

July 11, 2019

REV. JN 15217E-1

Blueprint Capital Services, LLC
PO Box 16428
Seattle, Washington 98116

Attention: Dan Duffus

Subject: **Voluntary Cleanup Program - Cleanup Report**
All Star Cleaners
1222 Northeast 65th Street
Seattle, Washington 98105
Ecology Facility Site ID 16182
Voluntary Cleanup Program Project No. NW3110

Dear Mr. Duffus

via e-mail dan@blueprintcap.com

This report summarizes the independent remedial actions conducted by Blueprint Capital Services LLC and observed by Geotech Consultants, Incorporated at the subject property. Geotech Consultants, Incorporated has observed the process throughout the remedial action and has completed all the required testing. This report was prepared in accordance with the terms of our revised proposal dated May 15, 2015 and our supplemental proposal of November 15, 2016.

The purpose of this report is to document that the site conditions meet the substantive requirements under the Model Toxics Control Act (MTCA) to obtain the No Further Action (NFA) required determination under the Voluntary Cleanup Program (VCP).

We appreciate the opportunity to be of service to you on this project. If you have any questions, or if we may be of additional service, please do not hesitate to contact us.

Respectfully submitted,

GEOTECH CONSULTANTS, INC.



Timothy A. Johnson
Licensed Geologist
Licensed Hydrogeologist

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ACRONYMS AND ABBREVIATIONS

Acronyms & Abbreviations	Definitions
1,1- DCE	1,1-Dichloroethene
ARAR	Applicable or Relevant and Appropriate Requirements
BGS	below ground surface
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
cis 1,2-DCE	(cis) 1,2-Dichloroethene
CLARC	Cleanup Levels and Risk Calculation
COC	Contaminant/Chemical of Concern
CSID	Cleanup Site Identification number
CSM	Conceptual Site Model
CUL	Clean-up Levels
EM	Electromagnetic Device
FSID	Facility Site Identification Number
GPR	Ground Penetrating Radar
HVOCs	Halogenated Volatile Organic Compounds
Mg/Kg	Milligrams per Kilograms
MTCA	Model Toxics Control Act
NFA	No Further Action
PCE	Tetrachloroethene
PID	Photoionization device
PPB	Parts Per Billion
PPM	Parts Per Million
QAPP	Quality Assurance Project Plan
RCW	Revised Code of Washington
RAO	Remedial Action Objectives
TEE	Terrestrial Ecological Evaluation
TCE	Trichloroethylene
trans 1,2-DCE	(trans) 1,2-Dichloroethene
TPH	total petroleum hydrocarbon
VC	Vinyl Chloride
VCP	Voluntary Cleanup Program
VOCs	Volatile Organic Compounds
WAC	Washington State Administrative Code
WDOE	Washington Department of Ecology

VOLUNTARY CLEANUP PROGRAM REPORT
All Star Cleaners
1222 Northeast 65th Street
Seattle, Washington 98105
Ecology Facility Site ID 16182
Voluntary Cleanup Program Project No. NW3110

EXECUTIVE SUMMARY

NOTICE: THE EXECUTIVE SUMMARY IS PROVIDED SOLELY FOR PURPOSES OF OVERVIEW. ANY PARTY WHO RELIES ON THIS REPORT MUST READ THE FULL REPORT. THE EXECUTIVE SUMMARY OMITTS A NUMBER OF DETAILS, ANY ONE OF WHICH COULD BE CRUCIAL TO THE PROPER APPLICATION OF THIS REPORT.

This report presents a summary of the independent action completed pursuant to the Washington Voluntary Cleanup Program (VCP) by Blueprint Capital Services, LLC and observed by Geotech Consultants, Inc. (Geotech) at the former All Star Cleaners property located at 1222 Northeast 65th Street in Seattle, Washington.

The subject site was most recently developed with a building occupied by All Star Cleaners at the northwestern corner of Northeast 65th Street with Brooklyn Avenue Northeast in the Ravenna District in Seattle. The building was demolished in April 2017 and the property has been redeveloped with The Brooklyn, a six-story mixed-use building with basement storage. The property is located at the northwestern corner of the intersection of Northeast 65th Street with Brooklyn Avenue Northeast in the Ravenna District of Seattle, Washington. The Vicinity Map, attached as Plate 1, illustrates the location of the subject property. The general layout of the property is illustrated on the Site Map, Plate 2. The property is bordered to the east by Brooklyn Avenue Northeast then a building currently used as the construction office, to the south by Northeast 65th Street then an older mixed-use office and apartment building; to the west by a building occupied by the intercommunity Peace and Justice Center.

We completed a Limited Phase 2 Environmental Site Assessment in June 2015. To assess the condition of soil at the subject property, we drilled six borings, B1E through B6E. Twelve of the 14 soil samples were submitted for analysis either had concentrations of PCE below the practical quantitation limit of 0.0010 mg/Kg or had concentrations of PCE above method detection level but below the current 0.05 mg/Kg cleanup level. Two of the samples submitted from immediately below the lowest asphalt layer in borings B3E and B5E had concentrations of PCE exceeding the Method A cleanup level for unrestricted land use. **No** common products formed by breakdown of PCE including trichloroethene (TCE); 1,1-Dichloroethene (1,1- DCE); (trans) 1,2-Dichloroethene (trans 1,2-DCE); (cis) 1,2-Dichloroethene (cis 1,2-DCE); or vinyl chloride (VC) were detected in any of the 14 samples submitted for analysis. Based upon this initial laboratory analysis it appeared that PCE was the only contaminant of concern (COC).

Following demolition of the buildings and prior to installation of soldier piles and excavation of the site for below grade storage, we observed excavation of 15 test pits and submitted select soil samples from the test pits for analysis. The maximum explored depth was approximately 10 feet below existing grade at TP14. No groundwater was encountered during excavation of the test pits. The test pit locations were chosen based upon previously completed sampling and analysis and access to sewer lines and likely areas where improper disposal could occur.

Only one of the 38 samples submitted for analysis from immediately below the lowest asphalt layer

from TP 11 had concentrations of PCE exceeding Method A cleanup level for unrestricted land use. Thirteen samples had concentrations of PCE below the practical quantitation limit (PQL) of 0.0010 mg/kg. The detected concentrations of PCE in 24 samples submitted for analysis were above the PQL but below current cleanup level. **No** common products formed by breakdown of PCE including TCE; 1,1- DCE; trans 1,2-DCE; (cis) 1,2-DCE; or vinyl chloride (VC) were detected in any of the 38 samples submitted for analysis. It was our opinion that the absence of breakdown products may indicate a more recent release, or the soil conditions are not favorable for biologic breakdown of PCE.

We observed drilling of a seven of the 36 shafts for the soldier piles used to support the temporary shoring walls needed to excavate the site for below grade parking. The shafts for the soldier piles were drilled to a maximum depth of approximately 30 feet below existing grade. No groundwater was observed in any of the seven auger drilled shafts for the soldier piles we observed. Eleven soil samples were collected from the seven of the auger-drilled shafts during installation of the soldier piles. The samples were collected from the tip of the auger at depths that ranged from approximately 4- to 30-feet below the existing ground surface. Analysis of these soil samples revealed four samples had concentrations of PCE below the PQL of 0.0010 mg/Kg. The detected concentrations of PCE in seven of the 11 samples submitted for analysis were above PQL but below current cleanup level. **No** common products formed by breakdown of PCE including TCE; 1,1- DCE; (trans) 1,2-DCE); (cis) 1,2-DCE; or vinyl chloride (VC) were detected in any of the 11 samples submitted for analysis.

The results of the laboratory analyses suggested that the soil immediately beneath the asphalt near test pit location TP11 and previously analyzed borings B3E and B5E appeared to be contaminated with PCE above current Method A cleanup level for unrestricted land use. None of the samples that were above the Method A cleanup level were from deeper than approximately 6-inches below the existing asphalt parking lot. Detectable concentrations of PCE were identified in 13 of the 15 test pits at levels that were below the Method A cleanup level. Based upon the supplemental sampling and analysis it did not appear that the contamination originated from the vicinity of the former dry-cleaning machine and spotting area or from the leaks in the sanitary sewer lines that served the All Star Dry Cleaners or the former house. Due to the generally very low concentrations of PCE reported in the laboratory analysis, it appeared that the most likely conceptual site model (CSM) was due to improper disposal of PCE contaminated water directly upon the asphalt paved parking lot then infiltration into the subgrade.

Based upon the sampling completed to date, it appeared that two areas of contaminated soil and asphalt existed in the parking lot at the former All Star Cleaners site. One area was estimated to be approximately 12.5 feet by 25 feet and extended approximately one-foot deep and contained the boring B5E and TP11. The other area was located south of the building and encompassed boring B3E. This area measured approximately 10 feet by 7.5 feet and extended approximately 1-foot deep.

Re-development of the subject property involved excavation of the site for foundations and for below grade storage for new above grade building. In light of the sampling results and in the interest of minimizing the possibility of spreading the PCE-contaminated soil during excavation for the building's foundation Blueprint Capital Services, LLC conducted targeted soils excavation to remove the impacted soils. On July 7, 2017, Blueprint Capital Services, LLC removed approximately 66,000 pounds (33 tons) of PCE-contaminated soil and asphalt designated as dangerous waste and shipped in a container to Chemical Waste Management's RCRA Permitted facility in Arlington, Oregon. R-Transport Services coordinated transport and disposal of the dangerous waste. Geotech collected and submitted 10 samples of soil from the walls and bottom of two areas to document that

contaminated soil had been removed. The analysis revealed that the detected concentrations of PCE in all 10 samples submitted for analysis were above PQL of 0.001 mg/Kg but below current the Method A cleanup level.

Between July 24, 2017 and October 17, 2017, Blueprint Capital Services, LLC excavated beneath the former buildings and parking area south and east of the building to a maximum depth of approximately 25 feet beneath existing grade. The excavation measured approximately 85 feet north to south by 45 feet east to west. A Photoionizing Device (PID) was used to assess organic vapors during excavation. However, due to the low cleanup level, screening samples were submitted for laboratory analysis for the presence of PCE. Geotech submitted 19 confirmation samples from the bottom of the excavation and 31 samples from the walls of the excavation. Except for two samples collected from the floor of the excavation and removed by additional excavation, the results of laboratory analysis revealed that all of the final confirmation samples had residual concentrations of PCE less than 0.05 mg/Kg, and no detectable decomposition products. Based upon the results of laboratory analyses, it appears that excavation successfully removed petroleum affected soil at the limits of the building's excavation.

Ryatt Construction provided excavation and transport of the non-hazardous PCE-affected soil to the Cowlitz County Municipal Landfill for disposal at their Headquarters Landfill in Castle Rock, Washington. Approximately 2,066 tons of PCE-affected soil, which was determined by the WDOE not to exhibit dangerous waste characteristics, was excavated and shipped to the Headquarters Landfill. Geotech submitted nine samples from the PCE-affected soil shipped off-site. The results of laboratory analysis revealed that the concentrations of PCE in all nine samples were below the Method A cleanup level or levels that would have designated the soil as dangerous waste.

During excavation for the foundations for the new below grade storage area, no groundwater seepage was encountered to a maximum explored depth of approximately 25 feet below grade. We did not observe evidence of groundwater in any of the seven shafts drilled for the soldier piles to as much as 30 feet below existing ground surface. A geotechnical report prepared for redevelopment of the adjoining northern property reportedly drilled eight borings to a maximum explored depth of 40.5-feet below existing ground surface and no groundwater was reported in any of the eight borings. We conducted a review of borings drilled in the immediate vicinity of the site using resources of the Washington Department of Ecology Water Well database. Three wells were drilled at a site located approximately 500 feet east of the subject property in 2016. The depths of the borings reportedly ranged between 61 to 71 feet below existing ground surface. No groundwater was reportedly encountered in any of the three borings. A monitoring well installed at the Sound Transit Roosevelt Station reportedly was dry to approximately 100-feet below existing ground surface. The static water level was reportedly 95-feet below existing ground surface. Except for two samples collected during excavation and removed by additional excavation, the remaining 46 samples analyzed had concentrations of PCE less than the concentration reportedly protective of groundwater of 0.0499 mg/Kg. Based upon these findings, it appears that groundwater is not a potential receptor or conduit of PCE released to soil at the site. We also reviewed the WDOE database of water wells and resource protection wells for the vicinity of the subject property. Our review revealed that according to the WDOE database, there are no drinking water wells within one mile of the subject property.

Since redevelopment plans involved subsurface excavation and grading, off-site disposal of the impacted media was determined to be the most effective and permanent cleanup option. The assessments and remedial activities at the Site described in this report were completed in accordance with the substantive requirements of MTCA. Compliance with cleanup objectives for each of the potential exposure pathways (direct contact, soil to groundwater, and soil vapor) have

been met, including confirmative analytical results.

Based on verification soil sample analytical results collected from the Site following excavation, concentrations of the chemical of concern (COC) were either not detected or detected below the MTCA Method A cleanup level in soil at the final horizontal and vertical limits of the remedial action. As such, the foundation excavation is the entire "Site" for purposes of MTCA analysis. Based upon the successful removal of PCE-contaminated soils and the demonstrating that the depth to groundwater in the vicinity of subject property is more than 95 feet below existing ground surface, it is our opinion that no additional investigation is required.

It is our opinion that the Property no longer poses a threat to human health or the environment and no further remedial actions are necessary. Therefore, Blueprint Capital Services, LLC respectfully requests an issuance of an Unrestricted No Further Action (NFA) determination for the Site.

VOLUNTARY CLEANUP PROGRAM REPORT
All Star Cleaners
1222 Northeast 65th Street
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Ecology Facility Site ID 16182
Voluntary Cleanup Program Project No. NW3110

1.0 PROJECT BACKGROUND AND SITE DESCRIPTION

1.0.1 Location

A. Site Name

The subject property is the former site of a single-family residence and concrete block building that had dry cleaners as a tenant for approximately 45 years. The business was operated most recently as All Star Cleaners.

B. Street Address

The address of the subject property is 1222 Northeast 65th Street, Seattle, Washington. The zip code is 98105.

C. Phone Number

The phone number for Mike Burdo, Blueprint Capital Services site contact person, is (206) 251-5746.

D. Map of Site Location

The Vicinity Map, attached as Plate 1, illustrates the location and topography of the property and the surrounding area within a 1-mile radius of the site.

1.0.2 Topography and Geology

A. Site Diagrams

Six plates attached to this report illustrate relevant site features and location of the contaminants discovered on the site. The plates are:

Plate 1	Vicinity Map
Plate 2	Site Plan
Plate 3	Cross Section
Plate 4	PCE Excavation 07 17 2017
Plate 5	Wall Confirmation Sample Map
Plate 6	Bottom Confirmation Sample Map
Plate 7	Referenced Wells Aerial Photograph

B Site Soil Types

The site is located on a gently rolling, elevated drift plain in the Puget Sound Lowland geomorphic province. The Puget Sound Lowland is a basin lying between the Cascade Mountains to the east and the Olympic Mountains to the west and is covered mainly by glacially deposited sediments. The plain was formed during the last period of continental glaciation that ended approximately 13,500 years ago. More specifically, the site lies on the North Seattle Drift Upland, an upland area that generally trends north-south. The site is located at an approximate elevation of approximately 225 feet above sea level near the northeastern corner of the site and descends to approximately 220 feet above sea level near the southwestern corner of the property. The ground surface generally descends toward the west-southwest.

A United States Geological Survey *Preliminary Geologic Map of Seattle and Vicinity* shows the subject property located in an area mapped as "Qvt," which is referred to as Vashon glacial till. Till is described as a non-sorted, non-stratified mixture of clay, silt, sand, and gravel up to boulder-size. Glacial till was deposited as the basal (bottom) layer of soil beneath the southward advancing Vashon-age ice sheet, which reached its maximum extent about 14,000 years ago. As the nearly 3,000-foot-high glacier advanced southward, it compressed the underlying basal soils to a dense to very dense condition, as encountered at this site. Over thousands of years, the upper surface has weathered to a loose to medium dense condition.

Soil conditions observed during excavation of the site to as much as 25 feet below grade consisted of approximately one foot to approximately six and one-half feet of fill. The fill was underlain by brownish gray, silty sand with gravel to approximately six to eight feet. We observed an approximate two-foot thick layer brownish gray sand beneath the silty sand. The brownish gray sand transitioned into a finer-grained silty sand and extended to approximately 16.5-feet below ground surface. We observed advance sand to the deepest excavation depth of 25 feet below existing grade.

1.1 RELEASE INFORMATION AND SITE CHARACTERIZATION

1.1.0 Release Information

The Washington Department of Ecology's (WDOE) Hazardous Waste Section was notified of the contaminated soil in February 2017 by Geotech Consultants, incorporated on behalf of Blueprint Capital Services, LLC. The site was entered into the WDOE Toxics Cleanup Program (TCP) Voluntary Cleanup Program (VCP) in November 2017. The VCP project Number is NW3110

1.1.1 Site Characterization

As part of the site characterization, Geotech Consultants, Incorporated (Geotech) completed a Phase 1 Environmental Site Assessment of the property in 1997. We conducted a Phase 2 Soil Assessment in 2015.

Copies of the previous Phase 1 and Phase 2 reports were included with our VCP submission.

A. Phase 1 Environmental Site Assessment

We completed a Phase 1 Environmental Site Assessment in April 1997. At the time of our 1997 Phase 1 Site Assessment, we reported the following information:

1. The property was developed with a single-family residence that was built in 1926 and a commercial structure that was built in 1961. Our historical research indicated that the commercial structure has always been occupied by a dry-cleaning business.
2. The commercial building was of concrete block construction with a flat, built-up roof and a concrete foundation. The interior of the building had carpet and concrete flooring, concrete block walls and plasterboard ceilings. We observed fluorescent lighting throughout the building.
3. The residence was used as a rental unit. The commercial building was occupied by All Star Cleaners. According to an employee, all of the dry-cleaning chemicals were contained within machines that are serviced by Safety Kleen. We observed good housekeeping practices on the site during our reconnaissance.
4. The dry-cleaning machine was located above a spill containment tray. The dry-cleaning machine stored solvent Tetrachloroethene (aka perchloroethene, PCE) in the base of the unit. The unit filtered the solvent for reuse and had a built-in spill containment barrier.

Information on file at the Puget Sound Branch 'of the Washington State Archives indicated that the property was originally developed in 1926 with the house that was standing on the northern portion of the subject property. The first property owner was J.N. MacNagie, who then sold the property to H.D. Lawson in 1958. I.J. Halfon (trustee) acquired the site in 1971. The dry-cleaning building was constructed on the southern half of the property in 1961. Additional information obtained from the Archives suggests' the property to the north was undeveloped prior to the current construction. The property to the west was first occupied by a house in 1904, and a second house was constructed on that property in 1921. The first house was removed in 1958, and the second house was removed by 1961

The approximate southern half of the site was developed with a one-story concrete block building reportedly built in 1961. The All Star Cleaners occupied the concrete block building, addressed as 1222 Northeast 65th Street and was attached to the south side of the house. Inside the main portion of the cleaners, the concrete floor was exposed or covered with carpet or vinyl covering. The dry-cleaning equipment was located near the southwestern corner of the building. We did not observe obvious stains on the concrete floor near the location of the dry-cleaning machine. During our reconnaissance completed on May 15, 2015 in advance of our field work, we observed the asphalt paving near the east and south sides of the All Star Cleaners for signs of improper disposal of PCE such as pitting or erosion of the asphalt and the vegetation for indications of stress. We did not observe significant signs of eroded asphalt or near the catch basin located in the parking lot southeast of the building.

During our site reconnaissance completed on May 15, 2015, the operator of the All Star Cleaners said that he acquired the business approximately seven years prior. He informed us that to the best of his knowledge the dry-cleaning machine had been in its current location as long as he had-operated the business. He reported that garments were spot treated near the south side of the dry-cleaning machine. The business had a self-contained dry-cleaning machine, which rested inside a steel pan that provided secondary containment. A utility room at

the rear of the suite contained a gas-fired boiler. We did not observe any obvious evidence, such as stains, spills, or leaks around the dry-cleaning machine.

B. Phase 2 Site Assessments

Soil Sampling

We completed a Limited Phase 2 Environmental Site Assessment in June 2015. To assess the condition of soil at the subject property, we drilled six borings, B1E through B6E. Borings B1E and B2E were drilled inside the concrete block building near the dry-cleaning machine and reported clothes pre-treatment spotting area. The dry-cleaning machine and spotting treatment area were located near the southwest corner of the building. Borings B3E through B6E were drilled exterior to the building as close as practicable to the sewer lines. No groundwater was encountered during drilling of any of the six borings to a maximum explored depth of 12-feet below existing ground surface.

Soil samples collected for volatile organic compound (VOC) analysis were collected following EPA Method 5035. Selected soil samples were transferred from the sampler directly into sterilized 40-ml VOAs and glass jars with Teflon-sealed lids furnished by the project laboratory. The sampler was washed with a detergent solution and rinsed between borings to avoid the possibility of cross-contamination.

Three of the 14 samples submitted for analysis did not have concentrations of PCE above the practical quantitation limit of 0.0010 mg/Kg. All three samples were from the interior borings. The detected concentrations of PCE in nine samples submitted for analysis were above method the detection level but below the current Method A cleanup level. Two of the samples submitted from immediately below the lowest asphalt layer had concentrations exceeding the Method A cleanup level for unrestricted land use. **No** common products formed by breakdown of PCE including trichloroethene (TCE); 1,1-Dichloroethene (1,1- DCE); (trans) 1,2-Dichloroethene (trans 1,2-DCE); (cis) 1,2-Dichloroethene (cis 1,2-DCE); or vinyl chloride (VC) were detected in any of the 14 samples submitted for analysis. Based upon this initial laboratory analysis it appeared that PCE was the only contaminant of concern (COC).

Following demolition of the buildings and prior to installation of soldier piles and excavation of the site for below grade storage, we observed excavation of 15 test pits and submitted select soil samples from the test pits for analysis. Our previously completed Phase 2 sampling and analysis identified two sample localities with PCE concentrations exceeding applicable Method A soil cleanup level. To better define the areal extent of soil contamination and to collect samples beneath the sewer lines we observed excavation of 15 test pits, TP1 through TP15. Test pits TP1 through TP7 and TP14 were excavated in the footprints of the former All Star Cleaners building and house. Test pits TP8 through TP13 and TP15 were excavated exterior to the footprint of the former All Star Cleaners building and house. During excavation of the exterior test pits several sections of the sewer lines were encountered and removed. The maximum explored depth was approximately 10 feet below existing grade at TP14. No groundwater was encountered during excavation of the test pits. The test pit locations were chosen based upon previously completed sampling and analysis and access to sewer lines and likely areas where improper disposal could occur.

During excavation of the test pits, we observed that two layers of asphalt existed near test pit locations TP8, TP9, TP10 and TP11. The lower layer exhibited some evidence of erosion of the asphalt binder near TP11 suggesting PCE containing solutions may have been improperly

disposed on the parking lot surface prior to repaving. One of the 38 samples submitted for analysis from immediately below the lowest asphalt layer from TP 11 had concentrations of PCE exceeding the Method A cleanup level for unrestricted land use. Thirteen samples had concentrations of PCE below the practical quantitation limit (PQL) of 0.0010 mg/kg. The detected concentrations of PCE in 24 samples submitted for analysis were above the PQL but below the current PCE cleanup level. **No** common products formed by breakdown of PCE including TCE; 1,1- DCE; trans 1,2-DCE; (cis) 1,2-DCE; or vinyl chloride (VC) were detected in any of the 38 samples submitted for analysis. It is our opinion that the absence of breakdown products may indicate a more recent release, or the soil conditions are not favorable for biologic breakdown of PCE.

The results of the laboratory analyses suggested that the soil immediately beneath the asphalt near test pit location TP11 and previously analyzed borings B3E and B5E appeared to be contaminated with PCE above current Method A cleanup level for unrestricted land use. None of the samples that were above the PCE cleanup level were from deeper than approximately 6-inches below the existing asphalt parking lot. Detectable concentrations of PCE were identified in 13 of the 15 test pits at levels that were below the Method A cleanup level. Unfortunately, there did not appear to be a consistent trend in concentrations appearing to attenuate with depth. Based upon the supplemental sampling and analysis it did not appear that the contamination originated from the vicinity of the former dry-cleaning machine and spotting area or from the leaks in the sanitary sewer lines that served the All Star Dry Cleaners or the former house. Due to the generally very low concentrations of PCE reported in the laboratory analysis, it appears that the most likely conceptual site model (CSM) was due to improper disposal of PCE contaminated water directly upon the asphalt paved parking lot then infiltration into the subgrade.

We observed drilling of a seven of the 36 shafts for the soldier piles used to support the temporary shoring walls needed to excavate the site for below grade storage and foundations. The shafts for the soldier piles were drilled to a maximum depth of approximately 30 feet below existing grade. No groundwater was observed in any of the seven auger drilled shafts for the soldier piles we observed. Eleven soil samples were collected from the seven of the auger-drilled shafts during installation of the soldier piles. The samples were collected from the tip of the auger at depths that ranged from approximately 4- to 30-feet below the existing ground surface. Analysis of these soil samples revealed four samples had concentrations of PCE below the PQL of 0.0010 mg/Kg. The detected concentrations of PCE in seven of the 11 samples submitted for analysis were above PQL but below current cleanup level. **No** common products formed by breakdown of PCE including TCE; 1,1- DCE; (trans) 1,2-DCE; (cis) 1,2-DCE; or vinyl chloride (VC) were detected in any of the 11 samples submitted for analysis.

Based upon the nature and extent of the impacts that appear to be limited to asphalt and soil in the upper 12 inches at three sample locations at two distinct localities on the subject property, it is appears that the vapor pathway is incomplete.

Based upon the sampling and analysis completed to date, and the redevelopment of the subject property that involved removal of soil for below grade foundations and storage areas, soil removal and disposal was the selected remedial alternative.

Groundwater occurrence and flow direction are discussed in **Section 2.0, Groundwater Investigation**.

1.2 **PREVIOUS INVESTIGATIONS**

Other than noted in the previous section, we are not aware of nor were we provided any previous environmental studies or reports concerning the subject property. Copies of the previous environmental reports can be found attached to our VCP submission.

1.3 **SELECTION OF CLEANUP STANDARDS**

The subject site is located in an area of Seattle that is developed with retail and residential developments that generally cover the ground surface with impervious paving or buildings. The redevelopment of the site involves excavating as much as 25 feet below existing grade and covering the site with the foot-print of the building or paving. Based upon its urban location and impermeable surface coverings, a simplified terrestrial ecological evaluation concluded that use at the site and surrounding area makes substantial wildlife exposure unlikely. WAC 173-340-7492 (2)(a)(ii). A copy of the TEE was included with or RI/FS report.

Based upon the Phase 2 sampling and analysis and supplemental test pit sampling and analysis completed, the contaminant of concern (COC) in soil appeared to be limited to PCE as **No** decomposition constituents: trichloroethene (TCE); 1,1-Dichloroethene (1,1- DCE); (trans) 1,2-Dichloroethene (trans 1,2-DCE); (cis) 1,2-Dichloroethene (cis 1,2-DCE); or vinyl chloride were detected in any of the 63 samples submitted for analysis. Because PCE appears to be the only COC and the cleanup involved excavation of the affected soil, the Method A cleanup level for PCE appears appropriate for the soil at this site.

Based upon our findings (outlined in **Section 2.0**) that groundwater in the immediate vicinity of the site is greater than 50 feet below the bottom of deepest contaminated soil, it is our opinion that the potential for groundwater contamination is low.

1.4 **SOILS REMEDIAL ACTIONS AND RATIONALE FOR SELECTION**

Based upon the redevelopment of the property, as well as a conservative approach to addressing the impacted soils in order to fully mitigate any potential risk to human health or the environment associated with the contaminated soils, excavation and off-site treatment of the impacted soils was selected as the remedial action. Because the proposed building necessitated excavation and disposal of soil for below grade parking, an expansive feasibility study (RI/FS) was not completed. Remediation alternatives such as bacterial inoculation, injection of products to stimulate natural decomposition were discussed but due to uncertainties about the time required for these technologies to be effective, excavation and disposal were chosen as the preferred cleanup alternative. The points of compliance for soil were the horizontal and vertical limits of the over-excavation or the property lines which ever was greater.

1.4.1 **PCE-Contaminated Soil Excavation**

Geotech Consultants, Inc. observed the soils over-excavation, performed soil sampling, and reviewed the subsequent laboratory analysis results. As the soil contained PCE, a listed hazardous waste constituent, we also coordinated with Dean Yasuda of WDOE's Hazardous Waste and Toxics Reduction Program, and R-Transport for transportation of the dangerous waste designated contaminated soil to the Chemical Waste Management treatment facility in Arlington, Oregon and the non-hazardous waste to Cowlitz County's Headquarters

Landfill (permitted under WAC 173-351) in Castle Rock, Washington. The dangerous waste designated soil was placed in lined container provided for truck transport, treatment, and disposal at the Arlington, Oregon facility. Trucking was provided by Adar Construction Incorporated, a licensed hazardous waste hauler. Approximately 33 tons of PCE-contaminated soil was shipped to Arlington, Oregon. A copy of the hazardous waste manifests showing the total tonnage received can be found in Hazardous Waste Disposal Documents Appendix A.

The non-hazardous designated contaminated soil was directly loaded into plastic-lined trucks. Approximately 2,066 tons of non-hazardous designated PCE-affected soil was shipped to Cowlitz County's Headquarters Landfill in Castle Rock for disposal. A copy of the invoices showing the total tonnage received can be found in Non-Hazardous Waste Disposal Documents Appendix B.

Contaminated soil over-excavation and confirmation soil sampling was conducted on July 12, 2017. A trackhoe operated by Ryatt Construction, Incorporated hired by Blueprint Capital Services, Incorporated was used to excavate the potentially contaminated asphalt and soil. Field screening was completed using a Mini Rae 3000 Photoionization Device (PID). Confirmation soil samples were collected from approximately one-foot below the existing ground surface.

The confirmation soil samples were obtained directly from the bottom and walls of the excavations. Soil samples for VOC analysis were collected following EPA Method 5035. Soil samples were transferred directly into sterilized 40-ml VOAs and glass jars with Teflon-sealed lids furnished by the project laboratory.

The samples were stored in an iced chest at, or below, 4 degrees centigrade at the site and taken to the laboratory in the chest. Each jar was labeled as to sample number, sample depth, date, and time collected. EPA-recommended sample management protocol, including the maintenance of chain-of-custody documentation, was observed at each stage of the project.

1.4.2 Laboratory Analysis Limited Soil Excavation

OnSite Environmental, Incorporated in Redmond, Washington conducted soil analyses on selected samples. Quantification analysis of selected soil samples obtained from the walls and bottoms from both targeted areas with PCE-contaminated asphalt and soil revealed detectable concentrations of PCE in all 10 samples above the stated PQL of 0.0010 mg/Kg. **No** common products formed by breakdown of PCE including TCE; 1,1- DCE; trans 1,2-DCE; (cis) 1,2-DCE; or VC were detected above the stated method detection level of 0.0010 mg/Kg in any of the 10 samples submitted for analysis. The complete laboratory reports and chain-of-custody documents are presented in Appendix C, PCE-Contaminated Soil Excavation Laboratory Report. Analytical results of the soil samples collected following removal of PCE-contaminated soil and asphalt are summarized in Table 1 PCE-Contaminated Excavation HVOC Soil Results. Plate 4 illustrates the approximate limits of the two contaminated soil excavations, the approximate locations of the samples collected following removal, and laboratory results of the confirmation sample analysis.

1.4.3 Mass Excavation

Prior to starting the excavation, the soldier piles for the temporary shoring were drilled. We observed drilling of seven of the 36 shafts for the soldier piles used to support the temporary shoring walls needed to excavate the site for foundations for the below grade storage area. The shafts for the soldier piles were drilled to a maximum depth of approximately 30 feet below existing grade. Versatile Drilling completed drilling of the 30-inch diameter soldier piles and installation of the temporary shoring wall. Soldier pile 8 was drilled on July 17, 2017, soldier piles 17 and 19 were drilled on July 18, 2017, soldier piles 30, 32, and 33 were drilled on July 19, 2017 and soldier pile 1 was drilled on July 24, 2017. No perched groundwater was observed in any of the seven drilled soldier pile shafts we sampled which were drilled to as much as approximately 30 feet below existing ground surface.

1.4.4 Confirmation Sampling

Following drilling of the soldier piles the excavation was advanced by removing approximately four to five feet of soil along the perimeter of the site to allow placement of wood boards that spanned the area between the soldier piles. Samples were collected from the walls before placement the wood boards between the soldier piles. Soil from the central portion of the site was removed as needed. We returned periodically to collect samples from the soil exposed at the lateral extent of the foundation and basement excavation. We also collected soil samples from the bottom of the excavation as the final depth was reached or when a bench presented itself for sampling and analysis. The depth of excavation ranged between 10 to 14 feet along the eastern half of the site to as much as 25 feet below existing ground surface along the west central property line. We observed and sampled soil from the excavation of soil periodically between July 24, 2017 and August 14, 2017. We returned to the site on October 17, 2017 to collect an additional stockpile samples.

1.4.5 Confirmation Sample Depth and Location

Tables 2 through 5 provides the sample number, sample depth, and laboratory results of confirmation samples obtained from the walls of the excavation. Table 6 provides the sample number, sample depth, and laboratory results of confirmation samples obtained from the walls of the excavation. Plate 5 and Plate 6 illustrates the approximate locations and depths of the confirmation samples collected from the walls and bottom, respectively.

1.4.6 Sample Plan

A total of 19 confirmation samples from the bottom and 31 wall samples were submitted for laboratory analysis. The results of laboratory analysis revealed that all of the final confirmation samples had residual concentrations of PCE less than 0.05 mg/Kg, and no detectable decomposition products.

1.4.7 Laboratory Analysis

OnSite Environmental, Incorporated in Redmond, Washington conducted soil analyses on selected samples. Quantification analysis of selected soil samples obtained from the walls and bottoms from the mass excavation revealed that all 31 samples obtained from the walls of the excavation had residual concentrations of PCE that ranged from less than the practical quantitation limit of 0.0010 mg/Kg to a maximum concentration of 0.033 mg/Kg. less than the Method A cleanup level of 0.050 mg/Kg.

Seventeen of the 19 samples obtained from the bottom of the excavation had residual concentrations of PCE that ranged from less than the practical quantitation limit of 0.0010 mg/Kg to a maximum concentration of 0.0063 mg/Kg, less than the Method A cleanup level of 0.050 mg/Kg. However, two bottom samples designated CS10B and CS14B had PCE concentrations of 0.076 mg/Kg and 0.074 mg/Kg, respectively. These samples from these two areas were collected above the final bottom of excavation so additional soil was removed and these two areas were resampled. The replacement samples designated as CS10BA and CS14BA had no detectable concentrations of PCE.

No common products formed by breakdown of PCE including TCE; 1,1-DCE; trans 1,2-DCE; (cis) 1,2-DCE; or VC were detected above the stated method detection level of 0.0010 mg/Kg in any of the 48 samples submitted for analysis. The complete laboratory reports and chain-of-custody documents are presented in Appendix D, Confirmation Soil Excavation Laboratory Report. Analytical results of the soil samples collected following removal of PCE-contaminated soil and asphalt are summarized in Tables 2 through 6 HVOC Soil Analytical Results. Plate 5 and Plate 6 illustrate the approximate locations of the wall and bottom samples and results of the confirmation sample analysis.

1.4.8 Stockpile Soil Sample Results

The non-hazardous designated contaminated soil was directly loaded into plastic-lined trucks. Approximately 2,066 tons of non-hazardous designated PCE-affected soil was shipped to Cowlitz County's Headquarters Landfill in Castle Rock for disposal. A summary of the laboratory analysis results are provided in Table 7, attached to this report. The laboratory reports and chain of custody documentation are presented in Appendix E, Stockpile Sample Laboratory Reports.

1.4.9 Excavation Water

No groundwater seepage was noted during excavation to as much as 25 feet below existing ground surface.

1.5 INSTITUTIONAL CONTROLS

In our opinion, institutional controls are not required as the contaminated soil was removed to the points of compliance established for the site. The property was redeveloped with a large commercial project covering the site with the building or impervious pavement. The concentrations of PCE in all of the confirmation samples from the limits of the excavation are less than the applicable Method A cleanup level. This minimizes the potential for the migration of the contamination as infiltration of surface water occurs. Groundwater is not used as a drinking water source on the site or in the vicinity.

1.6 THREATS TO SENSITIVE SPECIES, ENVIRONMENTS, OR PUBLIC HEALTH

The site is located in an intensely developed commercial area of Seattle. Based upon its urban location, it appears that the site qualifies for an exclusion under the simplified terrestrial ecological evaluation due to the development in the area that makes substantial wildlife exposure unlikely.

