH-Dx QUALITY CONTROL

Matrix: Water Units: mg/L (ppm)

			Date	Date	
Result	PQL	Method	Prepared	Analyzed	Flags
					_
MB0802W1					
ND	0.25	NWTPH-Dx	8-2-13	8-2-13	_
ND	0.40	NWTPH-Dx	8-2-13	8-2-13	
Percent Recovery	Control Limits				
77	50-150				
	MB0802W1 ND ND Percent Recovery	MB0802W1 ND 0.25 ND 0.40 Percent Recovery Control Limits	MB0802W1 ND 0.25 NWTPH-Dx ND 0.40 NWTPH-Dx Percent Recovery Control Limits	Result PQL Method Prepared MB0802W1 ND 0.25 NWTPH-Dx 8-2-13 ND 0.40 NWTPH-Dx 8-2-13 Percent Recovery Control Limits	Result PQL Method Prepared Analyzed MB0802W1 ND 0.25 NWTPH-Dx 8-2-13 8-2-13 ND 0.40 NWTPH-Dx 8-2-13 8-2-13 Percent Recovery Control Limits

			Per	cent	Recovery		RPD	
Analyte	Res	sult	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE								
Laboratory ID:	08-00	03-01						
	ORIG	DUP						
Diesel Range Organics	ND	ND				NA	NA	
Lube Oil Range Organics	ND	ND				NA	NA	
Surrogate:								
o-Terphenyl			84	82	50-150			

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

			Date	Date	
Result	PQL	Method	Prepared	Analyzed	Flags
YSCGP-8					
08-015-01					
ND	0.54	EPA 8260C	8-5-13	8-5-13	
ND	2.0	EPA 8260C	8-5-13	8-5-13	
ND	0.40	EPA 8260C	8-5-13	8-5-13	
ND	0.40	EPA 8260C	8-5-13	8-5-13	
ND	2.0	EPA 8260C	8-5-13	8-5-13	
ND	0.40	EPA 8260C	8-5-13	8-5-13	
ND	0.40	EPA 8260C	8-5-13	8-5-13	
ND	2.0	EPA 8260C	8-5-13	8-5-13	
ND	2.0	EPA 8260C	8-5-13	8-5-13	
0.80	0.40	EPA 8260C	8-5-13	8-5-13	
ND	0.40	EPA 8260C	8-5-13	8-5-13	
ND	0.40	EPA 8260C	8-5-13	8-5-13	
1.3	0.40	EPA 8260C	8-5-13	8-5-13	
ND	0.40	EPA 8260C	8-5-13	8-5-13	
ND	0.40	EPA 8260C	8-5-13	8-5-13	
ND	0.40	EPA 8260C	8-5-13	8-5-13	
ND	0.40	EPA 8260C	8-5-13	8-5-13	
ND	0.40	EPA 8260C	8-5-13	8-5-13	
ND	0.40	EPA 8260C	8-5-13	8-5-13	
22	0.40	EPA 8260C	8-5-13	8-5-13	
ND	0.40	EPA 8260C	8-5-13	8-5-13	
ND	0.40	EPA 8260C	8-5-13	8-5-13	
ND	0.40	EPA 8260C	8-5-13	8-5-13	
ND	2.0	EPA 8260C	8-5-13	8-5-13	
ND	0.40	EPA 8260C	8-5-13	8-5-13	
ND	0.40	EPA 8260C	8-5-13	8-5-13	
	YSCGP-8 08-015-01 ND ND ND ND ND ND ND ND ND N	YSCGP-8 08-015-01 ND 0.54 ND 2.0 ND 0.40 ND 0.40 ND 0.40 ND 0.40 ND 0.40 ND 2.0 ND 0.40 ND 0.40	YSCGP-8 08-015-01 ND 0.54 EPA 8260C ND 2.0 EPA 8260C ND 0.40 EPA 8260C ND 0.40 EPA 8260C ND 2.0 EPA 8260C ND 0.40 EPA 8260C ND 2.0 EPA 8260C ND 2.0 EPA 8260C ND 2.0 EPA 8260C ND 2.0 EPA 8260C ND 0.40 EPA 8260C ND<	Result PQL Method Prepared YSCGP-8 08-015-01 BPA 8260C 8-5-13 ND 0.54 EPA 8260C 8-5-13 ND 0.40 EPA 8260C 8-5-13 ND 2.0 EPA 8260C 8-5-13 ND 2.0 EPA 8260C 8-5-13 ND 0.40 EPA 8260C 8-5-13 <	Result PQL Method Prepared Analyzed YSCGP-8 08-015-01 8-000 8-5-13 8-5-13 ND 0.54 EPA 8260C 8-5-13 8-5-13 ND 0.40 EPA 8260C 8-5-13 8-5-13 ND 2.0 EPA 8260C 8-5-13 8-5-13 ND 2.0 EPA 8260C 8-5-13 8-5-13 ND 2.0 EPA 8260C 8-5-13 8-5-13 ND 0.40 EPA 8260C 8-5-13 8-5-13 ND 0.40 EPA 8260C 8-5-13 8-5-13 ND 0.40 EPA 8260C 8-5-13 8-5-13

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-8					
Laboratory ID:	08-015-01					
1,1,2-Trichloroethane	ND	0.40	EPA 8260C	8-5-13	8-5-13	
Tetrachloroethene	73	2.0	EPA 8260C	8-5-13	8-5-13	
1,3-Dichloropropane	ND	0.40	EPA 8260C	8-5-13	8-5-13	
Dibromochloromethane	ND	0.40	EPA 8260C	8-5-13	8-5-13	
1,2-Dibromoethane	ND	0.40	EPA 8260C	8-5-13	8-5-13	
Chlorobenzene	ND	0.40	EPA 8260C	8-5-13	8-5-13	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260C	8-5-13	8-5-13	
Bromoform	ND	2.0	EPA 8260C	8-5-13	8-5-13	
Bromobenzene	ND	0.40	EPA 8260C	8-5-13	8-5-13	
1,1,2,2-Tetrachloroethane	ND	0.40	EPA 8260C	8-5-13	8-5-13	
1,2,3-Trichloropropane	ND	0.40	EPA 8260C	8-5-13	8-5-13	
2-Chlorotoluene	ND	0.40	EPA 8260C	8-5-13	8-5-13	
4-Chlorotoluene	ND	0.40	EPA 8260C	8-5-13	8-5-13	
1,3-Dichlorobenzene	ND	0.40	EPA 8260C	8-5-13	8-5-13	
1,4-Dichlorobenzene	ND	0.40	EPA 8260C	8-5-13	8-5-13	
1,2-Dichlorobenzene	ND	0.40	EPA 8260C	8-5-13	8-5-13	
1,2-Dibromo-3-chloropropane	e ND	2.0	EPA 8260C	8-5-13	8-5-13	
1,2,4-Trichlorobenzene	ND	0.40	EPA 8260C	8-5-13	8-5-13	
Hexachlorobutadiene	ND	0.40	EPA 8260C	8-5-13	8-5-13	
1,2,3-Trichlorobenzene	ND	0.40	EPA 8260C	8-5-13	8-5-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromoflyoromothono	106	60 100				

Surrogate: Percent Recovery Control Limit
Dibromofluoromethane 106 62-122
Toluene-d8 101 70-120
4-Bromofluorobenzene 101 71-120

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

omio. ag/L				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-9			•		
Laboratory ID:	08-015-02					
Dichlorodifluoromethane	ND	0.27	EPA 8260C	8-5-13	8-5-13	
Chloromethane	ND	1.0	EPA 8260C	8-5-13	8-5-13	
Vinyl Chloride	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Bromomethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Chloroethane	ND	1.0	EPA 8260C	8-5-13	8-5-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
lodomethane	ND	1.0	EPA 8260C	8-5-13	8-5-13	
Methylene Chloride	ND	1.0	EPA 8260C	8-5-13	8-5-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Bromochloromethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Chloroform	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Trichloroethene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Dibromomethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Bromodichloromethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	8-5-13	8-5-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	8-5-13	8-5-13	

Toluene-d8

4-Bromofluorobenzene

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-9					
Laboratory ID:	08-015-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Tetrachloroethene	ND	1.0	EPA 8260C	8-5-13	8-5-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Dibromochloromethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Chlorobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Bromoform	ND	1.0	EPA 8260C	8-5-13	8-5-13	
Bromobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260C	8-5-13	8-5-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	109	62-122				

70-120

71-120

106

103

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-10					
Laboratory ID:	08-015-03					
Dichlorodifluoromethane	ND	14	EPA 8260C	8-5-13	8-5-13	
Chloromethane	ND	50	EPA 8260C	8-5-13	8-5-13	
Vinyl Chloride	ND	10	EPA 8260C	8-5-13	8-5-13	
Bromomethane	ND	10	EPA 8260C	8-5-13	8-5-13	
Chloroethane	ND	50	EPA 8260C	8-5-13	8-5-13	
Trichlorofluoromethane	ND	10	EPA 8260C	8-5-13	8-5-13	
1,1-Dichloroethene	ND	10	EPA 8260C	8-5-13	8-5-13	
lodomethane	ND	50	EPA 8260C	8-5-13	8-5-13	
Methylene Chloride	ND	50	EPA 8260C	8-5-13	8-5-13	
(trans) 1,2-Dichloroethene	ND	10	EPA 8260C	8-5-13	8-5-13	
1,1-Dichloroethane	ND	10	EPA 8260C	8-5-13	8-5-13	
2,2-Dichloropropane	ND	10	EPA 8260C	8-5-13	8-5-13	
(cis) 1,2-Dichloroethene	ND	10	EPA 8260C	8-5-13	8-5-13	
Bromochloromethane	ND	10	EPA 8260C	8-5-13	8-5-13	
Chloroform	ND	10	EPA 8260C	8-5-13	8-5-13	
1,1,1-Trichloroethane	ND	10	EPA 8260C	8-5-13	8-5-13	
Carbon Tetrachloride	ND	10	EPA 8260C	8-5-13	8-5-13	
1,1-Dichloropropene	ND	10	EPA 8260C	8-5-13	8-5-13	
1,2-Dichloroethane	ND	10	EPA 8260C	8-5-13	8-5-13	
Trichloroethene	ND	10	EPA 8260C	8-5-13	8-5-13	
1,2-Dichloropropane	ND	10	EPA 8260C	8-5-13	8-5-13	
Dibromomethane	ND	10	EPA 8260C	8-5-13	8-5-13	
Bromodichloromethane	ND	10	EPA 8260C	8-5-13	8-5-13	
2-Chloroethyl Vinyl Ether	ND	50	EPA 8260C	8-5-13	8-5-13	
(cis) 1,3-Dichloropropene	ND	10	EPA 8260C	8-5-13	8-5-13	
(trans) 1,3-Dichloropropene	ND	10	EPA 8260C	8-5-13	8-5-13	

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-10					
Laboratory ID:	08-015-03					
1,1,2-Trichloroethane	ND	10	EPA 8260C	8-5-13	8-5-13	
Tetrachloroethene	2100	50	EPA 8260C	8-5-13	8-5-13	
1,3-Dichloropropane	ND	10	EPA 8260C	8-5-13	8-5-13	
Dibromochloromethane	ND	10	EPA 8260C	8-5-13	8-5-13	
1,2-Dibromoethane	ND	10	EPA 8260C	8-5-13	8-5-13	
Chlorobenzene	ND	10	EPA 8260C	8-5-13	8-5-13	
1,1,1,2-Tetrachloroethane	ND	10	EPA 8260C	8-5-13	8-5-13	
Bromoform	ND	50	EPA 8260C	8-5-13	8-5-13	
Bromobenzene	ND	10	EPA 8260C	8-5-13	8-5-13	
1,1,2,2-Tetrachloroethane	ND	10	EPA 8260C	8-5-13	8-5-13	
1,2,3-Trichloropropane	ND	10	EPA 8260C	8-5-13	8-5-13	
2-Chlorotoluene	ND	10	EPA 8260C	8-5-13	8-5-13	
4-Chlorotoluene	ND	10	EPA 8260C	8-5-13	8-5-13	
1,3-Dichlorobenzene	ND	10	EPA 8260C	8-5-13	8-5-13	
1,4-Dichlorobenzene	ND	10	EPA 8260C	8-5-13	8-5-13	
1,2-Dichlorobenzene	ND	10	EPA 8260C	8-5-13	8-5-13	
1,2-Dibromo-3-chloropropane	e ND	50	EPA 8260C	8-5-13	8-5-13	
1,2,4-Trichlorobenzene	ND	10	EPA 8260C	8-5-13	8-5-13	
Hexachlorobutadiene	ND	10	EPA 8260C	8-5-13	8-5-13	
1,2,3-Trichlorobenzene	ND	10	EPA 8260C	8-5-13	8-5-13	
Surrogate:	Percent Recovery	Control Limits				

Surrogate: Percent Recovery Control Limit Dibromofluoromethane 109 62-122 Toluene-d8 102 70-120 4-Bromofluorobenzene 103 71-120

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-11					
Laboratory ID:	08-015-04					
Dichlorodifluoromethane	ND	0.27	EPA 8260C	8-5-13	8-5-13	
Chloromethane	ND	1.0	EPA 8260C	8-5-13	8-5-13	
Vinyl Chloride	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Bromomethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Chloroethane	ND	1.0	EPA 8260C	8-5-13	8-5-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Iodomethane	ND	1.0	EPA 8260C	8-5-13	8-5-13	
Methylene Chloride	ND	1.0	EPA 8260C	8-5-13	8-5-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Bromochloromethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Chloroform	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Trichloroethene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Dibromomethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Bromodichloromethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	8-5-13	8-5-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	8-5-13	8-5-13	

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-11					
Laboratory ID:	08-015-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Tetrachloroethene	ND	1.0	EPA 8260C	8-5-13	8-5-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Dibromochloromethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Chlorobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Bromoform	ND	1.0	EPA 8260C	8-5-13	8-5-13	
Bromobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	8-5-13	8-5-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Surrogate:	Percent Recovery	Control Limits				
D'' " "		00.400				

Surrogate: Percent Recovery Control Limi
Dibromofluoromethane 110 62-122
Toluene-d8 106 70-120
4-Bromofluorobenzene 105 71-120

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-12					
Laboratory ID:	08-015-05					
Dichlorodifluoromethane	ND	0.27	EPA 8260C	8-5-13	8-5-13	
Chloromethane	ND	1.0	EPA 8260C	8-5-13	8-5-13	
Vinyl Chloride	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Bromomethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Chloroethane	ND	1.0	EPA 8260C	8-5-13	8-5-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
lodomethane	ND	1.0	EPA 8260C	8-5-13	8-5-13	
Methylene Chloride	ND	1.0	EPA 8260C	8-5-13	8-5-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Bromochloromethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Chloroform	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Trichloroethene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Dibromomethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Bromodichloromethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	8-5-13	8-5-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	8-5-13	8-5-13	

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-12					
Laboratory ID:	08-015-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Tetrachloroethene	ND	1.0	EPA 8260C	8-5-13	8-5-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Dibromochloromethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Chlorobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Bromoform	ND	1.0	EPA 8260C	8-5-13	8-5-13	
Bromobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260C	8-5-13	8-5-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Surrogate:	Percent Recovery	Control Limits				
Dib wa ma affi ya wa ma affi a ma	110	CO 100				

Surrogate: Percent Recovery Control Lim
Dibromofluoromethane 112 62-122
Toluene-d8 107 70-120
4-Bromofluorobenzene 106 71-120

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-4A					
Laboratory ID:	08-015-09					
Dichlorodifluoromethane	ND	27	EPA 8260C	8-5-13	8-5-13	
Chloromethane	ND	100	EPA 8260C	8-5-13	8-5-13	
Vinyl Chloride	ND	20	EPA 8260C	8-5-13	8-5-13	
Bromomethane	ND	20	EPA 8260C	8-5-13	8-5-13	
Chloroethane	ND	100	EPA 8260C	8-5-13	8-5-13	
Trichlorofluoromethane	ND	20	EPA 8260C	8-5-13	8-5-13	
1,1-Dichloroethene	ND	20	EPA 8260C	8-5-13	8-5-13	
Iodomethane	ND	100	EPA 8260C	8-5-13	8-5-13	
Methylene Chloride	ND	100	EPA 8260C	8-5-13	8-5-13	
(trans) 1,2-Dichloroethene	ND	20	EPA 8260C	8-5-13	8-5-13	
1,1-Dichloroethane	ND	20	EPA 8260C	8-5-13	8-5-13	
2,2-Dichloropropane	ND	20	EPA 8260C	8-5-13	8-5-13	
(cis) 1,2-Dichloroethene	110	20	EPA 8260C	8-5-13	8-5-13	
Bromochloromethane	ND	20	EPA 8260C	8-5-13	8-5-13	
Chloroform	ND	20	EPA 8260C	8-5-13	8-5-13	
1,1,1-Trichloroethane	ND	20	EPA 8260C	8-5-13	8-5-13	
Carbon Tetrachloride	ND	20	EPA 8260C	8-5-13	8-5-13	
1,1-Dichloropropene	ND	20	EPA 8260C	8-5-13	8-5-13	
1,2-Dichloroethane	ND	20	EPA 8260C	8-5-13	8-5-13	
Trichloroethene	40	20	EPA 8260C	8-5-13	8-5-13	
1,2-Dichloropropane	ND	20	EPA 8260C	8-5-13	8-5-13	
Dibromomethane	ND	20	EPA 8260C	8-5-13	8-5-13	
Bromodichloromethane	ND	20	EPA 8260C	8-5-13	8-5-13	
2-Chloroethyl Vinyl Ether	ND	100	EPA 8260C	8-5-13	8-5-13	
(cis) 1,3-Dichloropropene	ND	20	EPA 8260C	8-5-13	8-5-13	
(trans) 1,3-Dichloropropene	ND	20	EPA 8260C	8-5-13	8-5-13	

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-4A					_
Laboratory ID:	08-015-09					
1,1,2-Trichloroethane	ND	20	EPA 8260C	8-5-13	8-5-13	
Tetrachloroethene	2800	100	EPA 8260C	8-5-13	8-5-13	
1,3-Dichloropropane	ND	20	EPA 8260C	8-5-13	8-5-13	
Dibromochloromethane	ND	20	EPA 8260C	8-5-13	8-5-13	
1,2-Dibromoethane	ND	20	EPA 8260C	8-5-13	8-5-13	
Chlorobenzene	ND	20	EPA 8260C	8-5-13	8-5-13	
1,1,1,2-Tetrachloroethane	ND	20	EPA 8260C	8-5-13	8-5-13	
Bromoform	ND	100	EPA 8260C	8-5-13	8-5-13	
Bromobenzene	ND	20	EPA 8260C	8-5-13	8-5-13	
1,1,2,2-Tetrachloroethane	ND	20	EPA 8260C	8-5-13	8-5-13	
1,2,3-Trichloropropane	ND	20	EPA 8260C	8-5-13	8-5-13	
2-Chlorotoluene	ND	20	EPA 8260C	8-5-13	8-5-13	
4-Chlorotoluene	ND	20	EPA 8260C	8-5-13	8-5-13	
1,3-Dichlorobenzene	ND	20	EPA 8260C	8-5-13	8-5-13	
1,4-Dichlorobenzene	ND	20	EPA 8260C	8-5-13	8-5-13	
1,2-Dichlorobenzene	ND	20	EPA 8260C	8-5-13	8-5-13	
1,2-Dibromo-3-chloropropand	e ND	100	EPA 8260C	8-5-13	8-5-13	
1,2,4-Trichlorobenzene	ND	20	EPA 8260C	8-5-13	8-5-13	
Hexachlorobutadiene	ND	20	EPA 8260C	8-5-13	8-5-13	
1,2,3-Trichlorobenzene	ND	20	EPA 8260C	8-5-13	8-5-13	
Surrogate:	Percent Recovery	Control Limits				

Surrogate: Percent Recovery Control Limit
Dibromofluoromethane 114 62-122
Toluene-d8 106 70-120
4-Bromofluorobenzene 106 71-120

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0805W1					
Dichlorodifluoromethane	ND	0.27	EPA 8260C	8-5-13	8-5-13	
Chloromethane	ND	1.0	EPA 8260C	8-5-13	8-5-13	
Vinyl Chloride	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Bromomethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Chloroethane	ND	1.0	EPA 8260C	8-5-13	8-5-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Iodomethane	ND	1.0	EPA 8260C	8-5-13	8-5-13	
Methylene Chloride	ND	1.0	EPA 8260C	8-5-13	8-5-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Bromochloromethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Chloroform	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Trichloroethene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Dibromomethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
Bromodichloromethane	ND	0.20	EPA 8260C	8-5-13	8-5-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	8-5-13	8-5-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	8-5-13	8-5-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	8-5-13	8-5-13	

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Page 2 of 2

			Date	Date	
Result	PQL	Method	Prepared	Analyzed	Flags
ND	0.20	EPA 8260C	8-5-13	8-5-13	
ND	1.0	EPA 8260C	8-5-13	8-5-13	
ND	0.20	EPA 8260C	8-5-13	8-5-13	
ND	0.20	EPA 8260C	8-5-13	8-5-13	
ND	0.20	EPA 8260C	8-5-13	8-5-13	
ND	0.20	EPA 8260C	8-5-13	8-5-13	
ND	0.20	EPA 8260C	8-5-13	8-5-13	
ND	1.0	EPA 8260C	8-5-13	8-5-13	
ND	0.20	EPA 8260C	8-5-13	8-5-13	
ND	0.20	EPA 8260C	8-5-13	8-5-13	
ND	0.20	EPA 8260C	8-5-13	8-5-13	
ND	0.20	EPA 8260C	8-5-13	8-5-13	
ND	0.20	EPA 8260C	8-5-13	8-5-13	
ND	0.20	EPA 8260C	8-5-13	8-5-13	
ND	0.20	EPA 8260C	8-5-13	8-5-13	
ND	0.20	EPA 8260C	8-5-13	8-5-13	
ND	1.0	EPA 8260C	8-5-13	8-5-13	
ND	0.20	EPA 8260C	8-5-13	8-5-13	
ND	0.20	EPA 8260C	8-5-13	8-5-13	
ND	0.20	EPA 8260C	8-5-13	8-5-13	
Percent Recovery	Control Limits				
109	62-122				
108	70-120				
108	71-120				
	MB0805W1 ND ND ND ND ND ND ND ND ND N	MB0805W1 ND 0.20 ND 1.0 ND ND 0.20 ND	MB0805W1 ND 0.20 EPA 8260C ND 1.0 EPA 8260C ND 0.20 EPA 8260C ND 0.20	Result PQL Method Prepared MB0805W1 ND 0.20 EPA 8260C 8-5-13 ND 1.0 EPA 8260C 8-5-13 ND 0.20 EPA 8260C 8-5-13	Result PQL Method Prepared Analyzed MB0805W1 ND 0.20 EPA 8260C 8-5-13 8-5-13 ND 1.0 EPA 8260C 8-5-13 8-5-13 ND 0.20 EPA 8260C 8-5-13 <

HALOGENATED VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Rece	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB080	05W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	10.7	10.9	10.0	10.0	107	109	63-142	2	17	
Benzene	10.0	10.5	10.0	10.0	100	105	78-125	5	15	
Trichloroethene	9.44	9.36	10.0	10.0	94	94	80-125	1	15	
Toluene	9.89	10.0	10.0	10.0	99	100	80-125	1	15	
Chlorobenzene	10.3	10.6	10.0	10.0	103	106	80-140	3	15	
Surrogate:										
Dibromofluoromethane					106	102	62-122			
Toluene-d8					104	100	70-120			
4-Bromofluorobenzene					99	100	71-120			

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

Matrix: Soil Units: mg/kg

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-4A					
Laboratory ID:	08-015-07					
Dichlorodifluoromethane	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
Chloromethane	ND	0.0049	EPA 8260C	8-2-13	8-2-13	
Vinyl Chloride	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
Bromomethane	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
Chloroethane	ND	0.0049	EPA 8260C	8-2-13	8-2-13	
Trichlorofluoromethane	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
1,1-Dichloroethene	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
Iodomethane	ND	0.0049	EPA 8260C	8-2-13	8-2-13	
Methylene Chloride	ND	0.0049	EPA 8260C	8-2-13	8-2-13	
(trans) 1,2-Dichloroethene	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
1,1-Dichloroethane	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
2,2-Dichloropropane	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
(cis) 1,2-Dichloroethene	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
Bromochloromethane	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
Chloroform	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
1,1,1-Trichloroethane	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
Carbon Tetrachloride	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
1,1-Dichloropropene	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
1,2-Dichloroethane	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
Trichloroethene	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
1,2-Dichloropropane	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
Dibromomethane	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
Bromodichloromethane	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
2-Chloroethyl Vinyl Ether	ND	0.0049	EPA 8260C	8-2-13	8-2-13	
(cis) 1,3-Dichloropropene	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
(trans) 1,3-Dichloropropene	ND	0.00098	EPA 8260C	8-2-13	8-2-13	

