

June 25, 2015

JN 15217E

Blueprint Capital Services, LLC  
PO Box 16438  
Seattle, Washington 98116

Attention: Dan Duffus

Subject: **Limited Phase 2 Site Assessment**  
ALL STAR CLEANERS  
1222 Northeast 65<sup>th</sup> Street  
Seattle, Washington

Dear Mr. Duffus:

*via e-mail: Dan@soleildevelopment.com*

We are pleased to present the results of our recently completed environmental sampling and analysis procedures for soil at the ALL STAR CLEANERS located at 1222 Northeast 65<sup>th</sup> Street in Seattle, Washington. Our report was prepared in accordance with the terms of our proposal dated May 15, 2015. Our methodologies, findings, and conclusions are summarized in this report.

### **PROJECT BACKGROUND**

The ALL STAR CLEANERS occupies a one-story concrete masonry building at the northwestern corner of Northeast 65<sup>th</sup> Street and Brooklyn Avenue Northeast in the Ravenna District in Seattle. 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 Exploration Map, Plate 2.

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, or PERC) in the base of the unit. The unit filtered the solvent for reuse, and had a built-in spill containment barrier.

During our recent site reconnaissance completed on May 15, 2015, the current operator of the ALL STAR CLEANERS said that he acquired the business approximately seven years ago. He informed us that to the best of his knowledge the dry cleaning machine has been in its current location as long as he has operated the business. He reported that garments are spot treated near the south side of the dry cleaning machine. The business has 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 of stains, spills, or leaks around the dry cleaning machine. We did observe some slight petroleum staining on the floor near the compressor located in the garage beneath the adjoining house. The garage is accessed through a door at the back of the cleaners.

### **SCOPE OF SERVICES**

We understand that demolition of the building and excavation of the site for below grade parking is contemplated for the future. To address the potential that soil beneath the site contains concentrations of VOCs in excess of MTCA guidelines, we completed the following tasks:

- Conducted a visual assessment of the interior of the ALL STAR CLEANERS building.
- Completed a private utility locate to attempt to identify buried utilities near the planned boring locations.
- Drilled six borings to obtain soil samples.
- Submitted selected soil samples to a laboratory for analysis.
- Analyzed the laboratory data and soil information developed from the drilling.
- Prepared this summary report.

### **METHODOLOGY**

#### **Drilling and Sampling**

To assess the current condition of soil at the subject property, we drilled six borings, B1E through B6E. Borings B1E and B2E were drilled inside the concrete masonry block building near the dry cleaning machine and the reported clothes pre-treatment spotting area. The dry cleaning machine and spotting treatment areas are currently 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. The boring locations are shown on Plate 2, Site Exploration Map. Borings B1E and B2E were drilled with a hand operated jack-hammer Geoprobe sampling system. The four exterior borings were drilled on June 15, 2015 with an AMS Powerprobe drill to a maximum depth of 12 feet. The boring locations were chosen based upon site conditions and access to sewer lines and likely areas where past improper disposal could have occurred. Boring logs are attached to this report as Plates 4 through Plate 7. See Attachment A, Methodology, for a detailed explanation of drilling and sampling procedures.

## **Laboratory Analysis**

Based upon the use of the subject site as a dry cleaner, selected soil samples obtained from our borings were analyzed for volatile organic compounds (VOCs) by EPA Method 8260C. This analytical approach provides a basis for comparing the site environment to existing standards offered in the Model Toxics Control Act, Chapter 173-340, Washington Administrative Code (WAC).

## **FINDINGS**

### **Surface Conditions**

The subject property is located at the northwestern corner of the intersection of Northeast 65<sup>th</sup> Street with Brooklyn Avenue Northeast in Seattle, Washington. The property consists of a generally rectangular shaped property that covers approximately 5,449-square feet. The northern approximate half of the parcel is developed with a wood-frame house reportedly constructed in 1922. The approximate southern half of the site is developed with a one-story masonry block building reportedly built in 1961. The ALL STAR CLEANERS occupies the masonry block building, addressed as 1222 Northeast 65<sup>th</sup> Street and is 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 is 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 PERC such as pitting or erosion of the asphalt and the vegetation for indications of stress. We did not observe significant signs of eroded asphalt, even near the storm catch basin located in the parking lot southeast of the building.

### **Geologic Setting**

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.

Three test borings were drilled for another project at a nearby property using a track-mounted, hollow-stem auger drill. Samples were taken at approximate 2.5- and 5-foot intervals with a standard penetration sampler. Two of the test borings generally encountered silty sand and sand with silt, with varying amounts of gravel, at a relatively shallow depth that became dense to very

dense at a depth of 7.5 feet. This soil extended to depths of about 9.5 to 13 feet and was underlain by mostly dense to very dense sand that extended to the base of these borings at depths of 16.5 and 21.5 feet. The third test boring encountered similar silty sand soils near the ground surface as in the other two test borings. However, a layer of very dense, gravelly sand was encountered at approximately 18 feet below the existing ground surface. From a depth of 21 to 21.5 feet, at the base of the boring, the sand had increased silt content.

The geologic unit that we assume characterizes the site is relatively impermeable. However, deposits of higher permeability sand and gravel can be found within the lower permeability silty sand. Where higher permeability sand and gravels exist, the formation of a "perched" water table can form. Perched groundwater seepage was observed in the test boring completed on the western side of the nearby site at a depth of 18 feet below existing ground surface. The test borings were left open for only a short time period. Groundwater levels encountered during drilling can be deceptive, because seepage into the boring can be blocked or slowed by the auger itself. It should be noted that groundwater levels vary seasonally with rainfall and other factors.

The "perched" water table (if present) is frequently seasonal and derives recharge primarily from the infiltration of precipitation through the soil above it. Based upon local drainage patterns and upon our review of a U.S. Geological 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. According to the U.S. EPA Ground Water Handbook, surface water tables typically conform to surface topography (Chapter 4, page 78).

### **Subsurface**

The environmental borings were drilled on June 4 and June 15, 2015. Geoprobe sampling equipment was provided and operated by Holocene Drilling. Borings B1E and B2E were drilled inside the building using a hand operated, jack-hammer driven Geoprobe sampling system. A truck-mounted AMS Powerprobe sampler was used to complete borings B3E through B6E. The soil was continuously sampled from the surface to a maximum depth of approximately 12 feet below the ground surface in boring B3E. The boring locations are illustrated on the Exploration Map, Plate 2 and Results Map, Plate 3. We also refer the reader to the Boring Logs, attached as Plates 4 through 7, for the specific conditions encountered at each boring location.

Concrete covered the ground surface inside the building, and asphalt covered the ground surface exterior to east and south of the building. At boring locations B5E and B6E we observed two layers of asphalt separated by approximately one-inch of gravel. In boring B5E, the asphalt in the lower layer exhibited softening, possibly from dry cleaning solvents dissolving the asphalt from the aggregate. We noted higher organic vapors as measured by using the PID in this layer.

In general, the soil layers were comparatively uniform among the sample locations. The upper soil layer consisted of dark brown to grayish brown, silty sand with gravel. Designated as fill, this material varied in thickness from approximately one foot in boring B3E to approximately 6.5 feet in boring B4E. The fill was underlain by brownish gray, silty sand with gravel in all of the borings. We observed brownish gray sand in two of the exterior borings. The native deposits became very dense and prevented penetration with the heavy duty AMS Powerprobe drilling equipment below a maximum depth of approximately 12 feet below existing grade in boring B3E. The maximum depth that could be explored using the hand operated jack-hammer in borings B1E and B2E was 4 feet.