Based upon our review of the WDOE database of drinking water and resource protection wells, the

closest drinking water well is over one mile from the former dry cleaners property. The dry cleaning machines no longer occupy the subject property. Therefore, the potential for an additional release of PCE is nonexistent. The contaminated soil was removed, as documented in the Tables 2, 3, 4, 5 and 6, appended to this report and the excavation was advanced to as much as 25 feet below grade. No perched groundwater was observed entering the excavation and no groundwater was found in the soldier pile borings boring completed on the subject property to nearly 30 feet below existing grade.

1.6.1 Pathways for Exposure

Direct Contact Pathway. All PCE-contaminated soil within the Property boundary has been removed, with no indication of any migration off of the Property. The verification soil samples collected and analyzed following impacted soil removal were below the Method A cleanup level. The laboratory data results, and construction site features indicate that direct contact is no longer a complete exposure pathway.

Soil to Groundwater Pathway. The identified impacted soil was removed and disposed of off-site. Soil sample analysis confirms that the impacted soil was successfully remediated, and that the remaining soil on the Site no longer poses a risk to groundwater quality. Additionally, there was at least 70 feet between the deepest impacted soil discovered and the anticipated high regional groundwater table. The soil to groundwater exposure pathway for the Site has been eliminated.

Soil Vapor Pathway. Since the impacted soil has been successfully remediated throughout the Property, and the verification soil samples collected and analyzed following impacted soil removal were below the Method A cleanup level for soil, the soil vapor pathway is not a potential exposure pathway.

The walls of the excavation have been sealed with a water barrier and the floor has a vapor barrier beneath the concrete floor for the new building, further limiting any potential vapor intrusion. Based upon the successful removal of the PCE-contaminated soil, it is our opinion that the potential for vapors to migrate into the new structure is low.

It is our opinion that there is a low threat to public health or other sensitive species threatened or damaged by the release.

2.0 GROUNDWATER INVESTIGATION

We did not observe evidence of groundwater in any of the seven shafts drilled for the soldier piles to as much as 30 feet below existing ground surface. A geotechnical report prepared for redevelopment of the adjoining northern property reportedly drilled eight borings to a maximum explored depth of 40.5-feet below existing ground surface and no groundwater was reported in any of the eight borings. We conducted a review of boring logs drilled in the immediate vicinity of the site using resources of the Washington Department of Ecology Water Well database. Three wells were drilled at a site located approximately 500 feet east of the subject property in 2016. The depths of the borings reportedly ranged between 61 to 71 feet below existing ground surface. No groundwater was reportedly encountered in any of the three borings. A monitoring well installed at the Sound Transit Roosevelt Station located approximately 325 feet to the northwest was reportedly dry to approximately 100-feet below existing ground surface during drilling. The static water level was reportedly 95-feet below existing ground surface. Except for the two samples collected from the

bottom of the excavation at approximately 10- and 14-feet below the existing ground surface, the remaining 46 samples analyzed from the walls and bottom of the excavation had concentrations of PCE less than the concentration reportedly protective of groundwater of 0.0499 mg/Kg. Based upon these findings, it appears that groundwater is not a potential receptor or conduit of PCE released to soil at the site. An aerial photograph showing the approximate location of the referenced monitoring wells/borings is included as Plate 7.

Based upon the reported static groundwater table of 95 feet below existing ground surface, there is apparently more than 80 vertical feet of separation between the lowest level where PCE-contaminated soil was identified and any potential groundwater. No monitoring wells have been installed at the subject property. Based upon the local drainage patterns and review of a U.S. Geologic Survey map of the area, it is likely that the flow of surface or shallow-seated subsurface water across the property would be toward the west-southwest.

3.0 CONCLUSIONS/RECOMMENDATIONS

It is Geotech Consultant's opinion that cleanup actions conducted on the Site comply with the substantive requirements of MTCA and are fully protective of all potential exposure pathways. Compliance with cleanup objectives for each of the potential exposure pathways (direct contact, soil to groundwater, and soil vapor) have been met and are discussed in the Pathways for Exposure section. The Site has been characterized in a manner consistent with the substantive requirements of MTCA and confirmation sampling and analysis indicates compliance with the Method A cleanup level throughout the Site.

The purpose of this study was to provide documentation that after removal of approximately 33 tons of PCE-contaminated soil and asphalt and approximately 2,066 tons of PCE-affected soil for off-site disposal, that the historical release to soil has been remediated, and the site's soil and groundwater conditions warrant a determination of no further action status from the Washington Department of Ecology.

3.0.1 Condition of Soil

Our field observations completed for this phase of work and the results of the laboratory analysis suggest that the PCE-contaminated soil appeared to attenuate to generally non-detectable concentrations approximately 22 feet below the ground surface beneath the former dry cleaners building. The maximum excavation depth for the footing grade for the new building was as much as 25 feet below existing grade. The results of laboratory analysis of soil obtained for "confirmation" of cleaned areas suggest that soils having concentrations of PCE in excess of the Method A Cleanup level were successfully removed from the site. No compounds formed by breakdown of PCE including trichloroethene (TCE); 1,1-Dichloroethene (1,1- DCE); (trans) 1,2-Dichloroethene (trans 1,2-DCE); (cis) 1,2-Dichloroethene (cis 1,2-DCE); or vinyl chloride were detected in any of the 122 samples submitted for analysis.

3.0.2 Condition of Groundwater

No groundwater was encountered during excavation of the PCE-affected soil which extended to as much as 25 feet below existing ground surface. A geotechnical boring was drilled to nearly 40.5 feet below ground surface on the adjoining northern property and no groundwater was encountered. No groundwater was encountered in any of the three wells

drilled approximately 500 feet east of the subject property to as much as 71 feet below the existing ground surface. One well located to northwest of the site did not encounter groundwater during drilling to as much as 100 feet below the existing ground surface. The static water table in the monitoring well was reportedly 95 feet below the ground surface.

- Based upon our review of drinking water well logs within an approximate one-half mile radius of the subject property, there do not appear to be any drinking water wells within one mile of the subject property.
- Groundwater is not likely to be used as drinking water source given availability of City water service. The new development will not use groundwater for drinking or irrigation.

3.0.3 Soil Gas

Since the impacted soil has been successfully remediated throughout the Property, and the verification soil samples collected and analyzed following impacted soil removal were below the Method A cleanup level for soil, the soil vapor pathway is not a potential exposure pathway.

Given the removal of the PCE-contaminated soil and that there will no longer be a source for future contamination, it is our opinion that no additional study of soil, groundwater, or soil gas is necessary.

3.0.4 Voluntary Cleanup Program

Because confirmative analytical results establish removal of all contaminated soils at concentrations exceeding the PCE cleanup level, the remedial action conducted on the Site should be considered final under WAC 173-340-350 through -390. It is our opinion that the Site no longer poses a threat to human health or the environment and no further remedial actions are necessary. Therefore, we believe an Unrestricted No Further Action determination should be issued for the Site.

4.0 LIMITATIONS

This report has been prepared for specific application to this project in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area, and in accordance with the terms and conditions set forth in our revised proposal dated May 15, 2015 and our supplemental proposal of November 15, 2016. This report is for the exclusive use of Blueprint Capital Services, LLC, and their several representatives, for specific application to this site. No warranty is expressed or implied. If new information is developed in future site work, which may include excavations, borings, or studies, Geotech Consultants, Inc. should be allowed to re-evaluate the conclusions of this report and provide amendments as required.

5.0 REFERENCES

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Waldron, H.H., Liesch, B.A., Mullineaux, D.R., and Crandell, D.R., 1962, *Preliminary Geologic Map of Seattle and Vicinity, Washington.* Miscellaneous Geologic Investigations Map No. I-354.

Washington Department of Ecology. *Cleanup Levels and Risk Calculations Under the Model Toxics Control Act Cleanup Regulation CLARC.* Publication 94-145. October 2018.

Washington Department of Ecology. *Guidance for Evaluating Soil Vapor Intrusion in Washington State: Investigation and Remedial Action, Publication no. 09-09-047.* October 2009.

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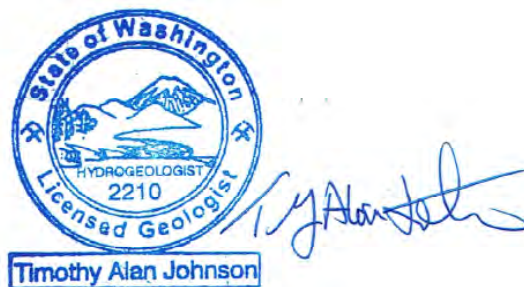
Washington Department of Ecology. *Cleanup Levels and Risk Calculations Under the Model Toxics Control Act Cleanup Regulation CLARC Version 3.0.* Publication 94-145. August 2001.

Washington Department of Ecology. *Dangerous Waste Regulations Chapter 173-303 WAC.* Publication 92-91. Amended February 1998.

We appreciate our opportunity to provide environmental consulting services on this project. If you have any questions, or if we can be of further assistance, please do not hesitate to contact us.

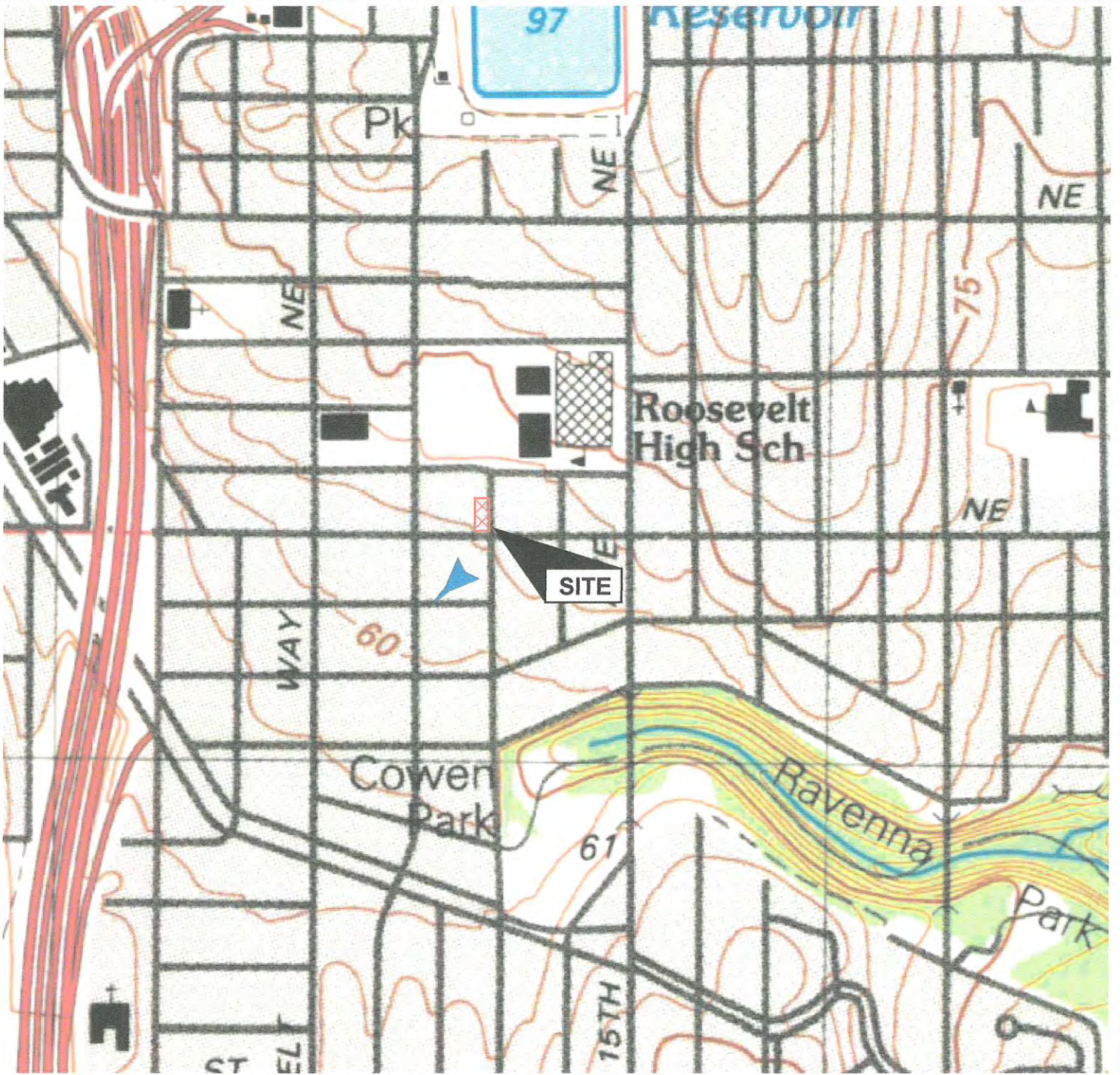
Respectfully submitted,

GEOTECH CONSULTANTS, INC.



Timothy A. Johnson
Environmental Project Manager
Licensed Geologist/Hydrogeologist

Enclosures

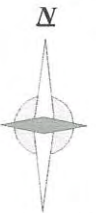


LEGEND:

CONTOUR INTERVAL 5 METERS



PROBABLE DIRECTION OF REGIONAL SHALLOW GROUNDWATER FLOW



(Source: U.S. Geologic 1994 Digital Survey Map Seattle North, Washington)



**GEOTECH
CONSULTANTS, INC.**

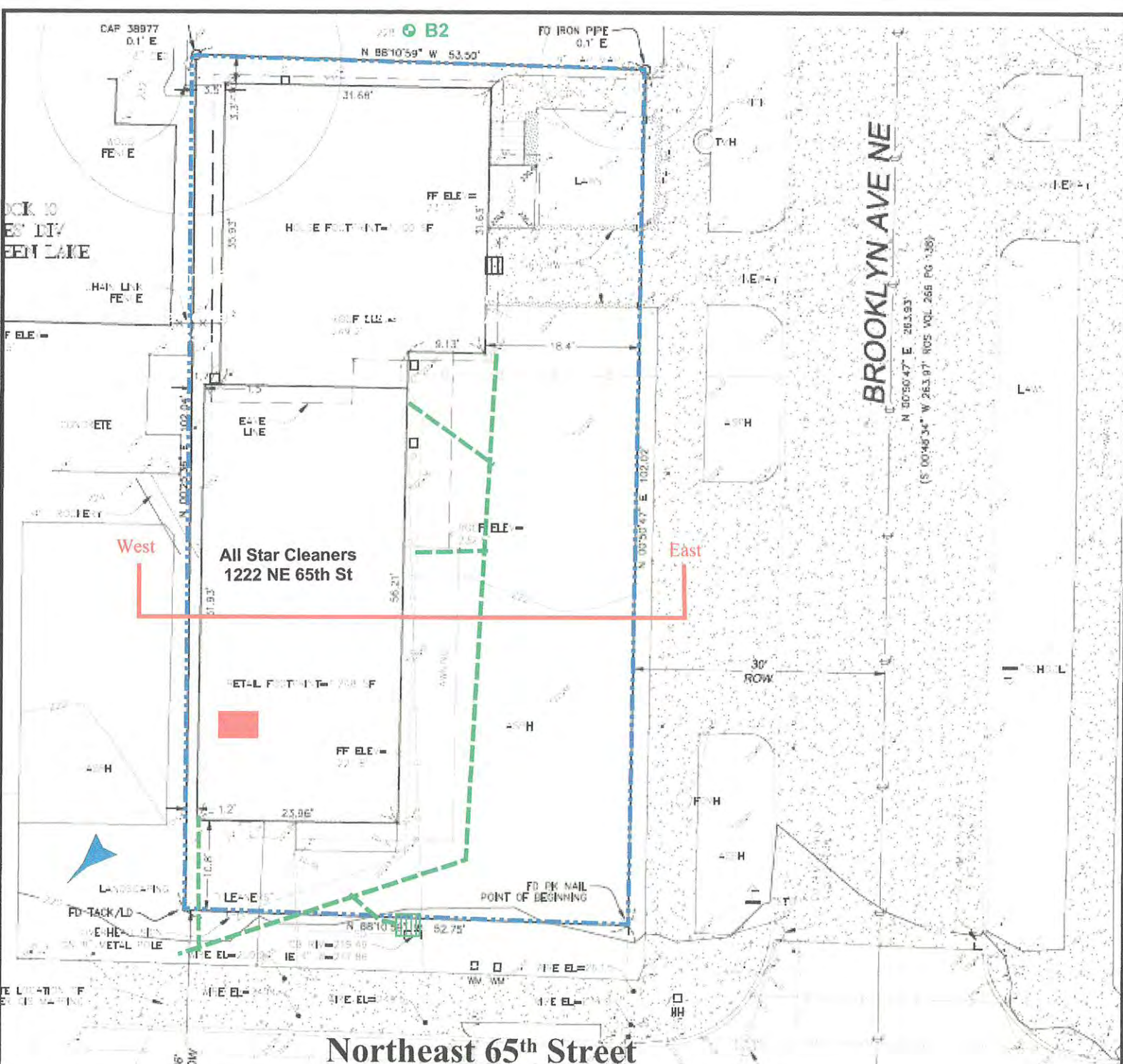
VICINITY MAP

All Star Cleaners Property
1222 Northeast 65th Street
Seattle, Washington

Job No:
15217E-1

Date: June 2019

Plate: 1



LEGEND:

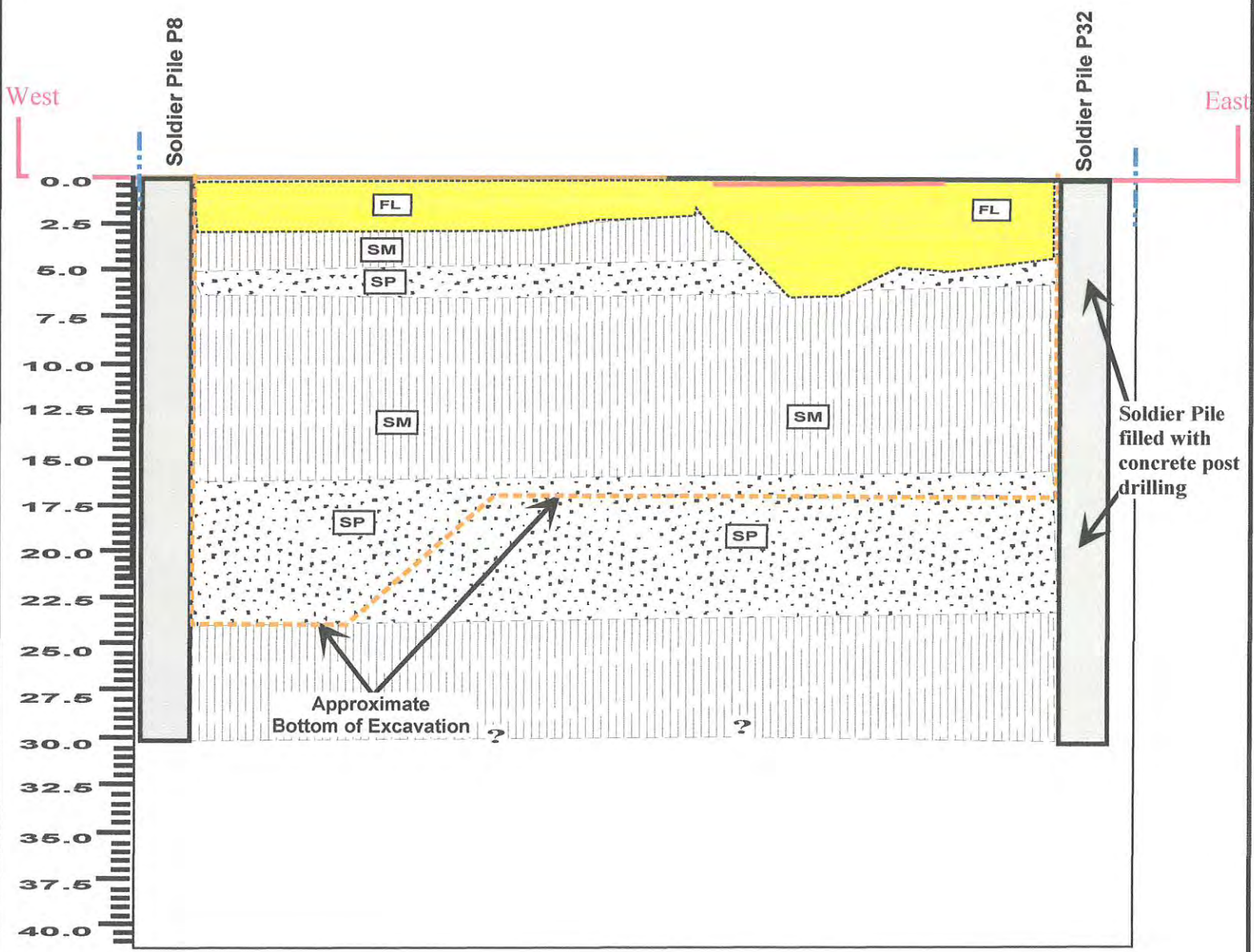
- Approximate Property Boundary (King County Assessor's Office)
- Approximate Location of Sewer Lines
- Approximate Historical Location of Dry Cleaning Machine
- Approximate Location of Catch Basin
- PROBABLE DIRECTION OF REGIONAL SHALLOW GROUNDWATER FLOW
(Source: GeoDimensions Topographic and Boundary Survey 2016)

Scale 1" = 16'



SITE PLAN
 All Star Cleaners Property
 1222 Northeast 65th Street
 Seattle, Washington

Job No: 15217E-1	Date: June 2019	Plate: 2	
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LEGEND:

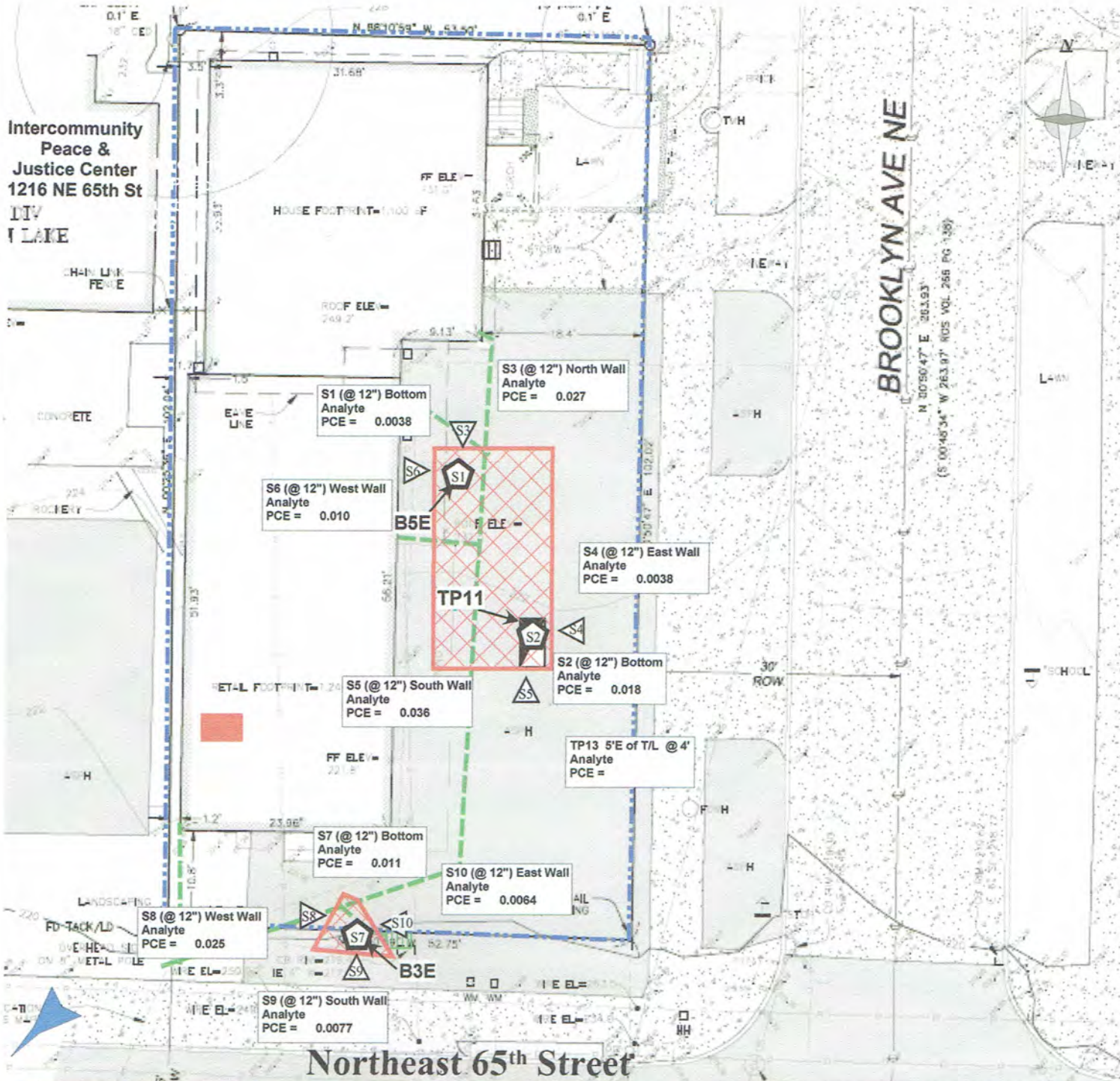
- - - Proposed Foundation Excavation
- | | | Approximate Property Line
- Approximate Ground Surface
(dirt, asphalt
PCE-contaminated asphalt)

Scale 1" = 8'



CROSS SECTION
All Star Cleaners Property
1222 Northeast 65th Street
Seattle, Washington

Job No: 15217E-1	Date: June 2019	Plate: 3
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LEGEND:



Approximate Location of Geotech Consultants Bottom Confirmation Sample





Approximate Location of Geotech Consultants Wall Confirmation Sample



PROBABLE DIRECTION OF REGIONAL SHALLOW GROUNDWATER FLOW

(Source: GeoDimensions Topographic and Boundary Survey 2016)

 Approximate Sewer Line (Geophysical Survey)

 Approximate Property Boundary



Approximate Excavation Boundary



Approximate Location of Dry Cleaning June 2015

Analyte S1 @ 12"

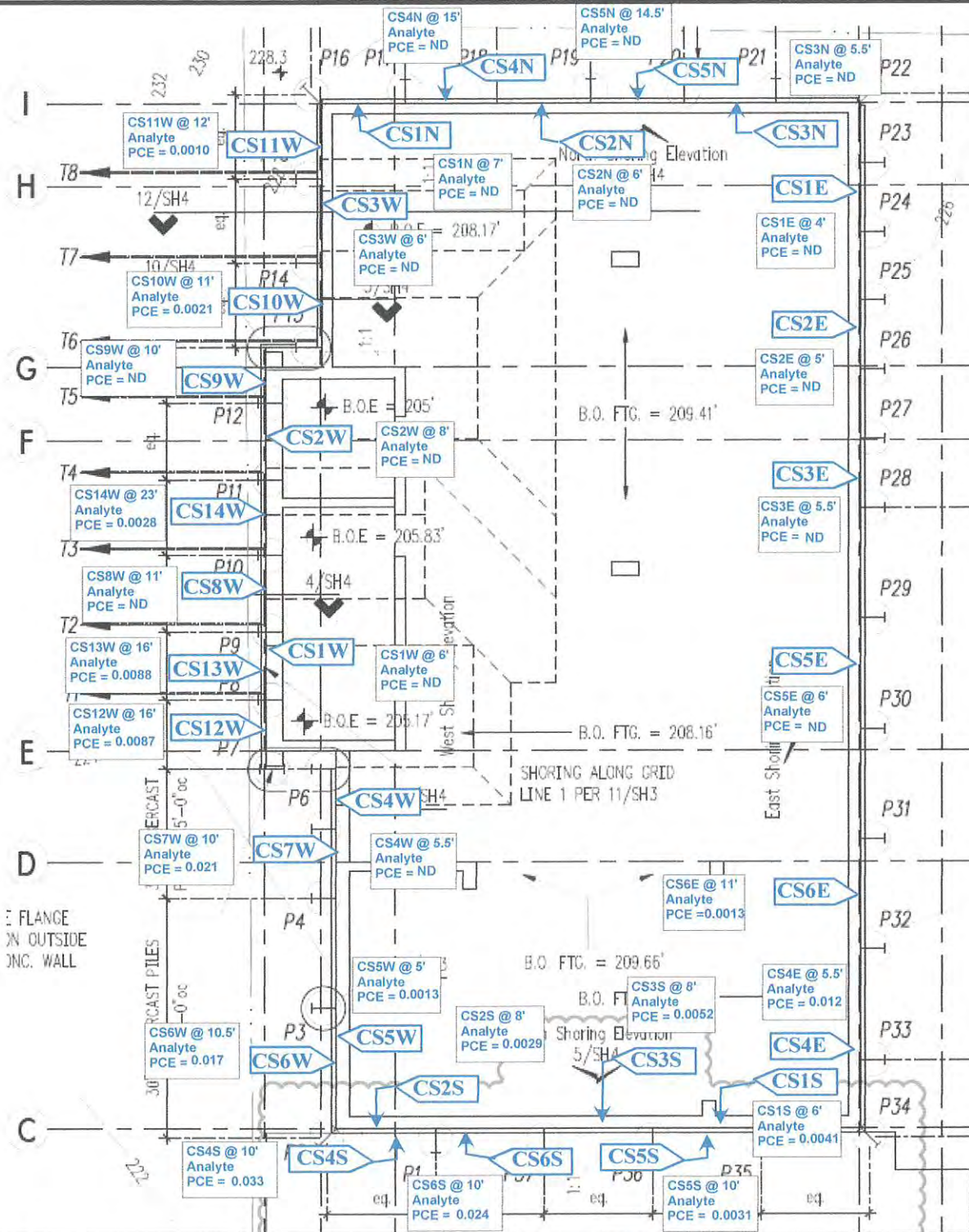
PCE = Tetrachloroethene
Results reported in parts per million (ppm)
ND Not Detected above practical quantitation limit of 0.001 ppm

Scale 1" = 16'



PCE EXCAVATION 07 12 2017
All Star Cleaners Property
1222 Northeast 65th Street
Seattle, Washington

Job No: 15217E-1	Date: June 2019	Plate: 4
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LEGEND:

CS1W Confirmation Sample
approximate location

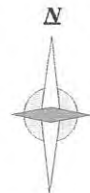
PROBABLE DIRECTION OF REGIONAL SHALLOW GROUNDWATER FLOW



(Source: SSF Structural Engineering Revised Soldier Pile Plan)

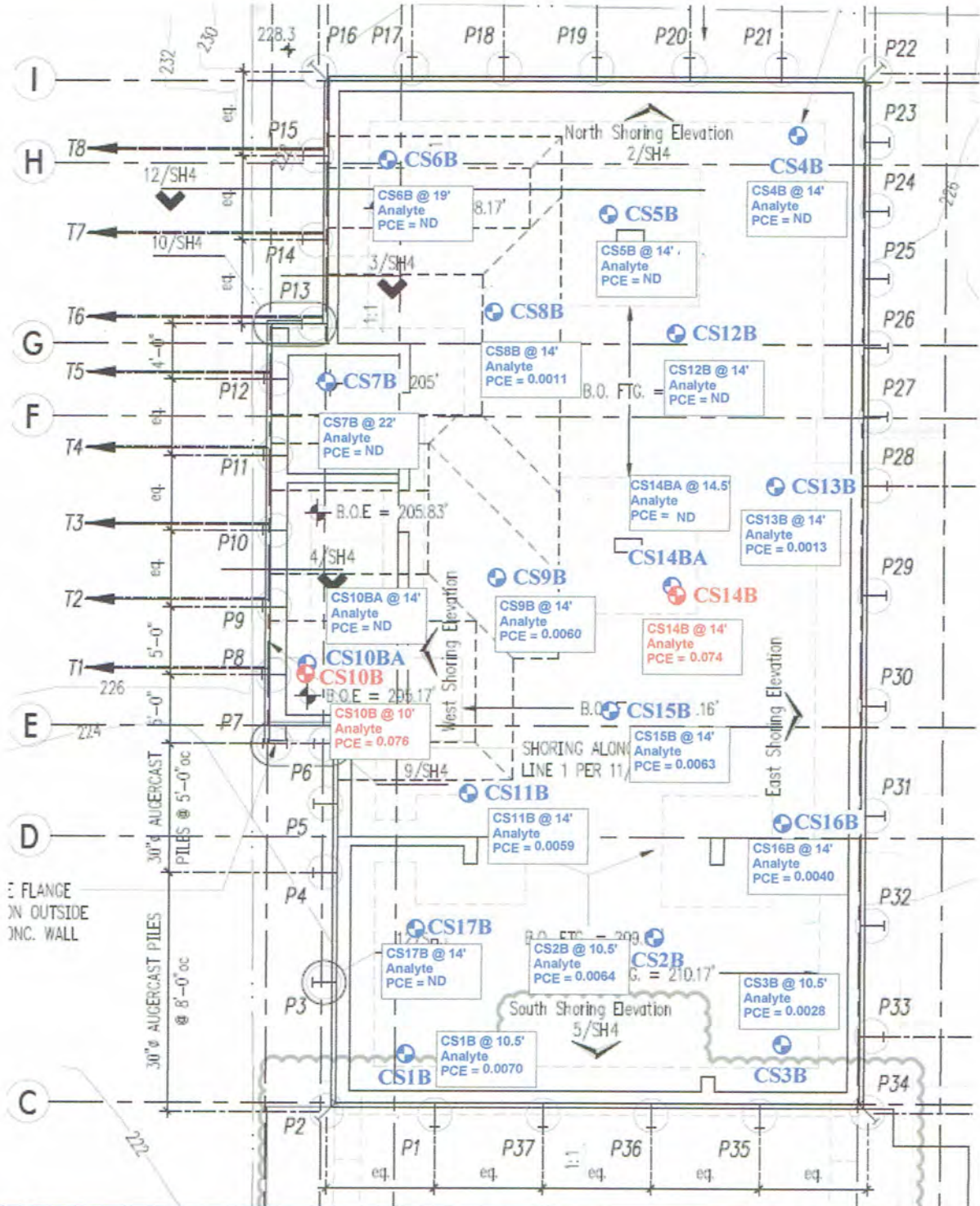
Scale 1" = 11'

CS1W @ 6'
Analyte
PCE = Tetrachloroethene
Results reported in parts per million (ppm)
ND Not Detected above practical
quantitation limit of 0.001 ppm



WALL CONFIRMATION SAMPLE MAP
All Star Cleaners Property
1222 Northeast 65th Street
Seattle, Washington

Job No: 15217E-1	Date: June 2019	Plate: 5
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LEGEND:

- Confirmation Sample approximate location
- CS10BA Replacement Confirmation Samples
- CS14BA Replacement Confirmation Samples
- PROBABLE DIRECTION OF REGIONAL SHALLOW GROUNDWATER FLOW

Analyte CS1B @ 6'

PCE = Tetrachloroethene
 Results reported in parts per million (ppm)
 ND Not Detected above practical quantitation limit of 0.001 ppm
 Values in red and underlined exceed MTCA cleanup of 0.05 ppm



(Source: SSF Structural Engineering Revised Soldier Pile Plan) Scale 1" = 11'






BOTTOM CONFIRMATION SAMPLE MAP
 All Star Cleaners Property
 1222 Northeast 65th Street
 Seattle, Washington

Job No: 15217E-1	Date: June 2019	Plate: 6
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LEGEND:

-  Approximate Property Boundary (King County Assessor's Office)
-  Approximate Location of Properties with deep borings/monitoring wells used to justify no groundwater beneath the site.
-  PROBABLE DIRECTION OF REGIONAL SHALLOW GROUNDWATER FLOW (Source: King County Assessor's Office 2017 Aerial)



Scale 1" = 216'



REFERENCED BORINGS AERIAL MAP		
All Star Cleaners Property 1222 Northeast 65th Street Seattle, Washington		
Job No: 15217E-1	Date: June 2019	Plate: 7

TABLES

**TABLE 1
PCE-CONTAMINATED SOIL EXCAVATION HVOC SOIL SAMPLE RESULTS¹**

Location	PCE	TCE	1,1- DCE	trans 1,2-DCE	cis 1,2-DCE	VC
S1 @ 12" Bottom NWC	0.0038	ND ²	ND	ND	ND	ND
S2 @ 12" Bottom SWC	0.018	ND	ND	ND	ND	ND
S3 @ 12" North Wall	0.027	ND	ND	ND	ND	ND
S4 @12" East Wall	0.0038	ND	ND	ND	ND	ND
S5 @12" South Wall	0.036	ND	ND	ND	ND	ND
S6 @12" West Wall	0.010	ND	ND	ND	ND	ND
S7 @ Bottom Center	0.0011	ND	ND	ND	ND	ND
S8 @12" West Wall	0.025	ND	ND	ND	ND	ND
S9 @ 12" South Wall	0.0077	ND	ND	ND	ND	ND
S10 @12" East Wall	0.0064	ND	ND	ND	ND	ND
Method Detection Levels	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Current Cleanup Levels^{3,4}	0.050³	0.030³	0.0475⁴	0.518⁴	0.0781⁴	0.00167⁴

Notes:

1. Results are reported in parts per million (ppm).
2. ND denotes not detected above the practical quantitation limit.
3. Method A Soil Cleanup Levels for Unrestricted Land Use: MTCA Table 740-1.
4. Standard Method B Formula Values for Soil Protective of Groundwater (CLARC).