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	YSCGP-4A					
Laboratory ID:	08-015-07					
1,1,2-Trichloroethane	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
Tetrachloroethene	0.0012	0.00098	EPA 8260C	8-2-13	8-2-13	
1,3-Dichloropropane	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
Dibromochloromethane	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
1,2-Dibromoethane	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
Chlorobenzene	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
1,1,1,2-Tetrachloroethane	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
Bromoform	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
Bromobenzene	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
1,1,2,2-Tetrachloroethane	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
1,2,3-Trichloropropane	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
2-Chlorotoluene	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
4-Chlorotoluene	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
1,3-Dichlorobenzene	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
1,4-Dichlorobenzene	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
1,2-Dichlorobenzene	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
1,2-Dibromo-3-chloropropane	ND	0.0049	EPA 8260C	8-2-13	8-2-13	
1,2,4-Trichlorobenzene	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
Hexachlorobutadiene	ND	0.0049	EPA 8260C	8-2-13	8-2-13	
1,2,3-Trichlorobenzene	ND	0.00098	EPA 8260C	8-2-13	8-2-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	129	65-129				
Toluene-d8	116	77-122				
4-Bromofluorobenzene	103	73-124				

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Page 1 of 2

Matrix: Soil Units: mg/kg

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0802S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
Chloromethane	ND	0.0050	EPA 8260C	8-2-13	8-2-13	
Vinyl Chloride	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
Bromomethane	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
Chloroethane	ND	0.0050	EPA 8260C	8-2-13	8-2-13	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
Iodomethane	ND	0.0050	EPA 8260C	8-2-13	8-2-13	
Methylene Chloride	ND	0.0050	EPA 8260C	8-2-13	8-2-13	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
Bromochloromethane	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
Chloroform	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
Trichloroethene	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
Dibromomethane	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
Bromodichloromethane	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	8-2-13	8-2-13	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-2-13	8-2-13	

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0802S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
Tetrachloroethene	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
Dibromochloromethane	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
Chlorobenzene	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
Bromoform	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
Bromobenzene	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
2-Chlorotoluene	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
4-Chlorotoluene	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	8-2-13	8-2-13	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	8-2-13	8-2-13	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	8-2-13	8-2-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	123	65-129				
Toluene-d8	121	77-122				
4-Bromofluorobenzene	110	73-124				

HALOGENATED VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

Matrix: Soil Units: mg/kg

					Per	cent	Recovery		RPD	
Analyte	Result		Spike Level		Recovery		Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB08	02S1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0474	0.0471	0.0500	0.0500	95	94	56-141	1	15	
Benzene	0.0501	0.0499	0.0500	0.0500	100	100	70-121	0	15	
Trichloroethene	0.0486	0.0493	0.0500	0.0500	97	99	74-118	1	15	
Toluene	0.0487	0.0490	0.0500	0.0500	97	98	75-120	1	15	
Chlorobenzene	0.0478	0.0477	0.0500	0.0500	96	95	75-120	0	15	
Surrogate:										
Dibromofluoromethane					111	111	65-129			
Toluene-d8					108	109	77-122			
4-Bromofluorobenzene					97	99	73-124			

TOTAL LEAD EPA 6010C

Matrix: Soil

Units: mg/kg (ppm)

				Date	Date	
Analyte	Result	PQL	EPA Method	Prepared	Analyzed	Flags
Lab ID:	08-015-08					
Client ID:	YSC Soil Cuttings Comp.					
Lead	ND	5.7	6010C	8-7-13	8-7-13	

TOTAL LEAD EPA 6010C METHOD BLANK QUALITY CONTROL

Date Extracted: 8-7-13
Date Analyzed: 8-7-13

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: MB0807SM1

Analyte Method Result PQL

Lead 6010C **ND** 5.0

TOTAL LEAD EPA 6010C DUPLICATE QUALITY CONTROL

Date Extracted: 8-7-13
Date Analyzed: 8-7-13

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 08-030-01

Sample Duplicate

Analyte Result Result RPD PQL Flags

Lead 65.5 62.6 5 5.0

TOTAL LEAD EPA 6010C MS/MSD QUALITY CONTROL

Date Extracted: 8-7-13
Date Analyzed: 8-7-13

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 08-030-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Lead	125	184	95	175	88	5	

% MOISTURE

Date Analyzed: 8-2-13

YSCG8-9 YSCGP-4A YSC Soil Cuttings Comp.	Lab ID	% Moisture	
YSCG8-9	08-015-06	16	
YSCGP-4A	08-015-07	12	
YSC Soil Cuttings Comp.	08-015-08	12	



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) 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

Chain of Custody

Standard TAT soil Saugle % Moisture and YECF-8 HCID. .0-80 Sext via courie Requested Analysis HEM by 1664 **LCLP** Metals Total RCRA Metals (8) Arats yd sebioidael A 1808 yd sebioitee PCBs by 8082 0000 1340 Laboratory Number: MIS \ G07S8 vd sHA9 Semivolatiles by 8270D / SIM Full matel 8/2/13 Volatiles by 8260B **XQ-H9TWN MYTPH-GX/BTEX** NWTPH-HCID (TPH analysis 5 working days) X 1 Day # of Cont. M 9 W 3 X Standard (7 working days) Turnaround Request (in working days) 3 3 (Check One) 3 3 2 S Herrera (other) 0001 0001 1335 ンナナン 1515 Same Day 2 Day 8/1/13 8/1/3 8/2/13 VSC Sail Cottings Comp Merrera En Visonmental 09-04193-017/003-001 **Environmental Inc.** 14648 NE 95th Street • Redmond, WA 98052 Phone: (425) 883-3881 • www.onsite-env.com Dre Carpenta Sample Identification 15CGP8-9 YSCGP-4A Project Manager: Peter Jourse SC GP-17 1/50 GP-4A 15CGP-10 15CGP-11 1/5c6P-9 SC 6-P-8 Project Name: Relinquished by Relinquished by Received by 9 00 7

DISTRIBUTION LEGEND: White - OnSite Copy Yellow - Client Copy

Reviewed by/Date

Reviewed by/Date

Relinquished by

Received by

Received by

8) Added 8/6/13 203 (5TA)

Chromatograms with final report



3600 Fremont Ave. N.
Seattle, WA 98103
T: (206) 352-3790
F: (206) 352-7178
info@fremontanalytical.com

Herrera Environmental

Peter Jowise 2200 Sixth Ave, Ste 1100 Seattle, WA 98121

RE: King County Youth Services Center

Lab ID: 1308140

September 09, 2013

Attention Peter Jowise:

Fremont Analytical, Inc. received 5 sample(s) on 8/21/2013 for the analyses presented in the following report.

Volatile Organic Compounds by EPA Method TO-15

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

MGR

Michael Dee

Sr. Chemist / Principal

CC: Jon Havelock

Date: 09/09/2013



CLIENT: Herrera Environmental Work Order Sample Summary

Project: King County Youth Services Center

Lab Order: 1308140

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
1308140-001	Alder Tower Basement Mech. R	08/21/2013 12:00 AM	08/21/2013 4:08 PM
1308140-002	Spruce Wing Detention Wing L,	08/21/2013 12:00 AM	08/21/2013 4:08 PM
1308140-003	Alder Tower Basement Storage	08/21/2013 12:00 AM	08/21/2013 4:08 PM
1308140-004	Spruce Wing Roof Above Unit 4	08/21/2013 12:00 AM	08/21/2013 4:08 PM
1308140-005	Alder Tower Penthouse HVAC A	08/21/2013 12:00 AM	08/21/2013 4:08 PM



Case Narrative

WO#: **1308140** Date: **9/9/2013**

CLIENT: Herrera Environmental

Project: King County Youth Services Center

I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

II. GENERAL REPORTING COMMENTS:

Air samples are reported in ppbv and ug/m3.

The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples to ensure method criteria are achieved throughout the entire analytical process.

III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.



Client: Herrera Environmental

WorkOrder: 1308140

Project: King County Youth Services Center

Client Sample ID: Alder Tower Basement Mech. Room Date Sampled: 8/21/2013

Lab ID: Date Received: 8/21/2013

Sample Type: Summa Canister

Analyte	Concer	Concentration		Qual	Test Method	Date Analyzed /Analyst	
	(ppbv)	(ug/m³)	(ppbv)				
Volatile Organic Compounds b	y EPA Method TO-15						
1,1-Dichloroethane	<0.200	<0.810	0.200		TO-15	08/22/2013	SG
cis-1,2-Dichloroethene	<0.200	< 0.793	0.200		TO-15	08/22/2013	SG
Tetrachloroethene (PCE)	<0.300	<2.03	0.300		TO-15	08/22/2013	SG
trans-1,2-Dichloroethene	<0.200	< 0.793	0.200		TO-15	08/22/2013	SG
Trichloroethene (TCE)	<0.200	<1.07	0.200		TO-15	08/22/2013	SG
Vinyl chloride	<0.200	<0.511	0.200		TO-15	08/22/2013	SG
Surr: 4-Bromofluorobenzene	90.4 %Rec		70-130		TO-15	08/22/2013	SG

J Analyte detected below quantitation limits

H Holding times for preparation or analysis exceeded

ND Not detected at the Reporting Limit

E Value above quantitation range

D Dilution was required



WorkOrder: 1308140

Project: King County Youth Services Center

Client Sample ID: Spruce Wing Detention Wing L, Unit 4 Date Sampled: 8/21/2013 Lab ID: Date Received: 8/21/2013

Sample Type: Summa Canister

Analyte	Concer	ntration	Reporting Limit	Qual	Test Method	Date Ana /Analy	•
	(ppbv)	(ug/m³)	(ppbv)				
Volatile Organic Compounds b	y EPA Method TO-15						
1,1-Dichloroethane	<0.200	<0.810	0.200		TO-15	08/22/2013	SG
cis-1,2-Dichloroethene	<0.200	<0.793	0.200		TO-15	08/22/2013	SG
Tetrachloroethene (PCE)	<0.300	<2.03	0.300		TO-15	08/22/2013	SG
trans-1,2-Dichloroethene	<0.200	< 0.793	0.200		TO-15	08/22/2013	SG
Trichloroethene (TCE)	<0.200	<1.07	0.200		TO-15	08/22/2013	SG
Vinyl chloride	<0.200	<0.511	0.200		TO-15	08/22/2013	SG
Surr: 4-Bromofluorobenzene	91.6 %Rec		70-130		TO-15	08/22/2013	SG

E Value above quantitation range

J Analyte detected below quantitation limits

D Dilution was required

H Holding times for preparation or analysis exceeded



WorkOrder: 1308140

Project: King County Youth Services Center

Client Sample ID: Alder Tower Basement Storage Room Date Sampled: 8/21/2013

Lab ID: Date Received: 8/21/2013

Sample Type: Summa Canister

Analyte	Concer	ntration	Reporting Limit	Qual	Test Method	Date Ana /Analy	,
	(ppbv)	(ug/m³)	(ppbv)				
Volatile Organic Compounds b	y EPA Method TO-15						
1,1-Dichloroethane	<0.200	<0.810	0.200		TO-15	08/22/2013	SG
cis-1,2-Dichloroethene	<0.200	< 0.793	0.200		TO-15	08/22/2013	SG
Tetrachloroethene (PCE)	<0.300	<2.03	0.300		TO-15	08/22/2013	SG
trans-1,2-Dichloroethene	<0.200	< 0.793	0.200		TO-15	08/22/2013	SG
Trichloroethene (TCE)	0.289	1.55	0.200		TO-15	08/22/2013	SG
Vinyl chloride	<0.200	<0.511	0.200		TO-15	08/22/2013	SG
Surr: 4-Bromofluorobenzene	91.4 %Rec		70-130		TO-15	08/22/2013	SG

J Analyte detected below quantitation limits

E Value above quantitation range

H Holding times for preparation or analysis exceeded



WorkOrder: 1308140

Project: King County Youth Services Center

Client Sample ID: Spruce Wing Roof Above Unit 4 (sample 2) Date Sampled: 8/21/2013

Lab ID: Date Received: 8/21/2013

Sample Type: Summa Canister

Analyte	Concer	ntration	Reporting Limit	Qual	Test Method	Date Ana /Analy	•
	(ppbv)	(ug/m³)	(ppbv)				
Volatile Organic Compounds b	y EPA Method TO-15						
1,1-Dichloroethane	<0.200	<0.810	0.200		TO-15	08/22/2013	SG
cis-1,2-Dichloroethene	<0.200	< 0.793	0.200		TO-15	08/22/2013	SG
Tetrachloroethene (PCE)	1.09	7.42	0.300		TO-15	08/22/2013	SG
trans-1,2-Dichloroethene	<0.200	< 0.793	0.200		TO-15	08/22/2013	SG
Trichloroethene (TCE)	<0.200	<1.07	0.200		TO-15	08/22/2013	SG
Vinyl chloride	<0.200	<0.511	0.200		TO-15	08/22/2013	SG
Surr: 4-Bromofluorobenzene	94.5 %Rec		70-130		TO-15	08/22/2013	SG

E Value above quantitation range

J Analyte detected below quantitation limits

D Dilution was required

H Holding times for preparation or analysis exceeded



WorkOrder: 1308140

Project: King County Youth Services Center

Client Sample ID: Alder Tower Penthouse HVAC Air Intake Date Sampled: 8/21/2013

Lab ID: Date Received: 8/21/2013

Sample Type: Summa Canister

Analyte	Concer	ntration	Reporting Limit	Qual	Test Method	Date Ana /Analy	•
-	(ppbv)	(ug/m³)	(ppbv)				
Volatile Organic Compounds b	y EPA Method TO-15						
1,1-Dichloroethane	<0.200	<0.810	0.200		TO-15	08/22/2013	SG
cis-1,2-Dichloroethene	<0.200	<0.793	0.200		TO-15	08/22/2013	SG
Tetrachloroethene (PCE)	<0.300	<2.03	0.300		TO-15	08/22/2013	SG
trans-1,2-Dichloroethene	<0.200	< 0.793	0.200		TO-15	08/22/2013	SG
Trichloroethene (TCE)	<0.200	<1.07	0.200		TO-15	08/22/2013	SG
Vinyl chloride	<0.200	< 0.511	0.200		TO-15	08/22/2013	SG
Surr: 4-Bromofluorobenzene	76.7 %Rec		70-130		TO-15	08/22/2013	SG

E Value above quantitation range

J Analyte detected below quantitation limits

D Dilution was required

H Holding times for preparation or analysis exceeded

Date: 9/9/2013



Work Order: 1308140

Tetrachloroethene (PCE)

Surr: 4-Bromofluorobenzene

QC SUMMARY REPORT

30

CLIENT: Herrera Environmental

Volatile Organic Compounds by EPA Method TO-15

Project: King County	Youth Services Cente	r					<u> </u>	- Compount			
Sample ID: 1308140-001AREP	SampType: REP			Units: ppbv		Prep Dat	e: 8/22/20	13	RunNo: 97 1	3	
Client ID: Alder Tower Basement	Batch ID: R9713					Analysis Dat	e: 8/22/20	13	SeqNo: 195	459	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.200						0	0	30	
trans-1,2-Dichloroethene	ND	0.200						0	0	30	
1,1-Dichloroethane	ND	0.200						0	0	30	
cis-1,2-Dichloroethene	ND	0.200						0	0	30	
Trichloroethene (TCE)	ND	0.200						0	0	30	

90.4

70

130

Sample ID: MB-R9713	SampType: MBLK			Units: ppbv		Prep Date:	8/21/2013	RunNo: 971	3	
Client ID: MBLKW	Batch ID: R9713					Analysis Date:	8/21/2013	SeqNo: 195	464	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit Hig	ghLimit RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.0850								
trans-1,2-Dichloroethene	ND	0.500								
1,1-Dichloroethane	ND	0.200								
cis-1,2-Dichloroethene	ND	0.200								
Trichloroethene (TCE)	ND	0.0170								
Tetrachloroethene (PCE)	ND	0.0500								
Surr: 4-Bromofluorobenzene	9.44		10.00		94.4	70	130			

Sample ID: LCS-R9713	SampType: LCS			Units: ppbv		Prep Dat	e: 8/21/201	13	RunNo: 971	13	
Client ID: LCSW	Batch ID: R9713					Analysis Dat	e: 8/21/201	13	SeqNo: 195	5465	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	4.81	0.0850	5.000	0	96.1	70	130				
trans-1,2-Dichloroethene	4.66	0.500	5.000	0	93.2	70	130				
1,1-Dichloroethane	4.70	0.200	5.000	0	94.0	70	130				
cis-1,2-Dichloroethene	4.64	0.200	5.000	0	92.9	70	130				

Analyte detected below quantitation limits

Analyte detected in the associated Method Blank Qualifiers:

R

D Dilution was required

ND

9.04

0.300

10.00

E Value above quantitation range ND Not detected at the Reporting Limit

Holding times for preparation or analysis exceeded

RPD outside accepted recovery limits

Reporting Limit

Spike recovery outside accepted recovery limits



Date: 9/9/2013

Work Order: 1308140

QC SUMMARY REPORT

CLIENT: Herrera Environmental

Volatile Organic Compounds by EPA Method TO-15

Project: King Coun	ty Youth Services Cent	er				volatile	Organic	Compound	as by EPA	wetnoa	10-15
Sample ID: LCS-R9713	SampType: LCS			Units: ppbv		Prep Da	te: 8/21/20	13	RunNo: 97 1	13	
Client ID: LCSW	Batch ID: R9713					Analysis Da	te: 8/21/20	13	SeqNo: 198	5465	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichloroethene (TCE)	4.59	0.0170	5.000	0	91.8	70	130				
Tetrachloroethene (PCE)	4.50	0.0500	5.000	0	89.9	70	130				
Surr: 4-Bromofluorobenzene	9 90		10 00		99.0	70	130				

Holding times for preparation or analysis exceeded

Analyte detected below quantitation limits

Reporting Limit

Value above quantitation range Е

ND Not detected at the Reporting Limit



Sample Log-In Check List

С	lient Name:	HERRERA	Work Order Numbe	er: 1308140	
Lo	ogged by:	Clare Griggs	Date Received:	8/21/201	3 4:08:00 PM
<u>Cha</u>	nin of Cust	<u>ody</u>			
1.	Is Chain of Co	ustody complete?	Yes 🗹	No \square	Not Present
2.	How was the	sample delivered?	Client		
Log	<u>ı In</u>				
3.	Coolers are p	resent?	Yes	No 🗹	NA \square
			Air Samples		
4.	Shipping conf	tainer/cooler in good condition?	Yes 🗹	No \square	
5.	Custody seals	s intact on shipping container/cooler?	Yes	No \square	Not Required 🗹
6.	Was an atten	npt made to cool the samples?	Yes	No 🗆	NA 🗹
7.	Were all coole	ers received at a temperature of >0°C to 10.0°C	Yes	No \square	NA 🗹
8.	Sample(s) in	proper container(s)?	Yes 🗸	No \square	
9.	Sufficient san	nple volume for indicated test(s)?	Yes 🗹	No \square	
10.	Are samples	properly preserved?	Yes 🗹	No \square	
11.	Was preserva	ative added to bottles?	Yes	No 🗹	NA 🗆
12.	Is the headsp	ace in the VOA vials?	Yes	No 🗌	NA 🗹
		es containers arrive in good condition(unbroken)?	Yes 🗹	No \square	
14.	Does paperwo	ork match bottle labels?	Yes 🗸	No \square	
15.	Are matrices	correctly identified on Chain of Custody?	Yes 🗹	No 🗌	
		at analyses were requested?	Yes 🗹	No \square	
17.	Were all hold	ing times able to be met?	Yes 🗹	No \square	
Spe	cial Handl	ing (if applicable)			
		otified of all discrepancies with this order?	Yes	No \square	NA 🗹
	Person	Notified: Date:			
	By Who		,	ne 🗌 Fax	☐ In Person
	Regardi				
		estructions:			

19. Additional remarks:

Item Information

Fre	emont									Air Chain or Custody Record	oay ke	COLC
3600 Fremont Ave N. Sentife, WA 98103	Tel: 206-352-3750 Fox: 206-352-7178	3750		Date:	8	8/21/13	0			Laboratory Project No linternal): Page: of:	1	
Clear	Herrera							Project Name:	ë	King County Youth Services Center		
Address:	2200 Sixth Ave, Suite 100	ive, Suite 10	0			Ĩ		Location		1211 E. Alder St., Seattle, Wa		
City, State, Zip	Sea, WA 98121	121	I	Tel:	206-787-8220	g		Collected by:		Jon A. Havelock, Med-Tox Northwest		
Reports To (PIM):	Peter Jowise			Email:	pjowise@herrerainc.com	errerainc.com	F			Project No: 09-04193-017		
Sample Name	Canister Serial #	Sample Date	(M.t. A.) Sample Time	Indoor/ Outdoor	Sample Volume	Container Type	Lab Cert. Vacuum Pressure	mitial Field Sample Pressure	Final Field Sample Pressure	Analysis Recuested	Internal Receipt Date Fin	mal Final (ps
1. Alder Tower Basement mech. Room	13967	8/21/2013	487			Summa	-30" Hg	30	8.75	PC. TeE, 6131,2-1000	et 8/21/13	10
2. Spruce Wing Detention Wing I, Unit 4	13968	8/21/2013	413	_		Summa	-30" Hg	39	80	towns 1,3-Dec, vind	-	10
3. Alder Tower Basement storage room	13970	8/21/2013	475			Summa	-30" Hg	29	=	aloride and		0
4. Spruce Wing Roof above Unit 4 (sample 2)	13972	8/21/2013	87272013 475	0		Summa	-30" Hg	39.5	D	1, 1-dollasothane		무
5. Alder Tower Penthouse HVAC sir intake	13975	8/21/2013	430	0		Summa	-30" НЕ 39.5	29.5	17		7	2
1 0											-	
. 50												
g												
c.												
ndition:	A. Carrier	Seals Intact:	1 12	N/N		l in				Special Renarks: 24-N.Y		
A Warke	108	100		3	00	200	13	1608				
California (Date / Hills		vecemen		nan n) mme						



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

September 16, 2013

Peter Jowise Herrera Environmental Consultants, Inc. 2200 6th Avenue, Suite 1100 Seattle, WA 98121

Re: Analytical Data for Project 09-04193-017/003-001

Laboratory Reference No. 1309-028

Dear Peter:

Enclosed are the analytical results and associated quality control data for samples submitted on September 5, 2013.

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,

David Baumeister Project Manager

Enclosures

Date of Report: September 16, 2013 Samples Submitted: September 5, 2013 Laboratory Reference: 1309-028

Project: 09-04193-017/003-001

Case Narrative

Samples were collected on September 4 and 5, 2013 and received by the laboratory on September 5, 2013. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

Halogenated 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.

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.