The fill and native silty sand soil were predominantly moist to damp. No measurable groundwater was observed in any of the six environmental borings that were completed to as much as 12 feet below existing grade. We noted very moist to wet conditions in boring B3E at approximately 7.5 feet below grade. We suspect that if left open long enough, some perched groundwater seepage

might have accumulated in B3E. It is relatively common for some minor groundwater seepage to occur within sand and gravel lenses in the glacial till. Typically, the discontinuous lenses in the glacial till dry out relatively quickly when they are exposed, and the seepage becomes less and less with time. However, if one or more lenses connect to the surface, the groundwater seepage within the till may continue for some time, particularly during wet periods. Additionally, in wet periods, some groundwater seepage should be expected at the geologic interface between the relatively loose surficial soils (weather soils and fill) and the underlying dense glacial till. This perched groundwater seepage condition normally would occur during wet periods, such as in the fall, winter, and spring, or following intense or long-duration rain storms.

Manmade features, such as the backfilled sewer trench and other buried utilities, can artificially introduce subsurface water onto the site. This is impossible to accurately assess until the building excavation is underway.

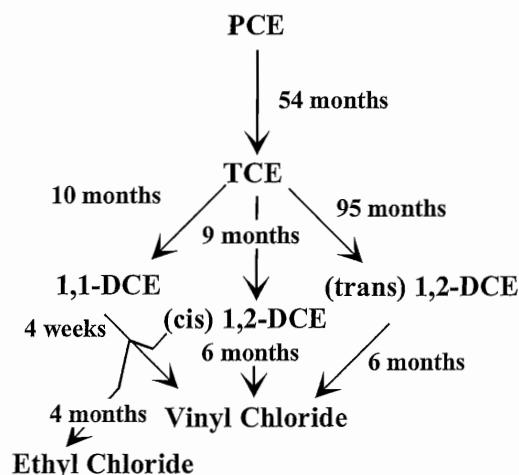
It is important to note that groundwater levels encountered during drilling can be deceptive, because seepage into the boring can be blocked or slowed by the auger itself, particularly when silty soils are encountered, such as at this site. Also, as indicated above, groundwater levels can vary seasonally with rainfall and other factors.

### Results of Laboratory Analysis

OnSite Environmental, Incorporated in Redmond, Washington conducted soil analyses on selected samples. The samples were selected based upon the presence of obvious odors, wet zones, or obvious stratigraphic changes that may affect vertical migration. The complete laboratory reports and chain-of-custody documents are presented in Attachment B, Laboratory Reports. Table 1 on the following page summarizes the laboratory analysis results. Bold typeface and shaded cells exceed Method A cleanup levels.

### Soil - Volatile Organic Compounds

As illustrated in the diagram on the following page, 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); and vinyl chloride. Breakdown times are approximate and vary with soil conditions and bacterial content.



Quantification analysis of selected soil samples from all six environmental borings B1E through B6E revealed detectable concentrations of tetrachloroethene (a.k.a. perchloroethene, PERC, or PCE) in all six borings. The following table summarizes the VOC quantification analysis for PCE and select breakdown products.

**TABLE 1  
LABORATORY RESULTS HALOGENATED VOLATILE ORGANIC COMPOUNDS  
SOIL SAMPLES<sup>1</sup>**

Boring	Tetrachloroethene <sup>2</sup>	Trichloroethene	1,1-Dichloroethene	(cis) 1,2-Dichloroethene
B1E @ 5"	ND <sup>3</sup>	ND	ND	ND
B1E @ 24"	0.0078	ND	ND	ND
B1E @ 48"	ND	ND	ND	ND
B2E @ 5"	0.0032	ND	ND	ND
B2E @ 24"	0.0032	ND	ND	ND
B2E @ 48"	ND	ND	ND	ND
B3E @ 0.5'-1'	0.065	ND	ND	ND
B3E @ 5.5'- 6'	0.030	ND	ND	ND
B4E @ 3.5'- 4'	0.013	ND	ND	ND
B4E @ 6.5 -7'	0.025	ND	ND	ND
B5E @ 0.5 - 1'	0.18	ND	ND	ND
B5E @ 5 - 2.5'	0.0049	ND	ND	ND
B6E @ 2 - 2.5'	0.035	ND	ND	ND
B6E @ 5'- 5.5'	0.0023	ND	ND	ND
Method Detection Levels	0.0010	0.0010	0.0010	0.0010
Current Cleanup Levels <sup>4,5</sup>	0.050 <sup>4</sup>	0.030 <sup>4</sup>	175 <sup>5</sup>	160 <sup>5</sup>

**Notes:**

1. Results are reported in parts per million (ppm).
2. Tetrachloroethene also known as Tetrechloroethylene, or Perchloroethene (PCE or PERC)
3. ND denotes not detected above the practical quantitation limit.
4. Method A Soil Cleanup Levels for Unrestricted Land Use: MTCA Table 740-1.
5. Standard Method B Formula Values for Soil Direct Contact (CLARC Version 3.0).

Of the samples submitted for analysis, only 3 did not have concentrations of PCE above the method detection levels. Those three samples were from the interior borings. The detected concentrations of PCE in nine samples submitted for analysis were above method detection levels but below current cleanup levels. Two of the samples submitted from immediately below the lowest asphalt layer had concentrations exceeding Method A cleanup levels 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 were detected in any of the samples submitted for analysis. It is our opinion that the absence of breakdown products does not necessarily indicate a recent release, but the soil conditions are not favorable for biologic breakdown. More analysis would be required to determine if bacteria that de-chlorinate PCE are present in the soil.

## **CONCLUSIONS/RECOMMENDATIONS**

The purpose of this study was to conduct an initial assessment of the condition of the soil inside and proximal to the ALL STAR CLEANERS.

### **Condition of Soil**

The results of the laboratory analyses suggest that the soil immediately beneath the asphalt from boring locations B3E and B5E appears to be contaminated with PCE above current Method A cleanup levels for unrestricted land use. Detectable concentrations of PCE were identified in all six borings at levels that were below Method A cleanup levels. In general, the concentrations appear to attenuate with depth and none of the samples were above cleanup levels to a maximum explored depth of approximately 12 feet below existing grade in B3E. No TCE; 1,1- DCE; trans 1,2-DCE; cis 1,2-DCE; or vinyl chloride breakdown products of PERC, were detected in any of the six borings. It is not known at this time if the absence of breakdown products is due to the lack of soil bacteria that break down PCE or if the release is recent.

Due to limitations of the sampling equipment used inside the building and the very dense nature of the soil, additional drilling, sampling, and analysis would be needed to better define the area, depth, and approximate volume of the affected soil. It has been our experience that the detectable PCE levels will likely make the soil unacceptable at sites that accept soil from construction sites.

Potential remediation alternatives include installation of a soil vapor extraction system, injection of chemicals that will accelerate natural decomposition by oxygenation of the organic compounds, excavation and transport to an approved landfill for lawful treatment and disposal, or monitored natural attenuation (no action other than monitoring the soil periodically to determine whether the naturally occurring bacteria are breaking down the chlorinated solvents). The scope of work for this phase of the project does not include preparation of a detailed remediation plan, as future use of the site, costs, and other factors have not been completely evaluated at this time and their may affect the chosen remediation alternative.

### **Condition of Groundwater**

Based upon the very dense nature of the native soils and the information developed from our preliminary environmental borings suggests that other than transient perched groundwater, groundwater is not present in appreciable quantities beneath the subject site within the depth range explored by the recent borings.

### **WDOE Notification**

We recommend you provide a copy of this report to the owner or operator of the property advising them of the contaminated soil with the recommendation that they consult with an environmental attorney regarding the contaminated soil discovered at the site and the requirements for notification to the Washington Department of Ecology under the Model Toxics Control Act (Chapter 173-340-300).