**TABLE 2
WEST WALL CONFIRMATION HVOC SOIL SAMPLE RESULTS¹**

Sample ID & Depth	PCE	TCE	1,1- DCE	trans 1,2-DCE	cis 1,2-DCE	VC
CS1W @ 6'	ND ³	ND	ND	ND	ND	ND
CS2W @ 8'	ND	ND	ND	ND	ND	ND
CS3W @ 6'	ND	ND	ND	ND	ND	ND
CS4W @ 5.5'	ND	ND	ND	ND	ND	ND
CS5W @ 5'	0.0013	ND	ND	ND	ND	ND
CS6W @ 10.5'	0.017	ND	ND	ND	ND	ND
CS7W @ 10'	0.021	ND	ND	ND	ND	ND
CS8W @ 11'	ND	ND	ND	ND	ND	ND
CS9W @ 10'	ND	ND	ND	ND	ND	ND
CS10W @ 11'	0.0021	ND	ND	ND	ND	ND
CS11W @ 12'	0.0010	ND	ND	ND	ND	ND
CS12W @ 16'	0.0087	ND	ND	ND	ND	ND
CS13W @ 16'	0.0088	ND	ND	ND	ND	ND
CS14W @ 23'	0.0028	ND	ND	ND	ND	ND
Method Detection Levels	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Current Cleanup Levels^{3,4}	0.050³	0.030³	0.0475⁴	0.518⁴	0.0781⁴	0.00167⁴

Notes:

1. Results are reported in parts per million (ppm).
2. ND denotes not detected above the practical quantitation limit.
3. Method A Soil Cleanup Levels for Unrestricted Land Use: MTCA Table 740-1.
4. Standard Method B Formula Values for Soil Protective of Groundwater (CLARC).

**TABLE 3
NORTH WALL CONFIRMATION HVOC SOIL SAMPLE RESULTS¹**

Sample ID & Depth	PCE	TCE	1,1- DCE	trans 1,2-DCE	cis 1,2-DCE	VC
CS1N @ 7'	ND ³	ND	ND	ND	ND	ND
CS2N @ 6'	ND	ND	ND	ND	ND	ND
CS3N @ 5.5'	ND	ND	ND	ND	ND	ND
CS4N @ 15'	ND	ND	ND	ND	ND	ND
CS5N @ 14.5'	ND	ND	ND	ND	ND	ND
Method Detection Levels	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Current Cleanup Levels^{3,4}	0.050³	0.030³	0.0475⁴	0.518⁴	0.0781⁴	0.00167⁴

Notes:

1. Results are reported in parts per million (ppm).
2. ND denotes not detected above the practical quantitation limit.
3. Method A Soil Cleanup Levels for Unrestricted Land Use: MTCA Table 740-1.
4. Standard Method B Formula Values for Soil Protective of Groundwater (CLARC).

**TABLE 4
EAST WALL CONFIRMATION HVOC SOIL SAMPLE RESULTS¹**

Sample ID & Depth	PCE	TCE	1,1- DCE	trans 1,2-DCE	cis 1,2-DCE	VC
CS1E @ 4'	ND ³	ND	ND	ND	ND	ND
CS2E @ 5'	ND	ND	ND	ND	ND	ND
CS3E @ 5.5'	ND	ND	ND	ND	ND	ND
CS4E @ 5.5'	0.012	ND	ND	ND	ND	ND
CS5E @ 5'	ND	ND	ND	ND	ND	ND
CS6E @ 11'	0.0013	ND	ND	ND	ND	ND
Method Detection Levels	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Current Cleanup Levels^{3,4}	0.050³	0.030³	0.0475⁴	0.518⁴	0.0781⁴	0.00167⁴

Notes:

1. Results are reported in parts per million (ppm).
2. ND denotes not detected above the practical quantitation limit.
3. Method A Soil Cleanup Levels for Unrestricted Land Use: MTCA Table 740-1.
4. Standard Method B Formula Values for Soil Protective of Groundwater (CLARC).

**TABLE 5
SOUTH WALL CONFIRMATION HVOC SOIL SAMPLE RESULTS¹**

Sample ID & Depth	PCE	TCE	1,1- DCE	trans 1,2-DCE	cis 1,2-DCE	VC
CS1S @ 6'	0.0041	ND ²	ND	ND	ND	ND
CS2S @ 8'	0.0029	ND	ND	ND	ND	ND
CS3S @ 8'	0.0052	ND	ND	ND	ND	ND
CS4S @ 10'	0.033	ND	ND	ND	ND	ND
CS5S @ 10'	0.0031	ND	ND	ND	ND	ND
CS6S @ 10'	0.024	ND	ND	ND	ND	ND
Method Detection Levels	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Current Cleanup Levels^{3,4}	0.050³	0.030³	0.0475⁴	0.518⁴	0.0781⁴	0.00167⁴

Notes:

1. Results are reported in parts per million (ppm).
2. ND denotes not detected above the practical quantitation limit.
3. Method A Soil Cleanup Levels for Unrestricted Land Use: MTCA Table 740-1.
4. Standard Method B Formula Values for Soil Protective of Groundwater (CLARC).

**TABLE 6
BOTTOM CONFIRMATION HVOC SOIL SAMPLE RESULTS¹**

Sample ID & Depth	PCE	TCE	1,1- DCE	trans 1,2-DCE	cis 1,2-DCE	VC
CS1B @ 10.5'	0.0070	ND ³	ND	ND	ND	ND
CS2B @ 10.5'	0.0064	ND	ND	ND	ND	ND
CS3B @ 10.5'	0.0028	ND	ND	ND	ND	ND
CS4B @ 14'	ND	ND	ND	ND	ND	ND
CS5B @ 14'	ND	ND	ND	ND	ND	ND
CS6B @ 19'	ND	ND	ND	ND	ND	ND
CS7B @ 22'	ND	ND	ND	ND	ND	ND
CS8B @ 14'	0.0011	ND	ND	ND	ND	ND
CS9B @ 14'	0.0060	ND	ND	ND	ND	ND
CS10B @ 10'	0.076	ND	ND	ND	ND	ND
CS10BA @ 14'	ND	ND	ND	ND	ND	ND
CS11B @ 14'	0.0059	ND	ND	ND	ND	ND
CS12B @ 14'	ND	ND	ND	ND	ND	ND
CS13B @ 14'	0.0013	ND	ND	ND	ND	ND
CS14B @ 14'	0.074	ND	ND	ND	ND	ND
CS14BA @ 14.5'	ND	ND	ND	ND	ND	ND
CS15B @ 14'	0.0063	ND	ND	ND	ND	ND
CS16B @ 14'	0.0040	ND	ND	ND	ND	ND
CS17B @ 14'	ND	ND	ND	ND	ND	ND
Method Detection Levels	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Current Cleanup Levels^{3,4}	0.050³	0.030³	0.0475⁴	0.518⁴	0.0781⁴	0.00167⁴

Notes:

1. Results are reported in parts per million (ppm).
2. ND denotes not detected above the practical quantitation limit.
3. Method A Soil Cleanup Levels for Unrestricted Land Use: MTCA Table 740-1.
4. Standard Method B Formula Values for Soil Protective of Groundwater (CLARC).

**TABLE 7
STOCKPILE HVOC SOIL SAMPLE RESULTS¹**

Sample ID	PCE	TCE	1,1- DCE	trans 1,2-DCE	cis 1,2-DCE	VC
Stockpile 1	0.0039	ND ³	ND	ND	ND	ND
Stockpile 2	0.0035	ND	ND	ND	ND	ND
Stockpile 3	0.0037	ND	ND	ND	ND	ND
Stockpile 4	ND	ND	ND	ND	ND	ND
Stockpile 5	0.0028	ND	ND	ND	ND	ND
Stockpile 6	0.0066	ND	ND	ND	ND	ND
Stockpile 7	0.0018	ND	ND	ND	ND	ND
Stockpile 8	0.0039	ND	ND	ND	ND	ND
Stockpile 9	0.0025	ND	ND	ND	ND	ND
Method Detection Levels	0.0010	0.0010	0.0010	0.0010	0.0010	0.0010
Current Cleanup Levels^{3,4}	0.050³	0.030³	0.0475⁴	0.518⁴	0.0781⁴	0.00167⁴

Notes:

1. Results are reported in parts per million (ppm).
2. ND denotes not detected above the practical quantitation limit.
3. Method A Soil Cleanup Levels for Unrestricted Land Use: MTCA Table 740-1.
4. Standard Method B Formula Values for Soil Protective of Groundwater (CLARC).

APPENDIX A

Hazardous Waste Disposal Documents



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Northwest Regional Office • 3190 160th Ave SE • Bellevue, WA 98008-5452 • 425-649-7000
711 for Washington Relay Service • Persons with a speech disability can call 877-833-6341

June 19, 2017

1222 NE 65th, LLC
Attention: Mike Burdo
PO Box 16438
Seattle, WA 98115

Re: Contained-Out Determination for the former All Star Dry Cleaners property
at 1222 Northeast 65th Street, Seattle, Washington (Ecology VCP ID: NW3110)

Reference: 1. Letter Report from T. Johnson, Geotech Consultants to D. Yasuda, Department of
Ecology, dated May 5, 2017
2. Electronic Mail and Attachment from T. Johnson, Geotech Consultants to D.
Yasuda, Department of Ecology, dated June 9, 2017

Dear Mr. Burdo:

The Washington State Department of Ecology (Ecology) received a contained-out determination request from your environmental consultant, Geotech Consultants, for **F002 listed waste contaminated soils** to be excavated at the former All Star Dry Cleaners property located at 1222 Northeast 65th Street, Seattle, Washington.

Analytical data and the supplemental information were submitted to Ecology to determine if these soils contaminated with F002 listed dangerous waste constituents may be exempt from management as dangerous wastes per the "Contained-In Policy"¹.

Based on Ecology's review of the information provided, its determination is as follows:

1. Approximately **24 tons²** of F002 listed waste contaminated asphalt (mixed with some soil) to be excavated at the Site **will be managed as F002 dangerous waste** soils in accordance with the Washington State Dangerous Waste Regulations (Chapter 173-303 WAC). The location where these F002 dangerous waste contaminated asphaltic materials will be excavated are shown on Plate 3, attached to this letter. You are required to submit copies of the fully signed dangerous waste manifests for the disposal of these dangerous waste soils to Ecology within 15 calendar days of your receipt.

¹ Washington State Department of Ecology Contained-in Policy, dated February 19, 1993

² Approximately 25' by 12.5' footprint, 1.0' deep over B5E, TP10 and TP11 AND 10' by 7.5' footprint, 1.0' deep over B3E



2. Ecology understands that approximately **2,400 tons** of F002 listed waste contaminated soils to be excavated at the Site do not designate under federal characteristics (WAC 173-303-090) or State-only criteria (WAC 173-303-100). See Plate 2 attached to this letter. Therefore, provided that **all** of the following conditions below are implemented, Ecology will not require disposal of these **2,400 tons** of F002 listed DW contaminated soils as listed dangerous wastes at a RCRA permitted dangerous waste treatment, storage and disposal (TSD) facility. This contained-out determination applies only to the contaminated soils, and does not pertain to contaminated water or any mixture of contaminated soils and drilling fluids.

You or your environmental consultant, Geotech Consultants shall:

- Ensure that no standing water is present within the container holding the 2,400 tons of contaminated soils. All water must be removed to the maximum extent possible from each of the drums or containers and managed as F002 dangerous wastes or as otherwise allowed under Chapter 173-303 WAC;
- Directly deliver the soils to a solid waste landfill permitted under WAC 173-351 inside Washington State. If you plan to deliver the contaminated soils to a landfill outside Washington State, you must submit to Ecology written approval for the contaminated soil disposal from the receiving State hazardous waste program and the out of state landfill, before the soils are delivered to the out of state landfill;
- Do not consolidate these contaminated soils with other soils that do not pertain to this contained out determination. No off-loading of the contaminated soils is allowed between the cleanup site and the permitted solid waste landfill;
- Ensure that the transporter is properly trained to handle hazardous waste so that the transporter manages the contained-out soils during transport in a manner that is protective of human health and the environment;
- Dispose of the contaminated soils at the permitted solid waste landfill by September 15, 2017. This contained-out determination letter is no longer valid after September 15, 2017 and the contaminated soils must be managed as dangerous wastes after this date;
- Notify Ecology before disposal of the contaminated soil if the amount exceeds the approved amount in this letter. Ecology needs to make sure that the additional soil qualifies for this contained-out determination;
- Provide copies of all signed solid waste landfill receipts and a summary table including disposal dates, tonnages, etc. and a certificate of disposal issued by the receiving landfill for these contaminated soils to Ecology, attention of Dean Yasuda, within 15 days of your

receipt. This is an important verification step for you and your consultant to follow in order for this Ecology decision to be valid;

- Take measures to prevent unauthorized contact with these soils at all times;
- Plastic line the delivery truck (or roll off boxes) and cover all loads if delivered by truck;
- During transport, take adequate measures to prevent spills and dispersion due to wind erosion;
- Provide instructions to the landfill operator that these soils are not to be used for daily, intermediate, or final cover;
- Provide copies of all soil analytical data to the landfill operator, upon request; and
- Do not send these contaminated soils to any incinerator, thermal desorption unit or recycling facility unless that facility is a RCRA Subtitle C permitted dangerous waste TSD facility.

Ecology issued this determination based on the information provided in the proposals (references 1 and 2) and does not apply to any other area or other media. Any data used for this contained-in determination is intended for use in determining the proper disposal of the soils according to the Washington State Dangerous Waste Regulations (Chapter 173-303 WAC) and the Ecology Contained-in Policy. This letter is not an Ecology approval for dangerous waste designation or disposal of contaminated soils that may be generated or already excavated from other areas in this property.

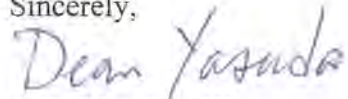
This letter is not a No Further Action (NFA) letter and not written approval for any cleanup action plan you may have submitted. Instead, this letter only addresses the procedures for disposal of the contaminated soils according to the Washington State Dangerous Waste Regulations (Chapter 173-303 WAC). Regulatory decisions regarding the cleanup action, applicable soil and groundwater cleanup levels and any other cleanup issues must comply with the requirements under Ecology Model Toxics Control Act (Chapter 173-340 WAC). Local agencies may have the authority to impose additional requirements on this waste stream.

If you fail to comply with the terms of this letter, Ecology may issue an administrative order and/or penalty as provided by the Revised Code of Washington, Sections 70.105.080 and/or .095 (Hazardous Waste Management Act).

Mr. Mike Burdo
June 19, 2017
Page 4

If you have any questions concerning this letter, please contact Dean Yasuda (425) 649-7264, dyas461@ecy.wa.gov.

Sincerely,



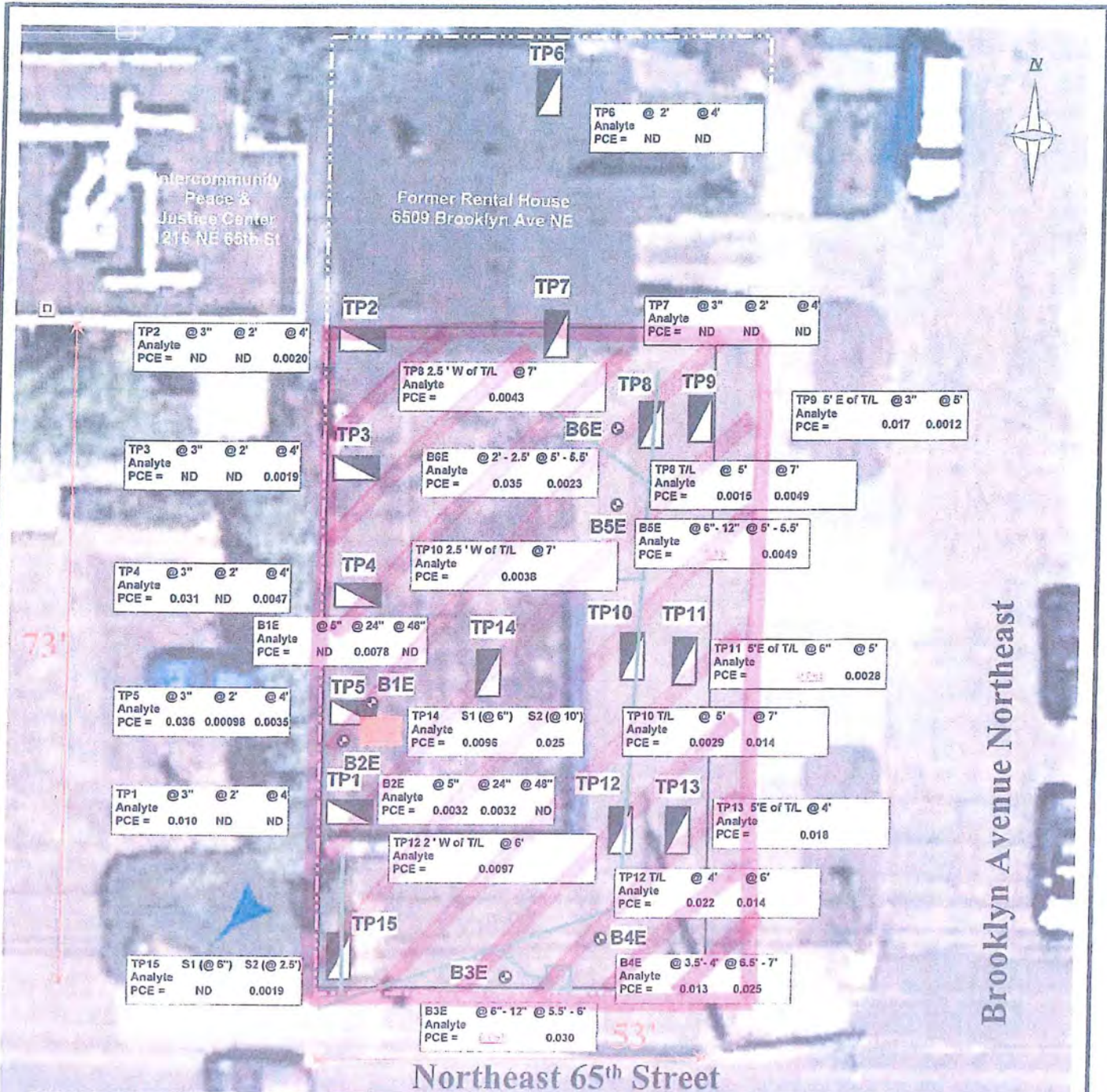
Dean Yasuda, PE
Hazardous Waste and Toxics Reduction Program

By certified mail: 9171 9690 0935 0136 8286 67

cc: Tim Johnson, Geotech Consultants

ecc: Lisa Brown, Ecology-ERO
Greg Caron, Ecology-CRO
Mindy Collins, Ecology-BFO
Chuck Hoffman, Ecology-SWRO
Byung Maeng, Ecology-NWRO
David Christensen, King County Public Health, david.christensen@kingcounty.gov
Darshan Dhillon, Seattle-King County Public Health, darshan.dhillon@kingcounty.gov

VCP NW3110, HZW 5.4.1



LEGEND:

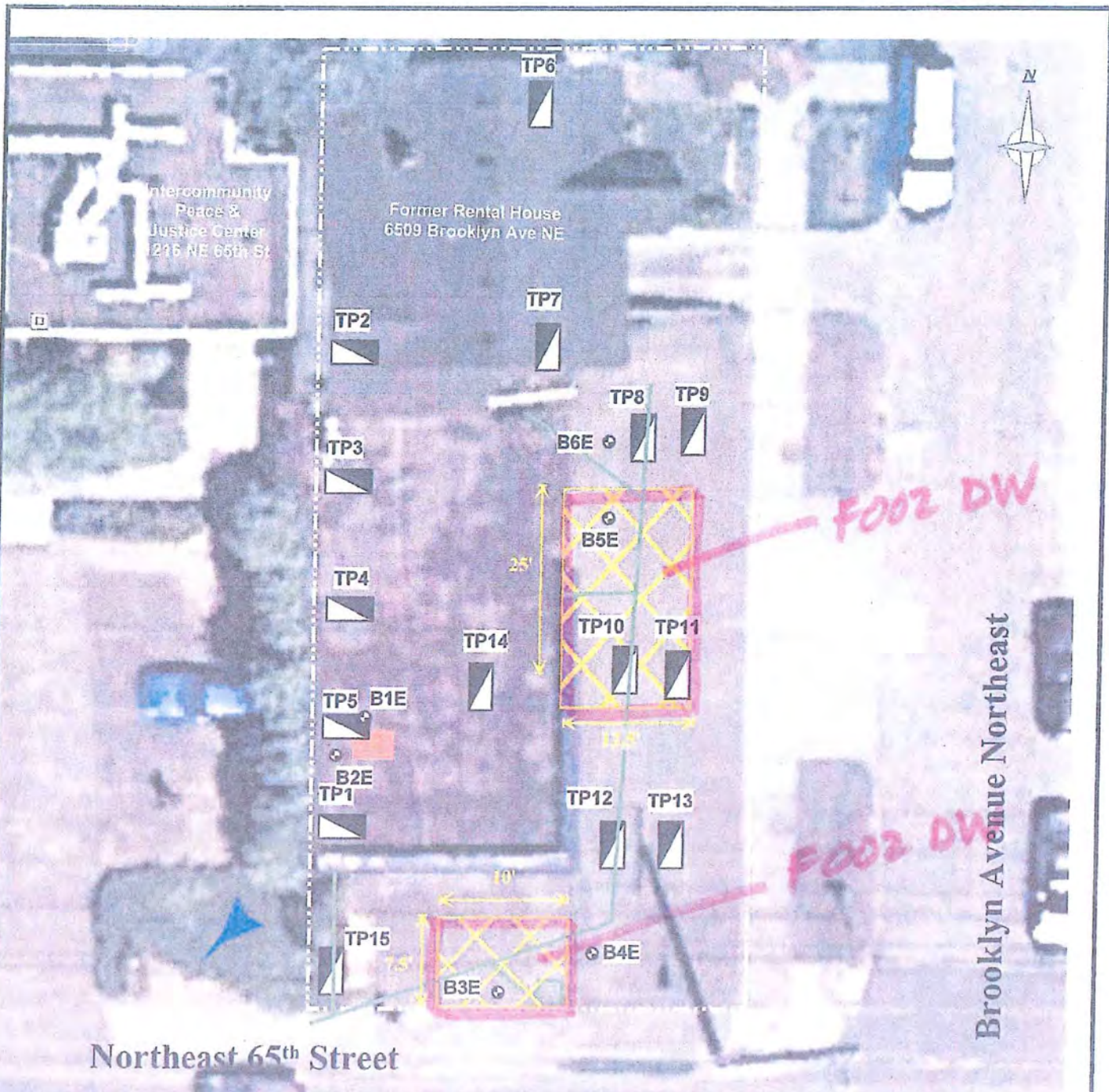
- ⊙ Approximate Location of Geotech Consultants
- ⊙ B1E Environmental Boring June 2015
- TP1 Approximate Location of Geotech Consultants Test Pit 04 20 2017, 04 26 2017, & 04 27 2017
- PROBABLE DIRECTION OF REGIONAL SHALLOW GROUNDWATER FLOW (Source: U.S. Geologic Survey 2013 Aerial Renton, Washington)
- Approximate Sewer Line
- - - - - Approximate Property Boundary (King County Assessor's Office)
- Approximate Location of Dry Cleaning June 2015
- Approximate Planned PCE affected soil excavation

Analyte	TP1 @ 3"
PCE = Tetrachloroethene	
Results reported in parts per million (ppm)	
ND Not Detected above practical quantitation limit	
T/L denotes trench line for sewer	

GEOTECH
CONSULTANTS, INC.

MASS EXCAVATION MAP
All Star Cleaners Property
1222 Northeast 65th Street
Seattle, Washington

Job No: 15217E-1	Date: May 2017	Plate: 2
---------------------	-------------------	-------------



LEGEND:	⊙ Approximate Location of Geotech Consultants B1E Environmental Boring June 2015	— Approximate Sewer Line	TP1 @ 3"
▽	Approximate Location of Geotech Consultants TP1 Test Pit 04 20 2017, 04 26 2017, & 04 27 2017	- - - - - Approximate Property Boundary (King County Assessor's Office)	Analyte
▶	PROBABLE DIRECTION OF REGIONAL SHALLOW GROUNDWATER FLOW (Source: U.S. Geologic Survey 2013 Aerial Renton, Washington)	■ Approximate Location of Dry Cleaning June 2015	PCE = Tetrachloroethene Results reported in parts per million (ppm) ND Not Detected above practical quantitation limit
		▭ Approximate PCE contaminated soil excavation	T/L denotes trench line for sewer



CONTAMINATED SOIL LOCATIONS
 All Star Cleaners Property
 1222 Northeast 65th Street
 Seattle, Washington

Job No: 15217E-1	Date: June 2017	Plate: 3
---------------------	--------------------	-------------

454549

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number WAH000053210 PENDING	2. Page 1 of 1	3. Emergency Response Phone (800) 483-3718	4. Manifest Tracking Number 010620041 FLE
----------------------------------	---	----------------	---	--

5. Generator's Name and Mailing Address 1222 NE 65th, LLC 1222 NE 65th Street Seattle, WA 98115 Generator's Phone: (206) 251-5746	Generator's Site Address (if different than mailing address) SAME
---	--

6. Transporter 1 Company Name Clean Harbor Environmental Services Inc. R-Transport	U.S. EPA ID Number WAH000028336
---	------------------------------------

7. Transporter 2 Company Name	U.S. EPA ID Number
-------------------------------	--------------------

8. Designated Facility Name and Site Address Chemical Waste Management 17629 Cedar Springs Lane Arlington, OR 97812 Facility's Phone: (541) 454-2030	U.S. EPA ID Number ORD089452353
--	------------------------------------

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
		No.	Type					
X	1. RQ, NA3077, HAZARDOUS WASTE, SOLID, N.O.S., (TETRACHLOROETHENE, ASPHALT), 9, PG III	1	DT	66,000	DT	F002		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information I. OR329302 ERG#171 63620P
--

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Officer's Printed/Typed Name 1222 NE 65th LLC / MIKE BURDO	Signature <i>Mike Burdo</i>	Month Day Year 07 13 17
---	--------------------------------	----------------------------

16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.	Port of entry/exit: _____ Date leaving U.S.: _____
--	---

17. Transporter Acknowledgment of Receipt of Materials		
Transporter 1 Printed/Typed Name Dustin Callahan	Signature <i>Dustin Callahan</i>	Month Day Year 7 17 17
Transporter 2 Printed/Typed Name	Signature	Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection

18b. Alternate Facility (or Generator)	Manifest Reference Number:	U.S. EPA ID Number
Facility's Phone:		
18c. Signature of Alternate Facility (or Generator)		Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)			
1. H132	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a		
Printed/Typed Name Paula Hammack	Signature <i>Paula Hammack</i>	Month Day Year 7 14 17

APPENDIX B

Non-Hazardous Waste Disposal Documents Reports



Cowlitz County Health Department

Environmental Health Unit
207 Fourth Avenue North
Kelso, WA 98626
TEL (360) 414-5599
FAX (360) 425-7531
www.co.cowlitz.wa.us/health

Board of County Commissioners
Arne Mortensen District 1
Dennis Weber District 2
Joe Gardner District 3

June 28, 2017

RECEIVED

JUL -3 2017

COWLITZ COUNTY
PUBLIC WORKS DEPT.

Ron Junker
Solid Waste Superintendent
Cowlitz County Public Works
1600 13th Avenue South
Kelso, WA 98626

RE: 2017 Cowlitz County Municipal Landfill Facility - Headquarters Landfill Annual Inspection Report and Operating Permit

Mr. Ron Junker,

The Cowlitz County Environmental Health (EHU) staff accompanied by Don Olson completed our annual inspection of your facility on March 28, 2017. The facility appears to be in good working order.

Thank you for submitting your annual report on January 26, 2017. This report has been reviewed by staff for compliance.

Enclosed is a copy of the 2017 annual inspection form for your records.

Please review the updated compliance schedule in the 2017 Operating Permit. Progress on key items was noted within the compliance schedule including submittal of an Animal Management Plan, completion of traffic mitigation, and an update on the Silver Lake Forest Reserve Project.

The inspection reports and 2017 Operating Permit are enclosed. If you have any questions or concerns, please contact me anytime via phone at (360) 414-5599 or email the EHU at O&Mseptic@co.cowlitz.wa.us.

Respectfully,

Season Long
Environmental Health Specialist III Lead

Cc: Chuck Matthews, DOE
File

Encl: 2017 Operating Permit
2017 Inspection Report



Cowlitz County Health Department

Environmental Health Unit
207 Fourth Avenue North
Kelso, WA 98626
TEL (360) 414-5599
FAX (360) 425-7531

www.co.cowlitz.wa.us/health

Board of County Commissioners

Arne Mortensen District 1
Dennis Weber District 2
Joe Gardner District 3

2017

SOLID WASTE HANDLING OPERATING PERMIT

Permit Number: 13-SW407
Facility Name: COWLITZ COUNTY HEADQUARTERS LANDFILL
Facility Location: 3434 S SILVERLAKE RD CASTLE ROCK WA 98611
Facility Type: MUNICIPAL SOLID WASTE LANDFILL
Landowner: COWLITZ COUNTY
Operator: COWLITZ COUNTY

Permitter: COWLITZ COUNTY HEALTH DEPARTMENT

Section: 23 Township: 9N Range: 1W
Permit: Renewal X YEAR OF INITIAL PERMIT 2013

The permittee is authorized to establish/operate the facility described above. This authorization is contingent upon compliance with applicable laws including, but not limited to, Chapter 173-350WAC, Chapter 173-351WAC, and Chapter 70.95 RCW.

Failure to comply may result in permit suspension, revocation, or the imposition of other sanctions, as provided by law.

Christine M. DesRosier
Director, Health and Human Services Department

7/1/2017
Effective Date

6/30/2018
Expiration Date

cc: Chuck Matthews, DOE



COWLITZ COUNTY HEALTH DEPARTMENT

Environmental Health Unit
207 Fourth Avenue North
Kelso, WA 98626
TEL (360) 577-3052
FAX (360) 414-5550

Board of County Commissioners
Arne Mortensen District 1
Dennis Weber District 2
Joe Gardner District 3

www.co.cowlitz.wa.us/health

2017 OPERATING PERMIT FOR A MUNICIPAL SOLID WASTE LANDFILL (WAC 173-351)

Permit Number: 13-SW407

Facility Name: Cowlitz County Headquarters Landfill

Facility Location: 3434 S. Silver Lake Road Castle Rock, Washington
Section 23, Township 9N, Range 1W

Owner/Operator: Cowlitz County Public Works / Ron Junker

Name of Contact: Ron Junker

Mailing Address: 3434 S. Silver Lake Road, Castle Rock, Washington

Telephone: 360-577-3030

Effective Date: July 1, 2017

Expiration Date: June 30, 2018

GENERAL

SECTION II AUTHORIZATION

The Cowlitz County Headquarters Landfill (CCHL) is hereby authorized to conduct activities associated with landfilling of municipal solid waste. Unless specifically stated otherwise, all activities shall be performed by CCHL, their agents, employees, or contractors. Activities must be in conformance with the attached general and specific conditions based on information supplied in the full permit application. All activities must be in compliance with Washington Administrative Code (WAC), Criteria for Municipal Solid Waste Landfills (WAC 173-351), Revised Code of Washington (RCW) 70.95.163, and Cowlitz County Code (CCC) 15.30 (including demonstrations) and all relevant federal, state and local regulations (including air quality, water quality, and noise regulations). All activities allowed by this permit will be conducted in conformance with the application

and related documents, requirements, limitations, and conditions set forth in this and all other required permits, certifications and/or approvals.

The permit may be suspended according to the terms set forth in section XVIII (6) herein. If the permit is suspended, CCHL may appeal the action according to the terms of the permit, RCW 70.95.210, CCC 15.30.110, and WAC 173-351-760.

This permit is transferable only upon written approval by Cowlitz County Health Department, Environmental Health Unit (CCEHU). Before receiving such approval, the prospective transferee must demonstrate its ability to comply with laws, regulations, and permit conditions applicable to the CCHL.

This permit is subject to yearly renewal in accordance with section XVI (3) of the General Conditions, until reissuance as defined in section XVI (4).

Christine M. DesRosier, MS

Christine M. DesRosier, Director of Health Department

Date of Issuance: July 1, 2016

Date of Annual Expiration: June 30, 2018

Annual Renewal Date: July 1, 2018

Expected Date of Reissuance: October 30, 2074

Daily Transactions - All
((Trans.DateOut BETWEEN '2017-01-01' AND '2017-12-31')
AND (Trans.Void = 0)
AND (Trans.BillAcct LIKE '8887%'))

Table with 22 columns: TranNum, DateIn, DateOut, Truck, Fleet, Tag, BillAcct, BillCompany, MT, MTLabel, GrossS, TareS, NetS, GrossSTN, TareSTN, NetSTN, Rate, TipFee, TaxFee, Metro, Excise Tax, Cleanup. Contains 67 rows of transaction data.