NWTPH-HCID

Matrix: Soil

units: mg/kg (ppm)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP19-2					
Laboratory ID:	09-028-01					
Gasoline Range Organics	ND	26	NWTPH-HCID	9-9-13	9-9-13	
Diesel Range Organics	ND	64	NWTPH-HCID	9-9-13	9-9-13	
Lube Oil	Detected	130	NWTPH-HCID	9-9-13	9-9-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	100	50-150				
Client ID:	GP20-4					
Laboratory ID:	09-028-04					
Gasoline Range Organics	ND	25	NWTPH-HCID	9-9-13	9-9-13	
Diesel Range Organics	ND	63	NWTPH-HCID	9-9-13	9-9-13	
Lube Oil Range Organics	ND	130	NWTPH-HCID	9-9-13	9-9-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	96	50-150				
Client ID:	GP21-3					
Laboratory ID:	09-028-06					
Gasoline Range Organics	ND	24	NWTPH-HCID	9-9-13	9-9-13	
Diesel Range Organics	ND	60	NWTPH-HCID	9-9-13	9-9-13	
Lube Oil Range Organics	ND	120	NWTPH-HCID	9-9-13	9-9-13	
Surrogate:	Percent Recovery	Control Limits			•	
o-Terphenyl	96	50-150				
Client ID:	GP22-8					
Laboratory ID:	09-028-09					
Gasoline Range Organics	ND	23	NWTPH-HCID	9-9-13	9-9-13	
Diesel Range Organics	ND	58	NWTPH-HCID	9-9-13	9-9-13	
Lube Oil	Detected	120	NWTPH-HCID	9-9-13	9-9-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	98	50-150				
, ,						
Client ID:	GP26-3					
Laboratory ID:	09-028-12					
Gasoline Range Organics	ND	22	NWTPH-HCID	9-9-13	9-9-13	
Diesel Range Organics	ND	56	NWTPH-HCID	9-9-13	9-9-13	
Lube Oil	Detected	110	NWTPH-HCID	9-9-13	9-9-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	100	50-150				
o . o.p.ionyi	700	00 100				

NWTPH-HCID

Matrix: Soil

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP33-4					
Laboratory ID:	09-028-15					
Gasoline Range Organics	ND	23	NWTPH-HCID	9-9-13	9-9-13	
Diesel Range Organics	ND	57	NWTPH-HCID	9-9-13	9-9-13	
Lube Oil Range Organics	ND	110	NWTPH-HCID	9-9-13	9-9-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	98	50-150				
Client ID:	GP28-9					
Laboratory ID:	09-028-16					
Gasoline Range Organics	ND	25	NWTPH-HCID	9-9-13	9-9-13	
Diesel Fuel #2	Detected	61	NWTPH-HCID	9-9-13	9-9-13	N
Lube Oil	Detected	120	NWTPH-HCID	9-9-13	9-9-13	
Surrogate: o-Terphenyl	Percent Recovery 103	Control Limits 50-150				

NWTPH-HCID QUALITY CONTROL

Matrix: Soil

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK					,	- 3 -
Laboratory ID:	MB0909S1					
Gasoline Range Organics	ND	20	NWTPH-HCID	9-9-13	9-9-13	_
Diesel Range Organics	ND	50	NWTPH-HCID	9-9-13	9-9-13	
Lube Oil Range Organics	ND	100	NWTPH-HCID	9-9-13	9-9-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	103	50-150				

NWTPH-Dx

Matrix: Soil

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP19-2					
Laboratory ID:	09-028-01					
Diesel Range Organics	ND	35	NWTPH-Dx	9-12-13	9-12-13	U1
Lube Oil	340	64	NWTPH-Dx	9-12-13	9-12-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	75	50-150				
Client ID:	GP22-8					
Laboratory ID:	09-028-09					
Diesel Range Organics	ND	29	NWTPH-Dx	9-12-13	9-12-13	
Lube Oil	93	58	NWTPH-Dx	9-12-13	9-12-13	
Surrogate:	Percent Recovery	Control Limits	TTTT DX	0 12 10	0 12 10	
o-Terphenyl	77	50-150				
Client ID:	GP26-3					
Laboratory ID:	09-028-12					
Diesel Range Organics	ND	28	NWTPH-Dx	9-12-13	9-12-13	
Lube Oil	190	56	NWTPH-Dx	9-12-13	9-12-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	85	50-150				
•						
Client ID:	GP28-9					
Laboratory ID:	09-028-16					
Diesel Fuel #2	120	31	NWTPH-Dx	9-12-13	9-12-13	N
Lube Oil	1500	61	NWTPH-Dx	9-12-13	9-12-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	84	50-150				

NWTPH-Dx QUALITY CONTROL

Matrix: Soil

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0912S1					
Diesel Range Organics	ND	25	NWTPH-Dx	9-12-13	9-12-13	_
Lube Oil Range Organics	ND	50	NWTPH-Dx	9-12-13	9-12-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	80	50-150				

			Per	cent	Recovery		RPD	
Analyte	Res	sult	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE								
Laboratory ID:	09-02	28-12						
	ORIG	DUP						
Diesel Range Organics	ND	ND				NA	NA	
Lube Oil	167	94.2				56	NA	
Surrogate:								
o-Terphenyl			85	<i>75</i>	50-150			

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

Simo: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP19-2			•	•	
Laboratory ID:	09-028-01					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
Chloromethane	ND	0.0064	EPA 8260C	9-15-13	9-15-13	
Vinyl Chloride	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
Bromomethane	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
Chloroethane	ND	0.0064	EPA 8260C	9-15-13	9-15-13	
Trichlorofluoromethane	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
1,1-Dichloroethene	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
lodomethane	ND	0.0064	EPA 8260C	9-15-13	9-15-13	
Methylene Chloride	ND	0.0064	EPA 8260C	9-15-13	9-15-13	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
1,1-Dichloroethane	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
2,2-Dichloropropane	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
Bromochloromethane	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
Chloroform	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
Carbon Tetrachloride	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
1,1-Dichloropropene	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
1,2-Dichloroethane	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
Trichloroethene	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
1,2-Dichloropropane	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
Dibromomethane	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
Bromodichloromethane	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
2-Chloroethyl Vinyl Ether	ND	0.15	EPA 8260C	9-15-13	9-15-13	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-15-13	9-15-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP19-2					
Laboratory ID:	09-028-01					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
Tetrachloroethene	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
1,3-Dichloropropane	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
Dibromochloromethane	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
1,2-Dibromoethane	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
Chlorobenzene	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
Bromoform	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
Bromobenzene	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
2-Chlorotoluene	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
4-Chlorotoluene	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
1,2-Dibromo-3-chloropropane	ND	0.0064	EPA 8260C	9-15-13	9-15-13	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
Hexachlorobutadiene	ND	0.0064	EPA 8260C	9-15-13	9-15-13	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260C	9-15-13	9-15-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	114	65-129				
Toluene-d8	115	77-122				
4-Bromofluorobenzene	96	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

Sime: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP19-14				•	
Laboratory ID:	09-028-02					
Dichlorodifluoromethane	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
Chloromethane	ND	0.0039	EPA 8260C	9-15-13	9-15-13	
Vinyl Chloride	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
Bromomethane	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
Chloroethane	ND	0.0039	EPA 8260C	9-15-13	9-15-13	
Trichlorofluoromethane	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
1,1-Dichloroethene	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
lodomethane	ND	0.0039	EPA 8260C	9-15-13	9-15-13	
Methylene Chloride	ND	0.0039	EPA 8260C	9-15-13	9-15-13	
(trans) 1,2-Dichloroethene	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
1,1-Dichloroethane	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
2,2-Dichloropropane	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
(cis) 1,2-Dichloroethene	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
Bromochloromethane	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
Chloroform	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
1,1,1-Trichloroethane	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
Carbon Tetrachloride	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
1,1-Dichloropropene	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
1,2-Dichloroethane	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
Trichloroethene	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
1,2-Dichloropropane	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
Dibromomethane	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
Bromodichloromethane	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
2-Chloroethyl Vinyl Ether	ND	0.094	EPA 8260C	9-15-13	9-15-13	
(cis) 1,3-Dichloropropene	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
(trans) 1,3-Dichloropropene	ND	0.00078	EPA 8260C	9-15-13	9-15-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP19-14					
Laboratory ID:	09-028-02					
1,1,2-Trichloroethane	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
Tetrachloroethene	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
1,3-Dichloropropane	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
Dibromochloromethane	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
1,2-Dibromoethane	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
Chlorobenzene	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
1,1,1,2-Tetrachloroethane	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
Bromoform	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
Bromobenzene	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
1,1,2,2-Tetrachloroethane	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
1,2,3-Trichloropropane	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
2-Chlorotoluene	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
4-Chlorotoluene	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
1,3-Dichlorobenzene	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
1,4-Dichlorobenzene	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
1,2-Dichlorobenzene	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
1,2-Dibromo-3-chloropropane	ND	0.0039	EPA 8260C	9-15-13	9-15-13	
1,2,4-Trichlorobenzene	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
Hexachlorobutadiene	ND	0.0039	EPA 8260C	9-15-13	9-15-13	
1,2,3-Trichlorobenzene	ND	0.00078	EPA 8260C	9-15-13	9-15-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	116	65-129				
Toluene-d8	119	77-122				
4-Bromofluorobenzene	112	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

55g,g				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP20-4			•	•	
Laboratory ID:	09-028-04					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
Chloromethane	ND	0.0061	EPA 8260C	9-15-13	9-15-13	
Vinyl Chloride	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
Bromomethane	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
Chloroethane	ND	0.0061	EPA 8260C	9-15-13	9-15-13	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
Iodomethane	ND	0.0061	EPA 8260C	9-15-13	9-15-13	
Methylene Chloride	ND	0.0061	EPA 8260C	9-15-13	9-15-13	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
Bromochloromethane	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
Chloroform	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
Trichloroethene	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
Dibromomethane	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
Bromodichloromethane	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
2-Chloroethyl Vinyl Ether	ND	0.15	EPA 8260C	9-15-13	9-15-13	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-15-13	9-15-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP20-4					
Laboratory ID:	09-028-04					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
Tetrachloroethene	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
Dibromochloromethane	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
Chlorobenzene	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
Bromoform	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
Bromobenzene	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
2-Chlorotoluene	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
4-Chlorotoluene	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
1,2-Dibromo-3-chloropropane	ND	0.0061	EPA 8260C	9-15-13	9-15-13	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
Hexachlorobutadiene	ND	0.0061	EPA 8260C	9-15-13	9-15-13	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	9-15-13	9-15-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	114	65-129				
Toluene-d8	116	77-122				
4-Bromofluorobenzene	95	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ome: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP20-12			•	•	
Laboratory ID:	09-028-05					
Dichlorodifluoromethane	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
Chloromethane	ND	0.0048	EPA 8260C	9-15-13	9-15-13	
Vinyl Chloride	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
Bromomethane	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
Chloroethane	ND	0.0048	EPA 8260C	9-15-13	9-15-13	
Trichlorofluoromethane	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
1,1-Dichloroethene	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
lodomethane	ND	0.0048	EPA 8260C	9-15-13	9-15-13	
Methylene Chloride	ND	0.0048	EPA 8260C	9-15-13	9-15-13	
(trans) 1,2-Dichloroethene	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
1,1-Dichloroethane	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
2,2-Dichloropropane	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
(cis) 1,2-Dichloroethene	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
Bromochloromethane	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
Chloroform	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
1,1,1-Trichloroethane	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
Carbon Tetrachloride	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
1,1-Dichloropropene	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
1,2-Dichloroethane	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
Trichloroethene	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
1,2-Dichloropropane	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
Dibromomethane	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
Bromodichloromethane	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
2-Chloroethyl Vinyl Ether	ND	0.12	EPA 8260C	9-15-13	9-15-13	
(cis) 1,3-Dichloropropene	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
(trans) 1,3-Dichloropropene	ND	0.00097	EPA 8260C	9-15-13	9-15-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP20-12					
Laboratory ID:	09-028-05					
1,1,2-Trichloroethane	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
Tetrachloroethene	0.037	0.00097	EPA 8260C	9-15-13	9-15-13	
1,3-Dichloropropane	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
Dibromochloromethane	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
1,2-Dibromoethane	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
Chlorobenzene	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
1,1,1,2-Tetrachloroethane	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
Bromoform	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
Bromobenzene	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
1,1,2,2-Tetrachloroethane	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
1,2,3-Trichloropropane	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
2-Chlorotoluene	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
4-Chlorotoluene	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
1,3-Dichlorobenzene	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
1,4-Dichlorobenzene	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
1,2-Dichlorobenzene	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
1,2-Dibromo-3-chloropropane	ND	0.0048	EPA 8260C	9-15-13	9-15-13	
1,2,4-Trichlorobenzene	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
Hexachlorobutadiene	ND	0.0048	EPA 8260C	9-15-13	9-15-13	
1,2,3-Trichlorobenzene	ND	0.00097	EPA 8260C	9-15-13	9-15-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	115	65-129				
Toluene-d8	118	77-122				
4-Bromofluorobenzene	111	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

Cinic. Ingrig				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP21-3					11190
Laboratory ID:	09-028-06					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Chloromethane	ND	0.0051	EPA 8260C	9-15-13	9-16-13	
Vinyl Chloride	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Bromomethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Chloroethane	ND	0.0051	EPA 8260C	9-15-13	9-16-13	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Iodomethane	ND	0.0051	EPA 8260C	9-15-13	9-16-13	
Methylene Chloride	ND	0.0051	EPA 8260C	9-15-13	9-16-13	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Bromochloromethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Chloroform	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Trichloroethene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Dibromomethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Bromodichloromethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
2-Chloroethyl Vinyl Ether	ND	0.12	EPA 8260C	9-15-13	9-16-13	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP21-3					
Laboratory ID:	09-028-06					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Tetrachloroethene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Dibromochloromethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Chlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Bromoform	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Bromobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
2-Chlorotoluene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
4-Chlorotoluene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,2-Dibromo-3-chloropropane	e ND	0.0051	EPA 8260C	9-15-13	9-16-13	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Hexachlorobutadiene	ND	0.0051	EPA 8260C	9-15-13	9-16-13	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	116	65-129				
Toluene-d8	116	77-122				
4-Bromofluorobenzene	110	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ome: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP21-15			- 1		
Laboratory ID:	09-028-07					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Chloromethane	ND	0.0058	EPA 8260C	9-15-13	9-16-13	
Vinyl Chloride	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Bromomethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Chloroethane	ND	0.0058	EPA 8260C	9-15-13	9-16-13	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
lodomethane	ND	0.0058	EPA 8260C	9-15-13	9-16-13	
Methylene Chloride	ND	0.0058	EPA 8260C	9-15-13	9-16-13	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Bromochloromethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Chloroform	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Trichloroethene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Dibromomethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Bromodichloromethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
2-Chloroethyl Vinyl Ether	ND	0.14	EPA 8260C	9-15-13	9-16-13	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP21-15					
Laboratory ID:	09-028-07					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Tetrachloroethene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Dibromochloromethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Chlorobenzene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Bromoform	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Bromobenzene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
2-Chlorotoluene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
4-Chlorotoluene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260C	9-15-13	9-16-13	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Hexachlorobutadiene	ND	0.0058	EPA 8260C	9-15-13	9-16-13	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	116	65-129				
Toluene-d8	120	77-122				
4-Bromofluorobenzene	110	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

Simo: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP22-8			-1	, ,	<u></u>
Laboratory ID:	09-028-09					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Chloromethane	ND	0.0054	EPA 8260C	9-15-13	9-16-13	
Vinyl Chloride	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Bromomethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Chloroethane	ND	0.0054	EPA 8260C	9-15-13	9-16-13	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
lodomethane	ND	0.0054	EPA 8260C	9-15-13	9-16-13	
Methylene Chloride	ND	0.0054	EPA 8260C	9-15-13	9-16-13	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Bromochloromethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Chloroform	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Trichloroethene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Dibromomethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Bromodichloromethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
2-Chloroethyl Vinyl Ether	ND	0.13	EPA 8260C	9-15-13	9-16-13	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP22-8					
Laboratory ID:	09-028-09					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Tetrachloroethene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Dibromochloromethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Chlorobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Bromoform	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Bromobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
2-Chlorotoluene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
4-Chlorotoluene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,2-Dibromo-3-chloropropane	e ND	0.0054	EPA 8260C	9-15-13	9-16-13	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Hexachlorobutadiene	ND	0.0054	EPA 8260C	9-15-13	9-16-13	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	114	65-129				
Toluene-d8	116	77-122				
4-Bromofluorobenzene	107	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

55g,g				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP22-18			- 1		
Laboratory ID:	09-028-10					
Dichlorodifluoromethane	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
Chloromethane	ND	0.0046	EPA 8260C	9-15-13	9-16-13	
Vinyl Chloride	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
Bromomethane	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
Chloroethane	ND	0.0046	EPA 8260C	9-15-13	9-16-13	
Trichlorofluoromethane	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloroethene	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
lodomethane	ND	0.0046	EPA 8260C	9-15-13	9-16-13	
Methylene Chloride	ND	0.0046	EPA 8260C	9-15-13	9-16-13	
(trans) 1,2-Dichloroethene	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloroethane	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
2,2-Dichloropropane	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
(cis) 1,2-Dichloroethene	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
Bromochloromethane	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
Chloroform	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
1,1,1-Trichloroethane	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
Carbon Tetrachloride	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloropropene	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
1,2-Dichloroethane	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
Trichloroethene	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
1,2-Dichloropropane	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
Dibromomethane	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
Bromodichloromethane	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
2-Chloroethyl Vinyl Ether	ND	0.11	EPA 8260C	9-15-13	9-16-13	
(cis) 1,3-Dichloropropene	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
(trans) 1,3-Dichloropropene	ND	0.00092	EPA 8260C	9-15-13	9-16-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP22-18					
Laboratory ID:	09-028-10					
1,1,2-Trichloroethane	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
Tetrachloroethene	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
1,3-Dichloropropane	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
Dibromochloromethane	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
1,2-Dibromoethane	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
Chlorobenzene	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
1,1,1,2-Tetrachloroethane	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
Bromoform	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
Bromobenzene	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
1,1,2,2-Tetrachloroethane	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
1,2,3-Trichloropropane	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
2-Chlorotoluene	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
4-Chlorotoluene	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
1,3-Dichlorobenzene	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
1,4-Dichlorobenzene	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
1,2-Dichlorobenzene	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
1,2-Dibromo-3-chloropropane	e ND	0.0046	EPA 8260C	9-15-13	9-16-13	
1,2,4-Trichlorobenzene	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
Hexachlorobutadiene	ND	0.0046	EPA 8260C	9-15-13	9-16-13	
1,2,3-Trichlorobenzene	ND	0.00092	EPA 8260C	9-15-13	9-16-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	116	65-129				
Toluene-d8	120	77-122				
4-Bromofluorobenzene	113	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ome: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP26-3			- 1		
Laboratory ID:	09-028-12					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Chloromethane	ND	0.0060	EPA 8260C	9-15-13	9-16-13	
Vinyl Chloride	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Bromomethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Chloroethane	ND	0.0060	EPA 8260C	9-15-13	9-16-13	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
lodomethane	ND	0.0060	EPA 8260C	9-15-13	9-16-13	
Methylene Chloride	ND	0.0060	EPA 8260C	9-15-13	9-16-13	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Bromochloromethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Chloroform	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Trichloroethene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Dibromomethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Bromodichloromethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
2-Chloroethyl Vinyl Ether	ND	0.14	EPA 8260C	9-15-13	9-16-13	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP26-3					
Laboratory ID:	09-028-12					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Tetrachloroethene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Dibromochloromethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Chlorobenzene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Bromoform	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Bromobenzene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
2-Chlorotoluene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
4-Chlorotoluene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
1,2-Dibromo-3-chloropropane	ND	0.0060	EPA 8260C	9-15-13	9-16-13	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Hexachlorobutadiene	ND	0.0060	EPA 8260C	9-15-13	9-16-13	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	9-15-13	9-16-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	115	65-129				
Toluene-d8	115	77-122				
4-Bromofluorobenzene	106	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

55g,g				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP26-24			•	•	
Laboratory ID:	09-028-13					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Chloromethane	ND	0.0050	EPA 8260C	9-15-13	9-16-13	
Vinyl Chloride	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Bromomethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Chloroethane	ND	0.0050	EPA 8260C	9-15-13	9-16-13	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Iodomethane	ND	0.0050	EPA 8260C	9-15-13	9-16-13	
Methylene Chloride	ND	0.0050	EPA 8260C	9-15-13	9-16-13	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Bromochloromethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Chloroform	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Trichloroethene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Dibromomethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Bromodichloromethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
2-Chloroethyl Vinyl Ether	ND	0.12	EPA 8260C	9-15-13	9-16-13	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP26-24					
Laboratory ID:	09-028-13					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Tetrachloroethene	0.0061	0.0010	EPA 8260C	9-15-13	9-16-13	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Dibromochloromethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Chlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Bromoform	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Bromobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
2-Chlorotoluene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
4-Chlorotoluene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,2-Dibromo-3-chloropropane	e ND	0.0050	EPA 8260C	9-15-13	9-16-13	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	9-15-13	9-16-13	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	115	65-129				
Toluene-d8	116	77-122				
		70.404				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ormo: mg/ng					_	
Amalaka	Decel	DO!	B. B. a. A. la . a. al	Date	Date	- 1
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP33-4					
Laboratory ID:	09-028-15					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Chloromethane	ND	0.0054	EPA 8260C	9-15-13	9-16-13	
Vinyl Chloride	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Bromomethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Chloroethane	ND	0.0054	EPA 8260C	9-15-13	9-16-13	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Iodomethane	ND	0.0054	EPA 8260C	9-15-13	9-16-13	
Methylene Chloride	ND	0.0054	EPA 8260C	9-15-13	9-16-13	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Bromochloromethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Chloroform	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Trichloroethene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Dibromomethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Bromodichloromethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
2-Chloroethyl Vinyl Ether	ND	0.13	EPA 8260C	9-15-13	9-16-13	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP33-4					
Laboratory ID:	09-028-15					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Tetrachloroethene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Dibromochloromethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Chlorobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Bromoform	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Bromobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
2-Chlorotoluene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
4-Chlorotoluene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260C	9-15-13	9-16-13	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Hexachlorobutadiene	ND	0.0054	EPA 8260C	9-15-13	9-16-13	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	113	65-129				
Toluene-d8	117	77-122				
4-Bromofluorobenzene	108	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

Matrix: Soil Units: mg/kg

ome: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP28-9			-1	, ,	<u></u>
Laboratory ID:	09-028-16					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Chloromethane	ND	0.0053	EPA 8260C	9-15-13	9-16-13	
Vinyl Chloride	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Bromomethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Chloroethane	ND	0.0053	EPA 8260C	9-15-13	9-16-13	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
lodomethane	ND	0.0053	EPA 8260C	9-15-13	9-16-13	
Methylene Chloride	ND	0.0053	EPA 8260C	9-15-13	9-16-13	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Bromochloromethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Chloroform	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Trichloroethene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Dibromomethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Bromodichloromethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
2-Chloroethyl Vinyl Ether	ND	0.13	EPA 8260C	9-15-13	9-16-13	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP28-9					
Laboratory ID:	09-028-16					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Tetrachloroethene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Dibromochloromethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Chlorobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Bromoform	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Bromobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
2-Chlorotoluene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
4-Chlorotoluene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260C	9-15-13	9-16-13	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Hexachlorobutadiene	ND	0.0053	EPA 8260C	9-15-13	9-16-13	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	9-15-13	9-16-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	118	65-129				
Toluene-d8	119	77-122				
4-Bromofluorobenzene	110	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

Matrix: Soil Units: mg/kg

ome: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP28-18			•	•	
Laboratory ID:	09-028-17					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Chloromethane	ND	0.0050	EPA 8260C	9-15-13	9-16-13	
Vinyl Chloride	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Bromomethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Chloroethane	ND	0.0050	EPA 8260C	9-15-13	9-16-13	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
lodomethane	ND	0.0050	EPA 8260C	9-15-13	9-16-13	
Methylene Chloride	ND	0.0050	EPA 8260C	9-15-13	9-16-13	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Bromochloromethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Chloroform	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Trichloroethene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Dibromomethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Bromodichloromethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
2-Chloroethyl Vinyl Ether	ND	0.12	EPA 8260C	9-15-13	9-16-13	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP28-18					
Laboratory ID:	09-028-17					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Tetrachloroethene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Dibromochloromethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Chlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Bromoform	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Bromobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
2-Chlorotoluene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
4-Chlorotoluene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	9-15-13	9-16-13	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	9-15-13	9-16-13	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-16-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	109	65-129				
Toluene-d8	108	77-122				
4-Bromofluorobenzene	96	73-124				

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

page 1 of 2

Matrix: Soil Units: mg/kg

ome: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0915S2					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
Chloromethane	ND	0.0050	EPA 8260C	9-15-13	9-15-13	
Vinyl Chloride	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
Bromomethane	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
Chloroethane	ND	0.0050	EPA 8260C	9-15-13	9-15-13	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
Iodomethane	ND	0.0050	EPA 8260C	9-15-13	9-15-13	
Methylene Chloride	ND	0.0050	EPA 8260C	9-15-13	9-15-13	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
Bromochloromethane	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
Chloroform	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
Trichloroethene	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
Dibromomethane	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
Bromodichloromethane	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
2-Chloroethyl Vinyl Ether	ND	0.12	EPA 8260C	9-15-13	9-15-13	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-15-13	9-15-13	