Based upon these initial results, it is our opinion that at this time the soil with PCE concentrations that exceed Method A cleanup levels does not pose a threat to human health or the environment. However, if the asphalt or building is removed and the soil is exposed or additional PCE contaminated soil is discovered, notification to the WDOE would be required.

### 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 proposal dated May 15, 2015. This report is for the exclusive use of Blueprint Capital Services LLC and its 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.

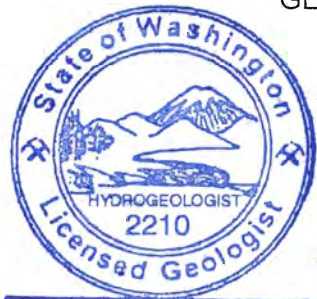
The following documents are attached to complete this report:

Plate 1	Vicinity Map
Plate 2	Exploration Map
Plate 3	Results Map
Plates 4 through 7	Boring Logs
Attachment A	<i>Methodology</i>
Attachment B	<i>Laboratory Report</i>

We appreciate this 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 Alan Johnson

Timothy A. Johnson  
Licensed Hydrogeologist  
WDOE Registered Site Assessor

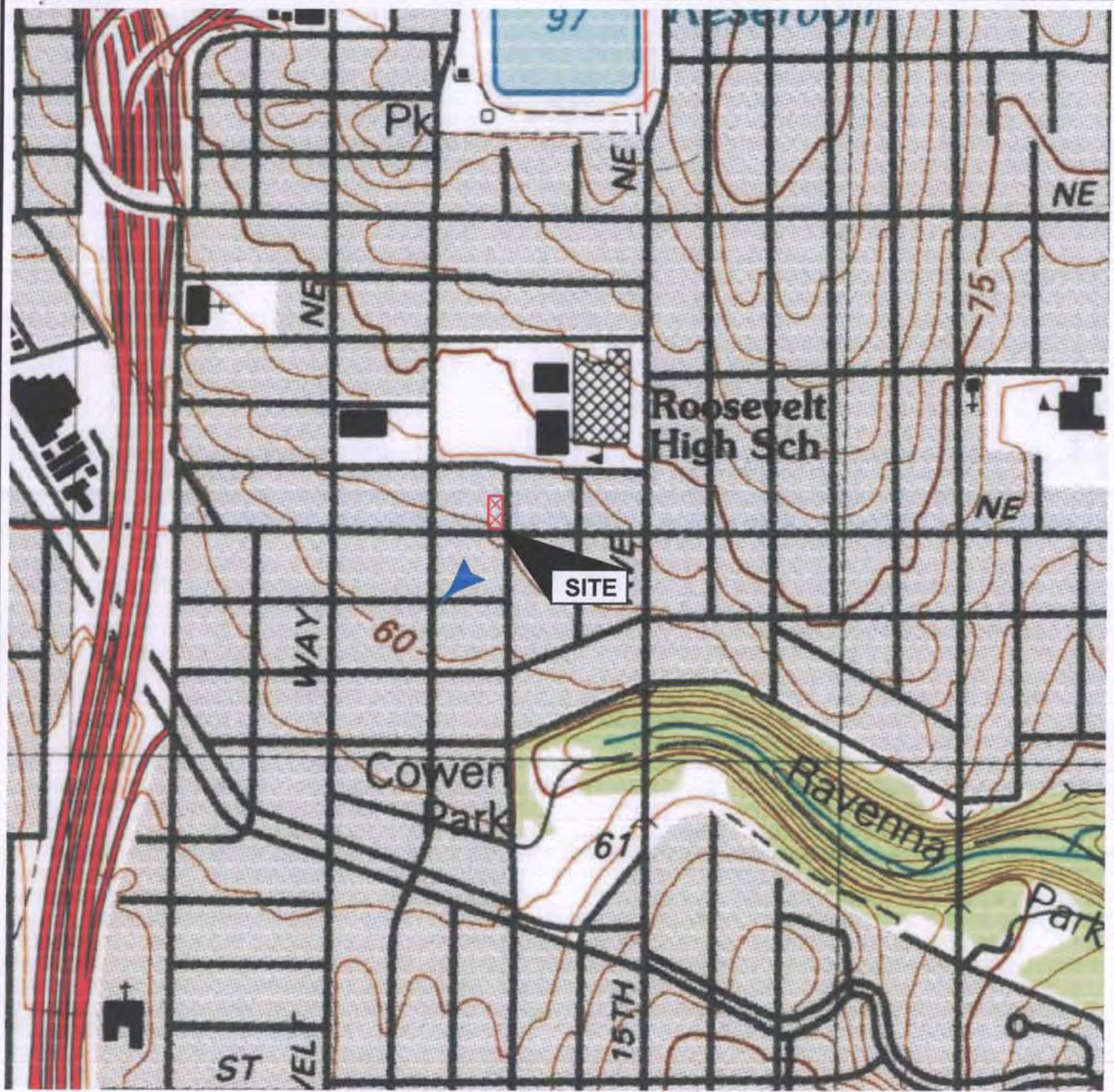
Marc R. McGinnis, P.E.  
Principal

Enclosures

TAJ/MRM:at

## REFERENCES

- Bulletin of the Association of Engineering Geologists. *Geology of Seattle, Washington, United States of America*. August 1991.
- Geotech Consultants, Inc. *Phase 1 Environmental Site Assessment, 1222 Northeast 65<sup>th</sup> Street, Seattle, Washington*. April 4, 1997.
- Office of Research and Development, U.S. EPA. *U.S. EPA Ground Water Handbook - Volume 1: Ground Water and Contamination*. EPA/625/6-90/016a. September 1990.
- U.S. Geological Survey (USGS). *Seattle North, Washington, 7.5 Minute (1:24,000) Quadrangle*. 1950, photorevised 1968 and 1973.
- Washington Department of Ecology. *Cleanup Levels and Risk Calculations Under the Model Toxics Control Act Cleanup Regulation CLARC Version 3.0*. Publication 94-145. May 2014.
- Washington Department of Ecology. *Model Toxics Control Act Cleanup Regulation Chapter 173-340 WAC*. Publication 94-06. Amended October 12, 2007.



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

Date:  
June 2015

Plate:

1



**LEGEND:**

- Approximate Property Boundary (King County Assessor's Office)
- Approximate Location of Sewer Lines
- Approximate Location of Dry Cleaning Machine
- Approximate Location of Catch Basin
- PROBABLE DIRECTION OF REGIONAL SHALLOW GROUNDWATER FLOW
- ⊙ Approximate Location of Geotech Consultants Environmental Boring

(Source: U.S. Geologic Survey 2013 Aerial Seattle, Washington)



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

Job No: 15217E	Date: June 2015	Plate: 2
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B1E @ 5" @ 24" @ 48"  
Analyte  
PCE = ND 0.0078 ND

B1E

B2E

B2E @ 5" @ 24" @ 48"  
Analyte  
PCE = 0.0032 0.0032 ND

B6E

B6E @ 2' - 2.5' @ 5' - 5.5'  
Analyte  
PCE = 0.035 0.0023

B5E

B5E @ 6" - 12" @ 5' - 5.5'  
Analyte  
PCE = 0.18 0.0049

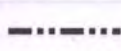
B4E

B4E @ 3.5' - 4' @ 6.5' - 7'  
Analyte  
PCE = 0.013 0.025

B3E @ 6" - 12" @ 5.5' - 6'  
Analyte  
PCE = 0.065 0.030

B3E

**LEGEND:**



Approximate Property Boundary  
(King County Assessor's Office)