Grand Summaries
Count = 67
Sum = 2,066.73
Sum = \$41,334.60
Sum = \$1,488.07
Sum = \$0.00
Sum = \$0.00
Sum = \$0.00

APPENDIX C

PCE-Contaminated Soil Excavation Laboratory Report



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

July 13, 2017

Tim Johnson
GeoTech Consultants
2401-10th Avenue East
Seattle, WA 98102

Re: Analytical Data for Project 15217E-1
Laboratory Reference No. 1707-096

Dear Tim:

Enclosed are the analytical results and associated quality control data for samples submitted on July 12, 2017.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 13, 2017
Samples Submitted: July 12, 2017
Laboratory Reference: 1707-096
Project: 15217E-1

Case Narrative

Samples were collected on July 12, 2017 and received by the laboratory on July 12, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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



Date of Report: July 13, 2017
 Samples Submitted: July 12, 2017
 Laboratory Reference: 1707-096
 Project: 15217E-1

VOLATILES EPA 8260C
 Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S1@12"					
Laboratory ID:	07-096-01					
Dichlorodifluoromethane	ND	0.0021	EPA 8260C	7-12-17	7-12-17	
Chloromethane	ND	0.011	EPA 8260C	7-12-17	7-12-17	
Vinyl Chloride	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
Bromomethane	ND	0.0028	EPA 8260C	7-12-17	7-12-17	
Chloroethane	ND	0.0081	EPA 8260C	7-12-17	7-12-17	
Trichlorofluoromethane	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethene	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
Iodomethane	ND	0.015	EPA 8260C	7-12-17	7-12-17	
Methylene Chloride	ND	0.0081	EPA 8260C	7-12-17	7-12-17	
(trans) 1,2-Dichloroethene	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethane	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
2,2-Dichloropropane	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
(cis) 1,2-Dichloroethene	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
Bromochloromethane	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
Chloroform	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
1,1,1-Trichloroethane	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
Carbon Tetrachloride	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloropropene	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloroethane	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
Trichloroethene	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloropropane	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
Dibromomethane	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
Bromodichloromethane	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
2-Chloroethyl Vinyl Ether	ND	0.0081	EPA 8260C	7-12-17	7-12-17	
(cis) 1,3-Dichloropropene	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
(trans) 1,3-Dichloropropene	ND	0.0016	EPA 8260C	7-12-17	7-12-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S1@12"					
Laboratory ID:	07-096-01					
1,1,2-Trichloroethane	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
Tetrachloroethene	0.0038	0.0016	EPA 8260C	7-12-17	7-12-17	
1,3-Dichloropropane	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
Dibromochloromethane	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromoethane	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
Chlorobenzene	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
1,1,1,2-Tetrachloroethane	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
Bromoform	ND	0.0081	EPA 8260C	7-12-17	7-12-17	
Bromobenzene	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
1,1,1,2-Tetrachloroethane	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichloropropane	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
2-Chlorotoluene	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
4-Chlorotoluene	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
1,3-Dichlorobenzene	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
1,4-Dichlorobenzene	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
1,2-Dichlorobenzene	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromo-3-chloropropane	ND	0.0081	EPA 8260C	7-12-17	7-12-17	
1,2,4-Trichlorobenzene	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
Hexachlorobutadiene	ND	0.0081	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichlorobenzene	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>92</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>95</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>103</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S2@12"					
Laboratory ID:	07-096-02					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	7-12-17	7-12-17	
Chloromethane	ND	0.0077	EPA 8260C	7-12-17	7-12-17	
Vinyl Chloride	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
Bromomethane	ND	0.0020	EPA 8260C	7-12-17	7-12-17	
Chloroethane	ND	0.0058	EPA 8260C	7-12-17	7-12-17	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
Iodomethane	ND	0.011	EPA 8260C	7-12-17	7-12-17	
Methylene Chloride	ND	0.0058	EPA 8260C	7-12-17	7-12-17	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
Bromochloromethane	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
Chloroform	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
Trichloroethene	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
Dibromomethane	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
Bromodichloromethane	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
2-Chloroethyl Vinyl Ether	ND	0.0058	EPA 8260C	7-12-17	7-12-17	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	7-12-17	7-12-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S2@12"					
Laboratory ID:	07-096-02					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
Tetrachloroethene	0.018	0.0012	EPA 8260C	7-12-17	7-12-17	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
Dibromochloromethane	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
Chlorobenzene	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
Bromoform	ND	0.0058	EPA 8260C	7-12-17	7-12-17	
Bromobenzene	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
2-Chlorotoluene	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
4-Chlorotoluene	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260C	7-12-17	7-12-17	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
Hexachlorobutadiene	ND	0.0058	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>94</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>95</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S3@12"					
Laboratory ID:	07-096-03					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
Chloromethane	ND	0.0065	EPA 8260C	7-12-17	7-12-17	
Vinyl Chloride	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
Bromomethane	ND	0.0017	EPA 8260C	7-12-17	7-12-17	
Chloroethane	ND	0.0049	EPA 8260C	7-12-17	7-12-17	
Trichlorofluoromethane	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethene	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
Iodomethane	ND	0.0090	EPA 8260C	7-12-17	7-12-17	
Methylene Chloride	ND	0.0049	EPA 8260C	7-12-17	7-12-17	
(trans) 1,2-Dichloroethene	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethane	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
2,2-Dichloropropane	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
(cis) 1,2-Dichloroethene	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
Bromochloromethane	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
Chloroform	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
1,1,1-Trichloroethane	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
Carbon Tetrachloride	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloropropene	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloroethane	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
Trichloroethene	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloropropane	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
Dibromomethane	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
Bromodichloromethane	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
2-Chloroethyl Vinyl Ether	ND	0.0049	EPA 8260C	7-12-17	7-12-17	
(cis) 1,3-Dichloropropene	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
(trans) 1,3-Dichloropropene	ND	0.00099	EPA 8260C	7-12-17	7-12-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S3@12"					
Laboratory ID:	07-096-03					
1,1,2-Trichloroethane	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
Tetrachloroethene	0.027	0.00099	EPA 8260C	7-12-17	7-12-17	
1,3-Dichloropropane	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
Dibromochloromethane	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromoethane	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
Chlorobenzene	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
1,1,1,2-Tetrachloroethane	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
Bromoform	ND	0.0049	EPA 8260C	7-12-17	7-12-17	
Bromobenzene	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
1,1,2,2-Tetrachloroethane	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichloropropane	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
2-Chlorotoluene	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
4-Chlorotoluene	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
1,3-Dichlorobenzene	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
1,4-Dichlorobenzene	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
1,2-Dichlorobenzene	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromo-3-chloropropane	ND	0.0049	EPA 8260C	7-12-17	7-12-17	
1,2,4-Trichlorobenzene	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
Hexachlorobutadiene	ND	0.0049	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichlorobenzene	ND	0.00099	EPA 8260C	7-12-17	7-12-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>92</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>95</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S4@12"					
Laboratory ID:	07-096-04					
Dichlorodifluoromethane	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
Chloromethane	ND	0.0084	EPA 8260C	7-12-17	7-12-17	
Vinyl Chloride	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
Bromomethane	ND	0.0022	EPA 8260C	7-12-17	7-12-17	
Chloroethane	ND	0.0063	EPA 8260C	7-12-17	7-12-17	
Trichlorofluoromethane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethene	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
Iodomethane	ND	0.012	EPA 8260C	7-12-17	7-12-17	
Methylene Chloride	ND	0.0063	EPA 8260C	7-12-17	7-12-17	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
2,2-Dichloropropane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
Bromochloromethane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
Chloroform	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
Carbon Tetrachloride	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloropropene	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloroethane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
Trichloroethene	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloropropane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
Dibromomethane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
Bromodichloromethane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
2-Chloroethyl Vinyl Ether	ND	0.0063	EPA 8260C	7-12-17	7-12-17	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	7-12-17	7-12-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S4@12"					
Laboratory ID:	07-096-04					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
Tetrachloroethene	0.0038	0.0013	EPA 8260C	7-12-17	7-12-17	
1,3-Dichloropropane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
Dibromochloromethane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromoethane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
Chlorobenzene	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
Bromoform	ND	0.0063	EPA 8260C	7-12-17	7-12-17	
Bromobenzene	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
2-Chlorotoluene	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
4-Chlorotoluene	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromo-3-chloropropane	ND	0.0063	EPA 8260C	7-12-17	7-12-17	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
Hexachlorobutadiene	ND	0.0063	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>94</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>102</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S5@12"					
Laboratory ID:	07-096-05					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	7-12-17	7-12-17	
Chloromethane	ND	0.0074	EPA 8260C	7-12-17	7-12-17	
Vinyl Chloride	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Bromomethane	ND	0.0019	EPA 8260C	7-12-17	7-12-17	
Chloroethane	ND	0.0056	EPA 8260C	7-12-17	7-12-17	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Iodomethane	ND	0.010	EPA 8260C	7-12-17	7-12-17	
Methylene Chloride	ND	0.0056	EPA 8260C	7-12-17	7-12-17	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Bromochloromethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Chloroform	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Trichloroethene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Dibromomethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Bromodichloromethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
2-Chloroethyl Vinyl Ether	ND	0.0056	EPA 8260C	7-12-17	7-12-17	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S5@12"					
Laboratory ID:	07-096-05					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Tetrachloroethene	0.036	0.0011	EPA 8260C	7-12-17	7-12-17	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Dibromochloromethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Chlorobenzene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Bromoform	ND	0.0056	EPA 8260C	7-12-17	7-12-17	
Bromobenzene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
2-Chlorotoluene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
4-Chlorotoluene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromo-3-chloropropane	ND	0.0056	EPA 8260C	7-12-17	7-12-17	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Hexachlorobutadiene	ND	0.0056	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>96</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S6@12"					
Laboratory ID:	07-096-06					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
Chloromethane	ND	0.0058	EPA 8260C	7-12-17	7-12-17	
Vinyl Chloride	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
Bromomethane	ND	0.0015	EPA 8260C	7-12-17	7-12-17	
Chloroethane	ND	0.0044	EPA 8260C	7-12-17	7-12-17	
Trichlorofluoromethane	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethene	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
Iodomethane	ND	0.0081	EPA 8260C	7-12-17	7-12-17	
Methylene Chloride	ND	0.0044	EPA 8260C	7-12-17	7-12-17	
(trans) 1,2-Dichloroethene	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethane	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
2,2-Dichloropropane	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
(cis) 1,2-Dichloroethene	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
Bromochloromethane	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
Chloroform	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
1,1,1-Trichloroethane	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
Carbon Tetrachloride	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloropropene	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloroethane	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
Trichloroethene	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloropropane	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
Dibromomethane	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
Bromodichloromethane	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
2-Chloroethyl Vinyl Ether	ND	0.0044	EPA 8260C	7-12-17	7-12-17	
(cis) 1,3-Dichloropropene	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
(trans) 1,3-Dichloropropene	ND	0.00088	EPA 8260C	7-12-17	7-12-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S6@12"					
Laboratory ID:	07-096-06					
1,1,2-Trichloroethane	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
Tetrachloroethene	0.010	0.00088	EPA 8260C	7-12-17	7-12-17	
1,3-Dichloropropane	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
Dibromochloromethane	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromoethane	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
Chlorobenzene	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
1,1,1,2-Tetrachloroethane	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
Bromoform	ND	0.0044	EPA 8260C	7-12-17	7-12-17	
Bromobenzene	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
1,1,2,2-Tetrachloroethane	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichloropropane	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
2-Chlorotoluene	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
4-Chlorotoluene	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
1,3-Dichlorobenzene	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
1,4-Dichlorobenzene	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
1,2-Dichlorobenzene	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromo-3-chloropropane	ND	0.0044	EPA 8260C	7-12-17	7-12-17	
1,2,4-Trichlorobenzene	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
Hexachlorobutadiene	ND	0.0044	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichlorobenzene	ND	0.00088	EPA 8260C	7-12-17	7-12-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>109</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>117</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S7@12"					
Laboratory ID:	07-096-07					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	7-12-17	7-12-17	
Chloromethane	ND	0.0063	EPA 8260C	7-12-17	7-12-17	
Vinyl Chloride	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
Bromomethane	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
Chloroethane	ND	0.0047	EPA 8260C	7-12-17	7-12-17	
Trichlorofluoromethane	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethene	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
Iodomethane	ND	0.0086	EPA 8260C	7-12-17	7-12-17	
Methylene Chloride	ND	0.0047	EPA 8260C	7-12-17	7-12-17	
(trans) 1,2-Dichloroethene	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethane	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
2,2-Dichloropropane	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
(cis) 1,2-Dichloroethene	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
Bromochloromethane	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
Chloroform	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
1,1,1-Trichloroethane	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
Carbon Tetrachloride	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloropropene	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloroethane	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
Trichloroethene	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloropropane	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
Dibromomethane	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
Bromodichloromethane	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
2-Chloroethyl Vinyl Ether	ND	0.0047	EPA 8260C	7-12-17	7-12-17	
(cis) 1,3-Dichloropropene	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
(trans) 1,3-Dichloropropene	ND	0.00095	EPA 8260C	7-12-17	7-12-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S7@12"					
Laboratory ID:	07-096-07					
1,1,2-Trichloroethane	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
Tetrachloroethene	0.0011	0.00095	EPA 8260C	7-12-17	7-12-17	
1,3-Dichloropropane	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
Dibromochloromethane	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromoethane	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
Chlorobenzene	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
1,1,1,2-Tetrachloroethane	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
Bromoform	ND	0.0047	EPA 8260C	7-12-17	7-12-17	
Bromobenzene	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
1,1,2,2-Tetrachloroethane	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichloropropane	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
2-Chlorotoluene	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
4-Chlorotoluene	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
1,3-Dichlorobenzene	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
1,4-Dichlorobenzene	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
1,2-Dichlorobenzene	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromo-3-chloropropane	ND	0.0047	EPA 8260C	7-12-17	7-12-17	
1,2,4-Trichlorobenzene	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
Hexachlorobutadiene	ND	0.0047	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichlorobenzene	ND	0.00095	EPA 8260C	7-12-17	7-12-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>91</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>94</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>104</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S8@12"					
Laboratory ID:	07-096-08					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
Chloromethane	ND	0.0066	EPA 8260C	7-12-17	7-12-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Bromomethane	ND	0.0017	EPA 8260C	7-12-17	7-12-17	
Chloroethane	ND	0.0050	EPA 8260C	7-12-17	7-12-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Iodomethane	ND	0.0091	EPA 8260C	7-12-17	7-12-17	
Methylene Chloride	ND	0.0050	EPA 8260C	7-12-17	7-12-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Bromochloromethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Chloroform	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Trichloroethene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Dibromomethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	7-12-17	7-12-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S8@12"					
Laboratory ID:	07-096-08					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Tetrachloroethene	0.025	0.0010	EPA 8260C	7-12-17	7-12-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Chlorobenzene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Bromoform	ND	0.0050	EPA 8260C	7-12-17	7-12-17	
Bromobenzene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	7-12-17	7-12-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>105</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S9@12"					
Laboratory ID:	07-096-09					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
Chloromethane	ND	0.0064	EPA 8260C	7-12-17	7-12-17	
Vinyl Chloride	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
Bromomethane	ND	0.0016	EPA 8260C	7-12-17	7-12-17	
Chloroethane	ND	0.0048	EPA 8260C	7-12-17	7-12-17	
Trichlorofluoromethane	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethene	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
Iodomethane	ND	0.0088	EPA 8260C	7-12-17	7-12-17	
Methylene Chloride	ND	0.0048	EPA 8260C	7-12-17	7-12-17	
(trans) 1,2-Dichloroethene	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethane	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
2,2-Dichloropropane	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
(cis) 1,2-Dichloroethene	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
Bromochloromethane	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
Chloroform	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
1,1,1-Trichloroethane	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
Carbon Tetrachloride	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloropropene	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloroethane	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
Trichloroethene	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloropropane	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
Dibromomethane	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
Bromodichloromethane	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
2-Chloroethyl Vinyl Ether	ND	0.0048	EPA 8260C	7-12-17	7-12-17	
(cis) 1,3-Dichloropropene	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
(trans) 1,3-Dichloropropene	ND	0.00097	EPA 8260C	7-12-17	7-12-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S9@12"					
Laboratory ID:	07-096-09					
1,1,2-Trichloroethane	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
Tetrachloroethene	0.0077	0.00097	EPA 8260C	7-12-17	7-12-17	
1,3-Dichloropropane	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
Dibromochloromethane	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromoethane	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
Chlorobenzene	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
1,1,1,2-Tetrachloroethane	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
Bromoform	ND	0.0048	EPA 8260C	7-12-17	7-12-17	
Bromobenzene	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
1,1,2,2-Tetrachloroethane	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichloropropane	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
2-Chlorotoluene	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
4-Chlorotoluene	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
1,3-Dichlorobenzene	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
1,4-Dichlorobenzene	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
1,2-Dichlorobenzene	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromo-3-chloropropane	ND	0.0048	EPA 8260C	7-12-17	7-12-17	
1,2,4-Trichlorobenzene	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
Hexachlorobutadiene	ND	0.0048	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichlorobenzene	ND	0.00097	EPA 8260C	7-12-17	7-12-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>95</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>103</i>	<i>80-131</i>				



Date of Report: July 13, 2017
 Samples Submitted: July 12, 2017
 Laboratory Reference: 1707-096
 Project: 15217E-1

VOLATILES EPA 8260C
 Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S10@12"					
Laboratory ID:	07-096-10					
Dichlorodifluoromethane	ND	0.0014	EPA 8260C	7-12-17	7-12-17	
Chloromethane	ND	0.0073	EPA 8260C	7-12-17	7-12-17	
Vinyl Chloride	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Bromomethane	ND	0.0019	EPA 8260C	7-12-17	7-12-17	
Chloroethane	ND	0.0055	EPA 8260C	7-12-17	7-12-17	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Iodomethane	ND	0.010	EPA 8260C	7-12-17	7-12-17	
Methylene Chloride	ND	0.0055	EPA 8260C	7-12-17	7-12-17	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Bromochloromethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Chloroform	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Trichloroethene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Dibromomethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Bromodichloromethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
2-Chloroethyl Vinyl Ether	ND	0.0055	EPA 8260C	7-12-17	7-12-17	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	



Date of Report: July 13, 2017
 Samples Submitted: July 12, 2017
 Laboratory Reference: 1707-096
 Project: 15217E-1

VOLATILES EPA 8260C
 Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S10@12"					
Laboratory ID:	07-096-10					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Tetrachloroethene	0.0064	0.0011	EPA 8260C	7-12-17	7-12-17	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Dibromochloromethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Chlorobenzene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Bromoform	ND	0.0055	EPA 8260C	7-12-17	7-12-17	
Bromobenzene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
2-Chlorotoluene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
4-Chlorotoluene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromo-3-chloropropane	ND	0.0055	EPA 8260C	7-12-17	7-12-17	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
Hexachlorobutadiene	ND	0.0055	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	7-12-17	7-12-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	93	73-134				
<i>Toluene-d8</i>	96	81-124				
<i>4-Bromofluorobenzene</i>	103	80-131				



Date of Report: July 13, 2017
 Samples Submitted: July 12, 2017
 Laboratory Reference: 1707-096
 Project: 15217E-1

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

Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0712S1					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	7-12-17	7-12-17	
Chloromethane	ND	0.0066	EPA 8260C	7-12-17	7-12-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Bromomethane	ND	0.0017	EPA 8260C	7-12-17	7-12-17	
Chloroethane	ND	0.0050	EPA 8260C	7-12-17	7-12-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Iodomethane	ND	0.0091	EPA 8260C	7-12-17	7-12-17	
Methylene Chloride	ND	0.0050	EPA 8260C	7-12-17	7-12-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Bromochloromethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Chloroform	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Trichloroethene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Dibromomethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	7-12-17	7-12-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	



Date of Report: July 13, 2017
 Samples Submitted: July 12, 2017
 Laboratory Reference: 1707-096
 Project: 15217E-1

VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL
 Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0712S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Chlorobenzene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Bromoform	ND	0.0050	EPA 8260C	7-12-17	7-12-17	
Bromobenzene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	7-12-17	7-12-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	7-12-17	7-12-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	7-12-17	7-12-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>112</i>	<i>80-131</i>				



Date of Report: July 13, 2017
 Samples Submitted: July 12, 2017
 Laboratory Reference: 1707-096
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0712S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0511	0.0529	0.0500	0.0500	102	106	66-127	3	15	
Benzene	0.0514	0.0536	0.0500	0.0500	103	107	76-122	4	15	
Trichloroethene	0.0505	0.0529	0.0500	0.0500	101	106	78-120	5	15	
Toluene	0.0531	0.0565	0.0500	0.0500	106	113	83-120	6	15	
Chlorobenzene	0.0476	0.0504	0.0500	0.0500	95	101	81-120	6	15	
<i>Surrogate:</i>										
Dibromofluoromethane					92	90	73-134			
Toluene-d8					95	95	81-124			
4-Bromofluorobenzene					106	104	80-131			



Date of Report: July 13, 2017
Samples Submitted: July 12, 2017
Laboratory Reference: 1707-096
Project: 15217E-1

% MOISTURE

Date Analyzed: 7-12-17

Client ID	Lab ID	% Moisture
S1@12"	07-096-01	7
S2@12"	07-096-02	10
S3@12"	07-096-03	12
S4@12"	07-096-04	13
S5@12"	07-096-05	9
S6@12"	07-096-06	9
S7@12"	07-096-07	12
S8@12"	07-096-08	9
S9@12"	07-096-09	8
S10@12"	07-096-10	12





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





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

Chain of Custody

Company: Geotech Consulting
 Project Number: 15A17E-1
 Project Name: All Star
 Project Manager: Timothy Johnson
 Sampled by: Timothy Johnson

Turnaround Request (in working days)
 (Check One)
 Same Day
 1 Day
 2 Days
 3 Days
 Standard (7 Days)
 (TPH analysis 5 Days)
 _____ (other)

Laboratory Number: **07-096**

Lab ID	Sample Identification
1	S10@12"
2	S20@12"
3	S30@12"
4	S40@12"
5	S50@12"
6	S60@12"
7	S70@12"
8	S80@12"
9	S90@12"
10	S100@12"

Date Sampled	Time Sampled	Matrix
7/21/17	10:20	SL#
	10:22	SL#
	10:24	
	10:27	
	10:30	
	10:40	
	10:44	
	10:46	
	10:49	
7/21/17	10:52	SL#

Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	% Moisture
4						X												X
4						X												X
4						X												X
4						X												X
4						X												X
4						X												X
4						X												X
4						X												X
4						X												X
4						X												X
4						X												X

Signature	Company	Date	Time	Comments/Special Instructions
	Geotech Consulting	7/21/17	12:15	

Relinquished	Received	Relinquished	Received	Relinquished	Received	Relinquished	Received	Relinquished	Received

Data Package: Standard Level III Level IV
 Chromatograms with final report Electronic Data Deliverables (EDDs)

APPENDIX D

Confirmation Soil Excavation Laboratory Reports



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

July 27, 2017

Tim Johnson
GeoTech Consultants
2401-10th Avenue East
Seattle, WA 98102

Re: Analytical Data for Project 15217E-1
Laboratory Reference No. 1707-237

Dear Tim:

Enclosed are the analytical results and associated quality control data for samples submitted on July 24, 2017.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 27, 2017
Samples Submitted: July 24, 2017
Laboratory Reference: 1707-237
Project: 15217E-1

Case Narrative

Samples were collected on July 24, 2017 and received by the laboratory on July 24, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Volatiles EPA 8260C Analysis

Surrogate Standard Dibromofluoromethane is outside control limits for sample CS1N due to sample matrix effects. The sample was re-analyzed with similar results.

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



Date of Report: July 27, 2017
 Samples Submitted: July 24, 2017
 Laboratory Reference: 1707-237
 Project: 15217E-1

VOLATILES EPA 8260C
 Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS1W					
Laboratory ID:	07-237-01					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Chloromethane	ND	0.0053	EPA 8260C	7-25-17	7-25-17	
Vinyl Chloride	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Bromomethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Chloroethane	ND	0.0053	EPA 8260C	7-25-17	7-25-17	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Iodomethane	ND	0.0053	EPA 8260C	7-25-17	7-25-17	
Methylene Chloride	ND	0.011	EPA 8260C	7-25-17	7-25-17	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Bromochloromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Chloroform	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Trichloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Dibromomethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Bromodichloromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
2-Chloroethyl Vinyl Ether	ND	0.0053	EPA 8260C	7-25-17	7-25-17	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS1W					
Laboratory ID:	07-237-01					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Tetrachloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Dibromochloromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Chlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Bromoform	ND	0.0053	EPA 8260C	7-25-17	7-25-17	
Bromobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1,2,2-Tetrachloroethane	ND	0.0014	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichloropropane	ND	0.0014	EPA 8260C	7-25-17	7-25-17	
2-Chlorotoluene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
4-Chlorotoluene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260C	7-25-17	7-25-17	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Hexachlorobutadiene	ND	0.0053	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>112</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>107</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS2W					
Laboratory ID:	07-237-02					
Dichlorodifluoromethane	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
Chloromethane	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
Vinyl Chloride	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
Bromomethane	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
Chloroethane	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
Trichlorofluoromethane	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethene	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
Iodomethane	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
Methylene Chloride	ND	0.0099	EPA 8260C	7-25-17	7-25-17	
(trans) 1,2-Dichloroethene	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethane	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
2,2-Dichloropropane	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
(cis) 1,2-Dichloroethene	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
Bromochloromethane	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
Chloroform	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
1,1,1-Trichloroethane	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
Carbon Tetrachloride	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloropropene	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloroethane	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
Trichloroethene	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloropropane	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
Dibromomethane	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
Bromodichloromethane	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
(cis) 1,3-Dichloropropene	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
(trans) 1,3-Dichloropropene	ND	0.00099	EPA 8260C	7-25-17	7-25-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS2W					
Laboratory ID:	07-237-02					
1,1,2-Trichloroethane	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
Tetrachloroethene	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
1,3-Dichloropropane	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
Dibromochloromethane	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromoethane	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
Chlorobenzene	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
1,1,1,2-Tetrachloroethane	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
Bromoform	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
Bromobenzene	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
2-Chlorotoluene	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
4-Chlorotoluene	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
1,3-Dichlorobenzene	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
1,4-Dichlorobenzene	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
1,2-Dichlorobenzene	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
1,2,4-Trichlorobenzene	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichlorobenzene	ND	0.00099	EPA 8260C	7-25-17	7-25-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>115</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>109</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS3W					
Laboratory ID:	07-237-03					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Chloromethane	ND	0.0051	EPA 8260C	7-25-17	7-25-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Bromomethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Chloroethane	ND	0.0051	EPA 8260C	7-25-17	7-25-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Iodomethane	ND	0.0051	EPA 8260C	7-25-17	7-25-17	
Methylene Chloride	ND	0.010	EPA 8260C	7-25-17	7-25-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Bromochloromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Chloroform	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Trichloroethene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Dibromomethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
2-Chloroethyl Vinyl Ether	ND	0.0051	EPA 8260C	7-25-17	7-25-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS3W					
Laboratory ID:	07-237-03					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Chlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Bromoform	ND	0.0051	EPA 8260C	7-25-17	7-25-17	
Bromobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromo-3-chloropropane	ND	0.0051	EPA 8260C	7-25-17	7-25-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Hexachlorobutadiene	ND	0.0051	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>117</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>113</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>112</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS1N					
Laboratory ID:	07-237-04					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Chloromethane	ND	0.0056	EPA 8260C	7-25-17	7-25-17	
Vinyl Chloride	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Bromomethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Chloroethane	ND	0.0056	EPA 8260C	7-25-17	7-25-17	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Iodomethane	ND	0.0056	EPA 8260C	7-25-17	7-25-17	
Methylene Chloride	ND	0.011	EPA 8260C	7-25-17	7-25-17	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Bromochloromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Chloroform	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Trichloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Dibromomethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Bromodichloromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
2-Chloroethyl Vinyl Ether	ND	0.0056	EPA 8260C	7-25-17	7-25-17	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS1N					
Laboratory ID:	07-237-04					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Tetrachloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Dibromochloromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Chlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Bromoform	ND	0.0056	EPA 8260C	7-25-17	7-25-17	
Bromobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1,2,2-Tetrachloroethane	ND	0.0015	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichloropropane	ND	0.0015	EPA 8260C	7-25-17	7-25-17	
2-Chlorotoluene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
4-Chlorotoluene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromo-3-chloropropane	ND	0.0056	EPA 8260C	7-25-17	7-25-17	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Hexachlorobutadiene	ND	0.0056	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>64</i>	<i>73-134</i>				Q
<i>Toluene-d8</i>	<i>102</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>102</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS2N					
Laboratory ID:	07-237-05					
Dichlorodifluoromethane	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
Chloromethane	ND	0.0046	EPA 8260C	7-25-17	7-25-17	
Vinyl Chloride	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
Bromomethane	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
Chloroethane	ND	0.0046	EPA 8260C	7-25-17	7-25-17	
Trichlorofluoromethane	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethene	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
Iodomethane	ND	0.0046	EPA 8260C	7-25-17	7-25-17	
Methylene Chloride	ND	0.0093	EPA 8260C	7-25-17	7-25-17	
(trans) 1,2-Dichloroethene	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethane	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
2,2-Dichloropropane	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
(cis) 1,2-Dichloroethene	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
Bromochloromethane	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
Chloroform	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
1,1,1-Trichloroethane	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
Carbon Tetrachloride	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloropropene	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloroethane	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
Trichloroethene	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloropropane	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
Dibromomethane	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
Bromodichloromethane	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
2-Chloroethyl Vinyl Ether	ND	0.0046	EPA 8260C	7-25-17	7-25-17	
(cis) 1,3-Dichloropropene	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
(trans) 1,3-Dichloropropene	ND	0.00093	EPA 8260C	7-25-17	7-25-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS2N					
Laboratory ID:	07-237-05					
1,1,2-Trichloroethane	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
Tetrachloroethene	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
1,3-Dichloropropane	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
Dibromochloromethane	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromoethane	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
Chlorobenzene	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
1,1,1,2-Tetrachloroethane	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
Bromoform	ND	0.0046	EPA 8260C	7-25-17	7-25-17	
Bromobenzene	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	7-25-17	7-25-17	
2-Chlorotoluene	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
4-Chlorotoluene	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
1,3-Dichlorobenzene	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
1,4-Dichlorobenzene	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
1,2-Dichlorobenzene	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromo-3-chloropropane	ND	0.0046	EPA 8260C	7-25-17	7-25-17	
1,2,4-Trichlorobenzene	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
Hexachlorobutadiene	ND	0.0046	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichlorobenzene	ND	0.00093	EPA 8260C	7-25-17	7-25-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>110</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>103</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS3N					
Laboratory ID:	07-237-06					
Dichlorodifluoromethane	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
Chloromethane	ND	0.0045	EPA 8260C	7-25-17	7-25-17	
Vinyl Chloride	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
Bromomethane	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
Chloroethane	ND	0.0045	EPA 8260C	7-25-17	7-25-17	
Trichlorofluoromethane	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethene	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
Iodomethane	ND	0.0045	EPA 8260C	7-25-17	7-25-17	
Methylene Chloride	ND	0.0091	EPA 8260C	7-25-17	7-25-17	
(trans) 1,2-Dichloroethene	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethane	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
2,2-Dichloropropane	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
(cis) 1,2-Dichloroethene	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
Bromochloromethane	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
Chloroform	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
1,1,1-Trichloroethane	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
Carbon Tetrachloride	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloropropene	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloroethane	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
Trichloroethene	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloropropane	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
Dibromomethane	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
Bromodichloromethane	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
2-Chloroethyl Vinyl Ether	ND	0.0045	EPA 8260C	7-25-17	7-25-17	
(cis) 1,3-Dichloropropene	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
(trans) 1,3-Dichloropropene	ND	0.00091	EPA 8260C	7-25-17	7-25-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS3N					
Laboratory ID:	07-237-06					
1,1,2-Trichloroethane	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
Tetrachloroethene	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
1,3-Dichloropropane	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
Dibromochloromethane	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromoethane	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
Chlorobenzene	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
1,1,1,2-Tetrachloroethane	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
Bromoform	ND	0.0045	EPA 8260C	7-25-17	7-25-17	
Bromobenzene	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	7-25-17	7-25-17	
2-Chlorotoluene	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
4-Chlorotoluene	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
1,3-Dichlorobenzene	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
1,4-Dichlorobenzene	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
1,2-Dichlorobenzene	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromo-3-chloropropane	ND	0.0045	EPA 8260C	7-25-17	7-25-17	
1,2,4-Trichlorobenzene	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
Hexachlorobutadiene	ND	0.0045	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichlorobenzene	ND	0.00091	EPA 8260C	7-25-17	7-25-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>116</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>110</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>112</i>	<i>80-131</i>				



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VOLATILES EPA 8260C
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS1E					
Laboratory ID:	07-237-07					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Chloromethane	ND	0.0056	EPA 8260C	7-25-17	7-25-17	
Vinyl Chloride	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Bromomethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Chloroethane	ND	0.0056	EPA 8260C	7-25-17	7-25-17	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Iodomethane	ND	0.0056	EPA 8260C	7-25-17	7-25-17	
Methylene Chloride	ND	0.011	EPA 8260C	7-25-17	7-25-17	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Bromochloromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Chloroform	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Trichloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Dibromomethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Bromodichloromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
2-Chloroethyl Vinyl Ether	ND	0.0056	EPA 8260C	7-25-17	7-25-17	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS1E					
Laboratory ID:	07-237-07					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Tetrachloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Dibromochloromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Chlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Bromoform	ND	0.0056	EPA 8260C	7-25-17	7-25-17	
Bromobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1,2,2-Tetrachloroethane	ND	0.0015	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichloropropane	ND	0.0015	EPA 8260C	7-25-17	7-25-17	
2-Chlorotoluene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
4-Chlorotoluene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromo-3-chloropropane	ND	0.0056	EPA 8260C	7-25-17	7-25-17	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Hexachlorobutadiene	ND	0.0056	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>109</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>104</i>	<i>80-131</i>				



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

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0725S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Chloromethane	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Bromomethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Chloroethane	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Iodomethane	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
Methylene Chloride	ND	0.010	EPA 8260C	7-25-17	7-25-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Bromochloromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Chloroform	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Trichloroethene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Dibromomethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	



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VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB0725S1				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Chlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Bromoform	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
Bromobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>116</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>110</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>108</i>	<i>80-131</i>				



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 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0725S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0483	0.0499	0.0500	0.0500	97	100	66-127	3	15	
Benzene	0.0505	0.0518	0.0500	0.0500	101	104	76-122	3	15	
Trichloroethene	0.0511	0.0525	0.0500	0.0500	102	105	78-120	3	15	
Toluene	0.0530	0.0551	0.0500	0.0500	106	110	83-120	4	15	
Chlorobenzene	0.0447	0.0407	0.0500	0.0500	89	81	81-120	9	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>109</i>	<i>104</i>	<i>73-134</i>			
<i>Toluene-d8</i>					<i>106</i>	<i>99</i>	<i>81-124</i>			
<i>4-Bromofluorobenzene</i>					<i>107</i>	<i>100</i>	<i>80-131</i>			



Date of Report: July 27, 2017
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Laboratory Reference: 1707-237
Project: 15217E-1

% MOISTURE

Date Analyzed: 7-25-17

Client ID	Lab ID	% Moisture
CS1W	07-237-01	9
CS2W	07-237-02	8
CS3W	07-237-03	9
CS1N	07-237-04	5
CS2N	07-237-05	13
CS3N	07-237-06	7
CS1E	07-237-07	9





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





MVA OnSite Environmental Inc.