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

page 2 of 2

Laboratory ID: MB0915S2 1,1,2-Trichloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Tetrachloroethene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,3-Dichloropropane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Dibromochloromethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dibromoethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,1,1,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,1,1,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromoform ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,1,2,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,1,2,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichloropropane ND 0.0010 EPA 8260C 9-15-13 9-15-13					Date	Date	
1,1,2-Trichloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Tetrachloroethene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,3-Dichloropropane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Dibromochloromethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dibromoethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Chlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,1,1,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromoform ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromoform ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromoform ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromoform ND 0.0010 EPA 8260C 9-15-13	Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
1,1,2-Trichloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Tetrachloroethene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,3-Dichloropropane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Dibromochloromethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dibromoethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Chlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,1,1,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromoform ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromoform ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromoform ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromoform ND 0.0010 EPA 8260C 9-15-13							
Tetrachloroethene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,3-Dichloropropane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Dibromochloromethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dibromoethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Chlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,1,1,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromoform ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichloropropane ND 0.0010 EPA 8260C 9-15-13 9-15-13 2-Chlorotoluene ND 0.0010 EPA 8260C							
1,3-Dichloropropane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Dibromochloromethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dibromoethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Chlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,1,1,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromoform ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichloropropane ND 0.0010 EPA 8260C 9-15-13 9-15-13 2-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 4-Chlorotoluene ND 0.0010 EPA 8260C	1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
Dibromochloromethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dibromoethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,1,1,2-Dibromoethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,1,1,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromoform ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichloropenpane ND 0.0010 EPA 8260C 9-15-13 9-15-13 4-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 4-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dichlorobenzene ND 0.0010 EPA 8260C	Tetrachloroethene	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
1,2-Dibromoethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Chlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,1,1,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromoform ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,1,2,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichloropropane ND 0.0010 EPA 8260C 9-15-13 9-15-13 2-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 4-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,3-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,4-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dibromo-3-chloropropane ND	1,3-Dichloropropane	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
Chlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,1,1,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromoform ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,1,2,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichloropropane ND 0.0010 EPA 8260C 9-15-13 9-15-13 2-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 4-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 4-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,3-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dibromo-3-chloropropane ND 0.0050 EPA 826	Dibromochloromethane	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
1,1,1,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromoform ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,1,2,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichloropropane ND 0.0010 EPA 8260C 9-15-13 9-15-13 2-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 4-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dibromo-3-chloropropane ND 0.0050 EPA 8260C	1,2-Dibromoethane	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
Bromoform ND 0.0010 EPA 8260C 9-15-13 9-15-13 Bromobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,1,2,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichloropropane ND 0.0010 EPA 8260C 9-15-13 9-15-13 2-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 4-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dibromo-3-chloropropane ND 0.0050 EPA 8260C 9-15-13 9-15-13 Hexachlorobutadiene ND 0.0010 EPA 8260C	Chlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
Bromobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,1,2,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichloropropane ND 0.0010 EPA 8260C 9-15-13 9-15-13 2-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 4-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,3-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,4-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dibromo-3-chloropropane ND 0.0050 EPA 8260C 9-15-13 9-15-13 1,2,4-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 2,3-Trichlorobenzene ND 0.0010 <td>1,1,1,2-Tetrachloroethane</td> <td>ND</td> <td>0.0010</td> <td>EPA 8260C</td> <td>9-15-13</td> <td>9-15-13</td> <td></td>	1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
1,1,2,2-Tetrachloroethane ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichloropropane ND 0.0010 EPA 8260C 9-15-13 9-15-13 2-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 4-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,3-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,4-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dibromo-3-chloropropane ND 0.0050 EPA 8260C 9-15-13 9-15-13 1,2,4-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichlorobenzene ND 0.0050 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichlor	Bromoform	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
1,2,3-Trichloropropane ND 0.0010 EPA 8260C 9-15-13 9-15-13 2-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 4-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,3-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,4-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dibromo-3-chloropropane ND 0.0050 EPA 8260C 9-15-13 9-15-13 1,2,4-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Hexachlorobutadiene ND 0.0050 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 113 65-129 Tolue	Bromobenzene	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
2-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 4-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,3-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,4-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dibromo-3-chloropropane ND 0.0050 EPA 8260C 9-15-13 9-15-13 1,2,4-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Hexachlorobutadiene ND 0.0050 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 113 65-129 Toluene-d8 115 77-122	1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
4-Chlorotoluene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,3-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,4-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dibromo-3-chloropropane ND 0.0050 EPA 8260C 9-15-13 9-15-13 1,2,4-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Hexachlorobutadiene ND 0.0050 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 113 65-129 Toluene-d8 115 77-122	1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
1,3-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,4-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dibromo-3-chloropropane ND 0.0050 EPA 8260C 9-15-13 9-15-13 1,2,4-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Hexachlorobutadiene ND 0.0050 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 113 65-129 Toluene-d8 115 77-122	2-Chlorotoluene	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
1,4-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dibromo-3-chloropropane ND 0.0050 EPA 8260C 9-15-13 9-15-13 1,2,4-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Hexachlorobutadiene ND 0.0050 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 113 65-129 Toluene-d8 115 77-122	4-Chlorotoluene	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
1,2-Dichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 1,2-Dibromo-3-chloropropane ND 0.0050 EPA 8260C 9-15-13 9-15-13 1,2,4-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Hexachlorobutadiene ND 0.0050 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 113 65-129 Toluene-d8 115 77-122	1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
1,2-Dibromo-3-chloropropane ND 0.0050 EPA 8260C 9-15-13 9-15-13 1,2,4-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Hexachlorobutadiene ND 0.0050 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 113 65-129 Toluene-d8 115 77-122	1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
1,2,4-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Hexachlorobutadiene ND 0.0050 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 113 65-129 Toluene-d8 115 77-122	1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
Hexachlorobutadiene ND 0.0050 EPA 8260C 9-15-13 9-15-13 1,2,3-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 113 65-129 Toluene-d8 115 77-122	1,2-Dibromo-3-chloropropane	ND ND	0.0050	EPA 8260C	9-15-13	9-15-13	
1,2,3-Trichlorobenzene ND 0.0010 EPA 8260C 9-15-13 9-15-13 Surrogate: Percent Recovery Control Limits Dibromofluoromethane 113 65-129 Toluene-d8 115 77-122	1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
Surrogate: Percent Recovery Control Limits Dibromofluoromethane 113 65-129 Toluene-d8 115 77-122	Hexachlorobutadiene	ND	0.0050	EPA 8260C	9-15-13	9-15-13	
Dibromofluoromethane 113 65-129 Toluene-d8 115 77-122	1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	9-15-13	9-15-13	
Dibromofluoromethane 113 65-129 Toluene-d8 115 77-122	Surrogate:	Percent Recovery	Control Limits				
	Dibromofluoromethane		65-129				
4-Bromofluorobenzene 110 73-124	Toluene-d8	115	77-122				
	4-Bromofluorobenzene	110	73-124				

HALOGENATED VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

Matrix: Soil Units: mg/kg

					Per	cent	Recovery		RPD	
Analyte	Result		Spike	Spike Level		Recovery		RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB09	15S2								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0481	0.0478	0.0500	0.0500	96	96	56-141	1	15	
Benzene	0.0558	0.0536	0.0500	0.0500	112	107	70-121	4	15	
Trichloroethene	0.0501	0.0485	0.0500	0.0500	100	97	74-118	3	15	
Toluene	0.0524	0.0514	0.0500	0.0500	105	103	75-120	2	15	
Chlorobenzene	0.0547	0.0524	0.0500	0.0500	109	105	75-120	4	15	
Surrogate:										
Dibromofluoromethane					107	107	65-129			
Toluene-d8					105	111	77-122			
4-Bromofluorobenzene					103	104	73-124			

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

Date

Date

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP19					
Laboratory ID:	09-028-03					
Dichlorodifluoromethane	ND	0.40	EPA 8260C	9-9-13	9-9-13	
Chloromethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Vinyl Chloride	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromomethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Chloroethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Trichlorofluoromethane	ND	0.40	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloroethene	ND	0.40	EPA 8260C	9-9-13	9-9-13	
lodomethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Methylene Chloride	ND	2.0	EPA 8260C	9-9-13	9-9-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromochloromethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Chloroform	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Trichloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Dibromomethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromodichloromethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-9-13	9-9-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-9-13	9-9-13	

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP19					
Laboratory ID:	09-028-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Tetrachloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Dibromochloromethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Chlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromoform	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Bromobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260C	9-9-13	9-9-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2,3-Trichlorobenzene	ND	0.27	EPA 8260C	9-9-13	9-9-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	98	62-122				
T-1	0.5	70.400				

Toluene-d8 95 70-120 4-Bromofluorobenzene 93 71-120

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

y				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP21					
Laboratory ID:	09-028-08					
Dichlorodifluoromethane	ND	2.0	EPA 8260C	9-9-13	9-9-13	
Chloromethane	ND	5.0	EPA 8260C	9-9-13	9-9-13	
Vinyl Chloride	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Bromomethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Chloroethane	ND	5.0	EPA 8260C	9-9-13	9-9-13	
Trichlorofluoromethane	ND	2.0	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloroethene	ND	2.0	EPA 8260C	9-9-13	9-9-13	
lodomethane	ND	5.0	EPA 8260C	9-9-13	9-9-13	
Methylene Chloride	ND	10	EPA 8260C	9-9-13	9-9-13	
(trans) 1,2-Dichloroethene	ND	1.0	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloroethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
2,2-Dichloropropane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
(cis) 1,2-Dichloroethene	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Bromochloromethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Chloroform	ND	1.0	EPA 8260C	9-9-13	9-9-13	
1,1,1-Trichloroethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Carbon Tetrachloride	ND	1.0	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloropropene	ND	1.0	EPA 8260C	9-9-13	9-9-13	
1,2-Dichloroethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Trichloroethene	3.1	1.0	EPA 8260C	9-9-13	9-9-13	
1,2-Dichloropropane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Dibromomethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Bromodichloromethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
2-Chloroethyl Vinyl Ether	ND	5.0	EPA 8260C	9-9-13	9-9-13	
(cis) 1,3-Dichloropropene	ND	1.0	EPA 8260C	9-9-13	9-9-13	
(trans) 1,3-Dichloropropene	ND	1.0	EPA 8260C	9-9-13	9-9-13	

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP21					
Laboratory ID:	09-028-08					
1,1,2-Trichloroethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Tetrachloroethene	74	1.0	EPA 8260C	9-9-13	9-9-13	
1,3-Dichloropropane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Dibromochloromethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
1,2-Dibromoethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Chlorobenzene	ND	1.0	EPA 8260C	9-9-13	9-9-13	
1,1,1,2-Tetrachloroethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Bromoform	ND	5.0	EPA 8260C	9-9-13	9-9-13	
Bromobenzene	ND	1.0	EPA 8260C	9-9-13	9-9-13	
1,1,2,2-Tetrachloroethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
1,2,3-Trichloropropane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
2-Chlorotoluene	ND	1.0	EPA 8260C	9-9-13	9-9-13	
4-Chlorotoluene	ND	1.0	EPA 8260C	9-9-13	9-9-13	
1,3-Dichlorobenzene	ND	1.0	EPA 8260C	9-9-13	9-9-13	
1,4-Dichlorobenzene	ND	1.0	EPA 8260C	9-9-13	9-9-13	
1,2-Dichlorobenzene	ND	1.0	EPA 8260C	9-9-13	9-9-13	
1,2-Dibromo-3-chloropropane	e ND	5.0	EPA 8260C	9-9-13	9-9-13	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Hexachlorobutadiene	ND	1.0	EPA 8260C	9-9-13	9-9-13	
1,2,3-Trichlorobenzene	ND	1.4	EPA 8260C	9-9-13	9-9-13	
Surrogate:	Percent Recovery	Control Limits				

Surrogate: Percent Recovery Control Limi
Dibromofluoromethane 109 62-122
Toluene-d8 96 70-120
4-Bromofluorobenzene 98 71-120

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

y				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP22					
Laboratory ID:	09-028-11					
Dichlorodifluoromethane	ND	0.40	EPA 8260C	9-9-13	9-9-13	
Chloromethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Vinyl Chloride	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromomethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Chloroethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Trichlorofluoromethane	ND	0.40	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloroethene	ND	0.40	EPA 8260C	9-9-13	9-9-13	
odomethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Methylene Chloride	ND	2.0	EPA 8260C	9-9-13	9-9-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloroethane	0.27	0.20	EPA 8260C	9-9-13	9-9-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromochloromethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Chloroform	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Trichloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Dibromomethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromodichloromethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-9-13	9-9-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-9-13	9-9-13	

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP22					
Laboratory ID:	09-028-11					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Tetrachloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Dibromochloromethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Chlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromoform	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Bromobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260C	9-9-13	9-9-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2,3-Trichlorobenzene	ND	0.27	EPA 8260C	9-9-13	9-9-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	100	62-122				

70-120

71-120

98

96

Toluene-d8

4-Bromofluorobenzene

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

y				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP26					
Laboratory ID:	09-028-14					
Dichlorodifluoromethane	ND	0.40	EPA 8260C	9-9-13	9-9-13	
Chloromethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Vinyl Chloride	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromomethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Chloroethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Trichlorofluoromethane	ND	0.40	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloroethene	ND	0.40	EPA 8260C	9-9-13	9-9-13	
odomethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Methylene Chloride	ND	2.0	EPA 8260C	9-9-13	9-9-13	
trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromochloromethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Chloroform	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Trichloroethene	0.44	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Dibromomethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromodichloromethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-9-13	9-9-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-9-13	9-9-13	

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP26					
Laboratory ID:	09-028-14					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Tetrachloroethene	26	0.20	EPA 8260C	9-9-13	9-9-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Dibromochloromethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Chlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromoform	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Bromobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260C	9-9-13	9-9-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2,3-Trichlorobenzene	ND	0.27	EPA 8260C	9-9-13	9-9-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	113	62-122				
T-1	404	70.400				

Toluene-d8 101 70-120 4-Bromofluorobenzene 101 71-120

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP28					
Laboratory ID:	09-028-18					
Dichlorodifluoromethane	ND	0.40	EPA 8260C	9-9-13	9-9-13	
Chloromethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Vinyl Chloride	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromomethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Chloroethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Trichlorofluoromethane	ND	0.40	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloroethene	ND	0.40	EPA 8260C	9-9-13	9-9-13	
Iodomethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Methylene Chloride	ND	2.0	EPA 8260C	9-9-13	9-9-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromochloromethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Chloroform	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Trichloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Dibromomethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromodichloromethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-9-13	9-9-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-9-13	9-9-13	

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP28					
Laboratory ID:	09-028-18					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Tetrachloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Dibromochloromethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Chlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromoform	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Bromobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260C	9-9-13	9-9-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2,3-Trichlorobenzene	ND	0.27	EPA 8260C	9-9-13	9-9-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	103	62-122				

Surrogate: Percent Recovery Control Limi
Dibromofluoromethane 103 62-122
Toluene-d8 101 70-120
4-Bromofluorobenzene 100 71-120

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP20A					
Laboratory ID:	09-028-19					
Dichlorodifluoromethane	ND	20	EPA 8260C	9-9-13	9-9-13	
Chloromethane	ND	50	EPA 8260C	9-9-13	9-9-13	
Vinyl Chloride	ND	10	EPA 8260C	9-9-13	9-9-13	
Bromomethane	ND	10	EPA 8260C	9-9-13	9-9-13	
Chloroethane	ND	50	EPA 8260C	9-9-13	9-9-13	
Trichlorofluoromethane	ND	20	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloroethene	ND	20	EPA 8260C	9-9-13	9-9-13	
Iodomethane	ND	50	EPA 8260C	9-9-13	9-9-13	
Methylene Chloride	ND	100	EPA 8260C	9-9-13	9-9-13	
(trans) 1,2-Dichloroethene	ND	10	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloroethane	ND	10	EPA 8260C	9-9-13	9-9-13	
2,2-Dichloropropane	ND	10	EPA 8260C	9-9-13	9-9-13	
(cis) 1,2-Dichloroethene	ND	10	EPA 8260C	9-9-13	9-9-13	
Bromochloromethane	ND	10	EPA 8260C	9-9-13	9-9-13	
Chloroform	ND	10	EPA 8260C	9-9-13	9-9-13	
1,1,1-Trichloroethane	ND	10	EPA 8260C	9-9-13	9-9-13	
Carbon Tetrachloride	ND	10	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloropropene	ND	10	EPA 8260C	9-9-13	9-9-13	
1,2-Dichloroethane	ND	10	EPA 8260C	9-9-13	9-9-13	
Trichloroethene	15	10	EPA 8260C	9-9-13	9-9-13	
1,2-Dichloropropane	ND	10	EPA 8260C	9-9-13	9-9-13	
Dibromomethane	ND	10	EPA 8260C	9-9-13	9-9-13	
Bromodichloromethane	ND	10	EPA 8260C	9-9-13	9-9-13	
2-Chloroethyl Vinyl Ether	ND	50	EPA 8260C	9-9-13	9-9-13	
(cis) 1,3-Dichloropropene	ND	10	EPA 8260C	9-9-13	9-9-13	
(trans) 1,3-Dichloropropene	ND	10	EPA 8260C	9-9-13	9-9-13	

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP20A					
Laboratory ID:	09-028-19					
1,1,2-Trichloroethane	ND	10	EPA 8260C	9-9-13	9-9-13	
Tetrachloroethene	2000	10	EPA 8260C	9-9-13	9-9-13	
1,3-Dichloropropane	ND	10	EPA 8260C	9-9-13	9-9-13	
Dibromochloromethane	ND	10	EPA 8260C	9-9-13	9-9-13	
1,2-Dibromoethane	ND	10	EPA 8260C	9-9-13	9-9-13	
Chlorobenzene	ND	10	EPA 8260C	9-9-13	9-9-13	
1,1,1,2-Tetrachloroethane	ND	10	EPA 8260C	9-9-13	9-9-13	
Bromoform	ND	50	EPA 8260C	9-9-13	9-9-13	
Bromobenzene	ND	10	EPA 8260C	9-9-13	9-9-13	
1,1,2,2-Tetrachloroethane	ND	10	EPA 8260C	9-9-13	9-9-13	
1,2,3-Trichloropropane	ND	10	EPA 8260C	9-9-13	9-9-13	
2-Chlorotoluene	ND	10	EPA 8260C	9-9-13	9-9-13	
4-Chlorotoluene	ND	10	EPA 8260C	9-9-13	9-9-13	
1,3-Dichlorobenzene	ND	10	EPA 8260C	9-9-13	9-9-13	
1,4-Dichlorobenzene	ND	10	EPA 8260C	9-9-13	9-9-13	
1,2-Dichlorobenzene	ND	10	EPA 8260C	9-9-13	9-9-13	
1,2-Dibromo-3-chloropropane	e ND	50	EPA 8260C	9-9-13	9-9-13	
1,2,4-Trichlorobenzene	ND	10	EPA 8260C	9-9-13	9-9-13	
Hexachlorobutadiene	ND	10	EPA 8260C	9-9-13	9-9-13	
1,2,3-Trichlorobenzene	ND	14	EPA 8260C	9-9-13	9-9-13	
Surrogate:	Percent Recovery	Control Limits				

Surrogate:	Percent Recovery	Control Limits
Dibromofluoromethane	107	62-122
Toluene-d8	98	70-120
4-Bromofluorobenzene	97	71-120

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

- V				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP29					
Laboratory ID:	09-028-20					
Dichlorodifluoromethane	ND	0.40	EPA 8260C	9-9-13	9-9-13	
Chloromethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Vinyl Chloride	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromomethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Chloroethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Trichlorofluoromethane	ND	0.40	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloroethene	ND	0.40	EPA 8260C	9-9-13	9-9-13	
lodomethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Methylene Chloride	ND	2.0	EPA 8260C	9-9-13	9-9-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromochloromethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Chloroform	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Trichloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Dibromomethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromodichloromethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-9-13	9-9-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-9-13	9-9-13	

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP29					
Laboratory ID:	09-028-20					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Tetrachloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Dibromochloromethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Chlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromoform	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Bromobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260C	9-9-13	9-9-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2,3-Trichlorobenzene	ND	0.27	EPA 8260C	9-9-13	9-9-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	113	62-122				

Toluene-d8 101 70-120 4-Bromofluorobenzene 100 71-120

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0909W1					
Dichlorodifluoromethane	ND	0.40	EPA 8260C	9-9-13	9-9-13	
Chloromethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Vinyl Chloride	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromomethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Chloroethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Trichlorofluoromethane	ND	0.40	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloroethene	ND	0.40	EPA 8260C	9-9-13	9-9-13	
Iodomethane	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Methylene Chloride	ND	2.0	EPA 8260C	9-9-13	9-9-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromochloromethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Chloroform	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Trichloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Dibromomethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromodichloromethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-9-13	9-9-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-9-13	9-9-13	

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0909W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Tetrachloroethene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Dibromochloromethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Chlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Bromoform	ND	1.0	EPA 8260C	9-9-13	9-9-13	
Bromobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-9-13	9-9-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2-Dibromo-3-chloropropane	e ND	1.0	EPA 8260C	9-9-13	9-9-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-9-13	9-9-13	
1,2,3-Trichlorobenzene	ND	0.27	EPA 8260C	9-9-13	9-9-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	101	62-122				
Toluene-d8	101	70-120				
4-Bromofluorobenzene	96	71-120				

HALOGENATED VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Reco	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB090	09W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	11.3	11.0	10.0	10.0	113	110	63-142	3	17	
Benzene	10.2	10.2	10.0	10.0	102	102	78-125	0	15	
Trichloroethene	9.78	9.62	10.0	10.0	98	96	80-125	2	15	
Toluene	10.0	9.90	10.0	10.0	100	99	80-125	1	15	
Chlorobenzene	10.7	10.6	10.0	10.0	107	106	80-140	1	15	
Surrogate:										
Dibromofluoromethane					96	99	62-122			
Toluene-d8					99	100	70-120			
4-Bromofluorobenzene					94	97	71-120			

TOTAL LEAD EPA 6010C

Matrix: Soil

Units: mg/kg (ppm)

Office.	mg/kg (ppm)			Date	Date	
Analyte	Result	PQL	EPA Method	Prepared	Analyzed	Flags
Lab ID:	00 000 04					
Lab ID: Client ID:	09-028-01 GP19-2					
Lead	130	6.4	6010C	9-9-13	9-9-13	
Lab ID:	09-028-04					
Client ID:	GP20-4					
Lead	200	6.3	6010C	9-9-13	9-9-13	
Lab ID:	09-028-06					
Client ID:	GP21-3					
Lead	44	6.0	6010C	9-9-13	9-9-13	
Lab ID:	09-028-09					
Client ID:	GP22-8					
Lead	35	5.8	6010C	9-9-13	9-9-13	
Lab ID: Client ID:	09-028-12 GP26-3					
Lead	52	5.6	6010C	9-9-13	9-9-13	
Lab ID:	09-028-15					
Client ID:	GP33-4					
Lead	ND	5.7	6010C	9-9-13	9-9-13	
Lab ID:	09-028-16					
Client ID:	GP28-9					
Lead	33	6.1	6010C	9-9-13	9-9-13	

Date of Report: September 16, 2013 Samples Submitted: September 5, 2013 Laboratory Reference: 1309-028

Project: 09-04193-017/003-001

TOTAL LEAD EPA 6010C METHOD BLANK QUALITY CONTROL

Date Extracted: 9-9-13 Date Analyzed: 9-9-13

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: MB0909SM1

Analyte Method Result **PQL**

6010C ND 5.0 Lead

TOTAL LEAD EPA 6010C DUPLICATE QUALITY CONTROL

Date Extracted: 9-9-13
Date Analyzed: 9-9-13

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 09-028-15

Sample Duplicate
Analyte Result Result RPD PQL Flags

Lead ND ND NA 5.0

TOTAL LEAD EPA 6010C MS/MSD QUALITY CONTROL

Date Extracted: 9-9-13 Date Analyzed: 9-9-13

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 09-028-15

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Lead	250	234	93	240	96	3	

% MOISTURE

Date Analyzed: 9-9&10-13

Client ID	Lab ID	% Moisture
GP19-2	09-028-01	22
GP19-14	09-028-02	10
GP20-4	09-028-04	21
GP20-12	09-028-05	14
GP21-3	09-028-06	16
GP21-15	09-028-07	21
GP22-8	09-028-09	13
GP22-18	09-028-10	8
GP26-3	09-028-12	10
GP26-24	09-028-13	11
GP33-4	09-028-15	12
GP28-9	09-028-16	18
GP28-18	09-028-17	15



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) 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

Chain of Custody

InSite

Page Environmental Inc.