Approximate Location of Geotech Consultants  
Boring

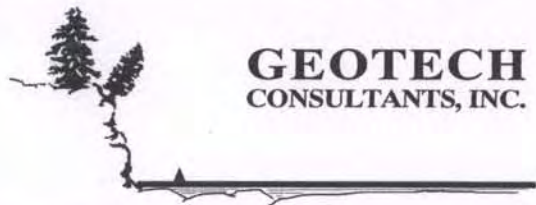


PROBABLE DIRECTION OF REGIONAL SHALLOW GROUNDWATER FLOW

(Source: U.S. Geologic Survey 2013 Aerial Renton, Washington)



B3E@ 6" - 12"  
Analyte  
PCE = Tetrachloroethene  
Results reported in parts per million (ppm)  
ND Not Detected above practical  
quantitation limit  
Underlined values in **Red** exceed MTCA cleanup levels



**GEOTECH  
CONSULTANTS, INC.**

**RESULTS MAP**

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

Job No:  
15217E

Date:  
June 2015

Plate:



# BORING B3E

Depth	Water Table	Sample	USCS	Description	Headspace Analysis
		1	FL	Asphalt 2" over 4" gravel	
			SM	Dark brown, silty sand, with gravel, fine- to medium-grained, moist, medium dense (FILL)	0.1 ppm
2.5			SM	Grayish brown, silty SAND, with gravel, fine- to medium-grained, moist, dense	0.1 ppm
			SM	- becomes brownish gray, more silty, finer grained	0.1 ppm
5.0			SP	Brownish gray SAND, with silt, fine-grained, moist to very moist, dense	0.1 ppm
		2	SP	- becomes orange mottled	0.1 ppm
7.5			SM	Brownish gray, silty SAND, with gravel, fine- to medium-grained, moist, very dense	0.0 ppm
			SM	- becomes slightly less silty, very moist	0.0 ppm
10			SM	- becomes more gravelly, very dense	0.0 ppm
12.5					

- \* Boring drilled to 12 feet on June 15, 2015 using the truck-mounted AMS Powerprobe sampling system. Continuously sampled from surface to 12 feet below ground surface (bgs).
- \*  Indicates sample interval collected for possible laboratory analysis.
- \* No visual or olfactory indications of contamination in soil.
- \* No groundwater observed at time of drilling.
- \* Headspace measured in a sealed plastic container using a Mini Rae 3000 PID.



**BORING LOG**

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

Job No: 15217E	Date: June 2015	Plate: 5
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# BORING B4E

Depth	Water Table	Sample	USCS	Description	Headspace Analysis
<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 20px;">2.5</div> <div style="margin-bottom: 20px;">5.0</div> <div style="margin-bottom: 20px;">7.5</div> <div>10</div> </div>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 20px;">1</div> <div style="margin-bottom: 20px;">2</div> </div>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="margin-bottom: 20px;">FL</div> <div style="margin-bottom: 20px;">FL</div> <div>SM</div> </div>	<div style="margin-bottom: 20px;">Asphalt 2" over 4" gravel</div> <div style="margin-bottom: 20px;">Dark brown, silty sand, with gravel, fine- to medium-grained, moist, medium dense (FILL)</div> <div style="margin-bottom: 20px;">- becomes grayish brown with orange mottling, medium dense</div> <div style="margin-bottom: 20px;">- becomes brownish gray, more gravelly, moist, dense</div> <div style="margin-bottom: 20px;">- becomes moist to very moist, dense</div> <div>Brownish gray, silty SAND, with gravel, fine- to medium-grained, moist, very dense</div>	<div style="margin-bottom: 20px;">0.1 ppm</div> <div style="margin-bottom: 20px;">0.1 ppm</div> <div style="margin-bottom: 20px;">0.1 ppm</div> <div style="margin-bottom: 20px;">0.1 ppm</div> <div>0.0 ppm</div>	

- \* Boring drilled to 12 feet on June 15, 2015 using the truck-mounted AMS Powerprobe sampling system. Continuously sampled from surface to 12 feet below ground surface (bgs).
- \*  Indicates sample interval collected for possible laboratory analysis.
- \* No visual or olfactory indications of contamination in soil.
- \* No groundwater observed at time of drilling.
- \* Headspace measured in a sealed plastic container using a Mini Rae 3000 PID.



<b><u>BORING LOG</u></b>			
All Star Cleaners Property 1222 Northeast 65th Street Seattle, Washington			
Job No: 15217E	Date: June 2015	Plate:	6

## BORING B5E

Depth	Water Table	Sample	USCS	Description	Headspace Analysis
		1		Asphalt 2" over 1" gravel	
				Soft Asphalt 2" over 1" gravel	0.2 ppm
2.5			FL	Dark brown, silty sand, with gravel, fine- to medium-grained, moist, medium dense (FILL)	0.1 ppm
			SM	Brownish gray, silty SAND, with gravel, fine- to medium-grained, moist, very dense	0.1 ppm
			SP	Grayish brown SAND, with silt, fine- to medium-grained, moist, very dense	0.1 ppm
5.0		2	SM	Brownish gray, very silty SAND, fine- to medium-grained, moist, very dense	0.0 ppm
				- becomes less moist very dense	0.1 ppm
7.5					

- \* Boring drilled to 7 feet on June 15, 2015 using the truck-mounted AMS Powerprobe sampling system. Continuously sampled from surface to 7 feet below ground surface (bgs).
- \*  Indicates sample interval collected for possible laboratory analysis.
- \* No visual but slight olfactory indications of contamination in soil.
- \* No groundwater observed at time of drilling.
- \* Headspace measured in a sealed plastic container using a Mini Rae 3000 PID.

## BORING B6E

Depth	Water Table	Sample	USCS	Description	Headspace Analysis
				Asphalt 2" over 1" gravel	
				Asphalt 2" over 1" gravel	0.1 ppm
2.5		1	FL	Dark brown, silty sand, with gravel, fine- to medium-grained, moist, medium dense (FILL)	0.1 ppm
			SM	Brownish, with orange mottling, silty SAND, with gravel, fine- to medium-grained, moist, dense	0.1 ppm
				- becomes grayish brown, more sand, dense	0.1 ppm
5.0		2	SM	- becomes very moist, dense	0.0 ppm
				- becomes finer grained, very dense	0.1 ppm
7.5					

- \* Boring drilled to 7 feet on June 15, 2015 using the truck-mounted AMS Powerprobe sampling system. Continuously sampled from surface to 7 feet below ground surface (bgs).
- \*  Indicates sample interval collected for possible laboratory analysis.
- \* No visual or olfactory indications of contamination in soil.
- \* No groundwater observed at time of drilling.
- \* Headspace measured in a sealed plastic container using a Mini Rae 3000 PID.



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

Job No: 15217E	Date: June 2015	Plate: 7	
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View of the floor inside the All Star Cleaners near the pretreatment area. Darker gray area appears to be a patch from a previously completed boring. No report of this investigation was available.



View of the had probe set-up used to drill boring B1E located near the pretreatment area.



View of the location of boring B2E located near the dry cleaning machine.



Black circles mark locations of borings B3E and B4E located near the south central portion of the property.



View of the AMS Powerprobe set up to drill boring B5E located near the eastern side of the building.