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

Chain of Custody

Turnaround Request
(in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)
(TPH analysis 5 Days)

_____ (other)

Laboratory Number: **07-237**

Company: Geoth Convents
Project Number: 15a17E-1
Project Name: All Star
Project Manager: Tyrell Adams
Sampled by: Tyrell Adams

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
1	CS1W	7/24/17	9:48	Sol
2	CS2W	7/24/17	9:54	Sol
3	CS3W	7/24/17	10:06	Sol
4	CS4W CS1N	7/24/17	10:23	Sol
5	CS2N	7/24/17	10:35	Sol
6	CS3N	7/24/17	10:43	Sol
7	CS1E	7/24/17	11:44	Sol

Number of Containers	Laboratory Number: 07-237																	
	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	% Moisture
4						X												X
4						X												X
4						X												X
4						X												X
4						X												X
4						X												X
4						X												X

Signature	Company	Date	Time	Comments/Special Instructions
	Geoth Convents	7/24/17	15:15	
	OSP	7/24/17	15:15	

Relinquished

Received

Relinquished

Received

Relinquished

Received

Relinquished

Received

Reviewed/Date

Reviewed/Date

Data Package: Standard Level III Level IV

Chromatograms with final report Electronic Data Deliverables (EDDs)



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

July 27, 2017

Tim Johnson
GeoTech Consultants
2401-10th Avenue East
Seattle, WA 98102

Re: Analytical Data for Project 15217E-1
Laboratory Reference No. 1707-248

Dear Tim:

Enclosed are the analytical results and associated quality control data for samples submitted on July 25, 2017.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 27, 2017
Samples Submitted: July 25, 2017
Laboratory Reference: 1707-248
Project: 15217E-1

Case Narrative

Samples were collected on July 25, 2017 and received by the laboratory on July 25, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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



Date of Report: July 27, 2017
 Samples Submitted: July 25, 2017
 Laboratory Reference: 1707-248
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS4W					
Laboratory ID:	07-248-01					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Chloromethane	ND	0.0055	EPA 8260C	7-25-17	7-25-17	
Vinyl Chloride	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Bromomethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Chloroethane	ND	0.0055	EPA 8260C	7-25-17	7-25-17	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Iodomethane	ND	0.0055	EPA 8260C	7-25-17	7-25-17	
Methylene Chloride	ND	0.011	EPA 8260C	7-25-17	7-25-17	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Bromochloromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Chloroform	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Trichloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Dibromomethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Bromodichloromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
2-Chloroethyl Vinyl Ether	ND	0.0055	EPA 8260C	7-25-17	7-25-17	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	



Date of Report: July 27, 2017
 Samples Submitted: July 25, 2017
 Laboratory Reference: 1707-248
 Project: 15217E-1

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS4W					
Laboratory ID:	07-248-01					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Tetrachloroethene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Dibromochloromethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Chlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Bromoform	ND	0.0055	EPA 8260C	7-25-17	7-25-17	
Bromobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,1,2,2-Tetrachloroethane	ND	0.0014	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichloropropane	ND	0.0014	EPA 8260C	7-25-17	7-25-17	
2-Chlorotoluene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
4-Chlorotoluene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromo-3-chloropropane	ND	0.0055	EPA 8260C	7-25-17	7-25-17	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
Hexachlorobutadiene	ND	0.0055	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	7-25-17	7-25-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>110</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>105</i>	<i>80-131</i>				



Date of Report: July 27, 2017
 Samples Submitted: July 25, 2017
 Laboratory Reference: 1707-248
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS5W					
Laboratory ID:	07-248-02					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Chloromethane	ND	0.0051	EPA 8260C	7-25-17	7-25-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Bromomethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Chloroethane	ND	0.0051	EPA 8260C	7-25-17	7-25-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Iodomethane	ND	0.0051	EPA 8260C	7-25-17	7-25-17	
Methylene Chloride	ND	0.010	EPA 8260C	7-25-17	7-25-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Bromochloromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Chloroform	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Trichloroethene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Dibromomethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
2-Chloroethyl Vinyl Ether	ND	0.0051	EPA 8260C	7-25-17	7-25-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	



Date of Report: July 27, 2017
 Samples Submitted: July 25, 2017
 Laboratory Reference: 1707-248
 Project: 15217E-1

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS5W					
Laboratory ID:	07-248-02					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Tetrachloroethene	0.0013	0.0010	EPA 8260C	7-25-17	7-25-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Chlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Bromoform	ND	0.0051	EPA 8260C	7-25-17	7-25-17	
Bromobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromo-3-chloropropane	ND	0.0051	EPA 8260C	7-25-17	7-25-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Hexachlorobutadiene	ND	0.0051	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>127</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>102</i>	<i>80-131</i>				



Date of Report: July 27, 2017
 Samples Submitted: July 25, 2017
 Laboratory Reference: 1707-248
 Project: 15217E-1

VOLATILES EPA 8260C
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS4E					
Laboratory ID:	07-248-03					
Dichlorodifluoromethane	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
Chloromethane	ND	0.0049	EPA 8260C	7-25-17	7-25-17	
Vinyl Chloride	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
Bromomethane	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
Chloroethane	ND	0.0049	EPA 8260C	7-25-17	7-25-17	
Trichlorofluoromethane	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethene	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
Iodomethane	ND	0.0049	EPA 8260C	7-25-17	7-25-17	
Methylene Chloride	ND	0.0098	EPA 8260C	7-25-17	7-25-17	
(trans) 1,2-Dichloroethene	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethane	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
2,2-Dichloropropane	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
(cis) 1,2-Dichloroethene	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
Bromochloromethane	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
Chloroform	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
1,1,1-Trichloroethane	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
Carbon Tetrachloride	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloropropene	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloroethane	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
Trichloroethene	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloropropane	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
Dibromomethane	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
Bromodichloromethane	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
2-Chloroethyl Vinyl Ether	ND	0.0049	EPA 8260C	7-25-17	7-25-17	
(cis) 1,3-Dichloropropene	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
(trans) 1,3-Dichloropropene	ND	0.00098	EPA 8260C	7-25-17	7-25-17	



Date of Report: July 27, 2017
 Samples Submitted: July 25, 2017
 Laboratory Reference: 1707-248
 Project: 15217E-1

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS4E					
Laboratory ID:	07-248-03					
1,1,2-Trichloroethane	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
Tetrachloroethene	0.012	0.00098	EPA 8260C	7-25-17	7-25-17	
1,3-Dichloropropane	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
Dibromochloromethane	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromoethane	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
Chlorobenzene	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
1,1,1,2-Tetrachloroethane	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
Bromoform	ND	0.0049	EPA 8260C	7-25-17	7-25-17	
Bromobenzene	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
2-Chlorotoluene	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
4-Chlorotoluene	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
1,3-Dichlorobenzene	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
1,4-Dichlorobenzene	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
1,2-Dichlorobenzene	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromo-3-chloropropane	ND	0.0049	EPA 8260C	7-25-17	7-25-17	
1,2,4-Trichlorobenzene	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
Hexachlorobutadiene	ND	0.0049	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichlorobenzene	ND	0.00098	EPA 8260C	7-25-17	7-25-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>110</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>105</i>	<i>80-131</i>				



Date of Report: July 27, 2017
 Samples Submitted: July 25, 2017
 Laboratory Reference: 1707-248
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS1S					
Laboratory ID:	07-248-04					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
Chloromethane	ND	0.0066	EPA 8260C	7-25-17	7-25-17	
Vinyl Chloride	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
Bromomethane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
Chloroethane	ND	0.0066	EPA 8260C	7-25-17	7-25-17	
Trichlorofluoromethane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethene	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
Iodomethane	ND	0.0066	EPA 8260C	7-25-17	7-25-17	
Methylene Chloride	ND	0.013	EPA 8260C	7-25-17	7-25-17	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
2,2-Dichloropropane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
Bromochloromethane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
Chloroform	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
Carbon Tetrachloride	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloropropene	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloroethane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
Trichloroethene	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloropropane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
Dibromomethane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
Bromodichloromethane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
2-Chloroethyl Vinyl Ether	ND	0.0066	EPA 8260C	7-25-17	7-25-17	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	7-25-17	7-25-17	



Date of Report: July 27, 2017
 Samples Submitted: July 25, 2017
 Laboratory Reference: 1707-248
 Project: 15217E-1

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS1S					
Laboratory ID:	07-248-04					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
Tetrachloroethene	0.0041	0.0013	EPA 8260C	7-25-17	7-25-17	
1,3-Dichloropropane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
Dibromochloromethane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromoethane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
Chlorobenzene	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
Bromoform	ND	0.0066	EPA 8260C	7-25-17	7-25-17	
Bromobenzene	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
1,1,1,2-Tetrachloroethane	ND	0.0017	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichloropropane	ND	0.0017	EPA 8260C	7-25-17	7-25-17	
2-Chlorotoluene	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
4-Chlorotoluene	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromo-3-chloropropane	ND	0.0066	EPA 8260C	7-25-17	7-25-17	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
Hexachlorobutadiene	ND	0.0066	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>91</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>80-131</i>				



Date of Report: July 27, 2017
 Samples Submitted: July 25, 2017
 Laboratory Reference: 1707-248
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0725S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Chloromethane	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Bromomethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Chloroethane	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Iodomethane	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
Methylene Chloride	ND	0.010	EPA 8260C	7-25-17	7-25-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Bromochloromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Chloroform	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Trichloroethene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Dibromomethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	



Date of Report: July 27, 2017
 Samples Submitted: July 25, 2017
 Laboratory Reference: 1707-248
 Project: 15217E-1

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

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB0725S1				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Chlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Bromoform	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
Bromobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	7-25-17	7-25-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	7-25-17	7-25-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	7-25-17	7-25-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>116</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>110</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>108</i>	<i>80-131</i>				



Date of Report: July 27, 2017
 Samples Submitted: July 25, 2017
 Laboratory Reference: 1707-248
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0725S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0483	0.0499	0.0500	0.0500	97	100	66-127	3	15	
Benzene	0.0505	0.0518	0.0500	0.0500	101	104	76-122	3	15	
Trichloroethene	0.0511	0.0525	0.0500	0.0500	102	105	78-120	3	15	
Toluene	0.0530	0.0551	0.0500	0.0500	106	110	83-120	4	15	
Chlorobenzene	0.0447	0.0407	0.0500	0.0500	89	81	81-120	9	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>109</i>	<i>104</i>	<i>73-134</i>			
<i>Toluene-d8</i>					<i>106</i>	<i>99</i>	<i>81-124</i>			
<i>4-Bromofluorobenzene</i>					<i>107</i>	<i>100</i>	<i>80-131</i>			



Date of Report: July 27, 2017
Samples Submitted: July 25, 2017
Laboratory Reference: 1707-248
Project: 15217E-1

% MOISTURE

Date Analyzed: 7-25-17

Client ID	Lab ID	% Moisture
CS4W	07-248-01	4
CS5W	07-248-02	8
CS4E	07-248-03	14
CS1S	07-248-04	13





Data Qualifiers and Abbreviations

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





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

August 2, 2017

Tim Johnson
GeoTech Consultants
2401-10th Avenue East
Seattle, WA 98102

Re: Analytical Data for Project 15217E-1
Laboratory Reference No. 1707-299

Dear Tim:

Enclosed are the analytical results and associated quality control data for samples submitted on July 28, 2017.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 2, 2017
Samples Submitted: July 28, 2017
Laboratory Reference: 1707-299
Project: 15217E-1

Case Narrative

Samples were collected on July 28, 2017 and received by the laboratory on July 28, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Volatiles EPA 8260C Analysis

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

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 2, 2017
 Samples Submitted: July 28, 2017
 Laboratory Reference: 1707-299
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS2S					
Laboratory ID:	07-299-01					
Dichlorodifluoromethane	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
Chloromethane	ND	0.0045	EPA 8260C	7-28-17	7-28-17	
Vinyl Chloride	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
Bromomethane	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
Chloroethane	ND	0.0045	EPA 8260C	7-28-17	7-28-17	
Trichlorofluoromethane	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
1,1-Dichloroethene	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
Iodomethane	ND	0.0045	EPA 8260C	7-28-17	7-28-17	
Methylene Chloride	ND	0.0090	EPA 8260C	7-28-17	7-28-17	
(trans) 1,2-Dichloroethene	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
1,1-Dichloroethane	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
2,2-Dichloropropane	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
(cis) 1,2-Dichloroethene	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
Bromochloromethane	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
Chloroform	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
1,1,1-Trichloroethane	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
Carbon Tetrachloride	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
1,1-Dichloropropene	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
1,2-Dichloroethane	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
Trichloroethene	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
1,2-Dichloropropane	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
Dibromomethane	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
Bromodichloromethane	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
2-Chloroethyl Vinyl Ether	ND	0.0045	EPA 8260C	7-28-17	7-28-17	
(cis) 1,3-Dichloropropene	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
(trans) 1,3-Dichloropropene	ND	0.00090	EPA 8260C	7-28-17	7-28-17	



Date of Report: August 2, 2017
 Samples Submitted: July 28, 2017
 Laboratory Reference: 1707-299
 Project: 15217E-1

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS2S					
Laboratory ID:	07-299-01					
1,1,2-Trichloroethane	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
Tetrachloroethene	0.0029	0.00090	EPA 8260C	7-28-17	7-28-17	
1,3-Dichloropropane	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
Dibromochloromethane	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
1,2-Dibromoethane	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
Chlorobenzene	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
1,1,1,2-Tetrachloroethane	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
Bromoform	ND	0.0045	EPA 8260C	7-28-17	7-28-17	
Bromobenzene	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
1,1,2,2-Tetrachloroethane	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
1,2,3-Trichloropropane	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
2-Chlorotoluene	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
4-Chlorotoluene	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
1,3-Dichlorobenzene	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
1,4-Dichlorobenzene	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
1,2-Dichlorobenzene	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
1,2-Dibromo-3-chloropropane	ND	0.0045	EPA 8260C	7-28-17	7-28-17	
1,2,4-Trichlorobenzene	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
Hexachlorobutadiene	ND	0.0045	EPA 8260C	7-28-17	7-28-17	
1,2,3-Trichlorobenzene	ND	0.00090	EPA 8260C	7-28-17	7-28-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>103</i>	<i>80-131</i>				



Date of Report: August 2, 2017
 Samples Submitted: July 28, 2017
 Laboratory Reference: 1707-299
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS3S					
Laboratory ID:	07-299-02					
Dichlorodifluoromethane	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
Chloromethane	ND	0.0039	EPA 8260C	7-28-17	7-28-17	
Vinyl Chloride	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
Bromomethane	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
Chloroethane	ND	0.0039	EPA 8260C	7-28-17	7-28-17	
Trichlorofluoromethane	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
1,1-Dichloroethene	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
Iodomethane	ND	0.0039	EPA 8260C	7-28-17	7-28-17	
Methylene Chloride	ND	0.0077	EPA 8260C	7-28-17	7-28-17	
(trans) 1,2-Dichloroethene	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
1,1-Dichloroethane	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
2,2-Dichloropropane	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
(cis) 1,2-Dichloroethene	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
Bromochloromethane	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
Chloroform	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
1,1,1-Trichloroethane	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
Carbon Tetrachloride	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
1,1-Dichloropropene	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
1,2-Dichloroethane	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
Trichloroethene	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
1,2-Dichloropropane	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
Dibromomethane	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
Bromodichloromethane	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
2-Chloroethyl Vinyl Ether	ND	0.0039	EPA 8260C	7-28-17	7-28-17	
(cis) 1,3-Dichloropropene	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
(trans) 1,3-Dichloropropene	ND	0.00077	EPA 8260C	7-28-17	7-28-17	



Date of Report: August 2, 2017
 Samples Submitted: July 28, 2017
 Laboratory Reference: 1707-299
 Project: 15217E-1

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS3S					
Laboratory ID:	07-299-02					
1,1,2-Trichloroethane	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
Tetrachloroethene	0.0052	0.00077	EPA 8260C	7-28-17	7-28-17	
1,3-Dichloropropane	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
Dibromochloromethane	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
1,2-Dibromoethane	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
Chlorobenzene	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
1,1,1,2-Tetrachloroethane	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
Bromoform	ND	0.0039	EPA 8260C	7-28-17	7-28-17	
Bromobenzene	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
1,1,2,2-Tetrachloroethane	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
1,2,3-Trichloropropane	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
2-Chlorotoluene	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
4-Chlorotoluene	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
1,3-Dichlorobenzene	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
1,4-Dichlorobenzene	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
1,2-Dichlorobenzene	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
1,2-Dibromo-3-chloropropane	ND	0.0039	EPA 8260C	7-28-17	7-28-17	
1,2,4-Trichlorobenzene	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
Hexachlorobutadiene	ND	0.0039	EPA 8260C	7-28-17	7-28-17	
1,2,3-Trichlorobenzene	ND	0.00077	EPA 8260C	7-28-17	7-28-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>116</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>113</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>112</i>	<i>80-131</i>				



Date of Report: August 2, 2017
 Samples Submitted: July 28, 2017
 Laboratory Reference: 1707-299
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0728S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
Chloromethane	ND	0.0050	EPA 8260C	7-28-17	7-28-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
Bromomethane	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
Chloroethane	ND	0.0050	EPA 8260C	7-28-17	7-28-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
Iodomethane	ND	0.0050	EPA 8260C	7-28-17	7-28-17	
Methylene Chloride	ND	0.010	EPA 8260C	7-28-17	7-28-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
Bromochloromethane	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
Chloroform	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
Trichloroethene	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
Dibromomethane	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	7-28-17	7-28-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-28-17	7-28-17	



Date of Report: August 2, 2017
 Samples Submitted: July 28, 2017
 Laboratory Reference: 1707-299
 Project: 15217E-1

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

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0728S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
Chlorobenzene	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
Bromoform	ND	0.0050	EPA 8260C	7-28-17	7-28-17	
Bromobenzene	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	7-28-17	7-28-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	7-28-17	7-28-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	7-28-17	7-28-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>120</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>116</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>120</i>	<i>80-131</i>				



Date of Report: August 2, 2017
 Samples Submitted: July 28, 2017
 Laboratory Reference: 1707-299
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0728S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0473	0.0463	0.0500	0.0500	95	93	66-127	2	15	
Benzene	0.0478	0.0471	0.0500	0.0500	96	94	76-122	1	15	
Trichloroethene	0.0446	0.0438	0.0500	0.0500	89	88	78-120	2	15	
Toluene	0.0483	0.0473	0.0500	0.0500	97	95	83-120	2	15	
Chlorobenzene	0.0464	0.0461	0.0500	0.0500	93	92	81-120	1	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>100</i>	<i>98</i>	<i>73-134</i>			
<i>Toluene-d8</i>					<i>99</i>	<i>97</i>	<i>81-124</i>			
<i>4-Bromofluorobenzene</i>					<i>97</i>	<i>95</i>	<i>80-131</i>			



Date of Report: August 2, 2017
Samples Submitted: July 28, 2017
Laboratory Reference: 1707-299
Project: 15217E-1

% MOISTURE

Date Analyzed: 7-28-17

Client ID	Lab ID	% Moisture
CS2S	07-299-01	8
CS3S	07-299-02	6





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





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

August 3, 2017

Tim Johnson
GeoTech Consultants
2401-10th Avenue East
Seattle, WA 98102

Re: Analytical Data for Project 15217E-1
Laboratory Reference No. 1707-315

Dear Tim:

Enclosed are the analytical results and associated quality control data for samples submitted on July 31, 2017.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 3, 2017
Samples Submitted: July 31, 2017
Laboratory Reference: 1707-315
Project: 15217E-1

Case Narrative

Samples were collected on July 31, 2017 and received by the laboratory on July 31, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Volatiles EPA 8260C Analysis

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

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 3, 2017
 Samples Submitted: July 31, 2017
 Laboratory Reference: 1707-315
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS6W					
Laboratory ID:	07-315-01					
Dichlorodifluoromethane	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
Chloromethane	ND	0.0048	EPA 8260C	8-1-17	8-1-17	
Vinyl Chloride	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
Bromomethane	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
Chloroethane	ND	0.0048	EPA 8260C	8-1-17	8-1-17	
Trichlorofluoromethane	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
1,1-Dichloroethene	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
Iodomethane	ND	0.0048	EPA 8260C	8-1-17	8-1-17	
Methylene Chloride	ND	0.0095	EPA 8260C	8-1-17	8-1-17	
(trans) 1,2-Dichloroethene	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
1,1-Dichloroethane	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
2,2-Dichloropropane	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
(cis) 1,2-Dichloroethene	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
Bromochloromethane	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
Chloroform	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
1,1,1-Trichloroethane	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
Carbon Tetrachloride	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
1,1-Dichloropropene	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
1,2-Dichloroethane	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
Trichloroethene	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
1,2-Dichloropropane	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
Dibromomethane	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
Bromodichloromethane	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
2-Chloroethyl Vinyl Ether	ND	0.0048	EPA 8260C	8-1-17	8-1-17	
(cis) 1,3-Dichloropropene	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
(trans) 1,3-Dichloropropene	ND	0.00095	EPA 8260C	8-1-17	8-1-17	



Date of Report: August 3, 2017
 Samples Submitted: July 31, 2017
 Laboratory Reference: 1707-315
 Project: 15217E-1

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS6W					
Laboratory ID:	07-315-01					
1,1,2-Trichloroethane	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
Tetrachloroethene	0.017	0.00095	EPA 8260C	8-1-17	8-1-17	
1,3-Dichloropropane	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
Dibromochloromethane	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
1,2-Dibromoethane	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
Chlorobenzene	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
1,1,1,2-Tetrachloroethane	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
Bromoform	ND	0.0048	EPA 8260C	8-1-17	8-1-17	
Bromobenzene	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
1,1,1,2-Tetrachloroethane	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
1,2,3-Trichloropropane	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
2-Chlorotoluene	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
4-Chlorotoluene	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
1,3-Dichlorobenzene	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
1,4-Dichlorobenzene	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
1,2-Dichlorobenzene	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
1,2-Dibromo-3-chloropropane	ND	0.0048	EPA 8260C	8-1-17	8-1-17	
1,2,4-Trichlorobenzene	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
Hexachlorobutadiene	ND	0.0048	EPA 8260C	8-1-17	8-1-17	
1,2,3-Trichlorobenzene	ND	0.00095	EPA 8260C	8-1-17	8-1-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>126</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>117</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>117</i>	<i>80-131</i>				



Date of Report: August 3, 2017
 Samples Submitted: July 31, 2017
 Laboratory Reference: 1707-315
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS7W					
Laboratory ID:	07-315-02					
Dichlorodifluoromethane	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
Chloromethane	ND	0.0039	EPA 8260C	8-1-17	8-1-17	
Vinyl Chloride	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
Bromomethane	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
Chloroethane	ND	0.0039	EPA 8260C	8-1-17	8-1-17	
Trichlorofluoromethane	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
1,1-Dichloroethene	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
Iodomethane	ND	0.0039	EPA 8260C	8-1-17	8-1-17	
Methylene Chloride	ND	0.0077	EPA 8260C	8-1-17	8-1-17	
(trans) 1,2-Dichloroethene	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
1,1-Dichloroethane	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
2,2-Dichloropropane	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
(cis) 1,2-Dichloroethene	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
Bromochloromethane	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
Chloroform	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
1,1,1-Trichloroethane	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
Carbon Tetrachloride	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
1,1-Dichloropropene	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
1,2-Dichloroethane	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
Trichloroethene	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
1,2-Dichloropropane	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
Dibromomethane	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
Bromodichloromethane	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
2-Chloroethyl Vinyl Ether	ND	0.0039	EPA 8260C	8-1-17	8-1-17	
(cis) 1,3-Dichloropropene	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
(trans) 1,3-Dichloropropene	ND	0.00077	EPA 8260C	8-1-17	8-1-17	



Date of Report: August 3, 2017
 Samples Submitted: July 31, 2017
 Laboratory Reference: 1707-315
 Project: 15217E-1

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS7W					
Laboratory ID:	07-315-02					
1,1,2-Trichloroethane	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
Tetrachloroethene	0.021	0.00077	EPA 8260C	8-1-17	8-1-17	
1,3-Dichloropropane	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
Dibromochloromethane	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
1,2-Dibromoethane	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
Chlorobenzene	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
1,1,1,2-Tetrachloroethane	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
Bromoform	ND	0.0039	EPA 8260C	8-1-17	8-1-17	
Bromobenzene	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
1,1,1,2-Tetrachloroethane	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
1,2,3-Trichloropropane	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
2-Chlorotoluene	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
4-Chlorotoluene	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
1,3-Dichlorobenzene	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
1,4-Dichlorobenzene	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
1,2-Dichlorobenzene	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
1,2-Dibromo-3-chloropropane	ND	0.0039	EPA 8260C	8-1-17	8-1-17	
1,2,4-Trichlorobenzene	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
Hexachlorobutadiene	ND	0.0039	EPA 8260C	8-1-17	8-1-17	
1,2,3-Trichlorobenzene	ND	0.00077	EPA 8260C	8-1-17	8-1-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>121</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>117</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>116</i>	<i>80-131</i>				



Date of Report: August 3, 2017
 Samples Submitted: July 31, 2017
 Laboratory Reference: 1707-315
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS4S					
Laboratory ID:	07-315-03					
Dichlorodifluoromethane	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
Chloromethane	ND	0.0042	EPA 8260C	8-1-17	8-1-17	
Vinyl Chloride	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
Bromomethane	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
Chloroethane	ND	0.0042	EPA 8260C	8-1-17	8-1-17	
Trichlorofluoromethane	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
1,1-Dichloroethene	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
Iodomethane	ND	0.0042	EPA 8260C	8-1-17	8-1-17	
Methylene Chloride	ND	0.0083	EPA 8260C	8-1-17	8-1-17	
(trans) 1,2-Dichloroethene	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
1,1-Dichloroethane	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
2,2-Dichloropropane	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
(cis) 1,2-Dichloroethene	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
Bromochloromethane	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
Chloroform	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
1,1,1-Trichloroethane	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
Carbon Tetrachloride	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
1,1-Dichloropropene	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
1,2-Dichloroethane	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
Trichloroethene	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
1,2-Dichloropropane	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
Dibromomethane	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
Bromodichloromethane	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
2-Chloroethyl Vinyl Ether	ND	0.0042	EPA 8260C	8-1-17	8-1-17	
(cis) 1,3-Dichloropropene	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
(trans) 1,3-Dichloropropene	ND	0.00083	EPA 8260C	8-1-17	8-1-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS4S					
Laboratory ID:	07-315-03					
1,1,2-Trichloroethane	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
Tetrachloroethene	0.033	0.00083	EPA 8260C	8-1-17	8-1-17	
1,3-Dichloropropane	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
Dibromochloromethane	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
1,2-Dibromoethane	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
Chlorobenzene	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
1,1,1,2-Tetrachloroethane	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
Bromoform	ND	0.0042	EPA 8260C	8-1-17	8-1-17	
Bromobenzene	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
1,1,1,2-Tetrachloroethane	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
1,2,3-Trichloropropane	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
2-Chlorotoluene	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
4-Chlorotoluene	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
1,3-Dichlorobenzene	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
1,4-Dichlorobenzene	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
1,2-Dichlorobenzene	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
1,2-Dibromo-3-chloropropane	ND	0.0042	EPA 8260C	8-1-17	8-1-17	
1,2,4-Trichlorobenzene	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
Hexachlorobutadiene	ND	0.0042	EPA 8260C	8-1-17	8-1-17	
1,2,3-Trichlorobenzene	ND	0.00083	EPA 8260C	8-1-17	8-1-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>121</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>117</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>114</i>	<i>80-131</i>				



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 Project: 15217E-1

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS5S					
Laboratory ID:	07-315-04					
Dichlorodifluoromethane	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
Chloromethane	ND	0.0049	EPA 8260C	8-1-17	8-1-17	
Vinyl Chloride	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
Bromomethane	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
Chloroethane	ND	0.0049	EPA 8260C	8-1-17	8-1-17	
Trichlorofluoromethane	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
1,1-Dichloroethene	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
Iodomethane	ND	0.0049	EPA 8260C	8-1-17	8-1-17	
Methylene Chloride	ND	0.0098	EPA 8260C	8-1-17	8-1-17	
(trans) 1,2-Dichloroethene	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
1,1-Dichloroethane	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
2,2-Dichloropropane	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
(cis) 1,2-Dichloroethene	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
Bromochloromethane	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
Chloroform	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
1,1,1-Trichloroethane	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
Carbon Tetrachloride	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
1,1-Dichloropropene	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
1,2-Dichloroethane	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
Trichloroethene	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
1,2-Dichloropropane	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
Dibromomethane	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
Bromodichloromethane	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
2-Chloroethyl Vinyl Ether	ND	0.0049	EPA 8260C	8-1-17	8-1-17	
(cis) 1,3-Dichloropropene	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
(trans) 1,3-Dichloropropene	ND	0.00098	EPA 8260C	8-1-17	8-1-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS5S					
Laboratory ID:	07-315-04					
1,1,2-Trichloroethane	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
Tetrachloroethene	0.0031	0.00098	EPA 8260C	8-1-17	8-1-17	
1,3-Dichloropropane	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
Dibromochloromethane	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
1,2-Dibromoethane	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
Chlorobenzene	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
1,1,1,2-Tetrachloroethane	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
Bromoform	ND	0.0049	EPA 8260C	8-1-17	8-1-17	
Bromobenzene	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
1,1,1,2-Tetrachloroethane	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
1,2,3-Trichloropropane	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
2-Chlorotoluene	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
4-Chlorotoluene	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
1,3-Dichlorobenzene	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
1,4-Dichlorobenzene	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
1,2-Dichlorobenzene	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
1,2-Dibromo-3-chloropropane	ND	0.0049	EPA 8260C	8-1-17	8-1-17	
1,2,4-Trichlorobenzene	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
Hexachlorobutadiene	ND	0.0049	EPA 8260C	8-1-17	8-1-17	
1,2,3-Trichlorobenzene	ND	0.00098	EPA 8260C	8-1-17	8-1-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>118</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>112</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>107</i>	<i>80-131</i>				



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 Project: 15217E-1

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS6S					
Laboratory ID:	07-315-05					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
Chloromethane	ND	0.0063	EPA 8260C	8-1-17	8-1-17	
Vinyl Chloride	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
Bromomethane	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
Chloroethane	ND	0.0063	EPA 8260C	8-1-17	8-1-17	
Trichlorofluoromethane	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
1,1-Dichloroethene	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
Iodomethane	ND	0.0063	EPA 8260C	8-1-17	8-1-17	
Methylene Chloride	ND	0.013	EPA 8260C	8-1-17	8-1-17	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
1,1-Dichloroethane	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
2,2-Dichloropropane	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
Bromochloromethane	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
Chloroform	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
Carbon Tetrachloride	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
1,1-Dichloropropene	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
1,2-Dichloroethane	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
Trichloroethene	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
1,2-Dichloropropane	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
Dibromomethane	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
Bromodichloromethane	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
2-Chloroethyl Vinyl Ether	ND	0.0063	EPA 8260C	8-1-17	8-1-17	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	8-1-17	8-1-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS6S					
Laboratory ID:	07-315-05					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
Tetrachloroethene	0.024	0.0013	EPA 8260C	8-1-17	8-1-17	
1,3-Dichloropropane	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
Dibromochloromethane	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
1,2-Dibromoethane	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
Chlorobenzene	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
Bromoform	ND	0.0063	EPA 8260C	8-1-17	8-1-17	
Bromobenzene	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
2-Chlorotoluene	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
4-Chlorotoluene	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
1,2-Dibromo-3-chloropropane	ND	0.0063	EPA 8260C	8-1-17	8-1-17	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
Hexachlorobutadiene	ND	0.0063	EPA 8260C	8-1-17	8-1-17	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260C	8-1-17	8-1-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>113</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>108</i>	<i>80-131</i>				



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 Project: 15217E-1

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

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0801S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
Chloromethane	ND	0.0050	EPA 8260C	8-1-17	8-1-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
Bromomethane	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
Chloroethane	ND	0.0050	EPA 8260C	8-1-17	8-1-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
Iodomethane	ND	0.0050	EPA 8260C	8-1-17	8-1-17	
Methylene Chloride	ND	0.010	EPA 8260C	8-1-17	8-1-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
Bromochloromethane	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
Chloroform	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
Trichloroethene	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
Dibromomethane	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	8-1-17	8-1-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-1-17	8-1-17	



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VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0801S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
Chlorobenzene	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
Bromoform	ND	0.0050	EPA 8260C	8-1-17	8-1-17	
Bromobenzene	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	8-1-17	8-1-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	8-1-17	8-1-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	8-1-17	8-1-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>124</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>120</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>116</i>	<i>80-131</i>				



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 Laboratory Reference: 1707-315
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0801S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0456	0.0446	0.0500	0.0500	91	89	66-127	2	15	
Benzene	0.0495	0.0495	0.0500	0.0500	99	99	76-122	0	15	
Trichloroethene	0.0477	0.0481	0.0500	0.0500	95	96	78-120	1	15	
Toluene	0.0486	0.0504	0.0500	0.0500	97	101	83-120	4	15	
Chlorobenzene	0.0481	0.0483	0.0500	0.0500	96	97	81-120	0	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>109</i>	<i>111</i>	<i>73-134</i>			
<i>Toluene-d8</i>					<i>103</i>	<i>106</i>	<i>81-124</i>			
<i>4-Bromofluorobenzene</i>					<i>105</i>	<i>107</i>	<i>80-131</i>			



Date of Report: August 3, 2017
Samples Submitted: July 31, 2017
Laboratory Reference: 1707-315
Project: 15217E-1

% MOISTURE

Date Analyzed: 8-1-17

Client ID	Lab ID	% Moisture
CS6W	07-315-01	9
CS7W	07-315-02	9
CS4S	07-315-03	8
CS5S	07-315-04	10
CS6S	07-315-05	11





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





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

August 7, 2017

Tim Johnson
GeoTech Consultants
2401-10th Avenue East
Seattle, WA 98102

Re: Analytical Data for Project 15217E-1
Laboratory Reference No. 1708-034

Dear Tim:

Enclosed are the analytical results and associated quality control data for samples submitted on August 2, 2017.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 7, 2017
Samples Submitted: August 2, 2017
Laboratory Reference: 1708-034
Project: 15217E-1

Case Narrative

Samples were collected on August 2, 2017 and received by the laboratory on August 2, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Volatiles EPA 8260C Analysis

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

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 7, 2017
 Samples Submitted: August 2, 2017
 Laboratory Reference: 1708-034
 Project: 15217E-1

VOLATILES EPA 8260C
 Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS8W					
Laboratory ID:	08-034-01					
Dichlorodifluoromethane	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
Chloromethane	ND	0.0050	EPA 8260C	8-3-17	8-3-17	
Vinyl Chloride	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
Bromomethane	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
Chloroethane	ND	0.0050	EPA 8260C	8-3-17	8-3-17	
Trichlorofluoromethane	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
1,1-Dichloroethene	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
Iodomethane	ND	0.0050	EPA 8260C	8-3-17	8-3-17	
Methylene Chloride	ND	0.0099	EPA 8260C	8-3-17	8-3-17	
(trans) 1,2-Dichloroethene	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
1,1-Dichloroethane	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
2,2-Dichloropropane	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
(cis) 1,2-Dichloroethene	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
Bromochloromethane	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
Chloroform	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
1,1,1-Trichloroethane	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
Carbon Tetrachloride	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
1,1-Dichloropropene	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
1,2-Dichloroethane	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
Trichloroethene	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
1,2-Dichloropropane	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
Dibromomethane	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
Bromodichloromethane	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	8-3-17	8-3-17	
(cis) 1,3-Dichloropropene	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
(trans) 1,3-Dichloropropene	ND	0.00099	EPA 8260C	8-3-17	8-3-17	



Date of Report: August 7, 2017
 Samples Submitted: August 2, 2017
 Laboratory Reference: 1708-034
 Project: 15217E-1

VOLATILES EPA 8260C
 Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS8W					
Laboratory ID:	08-034-01					
1,1,2-Trichloroethane	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
Tetrachloroethene	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
1,3-Dichloropropane	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
Dibromochloromethane	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
1,2-Dibromoethane	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
Chlorobenzene	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
1,1,1,2-Tetrachloroethane	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
Bromoform	ND	0.0050	EPA 8260C	8-3-17	8-3-17	
Bromobenzene	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
1,1,2,2-Tetrachloroethane	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
1,2,3-Trichloropropane	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
2-Chlorotoluene	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
4-Chlorotoluene	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
1,3-Dichlorobenzene	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
1,4-Dichlorobenzene	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
1,2-Dichlorobenzene	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	8-3-17	8-3-17	
1,2,4-Trichlorobenzene	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	8-3-17	8-3-17	
1,2,3-Trichlorobenzene	ND	0.00099	EPA 8260C	8-3-17	8-3-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>80-131</i>				



Date of Report: August 7, 2017
 Samples Submitted: August 2, 2017
 Laboratory Reference: 1708-034
 Project: 15217E-1

VOLATILES EPA 8260C

Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS9W					
Laboratory ID:	08-034-02					
Dichlorodifluoromethane	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
Chloromethane	ND	0.0088	EPA 8260C	8-3-17	8-3-17	
Vinyl Chloride	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
Bromomethane	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
Chloroethane	ND	0.0088	EPA 8260C	8-3-17	8-3-17	
Trichlorofluoromethane	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
1,1-Dichloroethene	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
Iodomethane	ND	0.0088	EPA 8260C	8-3-17	8-3-17	
Methylene Chloride	ND	0.018	EPA 8260C	8-3-17	8-3-17	
(trans) 1,2-Dichloroethene	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
1,1-Dichloroethane	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
2,2-Dichloropropane	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
(cis) 1,2-Dichloroethene	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
Bromochloromethane	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
Chloroform	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
1,1,1-Trichloroethane	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
Carbon Tetrachloride	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
1,1-Dichloropropene	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
1,2-Dichloroethane	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
Trichloroethene	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
1,2-Dichloropropane	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
Dibromomethane	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
Bromodichloromethane	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
2-Chloroethyl Vinyl Ether	ND	0.0088	EPA 8260C	8-3-17	8-3-17	
(cis) 1,3-Dichloropropene	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
(trans) 1,3-Dichloropropene	ND	0.0018	EPA 8260C	8-3-17	8-3-17	



Date of Report: August 7, 2017
 Samples Submitted: August 2, 2017
 Laboratory Reference: 1708-034
 Project: 15217E-1

VOLATILES EPA 8260C
 Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS9W					
Laboratory ID:	08-034-02					
1,1,2-Trichloroethane	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
Tetrachloroethene	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
1,3-Dichloropropane	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
Dibromochloromethane	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
1,2-Dibromoethane	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
Chlorobenzene	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
1,1,1,2-Tetrachloroethane	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
Bromoform	ND	0.0088	EPA 8260C	8-3-17	8-3-17	
Bromobenzene	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
1,1,1,2,2-Tetrachloroethane	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
1,2,3-Trichloropropane	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
2-Chlorotoluene	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
4-Chlorotoluene	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
1,3-Dichlorobenzene	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
1,4-Dichlorobenzene	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
1,2-Dichlorobenzene	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
1,2-Dibromo-3-chloropropane	ND	0.0088	EPA 8260C	8-3-17	8-3-17	
1,2,4-Trichlorobenzene	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
Hexachlorobutadiene	ND	0.0088	EPA 8260C	8-3-17	8-3-17	
1,2,3-Trichlorobenzene	ND	0.0018	EPA 8260C	8-3-17	8-3-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>80-131</i>				



Date of Report: August 7, 2017
 Samples Submitted: August 2, 2017
 Laboratory Reference: 1708-034
 Project: 15217E-1