% Moisture 09-028 Studend TATSN Suply @gadded amilis. DB(STA) Seed Via Curve 90 HEM (oil and grease) 1664A TCLP Metals Chromatograms with final report Comments/Special Instructions Total RCRA Metals/ MTCA Metals (circle one) A1218 sebioidaeH bioA betsniroldC Organophosphorus Pesticides 8270D/SIM (ləvəl-wol) MIZ\Q07S8 zHA9 Electronic Data Deliverables (EDDs) (sHA9 level-wol nfiw Laboratory Number: 1400 MIS\D07S8 səlitsloviməS alogenated Volatiles 8260C 1/2 0 Date **UWTPH-GX/BTEX** MATPH-HCID T 0 Number of Containers 9 9 3 3 X 2 Days Wat 1 3 Days Matrix 1 Day Data Package: Level III

Level IV 3 S S S S **Turnaround Request** Herren (TPH analysis 5 Days) (in working days) Reviewed/Date (Check One) 12:00 干无无 14.8 14,05 Standard (7 Days) 11:30 13:35 Se:41 13:15 (other) 10:45 20:11 Sampled Same Day 9/4/13 Sampled Company: Herresa Environ mental 100-500/210-80140-60 14648 NE 95th Street • Redmond, WA 98052 Phone: (425) 883-3881 • www.onsite-env.com Carpenter Analytical Laboratory Testing Services Sample Identification Towise GP 22 - 18 GP+20-4 G820-12 GP22-8 Signature 6819-14 61-15 GP19-2 6921.3 GP 19 1825 Brock Project Name: Project Manager: Reviewed/Date Relinquished Relinquished Relinquished Received Received Received Lab ID Sm 9

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Analytical Laboratory Testing Services

Chain of Custody

Page 2 of 2

9/2 Moisture 09-028 Rush 2-Day Water Surves Standard TAT Sril Samples (Stalded allilis. DB (STA) Via Coure 90 HEM (oil and grease) 1664A **TCLP Metals** Chromatograms with final report Comments/Special Instructions otal RCRA Metals/ MTCA Metals (circle one) Afcf8 sebioidieh bioA betannolf; (level-wol) MIS/Q07S8 sHA9 Electronic Data Deliverables (EDDs) (sHA9 level-wol rffiw Laboratory Number: MIS\007S8 selitslovimes 1400 lalogenated Volatiles 8260C **AWTPH-GX/BTEX AWTPH-HCID** 0 Number of Containers 0 333 3 3 X 2 Days | 3 Days 1 Day Matrix Data Package: Level III

Level IV V Standard (7 Days)
(TPH analysis 5 Days) **Turnaround Request** (in working days) Reviewed/Date 1630 9:30 9:10 10:10 15:36 10:15 (Check One) (other) 24:8 Sampled 9/5/13 8:30 Company Same Day 9/4/3 Company: Herrera Environ mental Phone: (425) 883-3881 • www.onsite-env.com 4648 NE 95th Street • Redmond, WA 98052 Project Number: 09-04193-047/003-001 Sampled by Bruce Carperter Sample Identification Project Manager. ナやったるり GP 33-4 6828-9 81-8625 GP 26-3 6630 GPZOA GP36 GP29 GRZZ Project Name: Reviewed/Date Relinquished Relinquished Relinquished Received Received Received Lab ID Q



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

September 19, 2013

Peter Jowise Herrera Environmental Consultants, Inc. 2200 6th Avenue, Suite 1100 Seattle, WA 98121

Re: Analytical Data for Project 09-04193-017/003-001

Laboratory Reference No. 1309-048

Dear Peter:

Enclosed are the analytical results and associated quality control data for samples submitted on September 7, 2013.

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,

David Baumeister Project Manager

Enclosures

Date of Report: September 19, 2013 Samples Submitted: September 7, 2013 Laboratory Reference: 1309-048

Project: 09-04193-017/003-001

Case Narrative

Samples were collected on September 5 and 6, 2013 and received by the laboratory on September 7, 2013. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

Halogenated 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.

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.

NWTPH-HCID

Matrix: Soil

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GP13-3	I QL	Wethou	Trepared	Allalyzeu	i iags
Laboratory ID:	09-048-01					
Gasoline Range Organics	ND	24	NWTPH-HCID	9-10-13	9-10-13	
Diesel Range Organics	ND	60	NWTPH-HCID	9-10-13	9-10-13	
Lube Oil Range Organics	ND	120	NWTPH-HCID	9-10-13	9-10-13	
Surrogate:	Percent Recovery	Control Limits	INVITITIOD	3-10-13	3-10-13	
o-Terphenyl	97	50-150				
o respirativi	0,	00 700				
Client ID:	GP14-3					
Laboratory ID:	09-048-03					
Gasoline Range Organics	ND	23	NWTPH-HCID	9-10-13	9-10-13	
Diesel Range Organics	ND	58	NWTPH-HCID	9-10-13	9-10-13	
Lube Oil Range Organics	ND	120	NWTPH-HCID	9-10-13	9-10-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	93	50-150				
Client ID:	GP15-2					
Laboratory ID:	09-048-05					
Gasoline Range Organics	ND	23	NWTPH-HCID	9-10-13	9-10-13	
Diesel Range Organics	ND	59	NWTPH-HCID	9-10-13	9-10-13	
Lube Oil Range Organics	ND	120	NWTPH-HCID	9-10-13	9-10-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	89	50-150				
Client ID:	GP16-3					
Laboratory ID:	09-048-07					
Gasoline Range Organics	ND	23	NWTPH-HCID	9-10-13	9-10-13	
Diesel Range Organics	ND	57	NWTPH-HCID	9-10-13	9-10-13	
Lube Oil Range Organics	ND	110	NWTPH-HCID	9-10-13	9-10-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	99	50-150				
Client ID:	GP17-1					
Laboratory ID:	09-048-09					
Gasoline Range Organics	ND	23	NWTPH-HCID	9-10-13	9-10-13	
Diesel Range Organics	ND ND	23 57	NWTPH-HCID	9-10-13	9-10-13	
Lube Oil Range Organics	ND ND	110	NWTPH-HCID	9-10-13	9-10-13	
Surrogate:	Percent Recovery	Control Limits	1444 II II-IIOID	J-10-13	9-10-13	
o-Terphenyl	99	50-150				
о-тырпынуг	33	30-130				

NWTPH-HCID

Matrix: Soil

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	GP18-3	. ~=	ou	. roparou	, mary 20 a	. iugo
Laboratory ID:	09-048-11					
Gasoline Range Organics	ND	22	NWTPH-HCID	9-10-13	9-10-13	
Diesel Range Organics	ND	56	NWTPH-HCID	9-10-13	9-10-13	
Lube Oil Range Organics	Detected	110	NWTPH-HCID	9-10-13	9-10-13	
Surrogate:	Percent Recovery	Control Limits		0 .0 .0		
o-Terphenyl	101	50-150				
Client ID:	GP24-0.5					
Laboratory ID:	09-048-14					
Gasoline Range Organics	ND	21	NWTPH-HCID	9-10-13	9-10-13	
Diesel Range Organics	ND	53	NWTPH-HCID	9-10-13	9-10-13	
Lube Oil Range Organics	ND	110	NWTPH-HCID	9-10-13	9-10-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	100	50-150				
Client ID:	GP25-3					
Laboratory ID:	09-048-16					
Gasoline Range Organics	ND	22	NWTPH-HCID	9-10-13	9-11-13	
Diesel Range Organics	ND	54	NWTPH-HCID	9-10-13	9-11-13	
Lube Oil Range Organics	ND	110	NWTPH-HCID	9-10-13	9-11-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	53	50-150				
Client ID:	GP27-3					
Laboratory ID:	09-048-18 ND	05	NIMTDILLICID	0.10.10	0.10.10	
Gasoline Range Organics	ND ND	25 62	NWTPH-HCID NWTPH-HCID	9-10-13 9-10-13	9-10-13 9-10-13	
Diesel Range Organics Lube Oil	Detected	120	NWTPH-HCID	9-10-13 9-10-13	9-10-13 9-10-13	
Surrogate:	Percent Recovery	Control Limits	INVV I FIT-FICID	9-10-13	9-10-13	
o-Terphenyl	99	50-150				
0-Terprierryi	99	30-130				
Client ID:	GP30-1					
Laboratory ID:	09-048-21					
Gasoline Range Organics	ND	22	NWTPH-HCID	9-10-13	9-10-13	
Diesel Range Organics	ND	55	NWTPH-HCID	9-10-13	9-10-13	
Lube Oil Range Organics	ND	110	NWTPH-HCID	9-10-13	9-10-13	
Surrogate:	Percent Recovery	Control Limits		3 . 3 . 3		
o-Terphenyl	102	50-150				
		55 .00				

NWTPH-HCID

Matrix: Soil

Child: hightig (ppin)				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP31-3			-	-	
Laboratory ID:	09-048-23					
Gasoline Range Organics	ND	22	NWTPH-HCID	9-10-13	9-10-13	
Diesel Range Organics	ND	56	NWTPH-HCID	9-10-13	9-10-13	
Lube Oil Range Organics	ND	110	NWTPH-HCID	9-10-13	9-10-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	99	50-150				
Client ID:	GP32-3					
••						
Laboratory ID:	09-048-25					
Gasoline Range Organics	ND	22	NWTPH-HCID	9-10-13	9-10-13	
Diesel Range Organics	ND	56	NWTPH-HCID	9-10-13	9-10-13	
Lube Oil	Detected	110	NWTPH-HCID	9-10-13	9-10-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	97	50-150				
Client ID:	GP34-3					
Laboratory ID:	09-048-27					
Gasoline Range Organics	ND	21	NWTPH-HCID	9-10-13	9-11-13	_
Diesel Range Organics	ND	52	NWTPH-HCID	9-10-13	9-11-13	
Lube Oil	Detected	110	NWTPH-HCID	9-10-13	9-11-13	
			INW I FH-HUID	9-10-13	9-11-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	85	50-150				

NWTPH-HCID QUALITY CONTROL

Matrix: Soil

Analyte	Result	PQL	Method	Date Prepared	Date Analvzed	Flags
METHOD BLANK					,	- 3-
Laboratory ID:	MB0910S1					
Gasoline Range Organics	ND	20	NWTPH-HCID	9-10-13	9-10-13	
Diesel Range Organics	ND	50	NWTPH-HCID	9-10-13	9-10-13	
Lube Oil Range Organics	ND	100	NWTPH-HCID	9-10-13	9-10-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	99	50-150				

NWTPH-Dx

Matrix: Soil

3· 3·(-1- /				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP18-3					
Laboratory ID:	09-048-11					
Diesel Range Organics	ND	28	NWTPH-Dx	9-16-13	9-16-13	
Lube Oil Range Organics	ND	56	NWTPH-Dx	9-16-13	9-16-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	94	50-150				
Client ID:	GP27-3					
Laboratory ID:	09-048-18					
Diesel Range Organics	ND	31	NWTPH-Dx	9-16-13	9-17-13	
Lube Oil	140	62	NWTPH-Dx	9-16-13	9-17-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	80	50-150				
Client ID:	GP32-3					
Laboratory ID:	09-048-25					
Diesel Range Organics	ND	28	NWTPH-Dx	9-16-13	9-16-13	
Lube Oil	330	56	NWTPH-Dx	9-16-13	9-16-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	82	50-150				
Client ID:	GP34-3					
Laboratory ID:	09-048-27					
Diesel Range Organics	ND	26	NWTPH-Dx	9-16-13	9-17-13	
Lube Oil	540	52	NWTPH-Dx	9-16-13	9-17-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	85	50-150				

NWTPH-Dx QUALITY CONTROL

Matrix: Soil

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916S2					
Diesel Range Organics	ND	25	NWTPH-Dx	9-16-13	9-16-13	
Lube Oil Range Organics	ND	50	NWTPH-Dx	9-16-13	9-16-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	89	50-150				

			Per	cent	Recovery		RPD	
Analyte	Res	sult	Rec	overy	Limits	RPD	Limit	Flags
DUPLICATE								
Laboratory ID:	09-11	16-01						
	ORIG	DUP	.					
Diesel Range Organics	ND	ND				NA	NA	U1
Lube Oil	3650	3100				16	NA	
Surrogate:								
o-Terphenyl			85	81	50-150			

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ome: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP13-3			•	•	
Laboratory ID:	09-048-01					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
Chloromethane	ND	0.0075	EPA 8260C	9-17-13	9-18-13	
Vinyl Chloride	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
Bromomethane	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
Chloroethane	ND	0.0075	EPA 8260C	9-17-13	9-18-13	
Trichlorofluoromethane	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethene	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
lodomethane	ND	0.0075	EPA 8260C	9-17-13	9-18-13	
Methylene Chloride	ND	0.0075	EPA 8260C	9-17-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethane	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
2,2-Dichloropropane	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
Bromochloromethane	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
Chloroform	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
1,1,1-Trichloroethane	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
Carbon Tetrachloride	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloropropene	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloroethane	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
Trichloroethene	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloropropane	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
Dibromomethane	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
Bromodichloromethane	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.18	EPA 8260C	9-17-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.0015	EPA 8260C	9-17-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP13-3					
Laboratory ID:	09-048-01					
1,1,2-Trichloroethane	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
Tetrachloroethene	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
1,3-Dichloropropane	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
Dibromochloromethane	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromoethane	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
Chlorobenzene	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
Bromoform	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
Bromobenzene	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichloropropane	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
2-Chlorotoluene	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
4-Chlorotoluene	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
1,3-Dichlorobenzene	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
1,4-Dichlorobenzene	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
1,2-Dichlorobenzene	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromo-3-chloropropane	e ND	0.0075	EPA 8260C	9-17-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
Hexachlorobutadiene	ND	0.0075	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.0015	EPA 8260C	9-17-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	120	65-129				
Toluene-d8	117	77-122				
4-Bromofluorobenzene	107	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ome: mg/kg						
Amalaka	Decel	DOL	Bastle e al	Date	Date	- 1
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP13-14.5					
Laboratory ID:	09-048-02					
Dichlorodifluoromethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Chloromethane	ND	0.0046	EPA 8260C	9-17-13	9-18-13	
Vinyl Chloride	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Bromomethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Chloroethane	ND	0.0046	EPA 8260C	9-17-13	9-18-13	
Trichlorofluoromethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Iodomethane	ND	0.0046	EPA 8260C	9-17-13	9-18-13	
Methylene Chloride	ND	0.0046	EPA 8260C	9-17-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
2,2-Dichloropropane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Bromochloromethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Chloroform	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,1,1-Trichloroethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Carbon Tetrachloride	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloropropene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloroethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Trichloroethene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloropropane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Dibromomethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Bromodichloromethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.11	EPA 8260C	9-17-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP13-14.5					
Laboratory ID:	09-048-02					
1,1,2-Trichloroethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Tetrachloroethene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,3-Dichloropropane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Dibromochloromethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromoethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Chlorobenzene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Bromoform	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Bromobenzene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichloropropane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
2-Chlorotoluene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
4-Chlorotoluene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,3-Dichlorobenzene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,4-Dichlorobenzene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,2-Dichlorobenzene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromo-3-chloropropane	ND ND	0.0046	EPA 8260C	9-17-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Hexachlorobutadiene	ND	0.0046	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	118	65-129				
Toluene-d8	119	77-122				
4-Bromofluorobenzene	109	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ome: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP14-3				•	
Laboratory ID:	09-048-03					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Chloromethane	ND	0.0050	EPA 8260C	9-17-13	9-18-13	
Vinyl Chloride	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Bromomethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Chloroethane	ND	0.0050	EPA 8260C	9-17-13	9-18-13	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Iodomethane	ND	0.0050	EPA 8260C	9-17-13	9-18-13	
Methylene Chloride	ND	0.0050	EPA 8260C	9-17-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Bromochloromethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Chloroform	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Trichloroethene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Dibromomethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Bromodichloromethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.12	EPA 8260C	9-17-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP14-3					
Laboratory ID:	09-048-03					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Tetrachloroethene	0.038	0.0010	EPA 8260C	9-17-13	9-18-13	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Dibromochloromethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Chlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Bromoform	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Bromobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
2-Chlorotoluene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
4-Chlorotoluene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromo-3-chloropropane	ND ND	0.0050	EPA 8260C	9-17-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	107	65-129				
Toluene-d8	108	77-122				
4-Bromofluorobenzene	102	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

55g,g				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP14-9.5				•	
Laboratory ID:	09-048-04					
Dichlorodifluoromethane	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
Chloromethane	ND	0.0044	EPA 8260C	9-17-13	9-18-13	
Vinyl Chloride	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
Bromomethane	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
Chloroethane	ND	0.0044	EPA 8260C	9-17-13	9-18-13	
Trichlorofluoromethane	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethene	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
Iodomethane	ND	0.0044	EPA 8260C	9-17-13	9-18-13	
Methylene Chloride	ND	0.0044	EPA 8260C	9-17-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethane	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
2,2-Dichloropropane	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
Bromochloromethane	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
Chloroform	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
1,1,1-Trichloroethane	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
Carbon Tetrachloride	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloropropene	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloroethane	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
Trichloroethene	0.0050	0.00088	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloropropane	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
Dibromomethane	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
Bromodichloromethane	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.11	EPA 8260C	9-17-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.00088	EPA 8260C	9-17-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP14-9.5					
Laboratory ID:	09-048-04					
1,1,2-Trichloroethane	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
Tetrachloroethene	0.56	0.047	EPA 8260C	9-18-13	9-18-13	
1,3-Dichloropropane	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
Dibromochloromethane	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromoethane	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
Chlorobenzene	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
Bromoform	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
Bromobenzene	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichloropropane	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
2-Chlorotoluene	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
4-Chlorotoluene	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
1,3-Dichlorobenzene	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
1,4-Dichlorobenzene	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
1,2-Dichlorobenzene	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromo-3-chloropropane	ND	0.0044	EPA 8260C	9-17-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
Hexachlorobutadiene	ND	0.0044	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.00088	EPA 8260C	9-17-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	119	65-129				
Toluene-d8	120	77-122				
4-Bromofluorobenzene	115	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ome: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP15-2			•	•	
Laboratory ID:	09-048-05					
Dichlorodifluoromethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Chloromethane	ND	0.0049	EPA 8260C	9-18-13	9-18-13	
Vinyl Chloride	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Bromomethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Chloroethane	ND	0.0049	EPA 8260C	9-18-13	9-18-13	
Trichlorofluoromethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
lodomethane	ND	0.0049	EPA 8260C	9-18-13	9-18-13	
Methylene Chloride	ND	0.0049	EPA 8260C	9-18-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
2,2-Dichloropropane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Bromochloromethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Chloroform	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,1,1-Trichloroethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Carbon Tetrachloride	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloropropene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloroethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Trichloroethene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloropropane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Dibromomethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Bromodichloromethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.12	EPA 8260C	9-18-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP15-2					
Laboratory ID:	09-048-05					
1,1,2-Trichloroethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Tetrachloroethene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,3-Dichloropropane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Dibromochloromethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,2-Dibromoethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Chlorobenzene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Bromoform	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Bromobenzene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichloropropane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
2-Chlorotoluene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
4-Chlorotoluene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,3-Dichlorobenzene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,4-Dichlorobenzene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,2-Dichlorobenzene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,2-Dibromo-3-chloropropane	ND	0.0049	EPA 8260C	9-18-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Hexachlorobutadiene	ND	0.0049	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	117	65-129				
Toluene-d8	119	77-122				
4-Bromofluorobenzene	113	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

omo: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP15-10			•	•	
Laboratory ID:	09-048-06					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Chloromethane	ND	0.0055	EPA 8260C	9-17-13	9-18-13	
Vinyl Chloride	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Bromomethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Chloroethane	ND	0.0055	EPA 8260C	9-17-13	9-18-13	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Iodomethane	ND	0.0055	EPA 8260C	9-17-13	9-18-13	
Methylene Chloride	ND	0.0055	EPA 8260C	9-17-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Bromochloromethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Chloroform	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Trichloroethene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Dibromomethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Bromodichloromethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.13	EPA 8260C	9-17-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP15-10					
Laboratory ID:	09-048-06					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Tetrachloroethene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Dibromochloromethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Chlorobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Bromoform	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Bromobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
2-Chlorotoluene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
4-Chlorotoluene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromo-3-chloropropane	ND	0.0055	EPA 8260C	9-17-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Hexachlorobutadiene	ND	0.0055	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	116	65-129				
Toluene-d8	119	77-122				
4-Bromofluorobenzene	111	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

omo: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP16-3			•	•	
Laboratory ID:	09-048-07					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Chloromethane	ND	0.0060	EPA 8260C	9-17-13	9-18-13	
Vinyl Chloride	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Bromomethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Chloroethane	ND	0.0060	EPA 8260C	9-17-13	9-18-13	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Iodomethane	ND	0.0060	EPA 8260C	9-17-13	9-18-13	
Methylene Chloride	ND	0.0060	EPA 8260C	9-17-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Bromochloromethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Chloroform	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Trichloroethene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Dibromomethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Bromodichloromethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.14	EPA 8260C	9-17-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP16-3					
Laboratory ID:	09-048-07					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Tetrachloroethene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Dibromochloromethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Chlorobenzene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Bromoform	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Bromobenzene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
2-Chlorotoluene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
4-Chlorotoluene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromo-3-chloropropane	ND	0.0060	EPA 8260C	9-17-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Hexachlorobutadiene	ND	0.0060	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	117	65-129				
Toluene-d8	118	77-122				
4-Bromofluorobenzene	110	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ome: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP16-14.5				•	
Laboratory ID:	09-048-08					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Chloromethane	ND	0.0052	EPA 8260C	9-17-13	9-18-13	
Vinyl Chloride	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Bromomethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Chloroethane	ND	0.0052	EPA 8260C	9-17-13	9-18-13	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Iodomethane	ND	0.0052	EPA 8260C	9-17-13	9-18-13	
Methylene Chloride	ND	0.0052	EPA 8260C	9-17-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Bromochloromethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Chloroform	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Trichloroethene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Dibromomethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Bromodichloromethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.12	EPA 8260C	9-17-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP16-14.5					
Laboratory ID:	09-048-08					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Tetrachloroethene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Dibromochloromethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Chlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Bromoform	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Bromobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
2-Chlorotoluene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
4-Chlorotoluene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromo-3-chloropropane	e ND	0.0052	EPA 8260C	9-17-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Hexachlorobutadiene	ND	0.0052	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	119	65-129				
Toluene-d8	119	77-122				
4-Bromofluorobenzene	112	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP17-1					_
Laboratory ID:	09-048-09					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Chloromethane	ND	0.0054	EPA 8260C	9-17-13	9-18-13	
Vinyl Chloride	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Bromomethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Chloroethane	ND	0.0054	EPA 8260C	9-17-13	9-18-13	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Iodomethane	ND	0.0054	EPA 8260C	9-17-13	9-18-13	
Methylene Chloride	ND	0.0054	EPA 8260C	9-17-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Bromochloromethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Chloroform	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Trichloroethene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Dibromomethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Bromodichloromethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.13	EPA 8260C	9-17-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP17-1					
Laboratory ID:	09-048-09					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Tetrachloroethene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Dibromochloromethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Chlorobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Bromoform	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Bromobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
2-Chlorotoluene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
4-Chlorotoluene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260C	9-17-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Hexachlorobutadiene	ND	0.0054	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	117	65-129				
Toluene-d8	121	77-122				
4-Bromofluorobenzene	115	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