**GEOTECH  
CONSULTANTS, INC.**

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

Job No:  
15217E

Date:  
June 2015

Plate:

8

**ATTACHMENT A**

***Methodology***

## **ATTACHMENT A: METHODOLOGY**

### **Soil Sampling and Drilling Procedures**

The drilling equipment for the exterior borings consisted of a truck-mounted direct-push hydraulic and percussion drive-point sampling system. The soil was continuously sampled with a standard penetration sampler driven at 4-foot intervals. A hand operated jack-hammer Geoprobe sampling system was used for the interior borings. The soil was continuously sampled with a standard penetration sampler driven at 2-foot intervals. At each interval, the sampler was withdrawn from the ground and opened so soil could be examined. Soil samples collected for 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 tri-sodium phosphate solution (TSP) and rinsed between samples to avoid the possibility of cross-contamination.

The samples were stored in an iced chest at the site and taken to the laboratory in the chest. Each jar was labeled as to boring number, sample depth, and field personnel. EPA-recommended sample management protocol, including the maintenance of chain-of-custody documentation, was observed at each stage of the project.

During drilling, a field log was made by the project geologist for each boring. Information recorded versus corresponding depth included soil classification (Unified Soil Classification System), color, texture, moisture, seepage zones, odors, and iridescent sheens.

**ATTACHMENT B**

***Laboratory Reports***



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

June 9, 2015

Tim Johnson  
GeoTech Consultants  
13256 NE 20th Street, Suite 16  
Bellevue, WA 98005

Re: Analytical Data for Project 15217E  
Laboratory Reference No. 1506-060

Dear Tim:

Enclosed are the analytical results and associated quality control data for samples submitted on June 4, 2015.

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

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

Sincerely,

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

David Baumeister  
Project Manager

Enclosures

Date of Report: June 9, 2015  
Samples Submitted: June 4, 2015  
Laboratory Reference: 1506-060  
Project: 15217E

### Case Narrative

Samples were collected on June 4, 2015 and received by the laboratory on June 4, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

#### Halogenated Volatiles EPA 8260C Analysis

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

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

Date of Report: June 9, 2015  
 Samples Submitted: June 4, 2015  
 Laboratory Reference: 1506-060  
 Project: 15217E

### HALOGENATED VOLATILES EPA 8260C

page 1 of 2

Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B1E @ 5"</b>					
Laboratory ID:	06-060-01					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Chloromethane	ND	0.0062	EPA 8260C	6-5-15	6-5-15	
Vinyl Chloride	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Bromomethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Chloroethane	ND	0.0062	EPA 8260C	6-5-15	6-5-15	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Iodomethane	ND	0.0062	EPA 8260C	6-5-15	6-5-15	
Methylene Chloride	ND	0.0078	EPA 8260C	6-5-15	6-5-15	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
2,2-Dichloropropane	ND	0.0016	EPA 8260C	6-5-15	6-5-15	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Bromochloromethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Chloroform	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Trichloroethene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Dibromomethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Bromodichloromethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
2-Chloroethyl Vinyl Ether	ND	0.0081	EPA 8260C	6-5-15	6-5-15	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	

Date of Report: June 9, 2015  
 Samples Submitted: June 4, 2015  
 Laboratory Reference: 1506-060  
 Project: 15217E

**HALOGENATED VOLATILES EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B1E @ 5"</b>					
Laboratory ID:	06-060-01					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Tetrachloroethene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Dibromochloromethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Chlorobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Bromoform	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Bromobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
2-Chlorotoluene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
4-Chlorotoluene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,2-Dibromo-3-chloropropane	ND	0.0062	EPA 8260C	6-5-15	6-5-15	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Hexachlorobutadiene	ND	0.0062	EPA 8260C	6-5-15	6-5-15	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>87</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>93</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>110</i>	<i>79-126</i>				

Date of Report: June 9, 2015  
 Samples Submitted: June 4, 2015  
 Laboratory Reference: 1506-060  
 Project: 15217E

**HALOGENATED VOLATILES EPA 8260C**  
 page 1 of 2

Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B1E @ 24"</b>					
<b>Laboratory ID:</b>	<b>06-060-02</b>					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Chloromethane	ND	0.0064	EPA 8260C	6-5-15	6-5-15	
Vinyl Chloride	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Bromomethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Chloroethane	ND	0.0064	EPA 8260C	6-5-15	6-5-15	
Trichlorofluoromethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloroethene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Iodomethane	ND	0.0064	EPA 8260C	6-5-15	6-5-15	
Methylene Chloride	ND	0.0081	EPA 8260C	6-5-15	6-5-15	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloroethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
2,2-Dichloropropane	ND	0.0017	EPA 8260C	6-5-15	6-5-15	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Bromochloromethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Chloroform	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Carbon Tetrachloride	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloropropene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,2-Dichloroethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Trichloroethene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,2-Dichloropropane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Dibromomethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Bromodichloromethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
2-Chloroethyl Vinyl Ether	ND	0.0083	EPA 8260C	6-5-15	6-5-15	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	

Date of Report: June 9, 2015  
 Samples Submitted: June 4, 2015  
 Laboratory Reference: 1506-060  
 Project: 15217E

**HALOGENATED VOLATILES EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B1E @ 24"</b>					
Laboratory ID:	06-060-02					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Tetrachloroethene	0.0078	0.0013	EPA 8260C	6-5-15	6-5-15	
1,3-Dichloropropane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Dibromochloromethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,2-Dibromoethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Chlorobenzene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Bromoform	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Bromobenzene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
2-Chlorotoluene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
4-Chlorotoluene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,2-Dibromo-3-chloropropane	ND	0.0064	EPA 8260C	6-5-15	6-5-15	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Hexachlorobutadiene	ND	0.0064	EPA 8260C	6-5-15	6-5-15	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	83	76-131				
<i>Toluene-d8</i>	97	82-129				
<i>4-Bromofluorobenzene</i>	114	79-126				

Date of Report: June 9, 2015  
 Samples Submitted: June 4, 2015  
 Laboratory Reference: 1506-060  
 Project: 15217E

**HALOGENATED VOLATILES EPA 8260C**  
 page 1 of 2

Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B1E @ 48"</b>					
<b>Laboratory ID:</b>	<b>06-060-03</b>					
Dichlorodifluoromethane	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
Chloromethane	ND	0.0068	EPA 8260C	6-5-15	6-5-15	
Vinyl Chloride	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
Bromomethane	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
Chloroethane	ND	0.0068	EPA 8260C	6-5-15	6-5-15	
Trichlorofluoromethane	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloroethene	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
Iodomethane	ND	0.0068	EPA 8260C	6-5-15	6-5-15	
Methylene Chloride	ND	0.0086	EPA 8260C	6-5-15	6-5-15	
(trans) 1,2-Dichloroethene	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloroethane	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
2,2-Dichloropropane	ND	0.0018	EPA 8260C	6-5-15	6-5-15	
(cis) 1,2-Dichloroethene	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
Bromochloromethane	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
Chloroform	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
1,1,1-Trichloroethane	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
Carbon Tetrachloride	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloropropene	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
1,2-Dichloroethane	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
Trichloroethene	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
1,2-Dichloropropane	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
Dibromomethane	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
Bromodichloromethane	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
2-Chloroethyl Vinyl Ether	ND	0.0089	EPA 8260C	6-5-15	6-5-15	
(cis) 1,3-Dichloropropene	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
(trans) 1,3-Dichloropropene	ND	0.0014	EPA 8260C	6-5-15	6-5-15	

Date of Report: June 9, 2015  
 Samples Submitted: June 4, 2015  
 Laboratory Reference: 1506-060  
 Project: 15217E