VOLATILES EPA 8260C
 Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS10W					
Laboratory ID:	08-034-03					
Dichlorodifluoromethane	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
Chloromethane	ND	0.0043	EPA 8260C	8-3-17	8-3-17	
Vinyl Chloride	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
Bromomethane	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
Chloroethane	ND	0.0043	EPA 8260C	8-3-17	8-3-17	
Trichlorofluoromethane	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
1,1-Dichloroethene	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
Iodomethane	ND	0.0043	EPA 8260C	8-3-17	8-3-17	
Methylene Chloride	ND	0.0086	EPA 8260C	8-3-17	8-3-17	
(trans) 1,2-Dichloroethene	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
1,1-Dichloroethane	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
2,2-Dichloropropane	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
(cis) 1,2-Dichloroethene	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
Bromochloromethane	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
Chloroform	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
1,1,1-Trichloroethane	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
Carbon Tetrachloride	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
1,1-Dichloropropene	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
1,2-Dichloroethane	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
Trichloroethene	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
1,2-Dichloropropane	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
Dibromomethane	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
Bromodichloromethane	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
2-Chloroethyl Vinyl Ether	ND	0.0043	EPA 8260C	8-3-17	8-3-17	
(cis) 1,3-Dichloropropene	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
(trans) 1,3-Dichloropropene	ND	0.00086	EPA 8260C	8-3-17	8-3-17	



Date of Report: August 7, 2017
 Samples Submitted: August 2, 2017
 Laboratory Reference: 1708-034
 Project: 15217E-1

VOLATILES EPA 8260C
 Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS10W					
Laboratory ID:	08-034-03					
1,1,2-Trichloroethane	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
Tetrachloroethene	0.0021	0.00086	EPA 8260C	8-3-17	8-3-17	
1,3-Dichloropropane	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
Dibromochloromethane	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
1,2-Dibromoethane	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
Chlorobenzene	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
1,1,1,2-Tetrachloroethane	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
Bromoform	ND	0.0043	EPA 8260C	8-3-17	8-3-17	
Bromobenzene	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
1,1,2,2-Tetrachloroethane	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
1,2,3-Trichloropropane	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
2-Chlorotoluene	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
4-Chlorotoluene	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
1,3-Dichlorobenzene	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
1,4-Dichlorobenzene	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
1,2-Dichlorobenzene	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
1,2-Dibromo-3-chloropropane	ND	0.0043	EPA 8260C	8-3-17	8-3-17	
1,2,4-Trichlorobenzene	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
Hexachlorobutadiene	ND	0.0043	EPA 8260C	8-3-17	8-3-17	
1,2,3-Trichlorobenzene	ND	0.00086	EPA 8260C	8-3-17	8-3-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>107</i>	<i>80-131</i>				



Date of Report: August 7, 2017
 Samples Submitted: August 2, 2017
 Laboratory Reference: 1708-034
 Project: 15217E-1

VOLATILES EPA 8260C

Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS11W					
Laboratory ID:	08-034-04					
Dichlorodifluoromethane	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
Chloromethane	ND	0.0043	EPA 8260C	8-3-17	8-3-17	
Vinyl Chloride	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
Bromomethane	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
Chloroethane	ND	0.0043	EPA 8260C	8-3-17	8-3-17	
Trichlorofluoromethane	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
1,1-Dichloroethene	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
Iodomethane	ND	0.0043	EPA 8260C	8-3-17	8-3-17	
Methylene Chloride	ND	0.0087	EPA 8260C	8-3-17	8-3-17	
(trans) 1,2-Dichloroethene	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
1,1-Dichloroethane	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
2,2-Dichloropropane	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
(cis) 1,2-Dichloroethene	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
Bromochloromethane	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
Chloroform	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
1,1,1-Trichloroethane	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
Carbon Tetrachloride	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
1,1-Dichloropropene	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
1,2-Dichloroethane	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
Trichloroethene	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
1,2-Dichloropropane	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
Dibromomethane	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
Bromodichloromethane	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
2-Chloroethyl Vinyl Ether	ND	0.0043	EPA 8260C	8-3-17	8-3-17	
(cis) 1,3-Dichloropropene	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
(trans) 1,3-Dichloropropene	ND	0.00087	EPA 8260C	8-3-17	8-3-17	



Date of Report: August 7, 2017
 Samples Submitted: August 2, 2017
 Laboratory Reference: 1708-034
 Project: 15217E-1

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS11W					
Laboratory ID:	08-034-04					
1,1,2-Trichloroethane	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
Tetrachloroethene	0.0010	0.00087	EPA 8260C	8-3-17	8-3-17	
1,3-Dichloropropane	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
Dibromochloromethane	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
1,2-Dibromoethane	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
Chlorobenzene	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
1,1,1,2-Tetrachloroethane	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
Bromoform	ND	0.0043	EPA 8260C	8-3-17	8-3-17	
Bromobenzene	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
1,1,2,2-Tetrachloroethane	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
1,2,3-Trichloropropane	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
2-Chlorotoluene	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
4-Chlorotoluene	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
1,3-Dichlorobenzene	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
1,4-Dichlorobenzene	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
1,2-Dichlorobenzene	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
1,2-Dibromo-3-chloropropane	ND	0.0043	EPA 8260C	8-3-17	8-3-17	
1,2,4-Trichlorobenzene	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
Hexachlorobutadiene	ND	0.0043	EPA 8260C	8-3-17	8-3-17	
1,2,3-Trichlorobenzene	ND	0.00087	EPA 8260C	8-3-17	8-3-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>105</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>103</i>	<i>80-131</i>				



Date of Report: August 7, 2017
 Samples Submitted: August 2, 2017
 Laboratory Reference: 1708-034
 Project: 15217E-1

VOLATILES EPA 8260C

Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS4N					
Laboratory ID:	08-034-05					
Dichlorodifluoromethane	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
Chloromethane	ND	0.0069	EPA 8260C	8-3-17	8-3-17	
Vinyl Chloride	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
Bromomethane	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
Chloroethane	ND	0.0069	EPA 8260C	8-3-17	8-3-17	
Trichlorofluoromethane	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
1,1-Dichloroethene	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
Iodomethane	ND	0.0069	EPA 8260C	8-3-17	8-3-17	
Methylene Chloride	ND	0.014	EPA 8260C	8-3-17	8-3-17	
(trans) 1,2-Dichloroethene	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
1,1-Dichloroethane	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
2,2-Dichloropropane	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
(cis) 1,2-Dichloroethene	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
Bromochloromethane	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
Chloroform	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
1,1,1-Trichloroethane	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
Carbon Tetrachloride	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
1,1-Dichloropropene	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
1,2-Dichloroethane	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
Trichloroethene	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
1,2-Dichloropropane	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
Dibromomethane	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
Bromodichloromethane	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
2-Chloroethyl Vinyl Ether	ND	0.0069	EPA 8260C	8-3-17	8-3-17	
(cis) 1,3-Dichloropropene	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
(trans) 1,3-Dichloropropene	ND	0.0014	EPA 8260C	8-3-17	8-3-17	



Date of Report: August 7, 2017
 Samples Submitted: August 2, 2017
 Laboratory Reference: 1708-034
 Project: 15217E-1

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS4N					
Laboratory ID:	08-034-05					
1,1,2-Trichloroethane	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
Tetrachloroethene	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
1,3-Dichloropropane	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
Dibromochloromethane	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
1,2-Dibromoethane	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
Chlorobenzene	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
1,1,1,2-Tetrachloroethane	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
Bromoform	ND	0.0069	EPA 8260C	8-3-17	8-3-17	
Bromobenzene	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
1,1,2,2-Tetrachloroethane	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
1,2,3-Trichloropropane	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
2-Chlorotoluene	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
4-Chlorotoluene	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
1,3-Dichlorobenzene	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
1,4-Dichlorobenzene	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
1,2-Dichlorobenzene	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
1,2-Dibromo-3-chloropropane	ND	0.0069	EPA 8260C	8-3-17	8-3-17	
1,2,4-Trichlorobenzene	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
Hexachlorobutadiene	ND	0.0069	EPA 8260C	8-3-17	8-3-17	
1,2,3-Trichlorobenzene	ND	0.0014	EPA 8260C	8-3-17	8-3-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>80-131</i>				



Date of Report: August 7, 2017
 Samples Submitted: August 2, 2017
 Laboratory Reference: 1708-034
 Project: 15217E-1

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

Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0803S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
Chloromethane	ND	0.0050	EPA 8260C	8-3-17	8-3-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
Bromomethane	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
Chloroethane	ND	0.0050	EPA 8260C	8-3-17	8-3-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
Iodomethane	ND	0.0050	EPA 8260C	8-3-17	8-3-17	
Methylene Chloride	ND	0.010	EPA 8260C	8-3-17	8-3-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
Bromochloromethane	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
Chloroform	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
Trichloroethene	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
Dibromomethane	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	8-3-17	8-3-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-3-17	8-3-17	



Date of Report: August 7, 2017
 Samples Submitted: August 2, 2017
 Laboratory Reference: 1708-034
 Project: 15217E-1

VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB0803S1				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
Chlorobenzene	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
Bromoform	ND	0.0050	EPA 8260C	8-3-17	8-3-17	
Bromobenzene	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	8-3-17	8-3-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	8-3-17	8-3-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	8-3-17	8-3-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>113</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>111</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>110</i>	<i>80-131</i>				



Date of Report: August 7, 2017
 Samples Submitted: August 2, 2017
 Laboratory Reference: 1708-034
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0803S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0425	0.0441	0.0500	0.0500	85	88	66-127	4	15	
Benzene	0.0473	0.0484	0.0500	0.0500	95	97	76-122	2	15	
Trichloroethene	0.0456	0.0476	0.0500	0.0500	91	95	78-120	4	15	
Toluene	0.0484	0.0499	0.0500	0.0500	97	100	83-120	3	15	
Chlorobenzene	0.0472	0.0477	0.0500	0.0500	94	95	81-120	1	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					112	118	73-134			
<i>Toluene-d8</i>					105	112	81-124			
<i>4-Bromofluorobenzene</i>					104	110	80-131			



Date of Report: August 7, 2017
Samples Submitted: August 2, 2017
Laboratory Reference: 1708-034
Project: 15217E-1

% MOISTURE

Date Analyzed: 8-3-17

Client ID	Lab ID	% Moisture
CS8W	08-034-01	3
CS9W	08-034-02	20
CS10W	08-034-03	7
CS11W	08-034-04	8
CS4N	08-034-05	8





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





MVA Onsite Environmental Inc.

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

Chain of Custody

Turnaround Request
(in working days)

(Check One)

- Same Day 1 Day
- 2 Days 3 Days
- Standard (7 Days)
- (TPH analysis 5 days)
- _____ (other)

Laboratory Number: **08-034**

Company: Geotech Consulting
 Project Number: 15217E-1
 Project Name: All Star
 Project Manager: Timothy Addison
 Sampled by: Timothy Addison

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
1	CS8W	8/2/17	8:38	Soil
2	CS9W	8/2/17	8:42	Soil
3	CS10W	8/2/17	8:55	Soil
4	CS11W	8/2/17	9:02	Soil
5	CS4W	8/2/17	9:07	Soil

Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	% Moisture
4						X												X
4						X												X
4						X												X
4						X												X
4						X												X

Relinquished/Received	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		<u>Geotech Consulting</u>	<u>8/2/17</u>	<u>14:10</u>	
Received			<u>8/2/17</u>	<u>14:10</u>	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date					

Data Package: Standard Level III Level IV

Chromatograms with final report Electronic Data Deliverables (EDDs)



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

August 9, 2017

Tim Johnson
GeoTech Consultants
2401-10th Avenue East
Seattle, WA 98102

Re: Analytical Data for Project 15217E-1
Laboratory Reference No. 1708-067

Dear Tim:

Enclosed are the analytical results and associated quality control data for samples submitted on August 4, 2017.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 9, 2017
Samples Submitted: August 4, 2017
Laboratory Reference: 1708-067
Project: 15217E-1

Case Narrative

Samples were collected on August 3, 2017 and received by the laboratory on August 4, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Volatiles EPA 8260C Analysis

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

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 9, 2017
 Samples Submitted: August 4, 2017
 Laboratory Reference: 1708-067
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS12W					
Laboratory ID:	08-067-01					
Dichlorodifluoromethane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
Chloromethane	ND	0.0072	EPA 8260C	8-7-17	8-7-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Bromomethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Chloroethane	ND	0.0050	EPA 8260C	8-7-17	8-7-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Iodomethane	ND	0.0050	EPA 8260C	8-7-17	8-7-17	
Methylene Chloride	ND	0.0075	EPA 8260C	8-7-17	8-7-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Bromochloromethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Chloroform	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Trichloroethene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Dibromomethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	8-7-17	8-7-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS12W					
Laboratory ID:	08-067-01					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Tetrachloroethene	0.0087	0.0010	EPA 8260C	8-7-17	8-7-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Chlorobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Bromoform	ND	0.0050	EPA 8260C	8-7-17	8-7-17	
Bromobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	8-7-17	8-7-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	8-7-17	8-7-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>120</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>111</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>113</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS13W					
Laboratory ID:	08-067-02					
Dichlorodifluoromethane	ND	0.0034	EPA 8260C	8-7-17	8-7-17	
Chloromethane	ND	0.017	EPA 8260C	8-7-17	8-7-17	
Vinyl Chloride	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
Bromomethane	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
Chloroethane	ND	0.012	EPA 8260C	8-7-17	8-7-17	
Trichlorofluoromethane	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloroethene	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
Iodomethane	ND	0.012	EPA 8260C	8-7-17	8-7-17	
Methylene Chloride	ND	0.018	EPA 8260C	8-7-17	8-7-17	
(trans) 1,2-Dichloroethene	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloroethane	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
2,2-Dichloropropane	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
(cis) 1,2-Dichloroethene	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
Bromochloromethane	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
Chloroform	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
1,1,1-Trichloroethane	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
Carbon Tetrachloride	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloropropene	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
1,2-Dichloroethane	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
Trichloroethene	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
1,2-Dichloropropane	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
Dibromomethane	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
Bromodichloromethane	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
2-Chloroethyl Vinyl Ether	ND	0.012	EPA 8260C	8-7-17	8-7-17	
(cis) 1,3-Dichloropropene	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
(trans) 1,3-Dichloropropene	ND	0.0024	EPA 8260C	8-7-17	8-7-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS13W					
Laboratory ID:	08-067-02					
1,1,2-Trichloroethane	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
Tetrachloroethene	0.0088	0.0024	EPA 8260C	8-7-17	8-7-17	
1,3-Dichloropropane	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
Dibromochloromethane	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
1,2-Dibromoethane	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
Chlorobenzene	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
1,1,1,2-Tetrachloroethane	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
Bromoform	ND	0.012	EPA 8260C	8-7-17	8-7-17	
Bromobenzene	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
1,1,1,2-Tetrachloroethane	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
1,2,3-Trichloropropane	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
2-Chlorotoluene	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
4-Chlorotoluene	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
1,3-Dichlorobenzene	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
1,4-Dichlorobenzene	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
1,2-Dichlorobenzene	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
1,2-Dibromo-3-chloropropane	ND	0.012	EPA 8260C	8-7-17	8-7-17	
1,2,4-Trichlorobenzene	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
Hexachlorobutadiene	ND	0.012	EPA 8260C	8-7-17	8-7-17	
1,2,3-Trichlorobenzene	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>95</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS14W					
Laboratory ID:	08-067-03					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	8-8-17	8-8-17	
Chloromethane	ND	0.0059	EPA 8260C	8-8-17	8-8-17	
Vinyl Chloride	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
Bromomethane	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
Chloroethane	ND	0.0044	EPA 8260C	8-8-17	8-8-17	
Trichlorofluoromethane	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
1,1-Dichloroethene	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
Iodomethane	ND	0.0044	EPA 8260C	8-8-17	8-8-17	
Methylene Chloride	ND	0.0058	EPA 8260C	8-8-17	8-8-17	
(trans) 1,2-Dichloroethene	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
1,1-Dichloroethane	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
2,2-Dichloropropane	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
(cis) 1,2-Dichloroethene	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
Bromochloromethane	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
Chloroform	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
1,1,1-Trichloroethane	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
Carbon Tetrachloride	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
1,1-Dichloropropene	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
1,2-Dichloroethane	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
Trichloroethene	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
1,2-Dichloropropane	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
Dibromomethane	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
Bromodichloromethane	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
2-Chloroethyl Vinyl Ether	ND	0.0044	EPA 8260C	8-8-17	8-8-17	
(cis) 1,3-Dichloropropene	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
(trans) 1,3-Dichloropropene	ND	0.00088	EPA 8260C	8-8-17	8-8-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS14W					
Laboratory ID:	08-067-03					
1,1,2-Trichloroethane	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
Tetrachloroethene	0.0028	0.00088	EPA 8260C	8-8-17	8-8-17	
1,3-Dichloropropane	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
Dibromochloromethane	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
1,2-Dibromoethane	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
Chlorobenzene	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
1,1,1,2-Tetrachloroethane	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
Bromoform	ND	0.0044	EPA 8260C	8-8-17	8-8-17	
Bromobenzene	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
1,1,1,2-Tetrachloroethane	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
1,2,3-Trichloropropane	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
2-Chlorotoluene	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
4-Chlorotoluene	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
1,3-Dichlorobenzene	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
1,4-Dichlorobenzene	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
1,2-Dichlorobenzene	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
1,2-Dibromo-3-chloropropane	ND	0.0044	EPA 8260C	8-8-17	8-8-17	
1,2,4-Trichlorobenzene	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
Hexachlorobutadiene	ND	0.0044	EPA 8260C	8-8-17	8-8-17	
1,2,3-Trichlorobenzene	ND	0.00088	EPA 8260C	8-8-17	8-8-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>108</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>103</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0807S1					
Dichlorodifluoromethane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
Chloromethane	ND	0.0071	EPA 8260C	8-7-17	8-7-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Bromomethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Chloroethane	ND	0.0050	EPA 8260C	8-7-17	8-7-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Iodomethane	ND	0.0050	EPA 8260C	8-7-17	8-7-17	
Methylene Chloride	ND	0.0074	EPA 8260C	8-7-17	8-7-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Bromochloromethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Chloroform	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Trichloroethene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Dibromomethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	8-7-17	8-7-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB0807S1				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Chlorobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Bromoform	ND	0.0050	EPA 8260C	8-7-17	8-7-17	
Bromobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	8-7-17	8-7-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	8-7-17	8-7-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>121</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>116</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>118</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0808S1					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	8-8-17	8-8-17	
Chloromethane	ND	0.0067	EPA 8260C	8-8-17	8-8-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
Bromomethane	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
Chloroethane	ND	0.0050	EPA 8260C	8-8-17	8-8-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
Iodomethane	ND	0.0050	EPA 8260C	8-8-17	8-8-17	
Methylene Chloride	ND	0.0066	EPA 8260C	8-8-17	8-8-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
Bromochloromethane	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
Chloroform	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
Trichloroethene	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
Dibromomethane	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	8-8-17	8-8-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-8-17	8-8-17	



Date of Report: August 9, 2017
 Samples Submitted: August 4, 2017
 Laboratory Reference: 1708-067
 Project: 15217E-1

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

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB0808S1				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
Chlorobenzene	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
Bromoform	ND	0.0050	EPA 8260C	8-8-17	8-8-17	
Bromobenzene	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	8-8-17	8-8-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	8-8-17	8-8-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	8-8-17	8-8-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>108</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>80-131</i>				



Date of Report: August 9, 2017
 Samples Submitted: August 4, 2017
 Laboratory Reference: 1708-067
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0807S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0419	0.0392	0.0500	0.0500	84	78	66-127	7	15	
Benzene	0.0466	0.0435	0.0500	0.0500	93	87	76-122	7	15	
Trichloroethene	0.0467	0.0468	0.0500	0.0500	93	94	78-120	0	15	
Toluene	0.0487	0.0471	0.0500	0.0500	97	94	83-120	3	15	
Chlorobenzene	0.0473	0.0457	0.0500	0.0500	95	91	81-120	3	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					106	97	73-134			
<i>Toluene-d8</i>					101	95	81-124			
<i>4-Bromofluorobenzene</i>					103	93	80-131			



Date of Report: August 9, 2017
 Samples Submitted: August 4, 2017
 Laboratory Reference: 1708-067
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0808S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0419	0.0406	0.0500	0.0500	84	81	66-127	3	15	
Benzene	0.0480	0.0460	0.0500	0.0500	96	92	76-122	4	15	
Trichloroethene	0.0438	0.0462	0.0500	0.0500	88	92	78-120	5	15	
Toluene	0.0483	0.0479	0.0500	0.0500	97	96	83-120	1	15	
Chlorobenzene	0.0450	0.0467	0.0500	0.0500	90	93	81-120	4	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					108	92	73-134			
<i>Toluene-d8</i>					106	92	81-124			
<i>4-Bromofluorobenzene</i>					102	91	80-131			



Date of Report: August 9, 2017
Samples Submitted: August 4, 2017
Laboratory Reference: 1708-067
Project: 15217E-1

% MOISTURE

Date Analyzed: 8-7-17

Client ID	Lab ID	% Moisture
CS12W	08-067-01	16
CS13W	08-067-02	14
CS14W	08-067-03	7





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





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

Chain of Custody

Turnaround Request
 (in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)
 (TPH analysis 5 Days)

_____ (other)

Laboratory Number: **08-067**

Company: **Golden Consultants**
 Project Number: **15217E-1**
 Project Name: **All Star**
 Project Manager: **Timothy Johnson**
 Sampled By: **Timothy Johnson**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	CS12A D	8/3/17	9:37	Soil	9
2	CS13 W	8/3/17	9:42	Soil	4
3	CS14 W	8/3/17	9:46	Soil	4

Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	% Moisture
9						X												X
4						X												X
4						X												X

Signature	Company	Date	Time	Comments/Special Instructions
<i>[Signature]</i>	Golden Consultants	8/4/17	8:11:15	
<i>[Signature]</i>	Golden Consultants	8/4/17	11:15	

Relinquished
 Received
 Relinquished
 Received
 Relinquished
 Received
 Relinquished
 Received
 Relinquished

Reviewed/Date _____

Reviewed/Date _____

Reviewed/Date _____

Data Package: Standard Level III Level IV

Chromatograms with final report Electronic Data Deliverables (EDDs)



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

August 9, 2017

Tim Johnson
GeoTech Consultants
2401-10th Avenue East
Seattle, WA 98102

Re: Analytical Data for Project 15217E-1
Laboratory Reference No. 1708-068

Dear Tim:

Enclosed are the analytical results and associated quality control data for samples submitted on August 4, 2017.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody,
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 9, 2017
Samples Submitted: August 4, 2017
Laboratory Reference: 1708-068
Project: 15217E-1

Case Narrative

Samples were collected on August 4, 2017 and received by the laboratory on August 4, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Volatiles EPA 8260C Analysis

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

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 9, 2017
 Samples Submitted: August 4, 2017
 Laboratory Reference: 1708-068
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS5N					
Laboratory ID:	08-068-01					
Dichlorodifluoromethane	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
Chloromethane	ND	0.0088	EPA 8260C	8-7-17	8-7-17	
Vinyl Chloride	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
Bromomethane	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
Chloroethane	ND	0.0062	EPA 8260C	8-7-17	8-7-17	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
Iodomethane	ND	0.0062	EPA 8260C	8-7-17	8-7-17	
Methylene Chloride	ND	0.0091	EPA 8260C	8-7-17	8-7-17	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
Bromochloromethane	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
Chloroform	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
Trichloroethene	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
Dibromomethane	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
Bromodichloromethane	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
2-Chloroethyl Vinyl Ether	ND	0.0062	EPA 8260C	8-7-17	8-7-17	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	8-7-17	8-7-17	



Date of Report: August 9, 2017
 Samples Submitted: August 4, 2017
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 Project: 15217E-1

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS5N					
Laboratory ID:	08-068-01					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
Tetrachloroethene	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
Dibromochloromethane	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
Chlorobenzene	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
Bromoform	ND	0.0062	EPA 8260C	8-7-17	8-7-17	
Bromobenzene	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
1,1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
2-Chlorotoluene	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
4-Chlorotoluene	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
1,2-Dibromo-3-chloropropane	ND	0.0062	EPA 8260C	8-7-17	8-7-17	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
Hexachlorobutadiene	ND	0.0062	EPA 8260C	8-7-17	8-7-17	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	8-7-17	8-7-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>110</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>108</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>110</i>	<i>80-131</i>				



Date of Report: August 9, 2017
 Samples Submitted: August 4, 2017
 Laboratory Reference: 1708-068
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS2E					
Laboratory ID:	08-068-02					
Dichlorodifluoromethane	ND	0.0016	EPA 8260C	8-7-17	8-7-17	
Chloromethane	ND	0.0081	EPA 8260C	8-7-17	8-7-17	
Vinyl Chloride	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
Bromomethane	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
Chloroethane	ND	0.0057	EPA 8260C	8-7-17	8-7-17	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
Iodomethane	ND	0.0057	EPA 8260C	8-7-17	8-7-17	
Methylene Chloride	ND	0.0084	EPA 8260C	8-7-17	8-7-17	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
Bromochloromethane	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
Chloroform	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
Trichloroethene	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
Dibromomethane	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
Bromodichloromethane	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
2-Chloroethyl Vinyl Ether	ND	0.0057	EPA 8260C	8-7-17	8-7-17	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	8-7-17	8-7-17	



Date of Report: August 9, 2017
 Samples Submitted: August 4, 2017
 Laboratory Reference: 1708-068
 Project: 15217E-1

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS2E					
Laboratory ID:	08-068-02					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
Tetrachloroethene	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
Dibromochloromethane	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
Chlorobenzene	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
Bromoform	ND	0.0057	EPA 8260C	8-7-17	8-7-17	
Bromobenzene	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
2-Chlorotoluene	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
4-Chlorotoluene	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
1,2-Dibromo-3-chloropropane	ND	0.0057	EPA 8260C	8-7-17	8-7-17	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
Hexachlorobutadiene	ND	0.0057	EPA 8260C	8-7-17	8-7-17	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	8-7-17	8-7-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>112</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>106</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>106</i>	<i>80-131</i>				



Date of Report: August 9, 2017
 Samples Submitted: August 4, 2017
 Laboratory Reference: 1708-068
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS3E					
Laboratory ID:	08-068-03					
Dichlorodifluoromethane	ND	0.0020	EPA 8260C	8-7-17	8-7-17	
Chloromethane	ND	0.010	EPA 8260C	8-7-17	8-7-17	
Vinyl Chloride	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
Bromomethane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
Chloroethane	ND	0.0070	EPA 8260C	8-7-17	8-7-17	
Trichlorofluoromethane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloroethene	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
Iodomethane	ND	0.0070	EPA 8260C	8-7-17	8-7-17	
Methylene Chloride	ND	0.010	EPA 8260C	8-7-17	8-7-17	
(trans) 1,2-Dichloroethene	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloroethane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
2,2-Dichloropropane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
(cis) 1,2-Dichloroethene	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
Bromochloromethane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
Chloroform	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
1,1,1-Trichloroethane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
Carbon Tetrachloride	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloropropene	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
1,2-Dichloroethane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
Trichloroethene	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
1,2-Dichloropropane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
Dibromomethane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
Bromodichloromethane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
2-Chloroethyl Vinyl Ether	ND	0.0070	EPA 8260C	8-7-17	8-7-17	
(cis) 1,3-Dichloropropene	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
(trans) 1,3-Dichloropropene	ND	0.0014	EPA 8260C	8-7-17	8-7-17	



Date of Report: August 9, 2017
 Samples Submitted: August 4, 2017
 Laboratory Reference: 1708-068
 Project: 15217E-1

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS3E					
Laboratory ID:	08-068-03					
1,1,2-Trichloroethane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
Tetrachloroethene	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
1,3-Dichloropropane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
Dibromochloromethane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
1,2-Dibromoethane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
Chlorobenzene	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
1,1,1,2-Tetrachloroethane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
Bromoform	ND	0.0070	EPA 8260C	8-7-17	8-7-17	
Bromobenzene	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
1,1,1,2,2-Tetrachloroethane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
1,2,3-Trichloropropane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
2-Chlorotoluene	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
4-Chlorotoluene	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
1,3-Dichlorobenzene	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
1,4-Dichlorobenzene	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
1,2-Dichlorobenzene	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
1,2-Dibromo-3-chloropropane	ND	0.0070	EPA 8260C	8-7-17	8-7-17	
1,2,4-Trichlorobenzene	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
Hexachlorobutadiene	ND	0.0070	EPA 8260C	8-7-17	8-7-17	
1,2,3-Trichlorobenzene	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>93</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>80-131</i>				



Date of Report: August 9, 2017
 Samples Submitted: August 4, 2017
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 Project: 15217E-1

VOLATILES EPA 8260C
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS5E					
Laboratory ID:	08-068-04					
Dichlorodifluoromethane	ND	0.0024	EPA 8260C	8-7-17	8-7-17	
Chloromethane	ND	0.012	EPA 8260C	8-7-17	8-7-17	
Vinyl Chloride	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
Bromomethane	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
Chloroethane	ND	0.0085	EPA 8260C	8-7-17	8-7-17	
Trichlorofluoromethane	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloroethene	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
Iodomethane	ND	0.0085	EPA 8260C	8-7-17	8-7-17	
Methylene Chloride	ND	0.013	EPA 8260C	8-7-17	8-7-17	
(trans) 1,2-Dichloroethene	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloroethane	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
2,2-Dichloropropane	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
(cis) 1,2-Dichloroethene	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
Bromochloromethane	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
Chloroform	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
1,1,1-Trichloroethane	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
Carbon Tetrachloride	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloropropene	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
1,2-Dichloroethane	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
Trichloroethene	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
1,2-Dichloropropane	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
Dibromomethane	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
Bromodichloromethane	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
2-Chloroethyl Vinyl Ether	ND	0.0085	EPA 8260C	8-7-17	8-7-17	
(cis) 1,3-Dichloropropene	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
(trans) 1,3-Dichloropropene	ND	0.0017	EPA 8260C	8-7-17	8-7-17	



Date of Report: August 9, 2017
 Samples Submitted: August 4, 2017
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VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS5E					
Laboratory ID:	08-068-04					
1,1,2-Trichloroethane	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
Tetrachloroethene	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
1,3-Dichloropropane	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
Dibromochloromethane	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
1,2-Dibromoethane	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
Chlorobenzene	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
1,1,1,2-Tetrachloroethane	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
Bromoform	ND	0.0085	EPA 8260C	8-7-17	8-7-17	
Bromobenzene	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
1,1,2,2-Tetrachloroethane	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
1,2,3-Trichloropropane	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
2-Chlorotoluene	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
4-Chlorotoluene	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
1,3-Dichlorobenzene	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
1,4-Dichlorobenzene	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
1,2-Dichlorobenzene	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
1,2-Dibromo-3-chloropropane	ND	0.0085	EPA 8260C	8-7-17	8-7-17	
1,2,4-Trichlorobenzene	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
Hexachlorobutadiene	ND	0.0085	EPA 8260C	8-7-17	8-7-17	
1,2,3-Trichlorobenzene	ND	0.0017	EPA 8260C	8-7-17	8-7-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>80-131</i>				



Date of Report: August 9, 2017
 Samples Submitted: August 4, 2017
 Laboratory Reference: 1708-068
 Project: 15217E-1

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

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0807S1					
Dichlorodifluoromethane	ND	0.0014	EPA 8260C	8-7-17	8-7-17	
Chloromethane	ND	0.0071	EPA 8260C	8-7-17	8-7-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Bromomethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Chloroethane	ND	0.0050	EPA 8260C	8-7-17	8-7-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Iodomethane	ND	0.0050	EPA 8260C	8-7-17	8-7-17	
Methylene Chloride	ND	0.0074	EPA 8260C	8-7-17	8-7-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Bromochloromethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Chloroform	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Trichloroethene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Dibromomethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	8-7-17	8-7-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	



Date of Report: August 9, 2017
 Samples Submitted: August 4, 2017
 Laboratory Reference: 1708-068
 Project: 15217E-1

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0807S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Chlorobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Bromoform	ND	0.0050	EPA 8260C	8-7-17	8-7-17	
Bromobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	8-7-17	8-7-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	8-7-17	8-7-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	8-7-17	8-7-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>121</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>116</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>118</i>	<i>80-131</i>				



Date of Report: August 9, 2017
 Samples Submitted: August 4, 2017
 Laboratory Reference: 1708-068
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0807S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0419	0.0392	0.0500	0.0500	84	78	66-127	7	15	
Benzene	0.0466	0.0435	0.0500	0.0500	93	87	76-122	7	15	
Trichloroethene	0.0467	0.0468	0.0500	0.0500	93	94	78-120	0	15	
Toluene	0.0487	0.0471	0.0500	0.0500	97	94	83-120	3	15	
Chlorobenzene	0.0473	0.0457	0.0500	0.0500	95	91	81-120	3	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					106	97	73-134			
<i>Toluene-d8</i>					101	95	81-124			
<i>4-Bromofluorobenzene</i>					103	93	80-131			



Date of Report: August 9, 2017
Samples Submitted: August 4, 2017
Laboratory Reference: 1708-068
Project: 15217E-1

% MOISTURE

Date Analyzed: 8-7-17

Client ID	Lab ID	% Moisture
CS5N	08-068-01	10
CS2E	08-068-02	11
CS3E	08-068-03	9
CS5E	08-068-04	9





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





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

August 4, 2017

Tim Johnson
GeoTech Consultants
2401-10th Avenue East
Seattle, WA 98102

Re: Analytical Data for Project 15217E-1
Laboratory Reference No. 1708-002

Dear Tim:

Enclosed are the analytical results and associated quality control data for samples submitted on August 1, 2017.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 4, 2017
Samples Submitted: August 1, 2017
Laboratory Reference: 1708-002
Project: 15217E-1

Case Narrative

Samples were collected on August 1, 2017 and received by the laboratory on August 1, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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



Date of Report: August 4, 2017
 Samples Submitted: August 1, 2017
 Laboratory Reference: 1708-002
 Project: 15217E-1

VOLATILES EPA 8260C
 Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS1B					
Laboratory ID:	08-002-01					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Chloromethane	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Bromomethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Chloroethane	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Iodomethane	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
Methylene Chloride	ND	0.013	EPA 8260C	8-2-17	8-2-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Bromochloromethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Chloroform	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Trichloroethene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Dibromomethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS1B					
Laboratory ID:	08-002-01					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Tetrachloroethene	0.0070	0.0010	EPA 8260C	8-2-17	8-2-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Chlorobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Bromoform	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
Bromobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>111</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>111</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>110</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS2B					
Laboratory ID:	08-002-02					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Chloromethane	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Bromomethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Chloroethane	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Iodomethane	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
Methylene Chloride	ND	0.013	EPA 8260C	8-2-17	8-2-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Bromochloromethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Chloroform	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Trichloroethene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Dibromomethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS2B					
Laboratory ID:	08-002-02					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Tetrachloroethene	0.0064	0.0010	EPA 8260C	8-2-17	8-2-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Chlorobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Bromoform	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
Bromobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>114</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>113</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>112</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS3B					
Laboratory ID:	08-002-03					
Dichlorodifluoromethane	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
Chloromethane	ND	0.0048	EPA 8260C	8-2-17	8-2-17	
Vinyl Chloride	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
Bromomethane	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
Chloroethane	ND	0.0048	EPA 8260C	8-2-17	8-2-17	
Trichlorofluoromethane	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
1,1-Dichloroethene	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
Iodomethane	ND	0.0048	EPA 8260C	8-2-17	8-2-17	
Methylene Chloride	ND	0.013	EPA 8260C	8-2-17	8-2-17	
(trans) 1,2-Dichloroethene	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
1,1-Dichloroethane	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
2,2-Dichloropropane	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
(cis) 1,2-Dichloroethene	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
Bromochloromethane	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
Chloroform	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
1,1,1-Trichloroethane	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
Carbon Tetrachloride	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
1,1-Dichloropropene	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
1,2-Dichloroethane	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
Trichloroethene	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
1,2-Dichloropropane	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
Dibromomethane	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
Bromodichloromethane	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
2-Chloroethyl Vinyl Ether	ND	0.0048	EPA 8260C	8-2-17	8-2-17	
(cis) 1,3-Dichloropropene	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
(trans) 1,3-Dichloropropene	ND	0.00096	EPA 8260C	8-2-17	8-2-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS3B					
Laboratory ID:	08-002-03					
1,1,2-Trichloroethane	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
Tetrachloroethene	0.0028	0.00096	EPA 8260C	8-2-17	8-2-17	
1,3-Dichloropropane	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
Dibromochloromethane	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
1,2-Dibromoethane	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
Chlorobenzene	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
1,1,1,2-Tetrachloroethane	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
Bromoform	ND	0.0048	EPA 8260C	8-2-17	8-2-17	
Bromobenzene	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
1,1,2,2-Tetrachloroethane	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
1,2,3-Trichloropropane	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
2-Chlorotoluene	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
4-Chlorotoluene	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
1,3-Dichlorobenzene	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
1,4-Dichlorobenzene	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
1,2-Dichlorobenzene	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
1,2-Dibromo-3-chloropropane	ND	0.0048	EPA 8260C	8-2-17	8-2-17	
1,2,4-Trichlorobenzene	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
Hexachlorobutadiene	ND	0.0048	EPA 8260C	8-2-17	8-2-17	
1,2,3-Trichlorobenzene	ND	0.00096	EPA 8260C	8-2-17	8-2-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	95	73-134				
<i>Toluene-d8</i>	96	81-124				
<i>4-Bromofluorobenzene</i>	95	80-131				