55g,g				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP17-9.5			•	•	
Laboratory ID:	09-048-10					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Chloromethane	ND	0.0053	EPA 8260C	9-17-13	9-18-13	
Vinyl Chloride	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Bromomethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Chloroethane	ND	0.0053	EPA 8260C	9-17-13	9-18-13	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
lodomethane	ND	0.0053	EPA 8260C	9-17-13	9-18-13	
Methylene Chloride	ND	0.0053	EPA 8260C	9-17-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Bromochloromethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Chloroform	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Trichloroethene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Dibromomethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Bromodichloromethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.13	EPA 8260C	9-17-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP17-9.5					
Laboratory ID:	09-048-10					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Tetrachloroethene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Dibromochloromethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Chlorobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Bromoform	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Bromobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
2-Chlorotoluene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
4-Chlorotoluene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260C	9-17-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Hexachlorobutadiene	ND	0.0053	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	9-17-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	106	65-129				
Toluene-d8	110	77-122				
4-Bromofluorobenzene	103	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP18-3					
Laboratory ID:	09-048-11					
Dichlorodifluoromethane	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
Chloromethane	ND	0.0070	EPA 8260C	9-17-13	9-18-13	
Vinyl Chloride	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
Bromomethane	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
Chloroethane	ND	0.0070	EPA 8260C	9-17-13	9-18-13	
Trichlorofluoromethane	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethene	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
Iodomethane	ND	0.0070	EPA 8260C	9-17-13	9-18-13	
Methylene Chloride	ND	0.0070	EPA 8260C	9-17-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethane	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
2,2-Dichloropropane	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
Bromochloromethane	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
Chloroform	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
1,1,1-Trichloroethane	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
Carbon Tetrachloride	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloropropene	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloroethane	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
Trichloroethene	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloropropane	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
Dibromomethane	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
Bromodichloromethane	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.17	EPA 8260C	9-17-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.0014	EPA 8260C	9-17-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP18-3					
Laboratory ID:	09-048-11					
1,1,2-Trichloroethane	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
Tetrachloroethene	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
1,3-Dichloropropane	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
Dibromochloromethane	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromoethane	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
Chlorobenzene	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
Bromoform	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
Bromobenzene	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichloropropane	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
2-Chlorotoluene	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
4-Chlorotoluene	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
1,3-Dichlorobenzene	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
1,4-Dichlorobenzene	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
1,2-Dichlorobenzene	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromo-3-chloropropane	ND	0.0070	EPA 8260C	9-17-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
Hexachlorobutadiene	ND	0.0070	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.0014	EPA 8260C	9-17-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	118	65-129				
Toluene-d8	115	77-122				
4-Bromofluorobenzene	99	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ome: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP18-11			•	•	
Laboratory ID:	09-048-12					
Dichlorodifluoromethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Chloromethane	ND	0.0046	EPA 8260C	9-17-13	9-18-13	
Vinyl Chloride	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Bromomethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Chloroethane	ND	0.0046	EPA 8260C	9-17-13	9-18-13	
Trichlorofluoromethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Iodomethane	ND	0.0046	EPA 8260C	9-17-13	9-18-13	
Methylene Chloride	ND	0.0046	EPA 8260C	9-17-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
2,2-Dichloropropane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Bromochloromethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Chloroform	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,1,1-Trichloroethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Carbon Tetrachloride	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloropropene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloroethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Trichloroethene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloropropane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Dibromomethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Bromodichloromethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.11	EPA 8260C	9-17-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP18-11					
Laboratory ID:	09-048-12					
1,1,2-Trichloroethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Tetrachloroethene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,3-Dichloropropane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Dibromochloromethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromoethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Chlorobenzene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Bromoform	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Bromobenzene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichloropropane	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
2-Chlorotoluene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
4-Chlorotoluene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,3-Dichlorobenzene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,4-Dichlorobenzene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,2-Dichlorobenzene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromo-3-chloropropane	ND	0.0046	EPA 8260C	9-17-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Hexachlorobutadiene	ND	0.0046	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.00092	EPA 8260C	9-17-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	114	65-129				
Toluene-d8	118	77-122				
4-Bromofluorobenzene	113	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP23-6					
Laboratory ID:	09-048-13					
Dichlorodifluoromethane	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
Chloromethane	ND	0.0046	EPA 8260C	9-17-13	9-18-13	
Vinyl Chloride	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
Bromomethane	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
Chloroethane	ND	0.0046	EPA 8260C	9-17-13	9-18-13	
Trichlorofluoromethane	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethene	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
lodomethane	ND	0.0046	EPA 8260C	9-17-13	9-18-13	
Methylene Chloride	ND	0.0046	EPA 8260C	9-17-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethane	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
2,2-Dichloropropane	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
Bromochloromethane	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
Chloroform	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
1,1,1-Trichloroethane	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
Carbon Tetrachloride	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloropropene	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloroethane	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
Trichloroethene	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloropropane	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
Dibromomethane	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
Bromodichloromethane	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.11	EPA 8260C	9-17-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.00093	EPA 8260C	9-17-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP23-6					
Laboratory ID:	09-048-13					
1,1,2-Trichloroethane	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
Tetrachloroethene	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
1,3-Dichloropropane	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
Dibromochloromethane	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromoethane	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
Chlorobenzene	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
Bromoform	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
Bromobenzene	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichloropropane	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
2-Chlorotoluene	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
4-Chlorotoluene	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
1,3-Dichlorobenzene	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
1,4-Dichlorobenzene	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
1,2-Dichlorobenzene	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromo-3-chloropropane	ND	0.0046	EPA 8260C	9-17-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
Hexachlorobutadiene	ND	0.0046	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.00093	EPA 8260C	9-17-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	119	65-129				
Toluene-d8	117	77-122				
4-Bromofluorobenzene	114	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

omo: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP24-0.5			•	•	
Laboratory ID:	09-048-14					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
Chloromethane	ND	0.0065	EPA 8260C	9-17-13	9-18-13	
Vinyl Chloride	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
Bromomethane	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
Chloroethane	ND	0.0065	EPA 8260C	9-17-13	9-18-13	
Trichlorofluoromethane	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethene	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
lodomethane	ND	0.0065	EPA 8260C	9-17-13	9-18-13	
Methylene Chloride	ND	0.0065	EPA 8260C	9-17-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethane	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
2,2-Dichloropropane	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
Bromochloromethane	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
Chloroform	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
Carbon Tetrachloride	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloropropene	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloroethane	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
Trichloroethene	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloropropane	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
Dibromomethane	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
Bromodichloromethane	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.16	EPA 8260C	9-17-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-17-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP24-0.5					
Laboratory ID:	09-048-14					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
Tetrachloroethene	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
1,3-Dichloropropane	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
Dibromochloromethane	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromoethane	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
Chlorobenzene	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
Bromoform	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
Bromobenzene	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
2-Chlorotoluene	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
4-Chlorotoluene	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromo-3-chloropropane	e ND	0.0065	EPA 8260C	9-17-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
Hexachlorobutadiene	ND	0.0065	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260C	9-17-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	113	65-129				
Toluene-d8	113	77-122				
4-Bromofluorobenzene	104	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

omo: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP24-7.5			•	•	
Laboratory ID:	09-048-15					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Chloromethane	ND	0.0052	EPA 8260C	9-17-13	9-18-13	
Vinyl Chloride	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Bromomethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Chloroethane	ND	0.0052	EPA 8260C	9-17-13	9-18-13	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
lodomethane	ND	0.0052	EPA 8260C	9-17-13	9-18-13	
Methylene Chloride	ND	0.0052	EPA 8260C	9-17-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Bromochloromethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Chloroform	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Trichloroethene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Dibromomethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Bromodichloromethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.13	EPA 8260C	9-17-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	09-048-15					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Tetrachloroethene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Dibromochloromethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Chlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Bromoform	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Bromobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
2-Chlorotoluene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
4-Chlorotoluene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromo-3-chloropropane	ND	0.0052	EPA 8260C	9-17-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Hexachlorobutadiene	ND	0.0052	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	116	65-129				
Toluene-d8	119	77-122				
4-Bromofluorobenzene	115	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

Simo: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP25-3			•	•	
Laboratory ID:	09-048-16					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Chloromethane	ND	0.0062	EPA 8260C	9-17-13	9-18-13	
Vinyl Chloride	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Bromomethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Chloroethane	ND	0.0062	EPA 8260C	9-17-13	9-18-13	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
lodomethane	ND	0.0062	EPA 8260C	9-17-13	9-18-13	
Methylene Chloride	ND	0.0062	EPA 8260C	9-17-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Bromochloromethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Chloroform	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Trichloroethene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Dibromomethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Bromodichloromethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.15	EPA 8260C	9-17-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP25-3					
Laboratory ID:	09-048-16					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Tetrachloroethene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Dibromochloromethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Chlorobenzene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Bromoform	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Bromobenzene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
2-Chlorotoluene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
4-Chlorotoluene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
1,2-Dibromo-3-chloropropane	ND	0.0062	EPA 8260C	9-17-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Hexachlorobutadiene	ND	0.0062	EPA 8260C	9-17-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	9-17-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	113	65-129				
Toluene-d8	112	77-122				
4-Bromofluorobenzene	108	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ome: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP25-14			•	•	
Laboratory ID:	09-048-17					
Dichlorodifluoromethane	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
Chloromethane	ND	0.0048	EPA 8260C	9-18-13	9-18-13	
Vinyl Chloride	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
Bromomethane	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
Chloroethane	ND	0.0048	EPA 8260C	9-18-13	9-18-13	
Trichlorofluoromethane	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethene	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
Iodomethane	ND	0.0048	EPA 8260C	9-18-13	9-18-13	
Methylene Chloride	ND	0.0048	EPA 8260C	9-18-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethane	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
2,2-Dichloropropane	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
Bromochloromethane	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
Chloroform	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
1,1,1-Trichloroethane	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
Carbon Tetrachloride	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloropropene	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloroethane	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
Trichloroethene	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloropropane	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
Dibromomethane	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
Bromodichloromethane	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.11	EPA 8260C	9-18-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.00096	EPA 8260C	9-18-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP25-14					
Laboratory ID:	09-048-17					
1,1,2-Trichloroethane	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
Tetrachloroethene	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
1,3-Dichloropropane	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
Dibromochloromethane	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
1,2-Dibromoethane	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
Chlorobenzene	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
Bromoform	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
Bromobenzene	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichloropropane	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
2-Chlorotoluene	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
4-Chlorotoluene	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
1,3-Dichlorobenzene	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
1,4-Dichlorobenzene	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
1,2-Dichlorobenzene	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
1,2-Dibromo-3-chloropropane	e ND	0.0048	EPA 8260C	9-18-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
Hexachlorobutadiene	ND	0.0048	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.00096	EPA 8260C	9-18-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	118	65-129				
Toluene-d8	114	77-122				
4-Bromofluorobenzene	105	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ome. mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP27-3					
Laboratory ID:	09-048-18					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
Chloromethane	ND	0.0054	EPA 8260C	9-18-13	9-18-13	
Vinyl Chloride	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
Bromomethane	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
Chloroethane	ND	0.0054	EPA 8260C	9-18-13	9-18-13	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
odomethane	ND	0.0054	EPA 8260C	9-18-13	9-18-13	
Methylene Chloride	ND	0.0054	EPA 8260C	9-18-13	9-18-13	
trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
Bromochloromethane	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
Chloroform	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
Trichloroethene	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
Dibromomethane	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
Bromodichloromethane	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.13	EPA 8260C	9-18-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-18-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

Analyte	Result	PQL				
		PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP27-3					
Laboratory ID:	09-048-18					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
Tetrachloroethene	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
Dibromochloromethane	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
Chlorobenzene	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
Bromoform	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
Bromobenzene	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
2-Chlorotoluene	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
4-Chlorotoluene	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260C	9-18-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
Hexachlorobutadiene	ND	0.0054	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	9-18-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	120	65-129				
Toluene-d8	120	77-122				
4-Bromofluorobenzene	115	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

o.mo. mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP27-14.5			•	•	
Laboratory ID:	09-048-19					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Chloromethane	ND	0.0050	EPA 8260C	9-18-13	9-18-13	
Vinyl Chloride	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Bromomethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Chloroethane	ND	0.0050	EPA 8260C	9-18-13	9-18-13	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Iodomethane	ND	0.0050	EPA 8260C	9-18-13	9-18-13	
Methylene Chloride	ND	0.0050	EPA 8260C	9-18-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Bromochloromethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Chloroform	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Trichloroethene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Dibromomethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Bromodichloromethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.12	EPA 8260C	9-18-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP27-14.5					
Laboratory ID:	09-048-19					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Tetrachloroethene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Dibromochloromethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Chlorobenzene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Bromoform	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Bromobenzene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
2-Chlorotoluene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
4-Chlorotoluene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	9-18-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	120	65-129				
Toluene-d8	117	77-122				
4-Bromofluorobenzene	109	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ome: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP29-9			- 1	, ,	<u></u>
Laboratory ID:	09-048-20					
Dichlorodifluoromethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Chloromethane	ND	0.0047	EPA 8260C	9-18-13	9-18-13	
Vinyl Chloride	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Bromomethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Chloroethane	ND	0.0047	EPA 8260C	9-18-13	9-18-13	
Trichlorofluoromethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Iodomethane	ND	0.0047	EPA 8260C	9-18-13	9-18-13	
Methylene Chloride	ND	0.0047	EPA 8260C	9-18-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
2,2-Dichloropropane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Bromochloromethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Chloroform	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,1,1-Trichloroethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Carbon Tetrachloride	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloropropene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloroethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Trichloroethene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloropropane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Dibromomethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Bromodichloromethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.11	EPA 8260C	9-18-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP29-9					
Laboratory ID:	09-048-20					
1,1,2-Trichloroethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Tetrachloroethene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,3-Dichloropropane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Dibromochloromethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,2-Dibromoethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Chlorobenzene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Bromoform	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Bromobenzene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichloropropane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
2-Chlorotoluene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
4-Chlorotoluene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,3-Dichlorobenzene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,4-Dichlorobenzene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,2-Dichlorobenzene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,2-Dibromo-3-chloropropane	ND	0.0047	EPA 8260C	9-18-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Hexachlorobutadiene	ND	0.0047	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	116	65-129				
Toluene-d8	119	77-122				
4-Bromofluorobenzene	113	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP30-1					
Laboratory ID:	09-048-21					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Chloromethane	ND	0.0061	EPA 8260C	9-18-13	9-18-13	
Vinyl Chloride	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Bromomethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Chloroethane	ND	0.0061	EPA 8260C	9-18-13	9-18-13	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Iodomethane	ND	0.0061	EPA 8260C	9-18-13	9-18-13	
Methylene Chloride	ND	0.0061	EPA 8260C	9-18-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Bromochloromethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Chloroform	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Trichloroethene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Dibromomethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Bromodichloromethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.15	EPA 8260C	9-18-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP30-1					
Laboratory ID:	09-048-21					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Tetrachloroethene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Dibromochloromethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Chlorobenzene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Bromoform	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Bromobenzene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
2-Chlorotoluene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
4-Chlorotoluene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,2-Dibromo-3-chloropropane	ND	0.0061	EPA 8260C	9-18-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Hexachlorobutadiene	ND	0.0061	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	121	65-129				
Toluene-d8	120	77-122				
4-Bromofluorobenzene	107	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

55g,g				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP30-14					
Laboratory ID:	09-048-22					
Dichlorodifluoromethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Chloromethane	ND	0.0048	EPA 8260C	9-18-13	9-18-13	
Vinyl Chloride	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Bromomethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Chloroethane	ND	0.0048	EPA 8260C	9-18-13	9-18-13	
Trichlorofluoromethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
lodomethane	ND	0.0048	EPA 8260C	9-18-13	9-18-13	
Methylene Chloride	ND	0.0048	EPA 8260C	9-18-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
2,2-Dichloropropane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Bromochloromethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Chloroform	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,1,1-Trichloroethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Carbon Tetrachloride	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloropropene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloroethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Trichloroethene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloropropane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Dibromomethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Bromodichloromethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.12	EPA 8260C	9-18-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP30-14					
Laboratory ID:	09-048-22					
1,1,2-Trichloroethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Tetrachloroethene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,3-Dichloropropane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Dibromochloromethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,2-Dibromoethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Chlorobenzene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Bromoform	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Bromobenzene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichloropropane	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
2-Chlorotoluene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
4-Chlorotoluene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,3-Dichlorobenzene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,4-Dichlorobenzene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,2-Dichlorobenzene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
1,2-Dibromo-3-chloropropane	e ND	0.0048	EPA 8260C	9-18-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Hexachlorobutadiene	ND	0.0048	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.00097	EPA 8260C	9-18-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	107	65-129				
Toluene-d8	108	77-122				
4-Bromofluorobenzene	104	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

55g,g				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP31-3			•	•	
Laboratory ID:	09-048-23					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Chloromethane	ND	0.0058	EPA 8260C	9-18-13	9-18-13	
Vinyl Chloride	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Bromomethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Chloroethane	ND	0.0058	EPA 8260C	9-18-13	9-18-13	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Iodomethane	ND	0.0058	EPA 8260C	9-18-13	9-18-13	
Methylene Chloride	ND	0.0058	EPA 8260C	9-18-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Bromochloromethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Chloroform	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Trichloroethene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Dibromomethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Bromodichloromethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.14	EPA 8260C	9-18-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP31-3					
Laboratory ID:	09-048-23					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Tetrachloroethene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Dibromochloromethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Chlorobenzene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Bromoform	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Bromobenzene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
2-Chlorotoluene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
4-Chlorotoluene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260C	9-18-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Hexachlorobutadiene	ND	0.0058	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	9-18-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	113	65-129				
Toluene-d8	114	77-122				
4-Bromofluorobenzene	107	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ome: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP31-16				•	
Laboratory ID:	09-048-24					
Dichlorodifluoromethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Chloromethane	ND	0.0047	EPA 8260C	9-18-13	9-18-13	
Vinyl Chloride	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Bromomethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Chloroethane	ND	0.0047	EPA 8260C	9-18-13	9-18-13	
Trichlorofluoromethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Iodomethane	ND	0.0047	EPA 8260C	9-18-13	9-18-13	
Methylene Chloride	ND	0.0047	EPA 8260C	9-18-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
2,2-Dichloropropane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Bromochloromethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Chloroform	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,1,1-Trichloroethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Carbon Tetrachloride	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloropropene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloroethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Trichloroethene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloropropane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Dibromomethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Bromodichloromethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.11	EPA 8260C	9-18-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP31-16					
_aboratory ID:	09-048-24					
1,1,2-Trichloroethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Tetrachloroethene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
,3-Dichloropropane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Dibromochloromethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,2-Dibromoethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Chlorobenzene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Bromoform	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Bromobenzene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichloropropane	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
2-Chlorotoluene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1-Chlorotoluene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
3-Dichlorobenzene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
,4-Dichlorobenzene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
1,2-Dichlorobenzene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
,2-Dibromo-3-chloropropane	e ND	0.0047	EPA 8260C	9-18-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Hexachlorobutadiene	ND	0.0047	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.00094	EPA 8260C	9-18-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	114	65-129				
Toluene-d8	115	77-122				
4-Bromofluorobenzene	108	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ome. mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP32-3					
Laboratory ID:	09-048-25					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
Chloromethane	ND	0.0064	EPA 8260C	9-18-13	9-19-13	
Vinyl Chloride	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
Bromomethane	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
Chloroethane	ND	0.0064	EPA 8260C	9-18-13	9-19-13	
Trichlorofluoromethane	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
1,1-Dichloroethene	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
lodomethane	ND	0.0064	EPA 8260C	9-18-13	9-19-13	
Methylene Chloride	ND	0.0064	EPA 8260C	9-18-13	9-19-13	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
1,1-Dichloroethane	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
2,2-Dichloropropane	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
Bromochloromethane	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
Chloroform	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
Carbon Tetrachloride	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
1,1-Dichloropropene	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
1,2-Dichloroethane	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
Trichloroethene	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
1,2-Dichloropropane	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
Dibromomethane	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
Bromodichloromethane	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
2-Chloroethyl Vinyl Ether	ND	0.15	EPA 8260C	9-18-13	9-19-13	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-18-13	9-19-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP32-3					
Laboratory ID:	09-048-25					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
Tetrachloroethene	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
1,3-Dichloropropane	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
Dibromochloromethane	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
1,2-Dibromoethane	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
Chlorobenzene	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
Bromoform	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
Bromobenzene	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
2-Chlorotoluene	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
4-Chlorotoluene	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
1,2-Dibromo-3-chloropropane	ND ND	0.0064	EPA 8260C	9-18-13	9-19-13	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
Hexachlorobutadiene	ND	0.0064	EPA 8260C	9-18-13	9-19-13	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260C	9-18-13	9-19-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	116	65-129				
Toluene-d8	119	77-122				
4-Bromofluorobenzene	103	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

erme: mg/ng						
Amalista	Doords	BOL	Mathad	Date	Date	Flores
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP32-16.5					
Laboratory ID:	09-048-26					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Chloromethane	ND	0.0054	EPA 8260C	9-18-13	9-19-13	
Vinyl Chloride	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Bromomethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Chloroethane	ND	0.0054	EPA 8260C	9-18-13	9-19-13	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Iodomethane	ND	0.0054	EPA 8260C	9-18-13	9-19-13	
Methylene Chloride	ND	0.0054	EPA 8260C	9-18-13	9-19-13	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Bromochloromethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Chloroform	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Trichloroethene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Dibromomethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Bromodichloromethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
2-Chloroethyl Vinyl Ether	ND	0.13	EPA 8260C	9-18-13	9-19-13	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP32-16.5					
Laboratory ID:	09-048-26					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Tetrachloroethene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Dibromochloromethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Chlorobenzene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Bromoform	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Bromobenzene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
2-Chlorotoluene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
4-Chlorotoluene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260C	9-18-13	9-19-13	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Hexachlorobutadiene	ND	0.0054	EPA 8260C	9-18-13	9-19-13	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	117	65-129				
Toluene-d8	117	77-122				
4-Bromofluorobenzene	113	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

Sime: mg/ng				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP34-3				•	
Laboratory ID:	09-048-27					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Chloromethane	ND	0.0057	EPA 8260C	9-18-13	9-19-13	
Vinyl Chloride	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Bromomethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Chloroethane	ND	0.0057	EPA 8260C	9-18-13	9-19-13	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
lodomethane	ND	0.0057	EPA 8260C	9-18-13	9-19-13	
Methylene Chloride	ND	0.0057	EPA 8260C	9-18-13	9-19-13	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Bromochloromethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Chloroform	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Trichloroethene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Dibromomethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Bromodichloromethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
2-Chloroethyl Vinyl Ether	ND	0.14	EPA 8260C	9-18-13	9-19-13	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP34-3					
Laboratory ID:	09-048-27					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Tetrachloroethene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Dibromochloromethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Chlorobenzene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Bromoform	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Bromobenzene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
2-Chlorotoluene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
4-Chlorotoluene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
1,2-Dibromo-3-chloropropane	ND	0.0057	EPA 8260C	9-18-13	9-19-13	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Hexachlorobutadiene	ND	0.0057	EPA 8260C	9-18-13	9-19-13	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	9-18-13	9-19-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	121	65-129				
Toluene-d8	118	77-122				
4-Bromofluorobenzene	109	73-124				

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

55g,g				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP34-13			•	•	
Laboratory ID:	09-048-28					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
Chloromethane	ND	0.0050	EPA 8260C	9-18-13	9-19-13	
Vinyl Chloride	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
Bromomethane	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
Chloroethane	ND	0.0050	EPA 8260C	9-18-13	9-19-13	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
Iodomethane	ND	0.0050	EPA 8260C	9-18-13	9-19-13	
Methylene Chloride	ND	0.0050	EPA 8260C	9-18-13	9-19-13	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
Bromochloromethane	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
Chloroform	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
Trichloroethene	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
Dibromomethane	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
Bromodichloromethane	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
2-Chloroethyl Vinyl Ether	ND	0.12	EPA 8260C	9-18-13	9-19-13	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-18-13	9-19-13	

HALOGENATED VOLATILES EPA 8260C

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	GP34-13					
Laboratory ID:	09-048-28					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
Tetrachloroethene	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
Dibromochloromethane	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
Chlorobenzene	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
Bromoform	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
Bromobenzene	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
2-Chlorotoluene	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
4-Chlorotoluene	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	9-18-13	9-19-13	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	9-18-13	9-19-13	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	9-18-13	9-19-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	105	65-129				
Toluene-d8	107	77-122				
4-Bromofluorobenzene	103	73-124				