**HALOGENATED VOLATILES EPA 8260C**  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B1E @ 48"</b>					
<b>Laboratory ID:</b>	<b>06-060-03</b>					
1,1,2-Trichloroethane	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
Tetrachloroethene	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
1,3-Dichloropropane	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
Dibromochloromethane	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
1,2-Dibromoethane	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
Chlorobenzene	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
1,1,1,2-Tetrachloroethane	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
Bromoform	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
Bromobenzene	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
1,1,2,2-Tetrachloroethane	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
1,2,3-Trichloropropane	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
2-Chlorotoluene	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
4-Chlorotoluene	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
1,3-Dichlorobenzene	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
1,4-Dichlorobenzene	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
1,2-Dichlorobenzene	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
1,2-Dibromo-3-chloropropane	ND	0.0068	EPA 8260C	6-5-15	6-5-15	
1,2,4-Trichlorobenzene	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
Hexachlorobutadiene	ND	0.0068	EPA 8260C	6-5-15	6-5-15	
1,2,3-Trichlorobenzene	ND	0.0014	EPA 8260C	6-5-15	6-5-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>90</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>92</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>111</i>	<i>79-126</i>				

Date of Report: June 9, 2015  
 Samples Submitted: June 4, 2015  
 Laboratory Reference: 1506-060  
 Project: 15217E

### HALOGENATED VOLATILES EPA 8260C

page 1 of 2

Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B2E @ 5"</b>					
Laboratory ID:	06-060-04					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Chloromethane	ND	0.0063	EPA 8260C	6-5-15	6-5-15	
Vinyl Chloride	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Bromomethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Chloroethane	ND	0.0063	EPA 8260C	6-5-15	6-5-15	
Trichlorofluoromethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloroethene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Iodomethane	ND	0.0063	EPA 8260C	6-5-15	6-5-15	
Methylene Chloride	ND	0.0079	EPA 8260C	6-5-15	6-5-15	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloroethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
2,2-Dichloropropane	ND	0.0016	EPA 8260C	6-5-15	6-5-15	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Bromochloromethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Chloroform	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Carbon Tetrachloride	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloropropene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,2-Dichloroethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Trichloroethene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,2-Dichloropropane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Dibromomethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Bromodichloromethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
2-Chloroethyl Vinyl Ether	ND	0.0082	EPA 8260C	6-5-15	6-5-15	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	

Date of Report: June 9, 2015  
 Samples Submitted: June 4, 2015  
 Laboratory Reference: 1506-060  
 Project: 15217E

**HALOGENATED VOLATILES EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B2E @ 5"</b>					
Laboratory ID:	06-060-04					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Tetrachloroethene	0.0032	0.0013	EPA 8260C	6-5-15	6-5-15	
1,3-Dichloropropane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Dibromochloromethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,2-Dibromoethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Chlorobenzene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Bromoform	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Bromobenzene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
2-Chlorotoluene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
4-Chlorotoluene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
1,2-Dibromo-3-chloropropane	ND	0.0063	EPA 8260C	6-5-15	6-5-15	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
Hexachlorobutadiene	ND	0.0063	EPA 8260C	6-5-15	6-5-15	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>88</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>93</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>109</i>	<i>79-126</i>				

Date of Report: June 9, 2015  
 Samples Submitted: June 4, 2015  
 Laboratory Reference: 1506-060  
 Project: 15217E

### HALOGENATED VOLATILES EPA 8260C

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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B2E @ 24"</b>					
Laboratory ID:	06-060-05					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Chloromethane	ND	0.0061	EPA 8260C	6-5-15	6-5-15	
Vinyl Chloride	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Bromomethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Chloroethane	ND	0.0061	EPA 8260C	6-5-15	6-5-15	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Iodomethane	ND	0.0061	EPA 8260C	6-5-15	6-5-15	
Methylene Chloride	ND	0.0076	EPA 8260C	6-5-15	6-5-15	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
2,2-Dichloropropane	ND	0.0016	EPA 8260C	6-5-15	6-5-15	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Bromochloromethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Chloroform	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Trichloroethene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Dibromomethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Bromodichloromethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
2-Chloroethyl Vinyl Ether	ND	0.0079	EPA 8260C	6-5-15	6-5-15	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	

Date of Report: June 9, 2015  
 Samples Submitted: June 4, 2015  
 Laboratory Reference: 1506-060  
 Project: 15217E

**HALOGENATED VOLATILES EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B2E @ 24"</b>					
Laboratory ID:	06-060-05					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Tetrachloroethene	0.0032	0.0012	EPA 8260C	6-5-15	6-5-15	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Dibromochloromethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Chlorobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Bromoform	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Bromobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
2-Chlorotoluene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
4-Chlorotoluene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,2-Dibromo-3-chloropropane	ND	0.0061	EPA 8260C	6-5-15	6-5-15	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Hexachlorobutadiene	ND	0.0061	EPA 8260C	6-5-15	6-5-15	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	89	76-131				
<i>Toluene-d8</i>	95	82-129				
<i>4-Bromofluorobenzene</i>	110	79-126				

Date of Report: June 9, 2015  
 Samples Submitted: June 4, 2015  
 Laboratory Reference: 1506-060  
 Project: 15217E

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

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B2E @ 48"</b>					
<b>Laboratory ID:</b>	<b>06-060-06</b>					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Chloromethane	ND	0.0061	EPA 8260C	6-5-15	6-5-15	
Vinyl Chloride	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Bromomethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Chloroethane	ND	0.0061	EPA 8260C	6-5-15	6-5-15	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Iodomethane	ND	0.0061	EPA 8260C	6-5-15	6-5-15	
Methylene Chloride	ND	0.0077	EPA 8260C	6-5-15	6-5-15	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
2,2-Dichloropropane	ND	0.0016	EPA 8260C	6-5-15	6-5-15	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Bromochloromethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Chloroform	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Trichloroethene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Dibromomethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Bromodichloromethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
2-Chloroethyl Vinyl Ether	ND	0.0079	EPA 8260C	6-5-15	6-5-15	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	

Date of Report: June 9, 2015  
 Samples Submitted: June 4, 2015  
 Laboratory Reference: 1506-060  
 Project: 15217E

### HALOGENATED VOLATILES EPA 8260C

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B2E @ 48"</b>					
Laboratory ID:	06-060-06					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Tetrachloroethene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Dibromochloromethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Chlorobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Bromoform	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Bromobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
2-Chlorotoluene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
4-Chlorotoluene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
1,2-Dibromo-3-chloropropane	ND	0.0061	EPA 8260C	6-5-15	6-5-15	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
Hexachlorobutadiene	ND	0.0061	EPA 8260C	6-5-15	6-5-15	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	6-5-15	6-5-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	89	76-131				
<i>Toluene-d8</i>	93	82-129				
<i>4-Bromofluorobenzene</i>	112	79-126				

Date of Report: June 9, 2015  
 Samples Submitted: June 4, 2015  
 Laboratory Reference: 1506-060  
 Project: 15217E

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

Page 1 of 2

Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0605S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
Chloromethane	ND	0.0050	EPA 8260C	6-5-15	6-5-15	
Vinyl Chloride	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
Bromomethane	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
Chloroethane	ND	0.0050	EPA 8260C	6-5-15	6-5-15	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
Iodomethane	ND	0.0050	EPA 8260C	6-5-15	6-5-15	
Methylene Chloride	ND	0.0063	EPA 8260C	6-5-15	6-5-15	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
2,2-Dichloropropane	ND	0.0013	EPA 8260C	6-5-15	6-5-15	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
Bromochloromethane	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
Chloroform	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
Trichloroethene	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
Dibromomethane	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
Bromodichloromethane	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
2-Chloroethyl Vinyl Ether	ND	0.0065	EPA 8260C	6-5-15	6-5-15	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	6-5-15	6-5-15	