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VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0802S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Chloromethane	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Bromomethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Chloroethane	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Iodomethane	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
Methylene Chloride	ND	0.013	EPA 8260C	8-2-17	8-2-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Bromochloromethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Chloroform	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Trichloroethene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Dibromomethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	



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VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB0802S1				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Chlorobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Bromoform	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
Bromobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	8-2-17	8-2-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	8-2-17	8-2-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>116</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>115</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>117</i>	<i>80-131</i>				



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 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0802S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.04500	0.0470	0.0500	0.0500	90	94	66-127	4	15	
Benzene	0.04920	0.0490	0.0500	0.0500	98	98	76-122	0	15	
Trichloroethene	0.04660	0.0464	0.0500	0.0500	93	93	78-120	0	15	
Toluene	0.04780	0.0492	0.0500	0.0500	96	98	83-120	3	15	
Chlorobenzene	0.04730	0.0476	0.0500	0.0500	95	95	81-120	1	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>101</i>	<i>98</i>	<i>73-134</i>			
<i>Toluene-d8</i>					<i>99</i>	<i>98</i>	<i>81-124</i>			
<i>4-Bromofluorobenzene</i>					<i>99</i>	<i>95</i>	<i>80-131</i>			



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Project: 15217E-1

% MOISTURE

Date Analyzed: 8-2-17

Client ID	Lab ID	% Moisture
CS1B	08-002-01	7
CS2B	08-002-02	7
CS3B	08-002-03	10





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





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

August 14, 2017

Tim Johnson
GeoTech Consultants
2401-10th Avenue East
Seattle, WA 98102

Re: Analytical Data for Project 15217E-1
Laboratory Reference No. 1708-127

Dear Tim:

Enclosed are the analytical results and associated quality control data for samples submitted on August 9, 2017.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 14, 2017
Samples Submitted: August 9, 2017
Laboratory Reference: 1708-127
Project: 15217E-1

Case Narrative

Samples were collected on August 9, 2017 and received by the laboratory on August 9, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Volatiles EPA 8260C Analysis

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

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 14, 2017
 Samples Submitted: August 9, 2017
 Laboratory Reference: 1708-127
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS4B					
Laboratory ID:	08-127-01					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
Chloromethane	ND	0.0049	EPA 8260C	8-10-17	8-10-17	
Vinyl Chloride	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Bromomethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Chloroethane	ND	0.0049	EPA 8260C	8-10-17	8-10-17	
Trichlorofluoromethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloroethene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Iodomethane	ND	0.0049	EPA 8260C	8-10-17	8-10-17	
Methylene Chloride	ND	0.0049	EPA 8260C	8-10-17	8-10-17	
(trans) 1,2-Dichloroethene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloroethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
2,2-Dichloropropane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
(cis) 1,2-Dichloroethene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Bromochloromethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Chloroform	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,1,1-Trichloroethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Carbon Tetrachloride	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloropropene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,2-Dichloroethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Trichloroethene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,2-Dichloropropane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Dibromomethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Bromodichloromethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
2-Chloroethyl Vinyl Ether	ND	0.0049	EPA 8260C	8-10-17	8-10-17	
(cis) 1,3-Dichloropropene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
(trans) 1,3-Dichloropropene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	



Date of Report: August 14, 2017
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VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS4B					
Laboratory ID:	08-127-01					
1,1,2-Trichloroethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Tetrachloroethene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,3-Dichloropropane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Dibromochloromethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,2-Dibromoethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Chlorobenzene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,1,1,2-Tetrachloroethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Bromoform	ND	0.0049	EPA 8260C	8-10-17	8-10-17	
Bromobenzene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,1,1,2-Tetrachloroethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,2,3-Trichloropropane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
2-Chlorotoluene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
4-Chlorotoluene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,3-Dichlorobenzene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,4-Dichlorobenzene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,2-Dichlorobenzene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,2-Dibromo-3-chloropropane	ND	0.0049	EPA 8260C	8-10-17	8-10-17	
1,2,4-Trichlorobenzene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Hexachlorobutadiene	ND	0.0049	EPA 8260C	8-10-17	8-10-17	
1,2,3-Trichlorobenzene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>103</i>	<i>80-131</i>				



Date of Report: August 14, 2017
 Samples Submitted: August 9, 2017
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 Project: 15217E-1

VOLATILES EPA 8260C
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS5B					
Laboratory ID:	08-127-02					
Dichlorodifluoromethane	ND	0.0017	EPA 8260C	8-10-17	8-10-17	
Chloromethane	ND	0.0066	EPA 8260C	8-10-17	8-10-17	
Vinyl Chloride	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
Bromomethane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
Chloroethane	ND	0.0066	EPA 8260C	8-10-17	8-10-17	
Trichlorofluoromethane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloroethene	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
Iodomethane	ND	0.0066	EPA 8260C	8-10-17	8-10-17	
Methylene Chloride	ND	0.0066	EPA 8260C	8-10-17	8-10-17	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloroethane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
2,2-Dichloropropane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
Bromochloromethane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
Chloroform	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
Carbon Tetrachloride	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloropropene	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
1,2-Dichloroethane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
Trichloroethene	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
1,2-Dichloropropane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
Dibromomethane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
Bromodichloromethane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
2-Chloroethyl Vinyl Ether	ND	0.0066	EPA 8260C	8-10-17	8-10-17	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	8-10-17	8-10-17	



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VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS5B					
Laboratory ID:	08-127-02					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
Tetrachloroethene	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
1,3-Dichloropropane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
Dibromochloromethane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
1,2-Dibromoethane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
Chlorobenzene	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
Bromoform	ND	0.0066	EPA 8260C	8-10-17	8-10-17	
Bromobenzene	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
2-Chlorotoluene	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
4-Chlorotoluene	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
1,2-Dibromo-3-chloropropane	ND	0.0066	EPA 8260C	8-10-17	8-10-17	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
Hexachlorobutadiene	ND	0.0066	EPA 8260C	8-10-17	8-10-17	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>80-131</i>				



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VOLATILES EPA 8260C
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS6B					
Laboratory ID:	08-127-03					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	8-10-17	8-10-17	
Chloromethane	ND	0.0056	EPA 8260C	8-10-17	8-10-17	
Vinyl Chloride	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Bromomethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Chloroethane	ND	0.0056	EPA 8260C	8-10-17	8-10-17	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Iodomethane	ND	0.0056	EPA 8260C	8-10-17	8-10-17	
Methylene Chloride	ND	0.0056	EPA 8260C	8-10-17	8-10-17	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Bromochloromethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Chloroform	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Trichloroethene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Dibromomethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Bromodichloromethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
2-Chloroethyl Vinyl Ether	ND	0.0056	EPA 8260C	8-10-17	8-10-17	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS6B					
Laboratory ID:	08-127-03					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Tetrachloroethene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Dibromochloromethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Chlorobenzene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Bromoform	ND	0.0056	EPA 8260C	8-10-17	8-10-17	
Bromobenzene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
2-Chlorotoluene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
4-Chlorotoluene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,2-Dibromo-3-chloropropane	ND	0.0056	EPA 8260C	8-10-17	8-10-17	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Hexachlorobutadiene	ND	0.0056	EPA 8260C	8-10-17	8-10-17	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>80-131</i>				



Date of Report: August 14, 2017
 Samples Submitted: August 9, 2017
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VOLATILES EPA 8260C
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS7B					
Laboratory ID:	08-127-04					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
Chloromethane	ND	0.0051	EPA 8260C	8-10-17	8-10-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Bromomethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Chloroethane	ND	0.0051	EPA 8260C	8-10-17	8-10-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Iodomethane	ND	0.0051	EPA 8260C	8-10-17	8-10-17	
Methylene Chloride	ND	0.0051	EPA 8260C	8-10-17	8-10-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Bromochloromethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Chloroform	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Trichloroethene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Dibromomethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
2-Chloroethyl Vinyl Ether	ND	0.0051	EPA 8260C	8-10-17	8-10-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	



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 Samples Submitted: August 9, 2017
 Laboratory Reference: 1708-127
 Project: 15217E-1

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS7B					
Laboratory ID:	08-127-04					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Chlorobenzene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Bromoform	ND	0.0051	EPA 8260C	8-10-17	8-10-17	
Bromobenzene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,2-Dibromo-3-chloropropane	ND	0.0051	EPA 8260C	8-10-17	8-10-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Hexachlorobutadiene	ND	0.0051	EPA 8260C	8-10-17	8-10-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>108</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS8B					
Laboratory ID:	08-127-05					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
Chloromethane	ND	0.0049	EPA 8260C	8-10-17	8-10-17	
Vinyl Chloride	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Bromomethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Chloroethane	ND	0.0049	EPA 8260C	8-10-17	8-10-17	
Trichlorofluoromethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloroethene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Iodomethane	ND	0.0049	EPA 8260C	8-10-17	8-10-17	
Methylene Chloride	ND	0.0049	EPA 8260C	8-10-17	8-10-17	
(trans) 1,2-Dichloroethene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloroethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
2,2-Dichloropropane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
(cis) 1,2-Dichloroethene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Bromochloromethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Chloroform	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,1,1-Trichloroethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Carbon Tetrachloride	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloropropene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,2-Dichloroethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Trichloroethene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,2-Dichloropropane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Dibromomethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Bromodichloromethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
2-Chloroethyl Vinyl Ether	ND	0.0049	EPA 8260C	8-10-17	8-10-17	
(cis) 1,3-Dichloropropene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
(trans) 1,3-Dichloropropene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS8B					
Laboratory ID:	08-127-05					
1,1,2-Trichloroethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Tetrachloroethene	0.0011	0.00098	EPA 8260C	8-10-17	8-10-17	
1,3-Dichloropropane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Dibromochloromethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,2-Dibromoethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Chlorobenzene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,1,1,2-Tetrachloroethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Bromoform	ND	0.0049	EPA 8260C	8-10-17	8-10-17	
Bromobenzene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,1,2,2-Tetrachloroethane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,2,3-Trichloropropane	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
2-Chlorotoluene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
4-Chlorotoluene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,3-Dichlorobenzene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,4-Dichlorobenzene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,2-Dichlorobenzene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
1,2-Dibromo-3-chloropropane	ND	0.0049	EPA 8260C	8-10-17	8-10-17	
1,2,4-Trichlorobenzene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
Hexachlorobutadiene	ND	0.0049	EPA 8260C	8-10-17	8-10-17	
1,2,3-Trichlorobenzene	ND	0.00098	EPA 8260C	8-10-17	8-10-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS9B					
Laboratory ID:	08-127-06					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	8-10-17	8-10-17	
Chloromethane	ND	0.0058	EPA 8260C	8-10-17	8-10-17	
Vinyl Chloride	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
Bromomethane	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
Chloroethane	ND	0.0058	EPA 8260C	8-10-17	8-10-17	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
Iodomethane	ND	0.0058	EPA 8260C	8-10-17	8-10-17	
Methylene Chloride	ND	0.0058	EPA 8260C	8-10-17	8-10-17	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
Bromochloromethane	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
Chloroform	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
Trichloroethene	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
Dibromomethane	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
Bromodichloromethane	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
2-Chloroethyl Vinyl Ether	ND	0.0058	EPA 8260C	8-10-17	8-10-17	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	8-10-17	8-10-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS9B					
Laboratory ID:	08-127-06					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
Tetrachloroethene	0.0060	0.0012	EPA 8260C	8-10-17	8-10-17	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
Dibromochloromethane	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
Chlorobenzene	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
Bromoform	ND	0.0058	EPA 8260C	8-10-17	8-10-17	
Bromobenzene	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
2-Chlorotoluene	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
4-Chlorotoluene	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260C	8-10-17	8-10-17	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
Hexachlorobutadiene	ND	0.0058	EPA 8260C	8-10-17	8-10-17	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	8-10-17	8-10-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS10B					
Laboratory ID:	08-127-07					
Dichlorodifluoromethane	ND	0.0025	EPA 8260C	8-10-17	8-10-17	
Chloromethane	ND	0.0096	EPA 8260C	8-10-17	8-10-17	
Vinyl Chloride	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
Bromomethane	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
Chloroethane	ND	0.0096	EPA 8260C	8-10-17	8-10-17	
Trichlorofluoromethane	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloroethene	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
Iodomethane	ND	0.0096	EPA 8260C	8-10-17	8-10-17	
Methylene Chloride	ND	0.0096	EPA 8260C	8-10-17	8-10-17	
(trans) 1,2-Dichloroethene	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloroethane	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
2,2-Dichloropropane	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
(cis) 1,2-Dichloroethene	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
Bromochloromethane	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
Chloroform	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
1,1,1-Trichloroethane	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
Carbon Tetrachloride	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloropropene	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
1,2-Dichloroethane	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
Trichloroethene	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
1,2-Dichloropropane	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
Dibromomethane	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
Bromodichloromethane	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
2-Chloroethyl Vinyl Ether	ND	0.0096	EPA 8260C	8-10-17	8-10-17	
(cis) 1,3-Dichloropropene	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
(trans) 1,3-Dichloropropene	ND	0.0019	EPA 8260C	8-10-17	8-10-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS10B					
Laboratory ID:	08-127-07					
1,1,2-Trichloroethane	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
Tetrachloroethene	0.076	0.0019	EPA 8260C	8-10-17	8-10-17	
1,3-Dichloropropane	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
Dibromochloromethane	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
1,2-Dibromoethane	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
Chlorobenzene	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
1,1,1,2-Tetrachloroethane	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
Bromoform	ND	0.0096	EPA 8260C	8-10-17	8-10-17	
Bromobenzene	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
1,1,1,2-Tetrachloroethane	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
1,2,3-Trichloropropane	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
2-Chlorotoluene	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
4-Chlorotoluene	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
1,3-Dichlorobenzene	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
1,4-Dichlorobenzene	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
1,2-Dichlorobenzene	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
1,2-Dibromo-3-chloropropane	ND	0.0096	EPA 8260C	8-10-17	8-10-17	
1,2,4-Trichlorobenzene	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
Hexachlorobutadiene	ND	0.0096	EPA 8260C	8-10-17	8-10-17	
1,2,3-Trichlorobenzene	ND	0.0019	EPA 8260C	8-10-17	8-10-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS11B					
Laboratory ID:	08-127-08					
Dichlorodifluoromethane	ND	0.0014	EPA 8260C	8-10-17	8-10-17	
Chloromethane	ND	0.0053	EPA 8260C	8-10-17	8-10-17	
Vinyl Chloride	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Bromomethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Chloroethane	ND	0.0053	EPA 8260C	8-10-17	8-10-17	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Iodomethane	ND	0.0053	EPA 8260C	8-10-17	8-10-17	
Methylene Chloride	ND	0.0053	EPA 8260C	8-10-17	8-10-17	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Bromochloromethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Chloroform	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Trichloroethene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Dibromomethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Bromodichloromethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
2-Chloroethyl Vinyl Ether	ND	0.0053	EPA 8260C	8-10-17	8-10-17	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS11B					
Laboratory ID:	08-127-08					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Tetrachloroethene	0.0059	0.0011	EPA 8260C	8-10-17	8-10-17	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Dibromochloromethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Chlorobenzene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Bromoform	ND	0.0053	EPA 8260C	8-10-17	8-10-17	
Bromobenzene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
2-Chlorotoluene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
4-Chlorotoluene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260C	8-10-17	8-10-17	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
Hexachlorobutadiene	ND	0.0053	EPA 8260C	8-10-17	8-10-17	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	8-10-17	8-10-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>80-131</i>				



Date of Report: August 14, 2017
 Samples Submitted: August 9, 2017
 Laboratory Reference: 1708-127
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0810S1					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	8-10-17	8-10-17	
Chloromethane	ND	0.0050	EPA 8260C	8-10-17	8-10-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Bromomethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Chloroethane	ND	0.0050	EPA 8260C	8-10-17	8-10-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Iodomethane	ND	0.0050	EPA 8260C	8-10-17	8-10-17	
Methylene Chloride	ND	0.0050	EPA 8260C	8-10-17	8-10-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Bromochloromethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Chloroform	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Trichloroethene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Dibromomethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	8-10-17	8-10-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	



Date of Report: August 14, 2017
 Samples Submitted: August 9, 2017
 Laboratory Reference: 1708-127
 Project: 15217E-1

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

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0810S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Chlorobenzene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Bromoform	ND	0.0050	EPA 8260C	8-10-17	8-10-17	
Bromobenzene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	8-10-17	8-10-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	8-10-17	8-10-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	8-10-17	8-10-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>115</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>114</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>114</i>	<i>80-131</i>				



Date of Report: August 14, 2017
 Samples Submitted: August 9, 2017
 Laboratory Reference: 1708-127
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					SB	SBD	Limits	RPD	Limit	
SPIKE BLANKS										
Laboratory ID:	SB0810S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0372	0.0390	0.0500	0.0500	74	78	66-127	5	15	
Benzene	0.0440	0.0459	0.0500	0.0500	88	92	76-122	4	15	
Trichloroethene	0.0461	0.0476	0.0500	0.0500	92	95	78-120	3	15	
Toluene	0.0482	0.0492	0.0500	0.0500	96	98	83-120	2	15	
Chlorobenzene	0.0463	0.0470	0.0500	0.0500	93	94	81-120	2	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					89	92	73-134			
<i>Toluene-d8</i>					90	92	81-124			
<i>4-Bromofluorobenzene</i>					90	92	80-131			



Date of Report: August 14, 2017
Samples Submitted: August 9, 2017
Laboratory Reference: 1708-127
Project: 15217E-1

% MOISTURE

Date Analyzed: 8-10-17

Client ID	Lab ID	% Moisture
CS4B	08-127-01	9
CS5B	08-127-02	8
CS6B	08-127-03	8
CS7B	08-127-04	10
CS8B	08-127-05	7
CS9B	08-127-06	9
CS10B	08-127-07	11
CS11B	08-127-08	5





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





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

Chain of Custody

Turnaround Request
 (in working days)
 (Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)
 (TPH analysis 5 Days)

_____ (other)

Laboratory Number: **08-127**

Company: Geotech Convals
 Project Number: 15A17E-1
 Project Name: All STAR
 Project Manager: Timothy H. Johnson
 Sampled by: Timothy Johnson

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	CS4B	8/9/17	10:44	Soil	4
2	CS5B		10:57		4
3	CS6B		11:05		4
4	CS7B		11:13		4
5	CS8B		11:25		4
6	CS9B		11:32		4
7	CS10B		11:38		4
8	CS11B	8/9/17	11:45	Soil	4

Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	% Moisture
4						X												X
4						X												X
4						X												X
4						X												X
4						X												X
4						X												X
4						X												X
4						X												X

Received	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished		Geotech Convals	8/9/17	16:05	
Received		Geotech Convals	8/9/17	16:05	
Relinquished					
Received					
Relinquished					
Received					
Relinquished					
Reviewed/Date		Reviewed/Date			

Data Package: Standard Level III Level IV

Chromatograms with final report Electronic Data Deliverables (EDDs)



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

August 14, 2017

Tim Johnson
GeoTech Consultants
2401-10th Avenue East
Seattle, WA 98102

Re: Analytical Data for Project 15217E-1
Laboratory Reference No. 1708-157

Dear Tim:

Enclosed are the analytical results and associated quality control data for samples submitted on August 11, 2017.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 14, 2017
Samples Submitted: August 11, 2017
Laboratory Reference: 1708-157
Project: 15217E-1

Case Narrative

Samples were collected on August 11, 2017 and received by the laboratory on August 11, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Volatiles EPA 8260C Analysis

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

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 14, 2017
 Samples Submitted: August 11, 2017
 Laboratory Reference: 1708-157
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS6E					
Laboratory ID:	08-157-01					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Chloromethane	ND	0.0056	EPA 8260C	8-11-17	8-11-17	
Vinyl Chloride	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Bromomethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Chloroethane	ND	0.0056	EPA 8260C	8-11-17	8-11-17	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Iodomethane	ND	0.0056	EPA 8260C	8-11-17	8-11-17	
Methylene Chloride	ND	0.0077	EPA 8260C	8-11-17	8-11-17	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Bromochloromethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Chloroform	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Trichloroethene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Dibromomethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Bromodichloromethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
2-Chloroethyl Vinyl Ether	ND	0.0076	EPA 8260C	8-11-17	8-11-17	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	



Date of Report: August 14, 2017
 Samples Submitted: August 11, 2017
 Laboratory Reference: 1708-157
 Project: 15217E-1

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS6E					
Laboratory ID:	08-157-01					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Tetrachloroethene	0.0013	0.0011	EPA 8260C	8-11-17	8-11-17	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Dibromochloromethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Chlorobenzene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Bromoform	ND	0.0056	EPA 8260C	8-11-17	8-11-17	
Bromobenzene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
2-Chlorotoluene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
4-Chlorotoluene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,2-Dibromo-3-chloropropane	ND	0.0056	EPA 8260C	8-11-17	8-11-17	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Hexachlorobutadiene	ND	0.0056	EPA 8260C	8-11-17	8-11-17	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>88</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>89</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>85</i>	<i>80-131</i>				



Date of Report: August 14, 2017
 Samples Submitted: August 11, 2017
 Laboratory Reference: 1708-157
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS12B					
Laboratory ID:	08-157-02					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Chloromethane	ND	0.0058	EPA 8260C	8-11-17	8-11-17	
Vinyl Chloride	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Bromomethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Chloroethane	ND	0.0058	EPA 8260C	8-11-17	8-11-17	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Iodomethane	ND	0.0058	EPA 8260C	8-11-17	8-11-17	
Methylene Chloride	ND	0.0080	EPA 8260C	8-11-17	8-11-17	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Bromochloromethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Chloroform	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Trichloroethene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Dibromomethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Bromodichloromethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
2-Chloroethyl Vinyl Ether	ND	0.0078	EPA 8260C	8-11-17	8-11-17	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	



Date of Report: August 14, 2017
 Samples Submitted: August 11, 2017
 Laboratory Reference: 1708-157
 Project: 15217E-1

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS12B					
Laboratory ID:	08-157-02					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Tetrachloroethene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Dibromochloromethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Chlorobenzene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Bromoform	ND	0.0058	EPA 8260C	8-11-17	8-11-17	
Bromobenzene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
2-Chlorotoluene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
4-Chlorotoluene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260C	8-11-17	8-11-17	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Hexachlorobutadiene	ND	0.0058	EPA 8260C	8-11-17	8-11-17	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>94</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>89</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS13B					
Laboratory ID:	08-157-03					
Dichlorodifluoromethane	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
Chloromethane	ND	0.0047	EPA 8260C	8-11-17	8-11-17	
Vinyl Chloride	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
Bromomethane	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
Chloroethane	ND	0.0047	EPA 8260C	8-11-17	8-11-17	
Trichlorofluoromethane	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloroethene	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
Iodomethane	ND	0.0047	EPA 8260C	8-11-17	8-11-17	
Methylene Chloride	ND	0.0065	EPA 8260C	8-11-17	8-11-17	
(trans) 1,2-Dichloroethene	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloroethane	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
2,2-Dichloropropane	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
(cis) 1,2-Dichloroethene	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
Bromochloromethane	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
Chloroform	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
1,1,1-Trichloroethane	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
Carbon Tetrachloride	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloropropene	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
1,2-Dichloroethane	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
Trichloroethene	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
1,2-Dichloropropane	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
Dibromomethane	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
Bromodichloromethane	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
2-Chloroethyl Vinyl Ether	ND	0.0064	EPA 8260C	8-11-17	8-11-17	
(cis) 1,3-Dichloropropene	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
(trans) 1,3-Dichloropropene	ND	0.00094	EPA 8260C	8-11-17	8-11-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS13B					
Laboratory ID:	08-157-03					
1,1,2-Trichloroethane	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
Tetrachloroethene	0.0013	0.00094	EPA 8260C	8-11-17	8-11-17	
1,3-Dichloropropane	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
Dibromochloromethane	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
1,2-Dibromoethane	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
Chlorobenzene	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
1,1,1,2-Tetrachloroethane	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
Bromoform	ND	0.0047	EPA 8260C	8-11-17	8-11-17	
Bromobenzene	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
1,1,1,2-Tetrachloroethane	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
1,2,3-Trichloropropane	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
2-Chlorotoluene	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
4-Chlorotoluene	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
1,3-Dichlorobenzene	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
1,4-Dichlorobenzene	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
1,2-Dichlorobenzene	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
1,2-Dibromo-3-chloropropane	ND	0.0047	EPA 8260C	8-11-17	8-11-17	
1,2,4-Trichlorobenzene	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
Hexachlorobutadiene	ND	0.0047	EPA 8260C	8-11-17	8-11-17	
1,2,3-Trichlorobenzene	ND	0.00094	EPA 8260C	8-11-17	8-11-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>110</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>105</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS14B					
Laboratory ID:	08-157-04					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Chloromethane	ND	0.0060	EPA 8260C	8-11-17	8-11-17	
Vinyl Chloride	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Bromomethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Chloroethane	ND	0.0060	EPA 8260C	8-11-17	8-11-17	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Iodomethane	ND	0.0060	EPA 8260C	8-11-17	8-11-17	
Methylene Chloride	ND	0.0083	EPA 8260C	8-11-17	8-11-17	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Bromochloromethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Chloroform	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Trichloroethene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Dibromomethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Bromodichloromethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
2-Chloroethyl Vinyl Ether	ND	0.0081	EPA 8260C	8-11-17	8-11-17	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS14B					
Laboratory ID:	08-157-04					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Tetrachloroethene	0.074	0.0012	EPA 8260C	8-11-17	8-11-17	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Dibromochloromethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Chlorobenzene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Bromoform	ND	0.0060	EPA 8260C	8-11-17	8-11-17	
Bromobenzene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
2-Chlorotoluene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
4-Chlorotoluene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
1,2-Dibromo-3-chloropropane	ND	0.0060	EPA 8260C	8-11-17	8-11-17	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
Hexachlorobutadiene	ND	0.0060	EPA 8260C	8-11-17	8-11-17	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	8-11-17	8-11-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>107</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS15B					
Laboratory ID:	08-157-05					
Dichlorodifluoromethane	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
Chloromethane	ND	0.0046	EPA 8260C	8-11-17	8-11-17	
Vinyl Chloride	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
Bromomethane	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
Chloroethane	ND	0.0046	EPA 8260C	8-11-17	8-11-17	
Trichlorofluoromethane	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloroethene	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
Iodomethane	ND	0.0046	EPA 8260C	8-11-17	8-11-17	
Methylene Chloride	ND	0.0064	EPA 8260C	8-11-17	8-11-17	
(trans) 1,2-Dichloroethene	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloroethane	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
2,2-Dichloropropane	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
(cis) 1,2-Dichloroethene	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
Bromochloromethane	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
Chloroform	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
1,1,1-Trichloroethane	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
Carbon Tetrachloride	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloropropene	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
1,2-Dichloroethane	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
Trichloroethene	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
1,2-Dichloropropane	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
Dibromomethane	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
Bromodichloromethane	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
2-Chloroethyl Vinyl Ether	ND	0.0063	EPA 8260C	8-11-17	8-11-17	
(cis) 1,3-Dichloropropene	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
(trans) 1,3-Dichloropropene	ND	0.00093	EPA 8260C	8-11-17	8-11-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS15B					
Laboratory ID:	08-157-05					
1,1,2-Trichloroethane	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
Tetrachloroethene	0.0063	0.00093	EPA 8260C	8-11-17	8-11-17	
1,3-Dichloropropane	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
Dibromochloromethane	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
1,2-Dibromoethane	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
Chlorobenzene	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
1,1,1,2-Tetrachloroethane	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
Bromoform	ND	0.0046	EPA 8260C	8-11-17	8-11-17	
Bromobenzene	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
1,1,1,2-Tetrachloroethane	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
1,2,3-Trichloropropane	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
2-Chlorotoluene	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
4-Chlorotoluene	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
1,3-Dichlorobenzene	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
1,4-Dichlorobenzene	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
1,2-Dichlorobenzene	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
1,2-Dibromo-3-chloropropane	ND	0.0046	EPA 8260C	8-11-17	8-11-17	
1,2,4-Trichlorobenzene	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
Hexachlorobutadiene	ND	0.0046	EPA 8260C	8-11-17	8-11-17	
1,2,3-Trichlorobenzene	ND	0.00093	EPA 8260C	8-11-17	8-11-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>80-131</i>				



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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS16B					
Laboratory ID:	08-157-06					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Chloromethane	ND	0.0056	EPA 8260C	8-11-17	8-11-17	
Vinyl Chloride	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Bromomethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Chloroethane	ND	0.0056	EPA 8260C	8-11-17	8-11-17	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Iodomethane	ND	0.0056	EPA 8260C	8-11-17	8-11-17	
Methylene Chloride	ND	0.0078	EPA 8260C	8-11-17	8-11-17	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Bromochloromethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Chloroform	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Trichloroethene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Dibromomethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Bromodichloromethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
2-Chloroethyl Vinyl Ether	ND	0.0077	EPA 8260C	8-11-17	8-11-17	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	



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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS16B					
Laboratory ID:	08-157-06					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Tetrachloroethene	0.0040	0.0011	EPA 8260C	8-11-17	8-11-17	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Dibromochloromethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Chlorobenzene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Bromoform	ND	0.0056	EPA 8260C	8-11-17	8-11-17	
Bromobenzene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
2-Chlorotoluene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
4-Chlorotoluene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
1,2-Dibromo-3-chloropropane	ND	0.0056	EPA 8260C	8-11-17	8-11-17	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
Hexachlorobutadiene	ND	0.0056	EPA 8260C	8-11-17	8-11-17	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	8-11-17	8-11-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>80-131</i>				



Date of Report: August 14, 2017
 Samples Submitted: August 11, 2017
 Laboratory Reference: 1708-157
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0811S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
Chloromethane	ND	0.0050	EPA 8260C	8-11-17	8-11-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
Bromomethane	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
Chloroethane	ND	0.0050	EPA 8260C	8-11-17	8-11-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
Iodomethane	ND	0.0050	EPA 8260C	8-11-17	8-11-17	
Methylene Chloride	ND	0.0069	EPA 8260C	8-11-17	8-11-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
Bromochloromethane	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
Chloroform	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
Trichloroethene	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
Dibromomethane	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
2-Chloroethyl Vinyl Ether	ND	0.0068	EPA 8260C	8-11-17	8-11-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-11-17	8-11-17	



Date of Report: August 14, 2017
 Samples Submitted: August 11, 2017
 Laboratory Reference: 1708-157
 Project: 15217E-1

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

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB0811S1				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
Chlorobenzene	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
Bromoform	ND	0.0050	EPA 8260C	8-11-17	8-11-17	
Bromobenzene	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	8-11-17	8-11-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	8-11-17	8-11-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	8-11-17	8-11-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>112</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>108</i>	<i>80-131</i>				



Date of Report: August 14, 2017
 Samples Submitted: August 11, 2017
 Laboratory Reference: 1708-157
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
SPIKE BLANKS										
Laboratory ID:	SB0811S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0538	0.0551	0.0500	0.0500	108	110	66-127	2	15	
Benzene	0.0512	0.0528	0.0500	0.0500	102	106	76-122	3	15	
Trichloroethene	0.0526	0.0529	0.0500	0.0500	105	106	78-120	1	15	
Toluene	0.0523	0.0536	0.0500	0.0500	105	107	83-120	2	15	
Chlorobenzene	0.0508	0.0511	0.0500	0.0500	102	102	81-120	1	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					96	96	73-134			
<i>Toluene-d8</i>					91	89	81-124			
<i>4-Bromofluorobenzene</i>					91	89	80-131			



Date of Report: August 14, 2017
Samples Submitted: August 11, 2017
Laboratory Reference: 1708-157
Project: 15217E-1

% MOISTURE

Date Analyzed: 8-11-17

Client ID	Lab ID	% Moisture
CS6E	08-157-01	10
CS12B	08-157-02	13
CS13B	08-157-03	8
CS14B	08-157-04	10
CS15B	08-157-05	7
CS16B	08-157-06	8





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





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

August 15, 2017

Tim Johnson
GeoTech Consultants
2401-10th Avenue East
Seattle, WA 98102

Re: Analytical Data for Project 15217E-1
Laboratory Reference No. 1708-178

Dear Tim:

Enclosed are the analytical results and associated quality control data for samples submitted on August 14, 2017.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 15, 2017
Samples Submitted: August 14, 2017
Laboratory Reference: 1708-178
Project: 15217E-1

Case Narrative

Samples were collected on August 14, 2017 and received by the laboratory on August 14, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Volatiles EPA 8260C Analysis

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

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 15, 2017
 Samples Submitted: August 14, 2017
 Laboratory Reference: 1708-178
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS17B					
Laboratory ID:	08-178-01					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Chloromethane	ND	0.0057	EPA 8260C	8-14-17	8-14-17	
Vinyl Chloride	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Bromomethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Chloroethane	ND	0.0057	EPA 8260C	8-14-17	8-14-17	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Iodomethane	ND	0.0057	EPA 8260C	8-14-17	8-14-17	
Methylene Chloride	ND	0.0057	EPA 8260C	8-14-17	8-14-17	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Bromochloromethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Chloroform	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Trichloroethene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Dibromomethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Bromodichloromethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
2-Chloroethyl Vinyl Ether	ND	0.0075	EPA 8260C	8-14-17	8-14-17	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	



Date of Report: August 15, 2017
 Samples Submitted: August 14, 2017
 Laboratory Reference: 1708-178
 Project: 15217E-1

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS17B					
Laboratory ID:	08-178-01					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Tetrachloroethene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Dibromochloromethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Chlorobenzene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Bromoform	ND	0.0057	EPA 8260C	8-14-17	8-14-17	
Bromobenzene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
2-Chlorotoluene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
4-Chlorotoluene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,2-Dibromo-3-chloropropane	ND	0.0057	EPA 8260C	8-14-17	8-14-17	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Hexachlorobutadiene	ND	0.0057	EPA 8260C	8-14-17	8-14-17	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>113</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>115</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>114</i>	<i>80-131</i>				



Date of Report: August 15, 2017
 Samples Submitted: August 14, 2017
 Laboratory Reference: 1708-178
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0814S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Chloromethane	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Bromomethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Chloroethane	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Iodomethane	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
Methylene Chloride	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Bromochloromethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Chloroform	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Trichloroethene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Dibromomethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
2-Chloroethyl Vinyl Ether	ND	0.0066	EPA 8260C	8-14-17	8-14-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	



Date of Report: August 15, 2017
 Samples Submitted: August 14, 2017
 Laboratory Reference: 1708-178
 Project: 15217E-1

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

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB0814S1				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Chlorobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Bromoform	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
Bromobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>121</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>116</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>110</i>	<i>80-131</i>				



Date of Report: August 15, 2017
 Samples Submitted: August 14, 2017
 Laboratory Reference: 1708-178
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0814S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0484	0.0522	0.0500	0.0500	97	104	66-127	8	15	
Benzene	0.0473	0.0513	0.0500	0.0500	95	103	76-122	8	15	
Trichloroethene	0.0507	0.0517	0.0500	0.0500	101	103	78-120	2	15	
Toluene	0.0501	0.0521	0.0500	0.0500	100	104	83-120	4	15	
Chlorobenzene	0.0485	0.0484	0.0500	0.0500	97	97	81-120	0	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>94</i>	<i>104</i>	<i>73-134</i>			
<i>Toluene-d8</i>					<i>92</i>	<i>102</i>	<i>81-124</i>			
<i>4-Bromofluorobenzene</i>					<i>91</i>	<i>95</i>	<i>80-131</i>			



Date of Report: August 15, 2017
Samples Submitted: August 14, 2017
Laboratory Reference: 1708-178
Project: 15217E-1

% MOISTURE

Date Analyzed: 8-14-17

Client ID	Lab ID	% Moisture
CS17B	08-178-01	6





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





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

August 16, 2017

Tim Johnson
GeoTech Consultants
2401-10th Avenue East
Seattle, WA 98102

Re: Analytical Data for Project 15217E-1
Laboratory Reference No. 1708-196

Dear Tim:

Enclosed are the analytical results and associated quality control data for samples submitted on August 15, 2017.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 16, 2017
Samples Submitted: August 15, 2017
Laboratory Reference: 1708-196
Project: 15217E-1

Case Narrative

Samples were collected on August 15, 2017 and received by the laboratory on August 15, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Volatiles EPA 8260C Analysis

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

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 16, 2017
 Samples Submitted: August 15, 2017
 Laboratory Reference: 1708-196
 Project: 15217E-1

VOLATILES EPA 8260C
 Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS10BA					
Laboratory ID:	08-196-01					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Chloromethane	ND	0.0055	EPA 8260C	8-15-17	8-15-17	
Vinyl Chloride	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Bromomethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Chloroethane	ND	0.0055	EPA 8260C	8-15-17	8-15-17	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Iodomethane	ND	0.0055	EPA 8260C	8-15-17	8-15-17	
Methylene Chloride	ND	0.0084	EPA 8260C	8-15-17	8-15-17	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Bromochloromethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Chloroform	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Trichloroethene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Dibromomethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Bromodichloromethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
2-Chloroethyl Vinyl Ether	ND	0.0077	EPA 8260C	8-15-17	8-15-17	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	



Date of Report: August 16, 2017
 Samples Submitted: August 15, 2017
 Laboratory Reference: 1708-196
 Project: 15217E-1

VOLATILES EPA 8260C
 Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS10BA					
Laboratory ID:	08-196-01					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Tetrachloroethene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Dibromochloromethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Chlorobenzene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Bromoform	ND	0.0055	EPA 8260C	8-15-17	8-15-17	
Bromobenzene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
2-Chlorotoluene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
4-Chlorotoluene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,2-Dibromo-3-chloropropane	ND	0.0055	EPA 8260C	8-15-17	8-15-17	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Hexachlorobutadiene	ND	0.0055	EPA 8260C	8-15-17	8-15-17	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>93</i>	<i>80-131</i>				



Date of Report: August 16, 2017
 Samples Submitted: August 15, 2017
 Laboratory Reference: 1708-196
 Project: 15217E-1

VOLATILES EPA 8260C
 Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS14BA					
Laboratory ID:	08-196-02					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Chloromethane	ND	0.0055	EPA 8260C	8-15-17	8-15-17	
Vinyl Chloride	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Bromomethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Chloroethane	ND	0.0055	EPA 8260C	8-15-17	8-15-17	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Iodomethane	ND	0.0055	EPA 8260C	8-15-17	8-15-17	
Methylene Chloride	ND	0.0084	EPA 8260C	8-15-17	8-15-17	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Bromochloromethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Chloroform	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Trichloroethene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Dibromomethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Bromodichloromethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
2-Chloroethyl Vinyl Ether	ND	0.0077	EPA 8260C	8-15-17	8-15-17	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	



Date of Report: August 16, 2017
 Samples Submitted: August 15, 2017
 Laboratory Reference: 1708-196
 Project: 15217E-1

VOLATILES EPA 8260C
 Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	CS14BA					
Laboratory ID:	08-196-02					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Tetrachloroethene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Dibromochloromethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Chlorobenzene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Bromoform	ND	0.0055	EPA 8260C	8-15-17	8-15-17	
Bromobenzene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
2-Chlorotoluene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
4-Chlorotoluene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
1,2-Dibromo-3-chloropropane	ND	0.0055	EPA 8260C	8-15-17	8-15-17	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
Hexachlorobutadiene	ND	0.0055	EPA 8260C	8-15-17	8-15-17	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	8-15-17	8-15-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>91</i>	<i>80-131</i>				



Date of Report: August 16, 2017
 Samples Submitted: August 15, 2017
 Laboratory Reference: 1708-196
 Project: 15217E-1

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

Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0815S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Chloromethane	ND	0.0050	EPA 8260C	8-15-17	8-15-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Bromomethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Chloroethane	ND	0.0050	EPA 8260C	8-15-17	8-15-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Iodomethane	ND	0.0050	EPA 8260C	8-15-17	8-15-17	
Methylene Chloride	ND	0.0076	EPA 8260C	8-15-17	8-15-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Bromochloromethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Chloroform	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Trichloroethene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Dibromomethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
2-Chloroethyl Vinyl Ether	ND	0.0070	EPA 8260C	8-15-17	8-15-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	



Date of Report: August 16, 2017
 Samples Submitted: August 15, 2017
 Laboratory Reference: 1708-196
 Project: 15217E-1

VOLATILES EPA 8260C
METHOD BLANK QUALITY CONTROL
 Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB0815S1				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Chlorobenzene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Bromoform	ND	0.0050	EPA 8260C	8-15-17	8-15-17	
Bromobenzene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	8-15-17	8-15-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	8-15-17	8-15-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>80-131</i>				



Date of Report: August 16, 2017
 Samples Submitted: August 15, 2017
 Laboratory Reference: 1708-196
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0815S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0484	0.0458	0.0500	0.0500	97	92	66-127	6	15	
Benzene	0.0489	0.0464	0.0500	0.0500	98	93	76-122	5	15	
Trichloroethene	0.0536	0.0527	0.0500	0.0500	107	105	78-120	2	15	
Toluene	0.0531	0.0511	0.0500	0.0500	106	102	83-120	4	15	
Chlorobenzene	0.0495	0.0500	0.0500	0.0500	99	100	81-120	1	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					95	86	73-134			
<i>Toluene-d8</i>					99	88	81-124			
<i>4-Bromofluorobenzene</i>					90	85	80-131			



Date of Report: August 16, 2017
Samples Submitted: August 15, 2017
Laboratory Reference: 1708-196
Project: 15217E-1

% MOISTURE

Date Analyzed: 8-15-17

Client ID	Lab ID	% Moisture
CS10BA	08-196-01	6
CS14BA	08-196-02	10





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





Onsite Environmental Inc.

Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3981 • www.onsite-env.com

Chain of Custody

Turnaround Request (in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)
(TPH analysis 5 Days)

_____ (other)

Laboratory Number: 08-196

Company: Geotech Consulting

Project Number: 15217E-1

Project Name: All Star

Project Manager: Timothy Johnson

Sampled By: Timothy Johnson

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
1	CS10BA	8/15/17	8:09	Soil	4
2	CS14BA	8/15/17	8:20	Soil	4

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)	Volatiles 8260C	Halogenated Volatiles 8260C	EDB EPA 8011 (Waters Only)	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	% Moisture	
1	CS10BA	8/15/17	8:09	Soil	4						Y													X
2	CS14BA	8/15/17	8:20	Soil	4						X													X

Signature	Company	Date	Time	Comments/Special Instructions
<u>[Signature]</u>	<u>Geotech Consulting</u>	<u>8/15/17</u>	<u>10:50</u>	
<u>[Signature]</u>	<u>[Signature]</u>	<u>8/15/17</u>	<u>10:50</u>	
Relinquished				
Received				
Relinquished				
Received				
Relinquished				
Received				
Relinquished				
Reviewed/Date				

Data Package: Standard Level III Level IV

Chromatograms with final report Electronic Data Deliverables (EDDs)

APPENDIX E

Stockpile Sample Laboratory Reports



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

July 18, 2017

Tim Johnson
GeoTech Consultants
2401-10th Avenue East
Seattle, WA 98102

Re: Analytical Data for Project 15217E-1
Laboratory Reference No. 1707-138

Dear Timothy:

Enclosed are the analytical results and associated quality control data for samples submitted on July 18, 2017.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: July 18, 2017
Samples Submitted: July 18, 2017
Laboratory Reference: 1707-138
Project: 15217E-1

Case Narrative

Samples were collected on July 18, 2017 and received by the laboratory on July 18, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Volatiles EPA 8260C Analysis

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

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



Date of Report: July 18, 2017
 Samples Submitted: July 18, 2017
 Laboratory Reference: 1707-138
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Stockpile 1					
Laboratory ID:	07-138-01					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	7-17-17	7-17-17	
Chloromethane	ND	0.0053	EPA 8260C	7-17-17	7-17-17	
Vinyl Chloride	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Bromomethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Chloroethane	ND	0.0053	EPA 8260C	7-17-17	7-17-17	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Iodomethane	ND	0.0053	EPA 8260C	7-17-17	7-17-17	
Methylene Chloride	ND	0.011	EPA 8260C	7-17-17	7-17-17	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Bromochloromethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Chloroform	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Trichloroethene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Dibromomethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Bromodichloromethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
2-Chloroethyl Vinyl Ether	ND	0.0053	EPA 8260C	7-17-17	7-17-17	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	



Date of Report: July 18, 2017
 Samples Submitted: July 18, 2017
 Laboratory Reference: 1707-138
 Project: 15217E-1

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Stockpile 1					
Laboratory ID:	07-138-01					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Tetrachloroethene	0.0039	0.0011	EPA 8260C	7-17-17	7-17-17	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Dibromochloromethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Chlorobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Bromoform	ND	0.0053	EPA 8260C	7-17-17	7-17-17	
Bromobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
2-Chlorotoluene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
4-Chlorotoluene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260C	7-17-17	7-17-17	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Hexachlorobutadiene	ND	0.0053	EPA 8260C	7-17-17	7-17-17	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>80-131</i>				



Date of Report: July 18, 2017
 Samples Submitted: July 18, 2017
 Laboratory Reference: 1707-138
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Stockpile 2					
Laboratory ID:	07-138-02					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	7-17-17	7-17-17	
Chloromethane	ND	0.0054	EPA 8260C	7-17-17	7-17-17	
Vinyl Chloride	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Bromomethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Chloroethane	ND	0.0054	EPA 8260C	7-17-17	7-17-17	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Iodomethane	ND	0.0054	EPA 8260C	7-17-17	7-17-17	
Methylene Chloride	ND	0.011	EPA 8260C	7-17-17	7-17-17	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Bromochloromethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Chloroform	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Trichloroethene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Dibromomethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Bromodichloromethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
2-Chloroethyl Vinyl Ether	ND	0.0054	EPA 8260C	7-17-17	7-17-17	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	



Date of Report: July 18, 2017
 Samples Submitted: July 18, 2017
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 Project: 15217E-1

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Stockpile 2					
Laboratory ID:	07-138-02					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Tetrachloroethene	0.0035	0.0011	EPA 8260C	7-17-17	7-17-17	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Dibromochloromethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Chlorobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Bromoform	ND	0.0054	EPA 8260C	7-17-17	7-17-17	
Bromobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
2-Chlorotoluene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
4-Chlorotoluene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260C	7-17-17	7-17-17	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Hexachlorobutadiene	ND	0.0054	EPA 8260C	7-17-17	7-17-17	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>80-131</i>				



Date of Report: July 18, 2017
 Samples Submitted: July 18, 2017
 Laboratory Reference: 1707-138
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Stockpile 3					
Laboratory ID:	07-138-03					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	7-17-17	7-17-17	
Chloromethane	ND	0.0055	EPA 8260C	7-17-17	7-17-17	
Vinyl Chloride	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Bromomethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Chloroethane	ND	0.0055	EPA 8260C	7-17-17	7-17-17	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Iodomethane	ND	0.0055	EPA 8260C	7-17-17	7-17-17	
Methylene Chloride	ND	0.011	EPA 8260C	7-17-17	7-17-17	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Bromochloromethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Chloroform	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Trichloroethene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Dibromomethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Bromodichloromethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
2-Chloroethyl Vinyl Ether	ND	0.0055	EPA 8260C	7-17-17	7-17-17	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	



Date of Report: July 18, 2017
 Samples Submitted: July 18, 2017
 Laboratory Reference: 1707-138
 Project: 15217E-1

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Stockpile 3					
Laboratory ID:	07-138-03					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Tetrachloroethene	0.0037	0.0011	EPA 8260C	7-17-17	7-17-17	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Dibromochloromethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Chlorobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Bromoform	ND	0.0055	EPA 8260C	7-17-17	7-17-17	
Bromobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
2-Chlorotoluene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
4-Chlorotoluene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
1,2-Dibromo-3-chloropropane	ND	0.0055	EPA 8260C	7-17-17	7-17-17	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
Hexachlorobutadiene	ND	0.0055	EPA 8260C	7-17-17	7-17-17	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	7-17-17	7-17-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>109</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>110</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>106</i>	<i>80-131</i>				



Date of Report: July 18, 2017
 Samples Submitted: July 18, 2017
 Laboratory Reference: 1707-138
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0717S1					
Dichlorodifluoromethane	ND	0.0014	EPA 8260C	7-17-17	7-17-17	
Chloromethane	ND	0.0050	EPA 8260C	7-17-17	7-17-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
Bromomethane	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
Chloroethane	ND	0.0050	EPA 8260C	7-17-17	7-17-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
Iodomethane	ND	0.0050	EPA 8260C	7-17-17	7-17-17	
Methylene Chloride	ND	0.010	EPA 8260C	7-17-17	7-17-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
Bromochloromethane	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
Chloroform	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
Trichloroethene	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
Dibromomethane	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	7-17-17	7-17-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	7-17-17	7-17-17	



Date of Report: July 18, 2017
 Samples Submitted: July 18, 2017
 Laboratory Reference: 1707-138
 Project: 15217E-1

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

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0717S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
Chlorobenzene	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
Bromoform	ND	0.0050	EPA 8260C	7-17-17	7-17-17	
Bromobenzene	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	7-17-17	7-17-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	7-17-17	7-17-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	7-17-17	7-17-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>116</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>114</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>128</i>	<i>80-131</i>				



Date of Report: July 18, 2017
 Samples Submitted: July 18, 2017
 Laboratory Reference: 1707-138
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					SB	SBD	Limits	RPD	Limit	
SPIKE BLANKS										
Laboratory ID:	SB0717S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0538	0.0492	0.0500	0.0500	108	98	66-127	9	15	
Benzene	0.0491	0.0480	0.0500	0.0500	98	96	76-122	2	15	
Trichloroethene	0.0534	0.0511	0.0500	0.0500	107	102	78-120	4	15	
Toluene	0.0527	0.0524	0.0500	0.0500	105	105	83-120	1	15	
Chlorobenzene	0.0473	0.0459	0.0500	0.0500	95	92	81-120	3	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>106</i>	<i>104</i>	<i>73-134</i>			
<i>Toluene-d8</i>					<i>103</i>	<i>104</i>	<i>81-124</i>			
<i>4-Bromofluorobenzene</i>					<i>103</i>	<i>102</i>	<i>80-131</i>			



Date of Report: July 18, 2017
Samples Submitted: July 18, 2017
Laboratory Reference: 1707-138
Project: 15217E-1

% MOISTURE

Date Analyzed: 7-17-17

Client ID	Lab ID	% Moisture
Stockpile 1	07-138-01	8
Stockpile 2	07-138-02	6
Stockpile 3	07-138-03	9





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





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

August 17, 2017

Tim Johnson
GeoTech Consultants
2401-10th Avenue East
Seattle, WA 98102

Re: Analytical Data for Project 15217E-1
Laboratory Reference No. 1708-179

Dear Tim:

Enclosed are the analytical results and associated quality control data for samples submitted on August 14, 2017.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 17, 2017
Samples Submitted: August 14, 2017
Laboratory Reference: 1708-179
Project: 15217E-1

Case Narrative

Samples were collected on August 14, 2017 and received by the laboratory on August 14, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Volatiles EPA 8260C Analysis

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

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 17, 2017
 Samples Submitted: August 14, 2017
 Laboratory Reference: 1708-179
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Stockpile 4					
Laboratory ID:	08-179-01					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Chloromethane	ND	0.0054	EPA 8260C	8-14-17	8-14-17	
Vinyl Chloride	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Bromomethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Chloroethane	ND	0.0054	EPA 8260C	8-14-17	8-14-17	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Iodomethane	ND	0.0054	EPA 8260C	8-14-17	8-14-17	
Methylene Chloride	ND	0.0054	EPA 8260C	8-14-17	8-14-17	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Bromochloromethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Chloroform	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Trichloroethene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Dibromomethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Bromodichloromethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
2-Chloroethyl Vinyl Ether	ND	0.0071	EPA 8260C	8-14-17	8-14-17	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	



Date of Report: August 17, 2017
 Samples Submitted: August 14, 2017
 Laboratory Reference: 1708-179
 Project: 15217E-1

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Stockpile 4					
Laboratory ID:	08-179-01					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Tetrachloroethene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Dibromochloromethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Chlorobenzene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Bromoform	ND	0.0054	EPA 8260C	8-14-17	8-14-17	
Bromobenzene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
2-Chlorotoluene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
4-Chlorotoluene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260C	8-14-17	8-14-17	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
Hexachlorobutadiene	ND	0.0054	EPA 8260C	8-14-17	8-14-17	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	8-14-17	8-14-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>110</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>105</i>	<i>80-131</i>				



Date of Report: August 17, 2017
 Samples Submitted: August 14, 2017
 Laboratory Reference: 1708-179
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Stockpile 5					
Laboratory ID:	08-179-02					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Chloromethane	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Bromomethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Chloroethane	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Iodomethane	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
Methylene Chloride	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Bromochloromethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Chloroform	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Trichloroethene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Dibromomethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
2-Chloroethyl Vinyl Ether	ND	0.0067	EPA 8260C	8-14-17	8-14-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	



Date of Report: August 17, 2017
 Samples Submitted: August 14, 2017
 Laboratory Reference: 1708-179
 Project: 15217E-1

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Stockpile 5					
Laboratory ID:	08-179-02					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Tetrachloroethene	0.0028	0.0010	EPA 8260C	8-14-17	8-14-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Chlorobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Bromoform	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
Bromobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>80-131</i>				



Date of Report: August 17, 2017
 Samples Submitted: August 14, 2017
 Laboratory Reference: 1708-179
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0814S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Chloromethane	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Bromomethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Chloroethane	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Iodomethane	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
Methylene Chloride	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Bromochloromethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Chloroform	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Trichloroethene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Dibromomethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
2-Chloroethyl Vinyl Ether	ND	0.0066	EPA 8260C	8-14-17	8-14-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	



Date of Report: August 17, 2017
 Samples Submitted: August 14, 2017
 Laboratory Reference: 1708-179
 Project: 15217E-1

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB0814S1				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Chlorobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Bromoform	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
Bromobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	8-14-17	8-14-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	8-14-17	8-14-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>121</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>116</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>110</i>	<i>80-131</i>				



Date of Report: August 17, 2017
 Samples Submitted: August 14, 2017
 Laboratory Reference: 1708-179
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
SPIKE BLANKS										
Laboratory ID:	SB0814S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0484	0.0522	0.0500	0.0500	97	104	66-127	8	15	
Benzene	0.0473	0.0513	0.0500	0.0500	95	103	76-122	8	15	
Trichloroethene	0.0507	0.0517	0.0500	0.0500	101	103	78-120	2	15	
Toluene	0.0501	0.0521	0.0500	0.0500	100	104	83-120	4	15	
Chlorobenzene	0.0485	0.0484	0.0500	0.0500	97	97	81-120	0	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>94</i>	<i>104</i>	<i>73-134</i>			
<i>Toluene-d8</i>					<i>92</i>	<i>102</i>	<i>81-124</i>			
<i>4-Bromofluorobenzene</i>					<i>91</i>	<i>95</i>	<i>80-131</i>			



Date of Report: August 17, 2017
Samples Submitted: August 14, 2017
Laboratory Reference: 1708-179
Project: 15217E-1

% MOISTURE

Date Analyzed: 8-14-17

Client ID	Lab ID	% Moisture
Stockpile 4	08-179-01	7
Stockpile 5	08-179-02	7





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





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

August 16, 2017

Tim Johnson
GeoTech Consultants
2401-10th Avenue East
Seattle, WA 98102

Re: Analytical Data for Project 15217E-1
Laboratory Reference No. 1708-197

Dear Tim:

Enclosed are the analytical results and associated quality control data for samples submitted on August 15, 2017.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: August 16, 2017
Samples Submitted: August 15, 2017
Laboratory Reference: 1708-197
Project: 15217E-1

Case Narrative

Samples were collected on August 15, 2017 and received by the laboratory on August 15, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

Volatiles EPA 8260C Analysis

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

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 16, 2017
 Samples Submitted: August 15, 2017
 Laboratory Reference: 1708-197
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Stockpile 6					
Laboratory ID:	08-197-01					
Dichlorodifluoromethane	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
Chloromethane	ND	0.0045	EPA 8260C	8-15-17	8-15-17	
Vinyl Chloride	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
Bromomethane	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
Chloroethane	ND	0.0045	EPA 8260C	8-15-17	8-15-17	
Trichlorofluoromethane	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
1,1-Dichloroethene	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
Iodomethane	ND	0.0045	EPA 8260C	8-15-17	8-15-17	
Methylene Chloride	ND	0.0069	EPA 8260C	8-15-17	8-15-17	
(trans) 1,2-Dichloroethene	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
1,1-Dichloroethane	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
2,2-Dichloropropane	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
(cis) 1,2-Dichloroethene	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
Bromochloromethane	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
Chloroform	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
1,1,1-Trichloroethane	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
Carbon Tetrachloride	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
1,1-Dichloropropene	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
1,2-Dichloroethane	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
Trichloroethene	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
1,2-Dichloropropane	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
Dibromomethane	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
Bromodichloromethane	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
2-Chloroethyl Vinyl Ether	ND	0.0064	EPA 8260C	8-15-17	8-15-17	
(cis) 1,3-Dichloropropene	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
(trans) 1,3-Dichloropropene	ND	0.00091	EPA 8260C	8-15-17	8-15-17	



Date of Report: August 16, 2017
 Samples Submitted: August 15, 2017
 Laboratory Reference: 1708-197
 Project: 15217E-1

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Stockpile 6					
Laboratory ID:	08-197-01					
1,1,2-Trichloroethane	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
Tetrachloroethene	0.0066	0.00091	EPA 8260C	8-15-17	8-15-17	
1,3-Dichloropropane	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
Dibromochloromethane	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
1,2-Dibromoethane	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
Chlorobenzene	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
1,1,1,2-Tetrachloroethane	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
Bromoform	ND	0.0045	EPA 8260C	8-15-17	8-15-17	
Bromobenzene	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
1,1,2,2-Tetrachloroethane	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
1,2,3-Trichloropropane	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
2-Chlorotoluene	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
4-Chlorotoluene	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
1,3-Dichlorobenzene	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
1,4-Dichlorobenzene	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
1,2-Dichlorobenzene	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
1,2-Dibromo-3-chloropropane	ND	0.0045	EPA 8260C	8-15-17	8-15-17	
1,2,4-Trichlorobenzene	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
Hexachlorobutadiene	ND	0.0045	EPA 8260C	8-15-17	8-15-17	
1,2,3-Trichlorobenzene	ND	0.00091	EPA 8260C	8-15-17	8-15-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>93</i>	<i>80-131</i>				



Date of Report: August 16, 2017
 Samples Submitted: August 15, 2017
 Laboratory Reference: 1708-197
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0815S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Chloromethane	ND	0.0050	EPA 8260C	8-15-17	8-15-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Bromomethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Chloroethane	ND	0.0050	EPA 8260C	8-15-17	8-15-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Iodomethane	ND	0.0050	EPA 8260C	8-15-17	8-15-17	
Methylene Chloride	ND	0.0076	EPA 8260C	8-15-17	8-15-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Bromochloromethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Chloroform	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Trichloroethene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Dibromomethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
2-Chloroethyl Vinyl Ether	ND	0.0070	EPA 8260C	8-15-17	8-15-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	



Date of Report: August 16, 2017
 Samples Submitted: August 15, 2017
 Laboratory Reference: 1708-197
 Project: 15217E-1

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

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0815S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Chlorobenzene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Bromoform	ND	0.0050	EPA 8260C	8-15-17	8-15-17	
Bromobenzene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	8-15-17	8-15-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	8-15-17	8-15-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	8-15-17	8-15-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>73-134</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>81-124</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>80-131</i>				



Date of Report: August 16, 2017
 Samples Submitted: August 15, 2017
 Laboratory Reference: 1708-197
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0815S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0484	0.0458	0.0500	0.0500	97	92	66-127	6	15	
Benzene	0.0489	0.0464	0.0500	0.0500	98	93	76-122	5	15	
Trichloroethene	0.0536	0.0527	0.0500	0.0500	107	105	78-120	2	15	
Toluene	0.0531	0.0511	0.0500	0.0500	106	102	83-120	4	15	
Chlorobenzene	0.0495	0.0500	0.0500	0.0500	99	100	81-120	1	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					95	86	73-134			
<i>Toluene-d8</i>					99	88	81-124			
<i>4-Bromofluorobenzene</i>					90	85	80-131			



Date of Report: August 16, 2017
Samples Submitted: August 15, 2017
Laboratory Reference: 1708-197
Project: 15217E-1

% MOISTURE

Date Analyzed: 8-15-17

Client ID	Lab ID	% Moisture
Stockpile 6	08-197-01	6





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference





MVA Onsite Environmental Inc.

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

Chain of Custody

Turnaround Request (in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days) (TPH analysis 5 Days)

(other) _____

Laboratory Number: 08-197

Company: Geotech Conults
 Project Number: 15217E-1
 Project Name: All Star
 Project Manager: Timothy Ashburn
 Sampled by: Timothy Ashburn

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
1	Stdupile 6	8/15/17	8:30	Soil

Number of Containers

Container	Number
NWTPH-HCID	
NWTPH-Gx/BTEX	
NWTPH-Gx	
NWTPH-Dx (<input type="checkbox"/> Acid / SG Clean-up)	
Volatiles 8260C	
Halogenated Volatiles 8260C	X
EDB EPA 8011 (Waters Only)	
Semivolatiles 8270D/SIM (with low-level PAHs)	
PAHs 8270D/SIM (low-level)	
PCBs 8082A	
Organochlorine Pesticides 8081B	
Organophosphorus Pesticides 8270D/SIM	
Chlorinated Acid Herbicides 8151A	
Total RCRA Metals	
Total MTCA Metals	
TCLP Metals	
HEM (oil and grease) 1664A	
% Moisture	X

Signature	Company	Date	Time	Comments/Special Instructions
<u>[Signature]</u>	<u>Geotech Conults</u>	<u>8/15/17</u>	<u>10:00</u>	
<u>[Signature]</u>	<u>OSRE</u>	<u>8/15/17</u>	<u>10:00</u>	

Relinquished
Received
Relinquished
Received
Relinquished
Received
Reviewed/Date

Reviewed/Date

Data Package: Standard Level III Level IV
 Chromatograms with final report Electronic Data Deliverables (EDDs)



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

October 19, 2017

Tim Johnson
GeoTech Consultants
2401-10th Avenue East
Seattle, WA 98102

Re: Analytical Data for Project 15217E-1
Laboratory Reference No. 1710-224

Dear Tim:

Enclosed are the analytical results and associated quality control data for samples submitted on October 18, 2017.

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

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

Sincerely,

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

David Baumeister
Project Manager

Enclosures



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

This report pertains to the samples analyzed in accordance with the chain of custody, and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: October 19, 2017
Samples Submitted: October 18, 2017
Laboratory Reference: 1710-224
Project: 15217E-1

Case Narrative

Samples were collected on October 17, 2017 and received by the laboratory on October 18, 2017. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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



Date of Report: October 19, 2017
 Samples Submitted: October 18, 2017
 Laboratory Reference: 1710-224
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Stockpile 7					
Laboratory ID:	10-224-01					
Dichlorodifluoromethane	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
Chloromethane	ND	0.0044	EPA 8260C	10-18-17	10-18-17	
Vinyl Chloride	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
Bromomethane	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
Chloroethane	ND	0.0044	EPA 8260C	10-18-17	10-18-17	
Trichlorofluoromethane	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
1,1-Dichloroethene	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
Iodomethane	ND	0.0044	EPA 8260C	10-18-17	10-18-17	
Methylene Chloride	ND	0.0044	EPA 8260C	10-18-17	10-18-17	
(trans) 1,2-Dichloroethene	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
1,1-Dichloroethane	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
2,2-Dichloropropane	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
(cis) 1,2-Dichloroethene	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
Bromochloromethane	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
Chloroform	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
1,1,1-Trichloroethane	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
Carbon Tetrachloride	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
1,1-Dichloropropene	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
1,2-Dichloroethane	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
Trichloroethene	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
1,2-Dichloropropane	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
Dibromomethane	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
Bromodichloromethane	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
2-Chloroethyl Vinyl Ether	ND	0.0062	EPA 8260C	10-18-17	10-18-17	
(cis) 1,3-Dichloropropene	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
(trans) 1,3-Dichloropropene	ND	0.00088	EPA 8260C	10-18-17	10-18-17	



Date of Report: October 19, 2017
 Samples Submitted: October 18, 2017
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VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Stockpile 7					
Laboratory ID:	10-224-01					
1,1,2-Trichloroethane	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
Tetrachloroethene	0.0018	0.00088	EPA 8260C	10-18-17	10-18-17	
1,3-Dichloropropane	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
Dibromochloromethane	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
1,2-Dibromoethane	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
Chlorobenzene	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
1,1,1,2-Tetrachloroethane	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
Bromoform	ND	0.0044	EPA 8260C	10-18-17	10-18-17	
Bromobenzene	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
1,1,1,2-Tetrachloroethane	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
1,2,3-Trichloropropane	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
2-Chlorotoluene	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
4-Chlorotoluene	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
1,3-Dichlorobenzene	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
1,4-Dichlorobenzene	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
1,2-Dichlorobenzene	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
1,2-Dibromo-3-chloropropane	ND	0.0044	EPA 8260C	10-18-17	10-18-17	
1,2,4-Trichlorobenzene	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
Hexachlorobutadiene	ND	0.0044	EPA 8260C	10-18-17	10-18-17	
1,2,3-Trichlorobenzene	ND	0.00088	EPA 8260C	10-18-17	10-18-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>75-131</i>				
<i>Toluene-d8</i>	<i>95</i>	<i>83-126</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>78-125</i>				



Date of Report: October 19, 2017
 Samples Submitted: October 18, 2017
 Laboratory Reference: 1710-224
 Project: 15217E-1

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Stockpile 8					
Laboratory ID:	10-224-02					
Dichlorodifluoromethane	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
Chloromethane	ND	0.0048	EPA 8260C	10-18-17	10-18-17	
Vinyl Chloride	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
Bromomethane	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
Chloroethane	ND	0.0048	EPA 8260C	10-18-17	10-18-17	
Trichlorofluoromethane	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
1,1-Dichloroethene	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
Iodomethane	ND	0.0048	EPA 8260C	10-18-17	10-18-17	
Methylene Chloride	ND	0.0048	EPA 8260C	10-18-17	10-18-17	
(trans) 1,2-Dichloroethene	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
1,1-Dichloroethane	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
2,2-Dichloropropane	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
(cis) 1,2-Dichloroethene	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
Bromochloromethane	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
Chloroform	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
1,1,1-Trichloroethane	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
Carbon Tetrachloride	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
1,1-Dichloropropene	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
1,2-Dichloroethane	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
Trichloroethene	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
1,2-Dichloropropane	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
Dibromomethane	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
Bromodichloromethane	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
2-Chloroethyl Vinyl Ether	ND	0.0068	EPA 8260C	10-18-17	10-18-17	
(cis) 1,3-Dichloropropene	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
(trans) 1,3-Dichloropropene	ND	0.00097	EPA 8260C	10-18-17	10-18-17	



Date of Report: October 19, 2017
 Samples Submitted: October 18, 2017
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 Project: 15217E-1

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Stockpile 8					
Laboratory ID:	10-224-02					
1,1,2-Trichloroethane	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
Tetrachloroethene	0.0039	0.00097	EPA 8260C	10-18-17	10-18-17	
1,3-Dichloropropane	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
Dibromochloromethane	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
1,2-Dibromoethane	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
Chlorobenzene	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
1,1,1,2-Tetrachloroethane	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
Bromoform	ND	0.0048	EPA 8260C	10-18-17	10-18-17	
Bromobenzene	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
1,1,2,2-Tetrachloroethane	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
1,2,3-Trichloropropane	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
2-Chlorotoluene	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
4-Chlorotoluene	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
1,3-Dichlorobenzene	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
1,4-Dichlorobenzene	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
1,2-Dichlorobenzene	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
1,2-Dibromo-3-chloropropane	ND	0.0048	EPA 8260C	10-18-17	10-18-17	
1,2,4-Trichlorobenzene	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
Hexachlorobutadiene	ND	0.0048	EPA 8260C	10-18-17	10-18-17	
1,2,3-Trichlorobenzene	ND	0.00097	EPA 8260C	10-18-17	10-18-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>75-131</i>				
<i>Toluene-d8</i>	<i>95</i>	<i>83-126</i>				
<i>4-Bromofluorobenzene</i>	<i>93</i>	<i>78-125</i>				



Date of Report: October 19, 2017
 Samples Submitted: October 18, 2017
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 Project: 15217E-1

VOLATILES EPA 8260C
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Stockpile 9					
Laboratory ID:	10-224-03					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
Chloromethane	ND	0.0053	EPA 8260C	10-18-17	10-18-17	
Vinyl Chloride	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
Bromomethane	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
Chloroethane	ND	0.0053	EPA 8260C	10-18-17	10-18-17	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
Iodomethane	ND	0.0053	EPA 8260C	10-18-17	10-18-17	
Methylene Chloride	ND	0.0053	EPA 8260C	10-18-17	10-18-17	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
Bromochloromethane	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
Chloroform	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
Trichloroethene	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
Dibromomethane	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
Bromodichloromethane	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
2-Chloroethyl Vinyl Ether	ND	0.0074	EPA 8260C	10-18-17	10-18-17	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	10-18-17	10-18-17	



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 Samples Submitted: October 18, 2017
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VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	Stockpile 9					
Laboratory ID:	10-224-03					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
Tetrachloroethene	0.0025	0.0011	EPA 8260C	10-18-17	10-18-17	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
Dibromochloromethane	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
Chlorobenzene	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
Bromoform	ND	0.0053	EPA 8260C	10-18-17	10-18-17	
Bromobenzene	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
2-Chlorotoluene	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
4-Chlorotoluene	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260C	10-18-17	10-18-17	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
Hexachlorobutadiene	ND	0.0053	EPA 8260C	10-18-17	10-18-17	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	10-18-17	10-18-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>75-131</i>				
<i>Toluene-d8</i>	<i>95</i>	<i>83-126</i>				
<i>4-Bromofluorobenzene</i>	<i>93</i>	<i>78-125</i>				



Date of Report: October 19, 2017
 Samples Submitted: October 18, 2017
 Laboratory Reference: 1710-224
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1018S2					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
Chloromethane	ND	0.0050	EPA 8260C	10-18-17	10-18-17	
Vinyl Chloride	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
Bromomethane	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
Chloroethane	ND	0.0050	EPA 8260C	10-18-17	10-18-17	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
Iodomethane	ND	0.0050	EPA 8260C	10-18-17	10-18-17	
Methylene Chloride	ND	0.0050	EPA 8260C	10-18-17	10-18-17	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
Bromochloromethane	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
Chloroform	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
Trichloroethene	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
Dibromomethane	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
Bromodichloromethane	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
2-Chloroethyl Vinyl Ether	ND	0.0070	EPA 8260C	10-18-17	10-18-17	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	10-18-17	10-18-17	



Date of Report: October 19, 2017
 Samples Submitted: October 18, 2017
 Laboratory Reference: 1710-224
 Project: 15217E-1

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1018S2					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
Tetrachloroethene	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
Dibromochloromethane	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
Chlorobenzene	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
Bromoform	ND	0.0050	EPA 8260C	10-18-17	10-18-17	
Bromobenzene	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
2-Chlorotoluene	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
4-Chlorotoluene	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	10-18-17	10-18-17	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	10-18-17	10-18-17	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	10-18-17	10-18-17	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>105</i>	<i>75-131</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>83-126</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>78-125</i>				



Date of Report: October 19, 2017
 Samples Submitted: October 18, 2017
 Laboratory Reference: 1710-224
 Project: 15217E-1

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

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					SB	SBD	Limits	RPD	Limit	
SPIKE BLANKS										
Laboratory ID:	SB1018S2									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0445	0.0448	0.0500	0.0500	89	90	58-126	1	20	
Benzene	0.0493	0.0492	0.0500	0.0500	99	98	72-122	0	19	
Trichloroethene	0.0510	0.0490	0.0500	0.0500	102	98	75-120	4	20	
Toluene	0.0454	0.0442	0.0500	0.0500	91	88	78-123	3	19	
Chlorobenzene	0.0496	0.0475	0.0500	0.0500	99	95	75-120	4	18	
<i>Surrogate:</i>										
Dibromofluoromethane					101	100	75-131			
Toluene-d8					96	91	83-126			
4-Bromofluorobenzene					101	94	78-125			



Date of Report: October 19, 2017
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Project: 15217E-1

% MOISTURE

Date Analyzed: 10-18-17

Client ID	Lab ID	% Moisture
Stockpile 7	10-224-01	8
Stockpile 8	10-224-02	8
Stockpile 9	10-224-03	6





Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference