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0917S2					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
Chloromethane	ND	0.0050	EPA 8260C	9-17-13	9-17-13	
Vinyl Chloride	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
Bromomethane	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
Chloroethane	ND	0.0050	EPA 8260C	9-17-13	9-17-13	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
Iodomethane	ND	0.0050	EPA 8260C	9-17-13	9-17-13	
Methylene Chloride	ND	0.0050	EPA 8260C	9-17-13	9-17-13	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
Bromochloromethane	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
Chloroform	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
Trichloroethene	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
Dibromomethane	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
Bromodichloromethane	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
2-Chloroethyl Vinyl Ether	ND	0.10	EPA 8260C	9-17-13	9-17-13	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-17-13	9-17-13	

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0917S2					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
Tetrachloroethene	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
Dibromochloromethane	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
Chlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
Bromoform	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
Bromobenzene	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
2-Chlorotoluene	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
4-Chlorotoluene	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	9-17-13	9-17-13	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	9-17-13	9-17-13	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	9-17-13	9-17-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	116	65-129				
Toluene-d8	117	77-122				
4-Bromofluorobenzene	112	73-124				

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0918S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Chloromethane	ND	0.0050	EPA 8260C	9-18-13	9-18-13	
Vinyl Chloride	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Bromomethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Chloroethane	ND	0.0050	EPA 8260C	9-18-13	9-18-13	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Iodomethane	ND	0.0050	EPA 8260C	9-18-13	9-18-13	
Methylene Chloride	ND	0.0050	EPA 8260C	9-18-13	9-18-13	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Bromochloromethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Chloroform	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Trichloroethene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Dibromomethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Bromodichloromethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
2-Chloroethyl Vinyl Ether	ND	0.12	EPA 8260C	9-18-13	9-18-13	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0918S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Tetrachloroethene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Dibromochloromethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Chlorobenzene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Bromoform	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Bromobenzene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
2-Chlorotoluene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
4-Chlorotoluene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
1,2-Dibromo-3-chloropropane	e ND	0.0050	EPA 8260C	9-18-13	9-18-13	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	9-18-13	9-18-13	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	9-18-13	9-18-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	119	65-129				
Toluene-d8	120	77-122				
4-Bromofluorobenzene	116	73-124				

HALOGENATED VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	Result Spike Level Recover		overy	Limits	RPD	Limit	Flags		
SPIKE BLANKS										
Laboratory ID:	SB09	17S2								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0476	0.0477	0.0500	0.0500	95	95	56-141	0	15	
Benzene	0.0566	0.0577	0.0500	0.0500	113	115	70-121	2	15	
Trichloroethene	0.0486	0.0472	0.0500	0.0500	97	94	74-118	3	15	
Toluene	0.0520	0.0512	0.0500	0.0500	104	102	75-120	2	15	
Chlorobenzene	0.0524	0.0518	0.0500	0.0500	105	104	75-120	1	15	
Surrogate:										
Dibromofluoromethane					110	110	65-129			
Toluene-d8					112	108	77-122			
4-Bromofluorobenzene					110	106	73-124			

HALOGENATED VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Rece	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB09	18S1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0460	0.0449	0.0500	0.0500	92	90	56-141	2	15	
Benzene	0.0541	0.0536	0.0500	0.0500	108	107	70-121	1	15	
Trichloroethene	0.0457	0.0470	0.0500	0.0500	91	94	74-118	3	15	
Toluene	0.0491	0.0506	0.0500	0.0500	98	101	75-120	3	15	
Chlorobenzene	0.0498	0.0507	0.0500	0.0500	100	101	75-120	2	15	
Surrogate:										
Dibromofluoromethane					106	109	<i>65-129</i>			
Toluene-d8					103	108	77-122			
4-Bromofluorobenzene					101	103	73-124			

TOTAL LEAD EPA 6010C

Matrix: Soil

Units: mg/kg (ppm)

	,			Date	Date	
Analyte	Result	PQL	EPA Method	Prepared	Analyzed	Flags
Lab ID:	09-048-01 GP13-3					
Lead	9.8	6.0	6010C	9-12-13	9-12-13	
Lab ID: Client ID:	09-048-03 GP14-3					
Lead	ND	5.8	6010C	9-12-13	9-12-13	
Lab ID: Client ID:	09-048-05 GP15-2					
Lead	ND	5.9	6010C	9-12-13	9-12-13	
Lab ID:	09-048-07 GP16-3					
Lead	100	5.7	6010C	9-12-13	9-12-13	
Lab ID:	09-048-09 GP17-1					
Lead	ND	5.7	6010C	9-12-13	9-12-13	
Lab ID:	09-048-11 GP18-3					
Lead	ND	5.6	6010C	9-12-13	9-12-13	
Lab ID: Client ID:	09-048-14 GP24-0.5					
Lead	28	5.3	6010C	9-12-13	9-12-13	

TOTAL LEAD EPA 6010C

Matrix: Soil

Units: mg/kg (ppm)

	3 3 (T) /			Date	Date	
Analyte	Result	PQL	EPA Method	Prepared	Analyzed	Flags
Lab ID:	09-048-16					
Client ID:	GP25-3					
Lead	110	5.4	6010C	9-12-13	9-12-13	
Lab ID: Client ID:	09-048-18 GP27-3					
Lead	53	6.2	6010C	9-12-13	9-12-13	
Lab ID: Client ID:	09-048-21 GP30-1					
Lead	9.3	5.5	6010C	9-12-13	9-12-13	
Lab ID: Client ID:	09-048-23 GP31-3					
Lead	ND	5.6	6010C	9-12-13	9-12-13	
Lab ID: Client ID:	09-048-25 GP32-3					
Lead	ND	5.6	6010C	9-12-13	9-12-13	
Lab ID: Client ID:	09-048-27 GP34-3					
Lead	13	5.2	6010C	9-12-13	9-12-13	

TOTAL LEAD EPA 6010C METHOD BLANK QUALITY CONTROL

Date Extracted: 9-12-13
Date Analyzed: 9-12-13

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: MB0912SM1

Analyte Method Result PQL

Lead 6010C **ND** 5.0

TOTAL LEAD EPA 6010C DUPLICATE QUALITY CONTROL

Date Extracted: 9-12-13
Date Analyzed: 9-12-13

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 09-048-11

Sample Duplicate

Analyte Result RPD PQL Flags

Lead **ND ND** NA 5.0

Date of Report: September 19, 2013 Samples Submitted: September 7, 2013 Laboratory Reference: 1309-048 Project: 09-04193-017/003-001

TOTAL LEAD EPA 6010C MS/MSD QUALITY CONTROL

Date Extracted: 9-12-13
Date Analyzed: 9-12-13

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 09-048-11

	Spike		Percent		Percent		
Analyte	Level	MS	Recovery	MSD	Recovery	RPD	Flags
Lead	250	222	89	221	88	0	

Date of Report: September 19, 2013 Samples Submitted: September 7, 2013 Laboratory Reference: 1309-048 Project: 09-04193-017/003-001

% MOISTURE

Date Analyzed: 9-10&16-13

Client ID	Lab ID	% Moisture
GP13-3	09-048-01	17
GP13-14.5	09-048-02	9
GP14-3	09-048-03	13
GP14-9.5	09-048-04	11
GP15-2	09-048-05	15
GP15-10	09-048-06	20
GP16-3	09-048-07	12
GP16-14.5	09-048-08	15
GP17-1	09-048-09	12
GP17-9.5	09-048-10	13
GP18-3	09-048-11	10
GP18-11	09-048-12	9
GP23-6	09-048-13	8
GP24-0.5	09-048-14	5
GP24-7.5	09-048-15	15
GP25-3	09-048-16	8
GP25-14	09-048-17	15
GP27-3	09-048-18	19
GP27-14.5	09-048-19	11
GP29-9	09-048-20	9
GP30-1	09-048-21	9
GP30-14	09-048-22	10
GP31-3	09-048-23	10
GP31-16	09-048-24	14
GP32-3	09-048-25	10
GP32-16.5	09-048-26	21
GP34-3	09-048-27	4
GP34-13	09-048-28	12



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) 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.

Chain of Custody

of

% Moisture Q Added al 13 1.3. 03 (57A) ∞ V Sent via Coone 0-50 90 HEM (oil and grease) 1664A TCLP Metals Chromatograms with final report Comments/Special Instructions Total RCRA Metals/ MTCA Metals (circle one) Afchased Acid Herbicides 8151A MIS/Q07S8 sebioitse9 euroriqeordqonsgrO Organochlorine Pesticides 8081B CBs 8082A (level-wol) MIZ\Q07S8 sHA9 MIS\007S8 səlitsloviməS (sHA9 ləvəl-wol ritiw 00:00 Laboratory Number: 855 1alogenated Volatiles 8260C 14/6 Date **UWTPH-GX/BTEX** Heren The shoute **UWTPH-HCID** و 9 9 Mumber of Containers 7 7 Q t 9 リンプラル 3 Days Matrix 1 Day S \Rightarrow Turnaround Request (in working days) (TPH analysis 5 Days) Reviewed/Date 11:50 10:15 10:45 10:55 15:35 11:35 13,35 (Check One) 10:35 12:42 X Standard (7 Days) (other) 13:35 Time Same Day 2 Days 9/6/13 Sampled Heriesa Euviron mental 14648 NE 95th Street • Redmond, WA 98052 Phone: (425) 883-3881 • www.onsite-env.com 09-04193-017/003-001 Sampled De Bore Corp auter Analytical Laboratory Testing Services Sample Identification Project Marager: GP16-14.5 GP13-14.5 Signature GP17-9,5 GP14-9,5 GP15-10 GP16-3 GP14-3 GP15-2 GP13-3 GP17-Reviewed/Date Relinquished Relinquished Relinquished Project Name: Received Received Received Company: Lab ID 0 N M 9 D

Electronic Data Deliverables (EDDs)

Data Package: Level III

Level IV

Environmental Inc. Analytical Laboratory Testing Services

Chain of Custody

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Page 4

9/2 Moisture & Add 91,31,3.DB (STA) 09-048 Sout via Courier 92 AFA0 (oil and grease) 1664A TCLP Metals Comments/Special Instructions Fotal RCRA Metals/ MTCA Metals (circle one) Arara Arar Herbicides 8151A MIS/Q07S8 sebioitse9 aurodqsodqonagriC rganochiorine Pesticides 8081B (level-wol) MIZ\Q07S8 zHAC (sHA9 level-wol driw Laboratory Number: MIS/Q07S8 selitslovimes 555 00,00 alogenated Volatiles 8260C Herrera Envinada 9/7/13 X **MYTPH-GX/BTEX** 1WTPH-HCID 0 Number of Containers 0 9 0 4 3 Days Matrix 1 Day **Furnaround Request** (in working days) (TPH analysis 5 Days) 14:10 7.3 14:00 (6:00 (5,45) 200 15:31 16,10 16,55 (Check One) X Standard (7 Days) (other) Sampled Company Same Day 2 Days 5/3 0 Herrera Environmental 14648 NE 95th Street • Redmond, WA 98052 Phone: (425) 883-3881 • www.onsite-env.com 09-04193-017/003-00 Sample Identification Bro Carpent GP 37-14.5 GP34-7.5 GP34-0.5 GP35-14 GP37-3 GP33-6 GP35-3 GP 39-9 GP18-11 780 Project Manager: Relinquished Relinquished Relinquished Received Received Received 7 Lab ID 9 2 00

0

Chromatograms with final report

Electronic Data Deliverables (EDDs)

Data Package: Level III | Level IV |

Reviewed/Date

Reviewed/Date

OnSite Environmental Inc. Analytical Laboratory Testing Services

Chain of Custody

of

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% Moisture BAJUNU 91,31,3. DB (STA) 09 4 99 0-60 Send Via Criver HEM (oil and grease) 1664A **TOLP Metals** Comments/Special Instructions Chromatograms with final report otal RCRA Metals/ MTCA Metals (circle one) Afdf8 sebioidreH bioA betannoin; NIS/00758 sebicitee Pesticides 8270D/SIM (level-wol) MIS\Q07S8 aHAC Electronic Data Deliverables (EDDs) MIS/Q07S8 səlitsloviməs SHAY ləvəl-wol diw Laboratory Number: 8,00 955 Halogenated Volatiles 8260C Time XQ-H9TWV 4 VWTPH-Gx/BTEX Lucion Ad **AWTPH-HCID** 0 Number of Containers 0 9 7 0 T 3 Days 1 Day Matrix Data Package: Level III | Level IV | V **Turnaround Request** (in working days) (TPH analysis 5 Days) Herrea + Reviewed/Date 6:00 (Check One) 0;0 8,30 12:05 13:15 6:30 51:61 Standard (7 Days) 13:35 (other) Time Company Same Day 2 Days 9/6/13 6/8/13 15/13 Herresa En vi von men tal 14648 NE 95th Street • Redmond, WA 98052 Phone: (425) 883-3881 • www.onsite-env.com 09-04193-017/003-001 Carpent Sample Identification Project Managh: Signature GP33-16.5 GP 34-13 GP31-16 GP34-3 GP30-14 6833-3 GP31-3 GP30-1 Sled by: Reviewed/Date Relinquished Relinquished Relinquished Received Received Received 7 N Lab ID 3 26



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

September 27, 2013

Peter Jowise Herrera Environmental Consultants, Inc. 2200 6th Avenue, Suite 1100 Seattle, WA 98121

Re: Analytical Data for Project 09-04193-017/003-001

Laboratory Reference No. 1309-205

Dear Peter:

Enclosed are the analytical results and associated quality control data for samples submitted on September 24, 2013.

Please note that the data for the added Diesel analysis will follow in the final report.

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,

David Baumeister Project Manager

Enclosures

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

Case Narrative

Samples were collected on September 23, 2013 and received by the laboratory on September 24, 2013. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

NWTPH-Dx

Matrix: Water Units: mg/L (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-9					_
Laboratory ID:	09-205-10					
Diesel Range Organics	ND	0.26	NWTPH-Dx	9-25-13	9-25-13	
Lube Oil Range Organics	ND	0.41	NWTPH-Dx	9-25-13	9-25-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	80	50-150				

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

NWTPH-Dx QUALITY CONTROL

Matrix: Water Units: mg/L (ppm)

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0925W1					
Diesel Range Organics	ND	0.25	NWTPH-Dx	9-25-13	9-25-13	
Lube Oil Range Organics	ND	0.40	NWTPH-Dx	9-25-13	9-25-13	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	81	50-150				

				Perd	cent	Recovery		RPD	
Analyte	Res	sult		Reco	very	Limits	RPD	Limit	Flags
DUPLICATE									
Laboratory ID:	09-20)5-10							
	ORIG	DUP							
Diesel Range Organics	ND	ND					NA	NA	
Lube Oil Range Organics	ND	ND					NA	NA	
Surrogate:			,						
o-Terphenyl				80	75	50-150			

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

NWTPH-Dx

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

NWTPH-Dx QUALITY CONTROL

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ormo: ag/L				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW1-D			_		
Laboratory ID:	09-205-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloromethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Vinyl Chloride	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromomethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloroethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Iodomethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Methylene Chloride	ND	1.0	EPA 8260C	9-26-13	9-26-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromochloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloroform	0.21	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Trichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Dibromomethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromodichloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2-Chloroethyl Vinyl Ether	ND	1.5	EPA 8260C	9-26-13	9-26-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

4-Bromofluorobenzene

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW1-D					
Laboratory ID:	09-205-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Tetrachloroethene	2.7	1.0	EPA 8260C	9-26-13	9-26-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Dibromochloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromoform	ND	1.4	EPA 8260C	9-26-13	9-26-13	
Bromobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromo-3-chloropropane	e ND	1.7	EPA 8260C	9-26-13	9-26-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichlorobenzene	ND	0.31	EPA 8260C	9-26-13	9-26-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	109	62-122				
Toluene-d8	105	70-120				

71-120

93

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ormo: ag/L				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW1-S			•	-	
Laboratory ID:	09-205-02					
Dichlorodifluoromethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Chloromethane	ND	100	EPA 8260C	9-26-13	9-26-13	
Vinyl Chloride	ND	20	EPA 8260C	9-26-13	9-26-13	
Bromomethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Chloroethane	ND	100	EPA 8260C	9-26-13	9-26-13	
Trichlorofluoromethane	ND	20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethene	ND	20	EPA 8260C	9-26-13	9-26-13	
Iodomethane	ND	100	EPA 8260C	9-26-13	9-26-13	
Methylene Chloride	ND	100	EPA 8260C	9-26-13	9-26-13	
(trans) 1,2-Dichloroethene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethane	ND	20	EPA 8260C	9-26-13	9-26-13	
2,2-Dichloropropane	ND	20	EPA 8260C	9-26-13	9-26-13	
(cis) 1,2-Dichloroethene	26	20	EPA 8260C	9-26-13	9-26-13	
Bromochloromethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Chloroform	ND	20	EPA 8260C	9-26-13	9-26-13	
1,1,1-Trichloroethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Carbon Tetrachloride	ND	20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloropropene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloroethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Trichloroethene	21	20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloropropane	ND	20	EPA 8260C	9-26-13	9-26-13	
Dibromomethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Bromodichloromethane	ND	20	EPA 8260C	9-26-13	9-26-13	
2-Chloroethyl Vinyl Ether	ND	150	EPA 8260C	9-26-13	9-26-13	
(cis) 1,3-Dichloropropene	ND	20	EPA 8260C	9-26-13	9-26-13	
(trans) 1,3-Dichloropropene	ND	20	EPA 8260C	9-26-13	9-26-13	

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

Toluene-d8

4-Bromofluorobenzene

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW1-S					
Laboratory ID:	09-205-02					
1,1,2-Trichloroethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Tetrachloroethene	3900	100	EPA 8260C	9-26-13	9-26-13	
1,3-Dichloropropane	ND	20	EPA 8260C	9-26-13	9-26-13	
Dibromochloromethane	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromoethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Chlorobenzene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,1,1,2-Tetrachloroethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Bromoform	ND	140	EPA 8260C	9-26-13	9-26-13	
Bromobenzene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,1,2,2-Tetrachloroethane	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichloropropane	ND	20	EPA 8260C	9-26-13	9-26-13	
2-Chlorotoluene	ND	20	EPA 8260C	9-26-13	9-26-13	
4-Chlorotoluene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,3-Dichlorobenzene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,4-Dichlorobenzene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichlorobenzene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromo-3-chloropropane	e ND	170	EPA 8260C	9-26-13	9-26-13	
1,2,4-Trichlorobenzene	ND	20	EPA 8260C	9-26-13	9-26-13	
Hexachlorobutadiene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichlorobenzene	ND	31	EPA 8260C	9-26-13	9-26-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	101	62-122				

70-120

71-120

99

87

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ome. ag/L				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-2			_		
Laboratory ID:	09-205-03					
Dichlorodifluoromethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Chloromethane	ND	100	EPA 8260C	9-26-13	9-26-13	
Vinyl Chloride	ND	20	EPA 8260C	9-26-13	9-26-13	
Bromomethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Chloroethane	ND	100	EPA 8260C	9-26-13	9-26-13	
Trichlorofluoromethane	ND	20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethene	ND	20	EPA 8260C	9-26-13	9-26-13	
lodomethane	ND	100	EPA 8260C	9-26-13	9-26-13	
Methylene Chloride	ND	100	EPA 8260C	9-26-13	9-26-13	
(trans) 1,2-Dichloroethene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethane	ND	20	EPA 8260C	9-26-13	9-26-13	
2,2-Dichloropropane	ND	20	EPA 8260C	9-26-13	9-26-13	
(cis) 1,2-Dichloroethene	ND	20	EPA 8260C	9-26-13	9-26-13	
Bromochloromethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Chloroform	ND	20	EPA 8260C	9-26-13	9-26-13	
1,1,1-Trichloroethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Carbon Tetrachloride	ND	20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloropropene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloroethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Trichloroethene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloropropane	ND	20	EPA 8260C	9-26-13	9-26-13	
Dibromomethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Bromodichloromethane	ND	20	EPA 8260C	9-26-13	9-26-13	
2-Chloroethyl Vinyl Ether	ND	150	EPA 8260C	9-26-13	9-26-13	
(cis) 1,3-Dichloropropene	ND	20	EPA 8260C	9-26-13	9-26-13	
(trans) 1,3-Dichloropropene	ND	20	EPA 8260C	9-26-13	9-26-13	

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-2					
Laboratory ID:	09-205-03					
1,1,2-Trichloroethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Tetrachloroethene	3000	100	EPA 8260C	9-26-13	9-26-13	
1,3-Dichloropropane	ND	20	EPA 8260C	9-26-13	9-26-13	
Dibromochloromethane	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromoethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Chlorobenzene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,1,1,2-Tetrachloroethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Bromoform	ND	140	EPA 8260C	9-26-13	9-26-13	
Bromobenzene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,1,2,2-Tetrachloroethane	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichloropropane	ND	20	EPA 8260C	9-26-13	9-26-13	
2-Chlorotoluene	ND	20	EPA 8260C	9-26-13	9-26-13	
4-Chlorotoluene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,3-Dichlorobenzene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,4-Dichlorobenzene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichlorobenzene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromo-3-chloropropane	e ND	170	EPA 8260C	9-26-13	9-26-13	
1,2,4-Trichlorobenzene	ND	20	EPA 8260C	9-26-13	9-26-13	
Hexachlorobutadiene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichlorobenzene	ND	31	EPA 8260C	9-26-13	9-26-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	101	62-122				

Surrogate: Percent Recovery Control Limi
Dibromofluoromethane 101 62-122
Toluene-d8 99 70-120
4-Bromofluorobenzene 87 71-120

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-3					
Laboratory ID:	09-205-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Chloromethane	ND	1.0	EPA 8260C	9-27-13	9-27-13	
Vinyl Chloride	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Bromomethane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Chloroethane	ND	1.0	EPA 8260C	9-27-13	9-27-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Iodomethane	ND	1.0	EPA 8260C	9-27-13	9-27-13	
Methylene Chloride	ND	1.0	EPA 8260C	9-27-13	9-27-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Bromochloromethane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Chloroform	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Trichloroethene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Dibromomethane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Bromodichloromethane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-27-13	9-27-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-27-13	9-27-13	

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-3					
Laboratory ID:	09-205-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Tetrachloroethene	ND	1.0	EPA 8260C	9-27-13	9-27-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Dibromochloromethane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Chlorobenzene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Bromoform	ND	1.3	EPA 8260C	9-27-13	9-27-13	
Bromobenzene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,2-Dibromo-3-chloropropane	e ND	1.4	EPA 8260C	9-27-13	9-27-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,2,3-Trichlorobenzene	ND	0.25	EPA 8260C	9-27-13	9-27-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	100	62-122				
Toluene-d8	103	70-120				

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ormo. ag/L				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-4					
Laboratory ID:	09-205-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloromethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Vinyl Chloride	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromomethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloroethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Iodomethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Methylene Chloride	ND	1.0	EPA 8260C	9-26-13	9-26-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromochloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloroform	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Trichloroethene	1.8	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Dibromomethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromodichloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2-Chloroethyl Vinyl Ether	ND	1.5	EPA 8260C	9-26-13	9-26-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

4-Bromofluorobenzene

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-4					
Laboratory ID:	09-205-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Tetrachloroethene	66	5.0	EPA 8260C	9-26-13	9-26-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Dibromochloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromoform	ND	1.4	EPA 8260C	9-26-13	9-26-13	
Bromobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromo-3-chloropropane	e ND	1.7	EPA 8260C	9-26-13	9-26-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichlorobenzene	ND	0.31	EPA 8260C	9-26-13	9-26-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	108	62-122				
Toluene-d8	105	70-120				

71-120

94

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

- U				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-5					
Laboratory ID:	09-205-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloromethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Vinyl Chloride	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromomethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloroethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
lodomethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Methylene Chloride	ND	1.0	EPA 8260C	9-26-13	9-26-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromochloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloroform	0.80	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Trichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Dibromomethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromodichloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2-Chloroethyl Vinyl Ether	ND	1.5	EPA 8260C	9-26-13	9-26-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-5					
Laboratory ID:	09-205-06					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Tetrachloroethene	1.7	1.0	EPA 8260C	9-26-13	9-26-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Dibromochloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromoform	ND	1.4	EPA 8260C	9-26-13	9-26-13	
Bromobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromo-3-chloropropane	e ND	1.7	EPA 8260C	9-26-13	9-26-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichlorobenzene	ND	0.31	EPA 8260C	9-26-13	9-26-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	108	62-122				
Toluene-d8	105	70-120				

I oluene-d8 70-120 4-Bromofluorobenzene 94 71-120

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ormo. ag/L				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-6					
Laboratory ID:	09-205-07					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloromethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Vinyl Chloride	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromomethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloroethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
lodomethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Methylene Chloride	ND	1.0	EPA 8260C	9-26-13	9-26-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromochloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloroform	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Trichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Dibromomethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromodichloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2-Chloroethyl Vinyl Ether	ND	1.5	EPA 8260C	9-26-13	9-26-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

4-Bromofluorobenzene

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-6					
Laboratory ID:	09-205-07					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Tetrachloroethene	ND	1.0	EPA 8260C	9-26-13	9-26-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Dibromochloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromoform	ND	1.4	EPA 8260C	9-26-13	9-26-13	
Bromobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromo-3-chloropropane	e ND	1.7	EPA 8260C	9-26-13	9-26-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichlorobenzene	ND	0.31	EPA 8260C	9-26-13	9-26-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	109	62-122				
Toluene-d8	107	70-120				

94

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71-120

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

- U				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-7					
Laboratory ID:	09-205-08					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloromethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Vinyl Chloride	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromomethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloroethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
odomethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Methylene Chloride	ND	1.0	EPA 8260C	9-26-13	9-26-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromochloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloroform	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Trichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Dibromomethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromodichloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2-Chloroethyl Vinyl Ether	ND	1.5	EPA 8260C	9-26-13	9-26-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-7					
Laboratory ID:	09-205-08					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Tetrachloroethene	ND	1.0	EPA 8260C	9-26-13	9-26-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Dibromochloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromoform	ND	1.4	EPA 8260C	9-26-13	9-26-13	
Bromobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromo-3-chloropropane	e ND	1.7	EPA 8260C	9-26-13	9-26-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichlorobenzene	ND	0.31	EPA 8260C	9-26-13	9-26-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	111	62-122				
Toluene-d8	106	70-120				

I oluene-d8 70-120 4-Bromofluorobenzene 94 71-120

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-8					
Laboratory ID:	09-205-09					
Dichlorodifluoromethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Chloromethane	ND	5.0	EPA 8260C	9-26-13	9-26-13	
Vinyl Chloride	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Bromomethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Chloroethane	ND	5.0	EPA 8260C	9-26-13	9-26-13	
Trichlorofluoromethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethene	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Iodomethane	ND	5.0	EPA 8260C	9-26-13	9-26-13	
Methylene Chloride	ND	5.0	EPA 8260C	9-26-13	9-26-13	
(trans) 1,2-Dichloroethene	ND	1.0	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
2,2-Dichloropropane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
(cis) 1,2-Dichloroethene	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Bromochloromethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Chloroform	ND	1.0	EPA 8260C	9-26-13	9-26-13	
1,1,1-Trichloroethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Carbon Tetrachloride	ND	1.0	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloropropene	ND	1.0	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloroethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Trichloroethene	1.9	1.0	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloropropane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Dibromomethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Bromodichloromethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
2-Chloroethyl Vinyl Ether	ND	7.5	EPA 8260C	9-26-13	9-26-13	
(cis) 1,3-Dichloropropene	ND	1.0	EPA 8260C	9-26-13	9-26-13	
(trans) 1,3-Dichloropropene	ND	1.0	EPA 8260C	9-26-13	9-26-13	

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

4-Bromofluorobenzene

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-8					
Laboratory ID:	09-205-09					
1,1,2-Trichloroethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Tetrachloroethene	98	5.0	EPA 8260C	9-26-13	9-26-13	
1,3-Dichloropropane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Dibromochloromethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromoethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Chlorobenzene	ND	1.0	EPA 8260C	9-26-13	9-26-13	
1,1,1,2-Tetrachloroethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Bromoform	ND	7.0	EPA 8260C	9-26-13	9-26-13	
Bromobenzene	ND	1.0	EPA 8260C	9-26-13	9-26-13	
1,1,2,2-Tetrachloroethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichloropropane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
2-Chlorotoluene	ND	1.0	EPA 8260C	9-26-13	9-26-13	
4-Chlorotoluene	ND	1.0	EPA 8260C	9-26-13	9-26-13	
1,3-Dichlorobenzene	ND	1.0	EPA 8260C	9-26-13	9-26-13	
1,4-Dichlorobenzene	ND	1.0	EPA 8260C	9-26-13	9-26-13	
1,2-Dichlorobenzene	ND	1.0	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromo-3-chloropropane	e ND	8.5	EPA 8260C	9-26-13	9-26-13	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Hexachlorobutadiene	ND	1.0	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichlorobenzene	ND	1.6	EPA 8260C	9-26-13	9-26-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	101	62-122				
Toluene-d8	99	70-120				

71-120

87

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

			Date	Date	
Result	PQL	Method	Prepared	Analyzed	Flags
MW-9					
09-205-10					
ND	2.0	EPA 8260C	9-26-13	9-26-13	
ND	10	EPA 8260C	9-26-13	9-26-13	
ND	2.0	EPA 8260C	9-26-13	9-26-13	
ND	2.0	EPA 8260C	9-26-13	9-26-13	
ND	10	EPA 8260C	9-26-13	9-26-13	
ND	2.0	EPA 8260C	9-26-13	9-26-13	
ND	2.0	EPA 8260C	9-26-13	9-26-13	
ND	10	EPA 8260C	9-26-13	9-26-13	
ND	10	EPA 8260C	9-26-13	9-26-13	
ND	2.0	EPA 8260C	9-26-13	9-26-13	
ND	2.0	EPA 8260C	9-26-13	9-26-13	
ND	2.0	EPA 8260C	9-26-13	9-26-13	
ND	2.0	EPA 8260C	9-26-13	9-26-13	
ND	2.0	EPA 8260C	9-26-13	9-26-13	
ND	2.0	EPA 8260C	9-26-13	9-26-13	
ND	2.0	EPA 8260C	9-26-13	9-26-13	
ND	2.0	EPA 8260C	9-26-13	9-26-13	
ND	2.0	EPA 8260C	9-26-13	9-26-13	
ND	2.0	EPA 8260C	9-26-13	9-26-13	
16	2.0	EPA 8260C	9-26-13	9-26-13	
ND	2.0	EPA 8260C	9-26-13	9-26-13	
ND	2.0	EPA 8260C	9-26-13	9-26-13	
ND	2.0	EPA 8260C	9-26-13	9-26-13	
ND	15	EPA 8260C	9-26-13	9-26-13	
ND	2.0	EPA 8260C	9-26-13	9-26-13	
ND	2.0	EPA 8260C	9-26-13	9-26-13	
	MW-9 09-205-10 ND	MW-9 09-205-10 ND 2.0 ND 10 ND 2.0 ND 2.0 ND 10 ND 2.0 ND 10 ND 2.0 ND 10 ND 2.0 ND 10 ND 2.0 MW-9 09-205-10 ND 2.0 EPA 8260C ND 10 EPA 8260C ND 2.0 EPA 8260C ND 2.0 EPA 8260C ND 10 EPA 8260C ND 2.0 EPA 8260C ND 10 EPA 8260C ND 10 EPA 8260C ND 10 EPA 8260C ND 2.0 EPA 8260C	MW-9 09-205-10 ND 2.0 EPA 8260C 9-26-13 ND 10 EPA 8260C 9-26-13 ND 2.0 EPA 8260C 9-26-13 ND 2.0 EPA 8260C 9-26-13 ND 10 EPA 8260C 9-26-13 ND 10 EPA 8260C 9-26-13 ND 10 EPA 8260C 9-26-13 ND 2.0 EPA 8260C 9-26-13 ND 2.0 EPA 8260C 9-26-13 ND 10 EPA 8260C 9-26-13 ND 10 EPA 8260C 9-26-13 ND 10 EPA 8260C 9-26-13 ND 2.0 EPA 8260C 9-26-13	Result PQL Method Prepared Analyzed MW-9 09-205-10 09-205-10 09-26-13 9-26-13 9-26-13 ND 10 EPA 8260C 9-26-13 9-26-13 ND 2.0 EPA 8260C 9-26-13 9-26-13 ND 2.0 EPA 8260C 9-26-13 9-26-13 ND 10 EPA 8260C 9-26-13 9-26-13 ND 2.0 EPA 8260C 9-26-13 9-26-13 ND 2.0 EPA 8260C 9-26-13 9-26-13 ND 10 EPA 8260C 9-26-13 9-26-13 ND 10 EPA 8260C 9-26-13 9-26-13 ND 10 EPA 8260C 9-26-13 9-26-13 ND 2.0 EPA 8260C 9-26-	

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-9					_
Laboratory ID:	09-205-10					
1,1,2-Trichloroethane	ND	2.0	EPA 8260C	9-26-13	9-26-13	
Tetrachloroethene	230	10	EPA 8260C	9-26-13	9-26-13	
1,3-Dichloropropane	ND	2.0	EPA 8260C	9-26-13	9-26-13	
Dibromochloromethane	ND	2.0	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromoethane	ND	2.0	EPA 8260C	9-26-13	9-26-13	
Chlorobenzene	ND	2.0	EPA 8260C	9-26-13	9-26-13	
1,1,1,2-Tetrachloroethane	ND	2.0	EPA 8260C	9-26-13	9-26-13	
Bromoform	ND	14	EPA 8260C	9-26-13	9-26-13	
Bromobenzene	ND	2.0	EPA 8260C	9-26-13	9-26-13	
1,1,2,2-Tetrachloroethane	ND	2.0	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichloropropane	ND	2.0	EPA 8260C	9-26-13	9-26-13	
2-Chlorotoluene	ND	2.0	EPA 8260C	9-26-13	9-26-13	
4-Chlorotoluene	ND	2.0	EPA 8260C	9-26-13	9-26-13	
1,3-Dichlorobenzene	ND	2.0	EPA 8260C	9-26-13	9-26-13	
1,4-Dichlorobenzene	ND	2.0	EPA 8260C	9-26-13	9-26-13	
1,2-Dichlorobenzene	ND	2.0	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromo-3-chloropropane	e ND	17	EPA 8260C	9-26-13	9-26-13	
1,2,4-Trichlorobenzene	ND	2.0	EPA 8260C	9-26-13	9-26-13	
Hexachlorobutadiene	ND	2.0	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichlorobenzene	ND	3.1	EPA 8260C	9-26-13	9-26-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	101	62-122				

Surrogate: Percent Recovery Control Limi
Dibromofluoromethane 101 62-122
Toluene-d8 101 70-120
4-Bromofluorobenzene 88 71-120

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

ormo. ag/L				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-10			_		
Laboratory ID:	09-205-11					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloromethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Vinyl Chloride	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromomethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloroethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Iodomethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Methylene Chloride	ND	1.0	EPA 8260C	9-26-13	9-26-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromochloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloroform	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Trichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Dibromomethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromodichloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2-Chloroethyl Vinyl Ether	ND	1.5	EPA 8260C	9-26-13	9-26-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-10					
Laboratory ID:	09-205-11					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Tetrachloroethene	ND	1.0	EPA 8260C	9-26-13	9-26-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Dibromochloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromoform	ND	1.4	EPA 8260C	9-26-13	9-26-13	
Bromobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromo-3-chloropropane	e ND	1.7	EPA 8260C	9-26-13	9-26-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichlorobenzene	ND	0.31	EPA 8260C	9-26-13	9-26-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	103	62-122				
Toluene-d8	100	70-120				
		74.400				

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C

page 1 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-11					
Laboratory ID:	09-205-12					
Dichlorodifluoromethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Chloromethane	ND	100	EPA 8260C	9-26-13	9-26-13	
Vinyl Chloride	ND	20	EPA 8260C	9-26-13	9-26-13	
Bromomethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Chloroethane	ND	100	EPA 8260C	9-26-13	9-26-13	
Trichlorofluoromethane	ND	20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethene	ND	20	EPA 8260C	9-26-13	9-26-13	
Iodomethane	ND	100	EPA 8260C	9-26-13	9-26-13	
Methylene Chloride	ND	100	EPA 8260C	9-26-13	9-26-13	
(trans) 1,2-Dichloroethene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethane	ND	20	EPA 8260C	9-26-13	9-26-13	
2,2-Dichloropropane	ND	20	EPA 8260C	9-26-13	9-26-13	
(cis) 1,2-Dichloroethene	ND	20	EPA 8260C	9-26-13	9-26-13	
Bromochloromethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Chloroform	ND	20	EPA 8260C	9-26-13	9-26-13	
1,1,1-Trichloroethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Carbon Tetrachloride	ND	20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloropropene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloroethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Trichloroethene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloropropane	ND	20	EPA 8260C	9-26-13	9-26-13	
Dibromomethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Bromodichloromethane	ND	20	EPA 8260C	9-26-13	9-26-13	
2-Chloroethyl Vinyl Ether	ND	150	EPA 8260C	9-26-13	9-26-13	
(cis) 1,3-Dichloropropene	ND	20	EPA 8260C	9-26-13	9-26-13	
(trans) 1,3-Dichloropropene	ND	20	EPA 8260C	9-26-13	9-26-13	

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C

page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Client ID:	MW-11					_
Laboratory ID:	09-205-12					
1,1,2-Trichloroethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Tetrachloroethene	3000	100	EPA 8260C	9-26-13	9-26-13	
1,3-Dichloropropane	ND	20	EPA 8260C	9-26-13	9-26-13	
Dibromochloromethane	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromoethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Chlorobenzene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,1,1,2-Tetrachloroethane	ND	20	EPA 8260C	9-26-13	9-26-13	
Bromoform	ND	140	EPA 8260C	9-26-13	9-26-13	
Bromobenzene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,1,2,2-Tetrachloroethane	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichloropropane	ND	20	EPA 8260C	9-26-13	9-26-13	
2-Chlorotoluene	ND	20	EPA 8260C	9-26-13	9-26-13	
4-Chlorotoluene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,3-Dichlorobenzene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,4-Dichlorobenzene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichlorobenzene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromo-3-chloropropane	e ND	170	EPA 8260C	9-26-13	9-26-13	
1,2,4-Trichlorobenzene	ND	20	EPA 8260C	9-26-13	9-26-13	
Hexachlorobutadiene	ND	20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichlorobenzene	ND	31	EPA 8260C	9-26-13	9-26-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	101	62-122				

Surrogate: Percent Recovery Control Limi
Dibromofluoromethane 101 62-122
Toluene-d8 98 70-120
4-Bromofluorobenzene 87 71-120

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Page 1 of 2

Offits. ug/L				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0926W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloromethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Vinyl Chloride	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromomethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloroethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
lodomethane	ND	1.0	EPA 8260C	9-26-13	9-26-13	
Methylene Chloride	ND	1.0	EPA 8260C	9-26-13	9-26-13	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromochloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chloroform	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Trichloroethene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Dibromomethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromodichloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2-Chloroethyl Vinyl Ether	ND	1.5	EPA 8260C	9-26-13	9-26-13	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-26-13	9-26-13	

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0926W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Tetrachloroethene	ND	1.0	EPA 8260C	9-26-13	9-26-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Dibromochloromethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Chlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Bromoform	ND	1.4	EPA 8260C	9-26-13	9-26-13	
Bromobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-26-13	9-26-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2-Dibromo-3-chloropropane	e ND	1.7	EPA 8260C	9-26-13	9-26-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-26-13	9-26-13	
1,2,3-Trichlorobenzene	ND	0.31	EPA 8260C	9-26-13	9-26-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	107	62-122				
Toluene-d8	108	70-120				
4-Bromofluorobenzene	95	71-120				

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Page 1 of 2

			Date	Date	
Result	PQL	Method	Prepared	Analyzed	Flags
MB0927W1					
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	1.0	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	1.0	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	1.0	EPA 8260C	9-27-13	9-27-13	
ND	1.0	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	1.0	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
ND	0.20	EPA 8260C	9-27-13	9-27-13	
	MB0927W1 ND	MB0927W1 ND 0.20 ND 1.0 ND 0.20 ND 0.20 ND 1.0 ND 0.20 ND 1.0 ND 1.0 ND 0.20 ND 0.20	MB0927W1 ND 0.20 EPA 8260C ND 1.0 EPA 8260C ND 0.20 EPA 8260C ND 0.20 EPA 8260C ND 1.0 EPA 8260C ND 0.20 EPA 8260C ND 0.20 EPA 8260C ND 1.0 EPA 8260C ND 1.0 EPA 8260C ND 1.0 EPA 8260C ND 0.20 EPA 8	Result PQL Method Prepared MB0927W1 0.20 EPA 8260C 9-27-13 ND 1.0 EPA 8260C 9-27-13 ND 0.20 EPA 8260C 9-27-13 ND 0.20 EPA 8260C 9-27-13 ND 1.0 EPA 8260C 9-27-13 ND 0.20 EPA 8260C 9-27-13 ND 0.20 EPA 8260C 9-27-13 ND 1.0 EPA 8260C 9-27-13 ND 1.0 EPA 8260C 9-27-13 ND 1.0 EPA 8260C 9-27-13 ND 0.20 EPA 8260C 9-27-13	Result PQL Method Prepared Analyzed MB0927W1 ND 0.20 EPA 8260C 9-27-13 9-27-13 ND 1.0 EPA 8260C 9-27-13 9-27-13 ND 0.20 EPA 8260C 9-27-13 9-27-13 ND 0.20 EPA 8260C 9-27-13 9-27-13 ND 1.0 EPA 8260C 9-27-13 9-27-13 ND 0.20 EPA 8260C 9-27-13 9-27-13 ND 0.20 EPA 8260C 9-27-13 9-27-13 ND 0.20 EPA 8260C 9-27-13 9-27-13 ND 1.0 EPA 8260C 9-27-13 9-27-13 ND 1.0 EPA 8260C 9-27-13 9-27-13 ND 1.0 EPA 8260C 9-27-13 9-27-13 ND 0.20 EPA 8260C 9-27-13 9-27-13 ND 0.20 EPA 8260C 9-27-13 9-27-13 ND 0.20 EPA 8260C <td< td=""></td<>

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C METHOD BLANK QUALITY CONTROL

Page 2 of 2

				Date	Date	
Analyte	Result	PQL	Method	Prepared	Analyzed	Flags
Laboratory ID:	MB0927W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Tetrachloroethene	ND	1.0	EPA 8260C	9-27-13	9-27-13	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Dibromochloromethane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Chlorobenzene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Bromoform	ND	1.3	EPA 8260C	9-27-13	9-27-13	
Bromobenzene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-27-13	9-27-13	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,2-Dibromo-3-chloropropane	e ND	1.4	EPA 8260C	9-27-13	9-27-13	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-27-13	9-27-13	
1,2,3-Trichlorobenzene	ND	0.25	EPA 8260C	9-27-13	9-27-13	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	98	62-122				
Toluene-d8	102	70-120				
4-Bromofluorobenzene	98	71-120				

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Res	sult	Spike	Level	Rec	overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB092	26W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	11.9	11.7	10.0	10.0	119	117	63-142	2	17	
Benzene	11.4	11.4	10.0	10.0	114	114	78-125	0	15	
Trichloroethene	10.5	10.0	10.0	10.0	105	100	80-125	5	15	
Toluene	10.6	10.2	10.0	10.0	106	102	80-125	4	15	
Chlorobenzene	10.9	10.5	10.0	10.0	109	105	80-140	4	15	
Surrogate:										
Dibromofluoromethane					102	108	62-122			
Toluene-d8					104	104	70-120			
4-Bromofluorobenzene					93	95	71-120			

Laboratory Reference: 1309-205 Project: 09-04193-017/003-001

HALOGENATED VOLATILES EPA 8260C SB/SBD QUALITY CONTROL

					Per	cent	Recovery		RPD	
Analyte	Result		Spike	Spike Level		overy	Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB092	27W1								
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	10.6	10.4	10.0	10.0	106	104	63-142	2	17	
Benzene	10.2	10.3	10.0	10.0	102	103	78-125	1	15	
Trichloroethene	10.0	9.80	10.0	10.0	100	98	80-125	2	15	
Toluene	10.1	9.87	10.0	10.0	101	99	80-125	2	15	
Chlorobenzene	10.9	10.8	10.0	10.0	109	108	80-140	1	15	
Surrogate:										
Dibromofluoromethane					95	97	62-122			
Toluene-d8					101	100	70-120			
4-Bromofluorobenzene					96	98	71-120			



Data Qualifiers and Abbreviations

- A Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B The analyte indicated was also found in the blank sample.
- C The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E The value reported exceeds the quantitation range and is an estimate.
- F Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I Compound recovery is outside of the control limits.
- J The value reported was below the practical quantitation limit. The value is an estimate.
- K Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L The RPD is outside of the control limits.
- M Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 Hydrocarbons in the gasoline range (toluene-napthalene) 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

Environmental Inc. Analytical Laboratory Testing Services **OnSite**

Chain of Custody

Page 1

9% Moisture Sud Via Counce (STA) 09-205 HEM (oil and grease) 1664A **TCLP Metals** Comments/Special Instructions Total RCRA Metals/ MTCA Metals (circle one) AT&T8 sebioidaeH bioA betsniroldC Organophosphorus Pesticides 8270D/SIM (level-wol) MIS\Q07S8 &HA9 (sHA9 level-wol dfiw Laboratory Number: MIS/Q07S8 selifislovimes 839 Hayles 930 Halogenated Volatiles 8260C 9/24/13 3 **AWTPH-Dx 1MTPH-GX AWTPH-GX/BTEX** Herera Edinonusai **AWTPH-HCID** Number of Containers 13 3 3 W 3 50 a n 3 n X 3 Days Matrix 1 Day X Dx: Standard THT (other) \geq 3 200 Standard (7 Days)
(TPH analysis 5 Days) **Turnaround Request** (in working days) 040 (Check One) 1240 28 33 011 630 Time 999 1535 1715 125 Company Same Day 2 Days 2 33 B Sampled by: Bruce Carpender / Overage I of the Company: Herrera Environmental Phone: (425) 883-3881 • www.onsite-env.com 14648 NE 95th Street • Redmond, WA 98052 09-04193-017/003-001 Sample Identification Project Managel: MW-9 NW1.5 MW-4 ME-00 (17)と MW-3 MW-7 イーグと NO -S MW-6 Project Name: \SC Relinquished Relinquished Relinquished Received Received 0 Lab ID N 3 e

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Chromatograms with final report

Electronic Data Deliverables (EDDs)

Data Package: Level III | Level IV |

Reviewed/Date

Reviewed/Date

Received

Chain of Custody OnSite

Page 7 of 7

Environmental Inc. Analytical Laboratory Testing Services

% Moisture Chrie HEM (oil and grease) 1664A TCLP Metals Comments/Special Instructions Chromatograms with final report Total RCRA Metals/ MTCA Metals (circle one) 22 A1518 sebioidreH bioA betsniroldC Organophosphorus Pesticides 8270D/SIM Sel de B1808 sebicitee Pesticides 8081B CBs 8082A (level-wol) MIS\Q07S8 sHA9 MIS\00728 səlitsloviməS (sHA9 ləvəl-wol rliw) Laboratory Number: 83 Jalogenated Volatiles 8260C 9/24/13 XQ-H4TWN NWTPH-GX NWTPH-Gx/BTEX Heriera Euvinonnisto NWTPH-HCID Number of Containers mm X 3 Days Matrix 1 Day Data Package: Level III
Level IV **Turnaround Request** Standard (7 Days) (TPH analysis 5 Days) (in working days) X Dx Standard Reviewed/Date (Check One) 350 Sampled Company Same Day 2 Days 9/23/13 Sampled genge 1 tre 14648 NE 95th Street • Redmond, WA 98052 Phone: (425) 883-3881 • www.onsite-env.com Herrera Kushmuental 09-04193-017/003-001 Sample Identification Sampled by: Carpenty Set Louis MW-10 1-3W Reviewed/Date Relinquished Relinquished Relinquished Project Manag Received Received Received Company: 7 Lab ID

Electronic Data Deliverables (EDDs)