Date of Report: June 9, 2015  
 Samples Submitted: June 4, 2015  
 Laboratory Reference: 1506-060  
 Project: 15217E

**HALOGENATED VOLATILES EPA 8260C**  
**METHOD BLANK QUALITY CONTROL**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0605S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
Tetrachloroethene	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
Dibromochloromethane	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
Chlorobenzene	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
Bromoform	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
Bromobenzene	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
2-Chlorotoluene	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
4-Chlorotoluene	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	6-5-15	6-5-15	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	6-5-15	6-5-15	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	6-5-15	6-5-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>94</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>95</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>113</i>	<i>79-126</i>				

Date of Report: June 9, 2015  
 Samples Submitted: June 4, 2015  
 Laboratory Reference: 1506-060  
 Project: 15217E

HALOGENATED VOLATILES EPA 8260C  
 SB/SBD QUALITY CONTROL

Matrix: Soil  
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	Limit		
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0605S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0385	0.0375	0.0500	0.0500	77	75	66-129	3	15	
Benzene	0.0425	0.0424	0.0500	0.0500	85	85	71-123	0	15	
Trichloroethene	0.0435	0.0437	0.0500	0.0500	87	87	75-115	0	15	
Toluene	0.0448	0.0449	0.0500	0.0500	90	90	75-120	0	15	
Chlorobenzene	0.0465	0.0469	0.0500	0.0500	93	94	75-121	1	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					85	85	76-131			
<i>Toluene-d8</i>					87	89	82-129			
<i>4-Bromofluorobenzene</i>					103	106	79-126			

Date of Report: June 9, 2015  
Samples Submitted: June 4, 2015  
Laboratory Reference: 1506-060  
Project: 15217E

### % MOISTURE

Date Analyzed: 6-5-15

Client ID	Lab ID	% Moisture
B1E @ 5"	06-060-01	10
B1E @ 24"	06-060-02	7
B1E @ 48"	06-060-03	8
B2E @ 5"	06-060-04	9
B2E @ 24"	06-060-05	8
B2E @ 48"	06-060-06	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 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

June 19, 2015

Tim Johnson  
GeoTech Consultants  
13256 NE 20th Street, Suite 16  
Bellevue, WA 98005

Re: Analytical Data for Project 15217E  
Laboratory Reference No. 1506-151

Dear Tim:

Enclosed are the analytical results and associated quality control data for samples submitted on June 15, 2015.

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

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

Sincerely,

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

David Baumeister  
Project Manager

Enclosures

Date of Report: June 19, 2015  
Samples Submitted: June 15, 2015  
Laboratory Reference: 1506-151  
Project: 15217E

### Case Narrative

Samples were collected on June 15, 2015 and received by the laboratory on June 15, 2015. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

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

#### Halogenated Volatiles EPA 8260C Analysis

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

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

Date of Report: June 19, 2015  
 Samples Submitted: June 15, 2015  
 Laboratory Reference: 1506-151  
 Project: 15217E

**HALOGENATED VOLATILES EPA 8260C**  
 page 1 of 2

Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B3E @ 6"-12"</b>					
<b>Laboratory ID:</b>	06-151-01					
Dichlorodifluoromethane	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
Chloromethane	ND	0.0089	EPA 8260C	6-18-15	6-18-15	
Vinyl Chloride	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
Bromomethane	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
Chloroethane	ND	0.0089	EPA 8260C	6-18-15	6-18-15	
Trichlorofluoromethane	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
1,1-Dichloroethene	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
Iodomethane	ND	0.0089	EPA 8260C	6-18-15	6-18-15	
Methylene Chloride	ND	0.0089	EPA 8260C	6-18-15	6-18-15	
(trans) 1,2-Dichloroethene	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
1,1-Dichloroethane	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
2,2-Dichloropropane	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
(cis) 1,2-Dichloroethene	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
Bromochloromethane	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
Chloroform	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
1,1,1-Trichloroethane	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
Carbon Tetrachloride	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
1,1-Dichloropropene	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
1,2-Dichloroethane	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
Trichloroethene	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
1,2-Dichloropropane	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
Dibromomethane	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
Bromodichloromethane	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
2-Chloroethyl Vinyl Ether	ND	0.0089	EPA 8260C	6-18-15	6-18-15	
(cis) 1,3-Dichloropropene	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
(trans) 1,3-Dichloropropene	ND	0.0018	EPA 8260C	6-18-15	6-18-15	

Date of Report: June 19, 2015  
 Samples Submitted: June 15, 2015  
 Laboratory Reference: 1506-151  
 Project: 15217E

HALOGENATED VOLATILES EPA 8260C  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B3E @ 6"-12"</b>					
<b>Laboratory ID:</b>	06-151-01					
1,1,2-Trichloroethane	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
Tetrachloroethene	0.065	0.0018	EPA 8260C	6-18-15	6-18-15	
1,3-Dichloropropane	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
Dibromochloromethane	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
1,2-Dibromoethane	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
Chlorobenzene	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
1,1,1,2-Tetrachloroethane	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
Bromoform	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
Bromobenzene	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
1,1,2,2-Tetrachloroethane	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
1,2,3-Trichloropropane	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
2-Chlorotoluene	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
4-Chlorotoluene	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
1,3-Dichlorobenzene	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
1,4-Dichlorobenzene	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
1,2-Dichlorobenzene	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
1,2-Dibromo-3-chloropropane	ND	0.0089	EPA 8260C	6-18-15	6-18-15	
1,2,4-Trichlorobenzene	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
Hexachlorobutadiene	ND	0.0089	EPA 8260C	6-18-15	6-18-15	
1,2,3-Trichlorobenzene	ND	0.0018	EPA 8260C	6-18-15	6-18-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	91	76-131				
<i>Toluene-d8</i>	93	82-129				
<i>4-Bromofluorobenzene</i>	112	79-126				

Date of Report: June 19, 2015  
 Samples Submitted: June 15, 2015  
 Laboratory Reference: 1506-151  
 Project: 15217E

**HALOGENATED VOLATILES EPA 8260C**  
 page 1 of 2

Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B3E @ 5.5'-6'</b>					
Laboratory ID:	06-151-02					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Chloromethane	ND	0.0057	EPA 8260C	6-17-15	6-17-15	
Vinyl Chloride	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Bromomethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Chloroethane	ND	0.0057	EPA 8260C	6-17-15	6-17-15	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Iodomethane	ND	0.0057	EPA 8260C	6-17-15	6-17-15	
Methylene Chloride	ND	0.0057	EPA 8260C	6-17-15	6-17-15	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Bromochloromethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Chloroform	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Trichloroethene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Dibromomethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Bromodichloromethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
2-Chloroethyl Vinyl Ether	ND	0.0057	EPA 8260C	6-17-15	6-17-15	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	

Date of Report: June 19, 2015  
 Samples Submitted: June 15, 2015  
 Laboratory Reference: 1506-151  
 Project: 15217E

**HALOGENATED VOLATILES EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B3E @ 5.5'-6'</b>					
Laboratory ID:	06-151-02					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Tetrachloroethene	0.030	0.0011	EPA 8260C	6-17-15	6-17-15	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Dibromochloromethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Chlorobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Bromoform	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Bromobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
2-Chlorotoluene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
4-Chlorotoluene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,2-Dibromo-3-chloropropane	ND	0.0057	EPA 8260C	6-17-15	6-17-15	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Hexachlorobutadiene	ND	0.0057	EPA 8260C	6-17-15	6-17-15	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	91	76-131				
<i>Toluene-d8</i>	95	82-129				
<i>4-Bromofluorobenzene</i>	115	79-126				

Date of Report: June 19, 2015  
 Samples Submitted: June 15, 2015  
 Laboratory Reference: 1506-151  
 Project: 15217E

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

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B4E @ 3.5'-4'</b>					
<b>Laboratory ID:</b>	<b>06-151-03</b>					
Dichlorodifluoromethane	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
Chloromethane	ND	0.0049	EPA 8260C	6-17-15	6-17-15	
Vinyl Chloride	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
Bromomethane	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
Chloroethane	ND	0.0049	EPA 8260C	6-17-15	6-17-15	
Trichlorofluoromethane	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloroethene	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
Iodomethane	ND	0.0049	EPA 8260C	6-17-15	6-17-15	
Methylene Chloride	ND	0.0049	EPA 8260C	6-17-15	6-17-15	
(trans) 1,2-Dichloroethene	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloroethane	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
2,2-Dichloropropane	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
(cis) 1,2-Dichloroethene	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
Bromochloromethane	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
Chloroform	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
1,1,1-Trichloroethane	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
Carbon Tetrachloride	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloropropene	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
1,2-Dichloroethane	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
Trichloroethene	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
1,2-Dichloropropane	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
Dibromomethane	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
Bromodichloromethane	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
2-Chloroethyl Vinyl Ether	ND	0.0049	EPA 8260C	6-17-15	6-17-15	
(cis) 1,3-Dichloropropene	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
(trans) 1,3-Dichloropropene	ND	0.00098	EPA 8260C	6-17-15	6-17-15	

Date of Report: June 19, 2015  
 Samples Submitted: June 15, 2015  
 Laboratory Reference: 1506-151  
 Project: 15217E

HALOGENATED VOLATILES EPA 8260C  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B4E @ 3.5'-4'</b>					
<b>Laboratory ID:</b>	06-151-03					
1,1,2-Trichloroethane	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
Tetrachloroethene	0.013	0.00098	EPA 8260C	6-17-15	6-17-15	
1,3-Dichloropropane	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
Dibromochloromethane	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
1,2-Dibromoethane	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
Chlorobenzene	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
1,1,1,2-Tetrachloroethane	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
Bromoform	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
Bromobenzene	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
1,1,1,2,2-Tetrachloroethane	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
1,2,3-Trichloropropane	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
2-Chlorotoluene	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
4-Chlorotoluene	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
1,3-Dichlorobenzene	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
1,4-Dichlorobenzene	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
1,2-Dichlorobenzene	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
1,2-Dibromo-3-chloropropane	ND	0.0049	EPA 8260C	6-17-15	6-17-15	
1,2,4-Trichlorobenzene	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
Hexachlorobutadiene	ND	0.0049	EPA 8260C	6-17-15	6-17-15	
1,2,3-Trichlorobenzene	ND	0.00098	EPA 8260C	6-17-15	6-17-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	87	76-131				
<i>Toluene-d8</i>	91	82-129				
<i>4-Bromofluorobenzene</i>	115	79-126				

Date of Report: June 19, 2015  
 Samples Submitted: June 15, 2015  
 Laboratory Reference: 1506-151  
 Project: 15217E

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

<b>Analyte</b>	<b>Result</b>	<b>PQL</b>	<b>Method</b>	<b>Date Prepared</b>	<b>Date Analyzed</b>	<b>Flags</b>
<b>Client ID:</b>	<b>B4E @ 6.5'-7'</b>					
<b>Laboratory ID:</b>	06-151-04					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Chloromethane	ND	0.0051	EPA 8260C	6-17-15	6-17-15	
Vinyl Chloride	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Bromomethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Chloroethane	ND	0.0051	EPA 8260C	6-17-15	6-17-15	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Iodomethane	ND	0.0051	EPA 8260C	6-17-15	6-17-15	
Methylene Chloride	ND	0.0051	EPA 8260C	6-17-15	6-17-15	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Bromochloromethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Chloroform	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Trichloroethene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Dibromomethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Bromodichloromethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
2-Chloroethyl Vinyl Ether	ND	0.0051	EPA 8260C	6-17-15	6-17-15	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	

Date of Report: June 19, 2015  
 Samples Submitted: June 15, 2015  
 Laboratory Reference: 1506-151  
 Project: 15217E

HALOGENATED VOLATILES EPA 8260C  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B4E @ 6.5'-7'					
Laboratory ID:	06-151-04					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Tetrachloroethene	0.025	0.0010	EPA 8260C	6-17-15	6-17-15	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Dibromochloromethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Chlorobenzene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Bromoform	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Bromobenzene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
2-Chlorotoluene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
4-Chlorotoluene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,2-Dibromo-3-chloropropane	ND	0.0051	EPA 8260C	6-17-15	6-17-15	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Hexachlorobutadiene	ND	0.0051	EPA 8260C	6-17-15	6-17-15	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>85</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>89</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>111</i>	<i>79-126</i>				

Date of Report: June 19, 2015  
 Samples Submitted: June 15, 2015  
 Laboratory Reference: 1506-151  
 Project: 15217E

### HALOGENATED VOLATILES EPA 8260C

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Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B5E @ 6"-12"</b>					
<b>Laboratory ID:</b>	<b>06-151-05</b>					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
Chloromethane	ND	0.0077	EPA 8260C	6-17-15	6-17-15	
Vinyl Chloride	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
Bromomethane	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
Chloroethane	ND	0.0077	EPA 8260C	6-17-15	6-17-15	
Trichlorofluoromethane	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloroethene	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
Iodomethane	ND	0.0077	EPA 8260C	6-17-15	6-17-15	
Methylene Chloride	ND	0.0077	EPA 8260C	6-17-15	6-17-15	
(trans) 1,2-Dichloroethene	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloroethane	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
2,2-Dichloropropane	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
(cis) 1,2-Dichloroethene	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
Bromochloromethane	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
Chloroform	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
1,1,1-Trichloroethane	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
Carbon Tetrachloride	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloropropene	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
1,2-Dichloroethane	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
Trichloroethene	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
1,2-Dichloropropane	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
Dibromomethane	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
Bromodichloromethane	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
2-Chloroethyl Vinyl Ether	ND	0.0077	EPA 8260C	6-17-15	6-17-15	
(cis) 1,3-Dichloropropene	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
(trans) 1,3-Dichloropropene	ND	0.0015	EPA 8260C	6-17-15	6-17-15	

Date of Report: June 19, 2015  
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 Project: 15217E

HALOGENATED VOLATILES EPA 8260C  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B5E @ 6"-12"</b>					
Laboratory ID:	06-151-05					
1,1,2-Trichloroethane	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
Tetrachloroethene	0.18	0.068	EPA 8260C	6-18-15	6-18-15	
1,3-Dichloropropane	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
Dibromochloromethane	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
1,2-Dibromoethane	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
Chlorobenzene	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
1,1,1,2-Tetrachloroethane	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
Bromoform	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
Bromobenzene	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
1,1,2,2-Tetrachloroethane	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
1,2,3-Trichloropropane	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
2-Chlorotoluene	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
4-Chlorotoluene	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
1,3-Dichlorobenzene	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
1,4-Dichlorobenzene	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
1,2-Dichlorobenzene	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
1,2-Dibromo-3-chloropropane	ND	0.0077	EPA 8260C	6-17-15	6-17-15	
1,2,4-Trichlorobenzene	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
Hexachlorobutadiene	ND	0.0077	EPA 8260C	6-17-15	6-17-15	
1,2,3-Trichlorobenzene	ND	0.0015	EPA 8260C	6-17-15	6-17-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	93	76-131				
<i>Toluene-d8</i>	93	82-129				
<i>4-Bromofluorobenzene</i>	106	79-126				

Date of Report: June 19, 2015  
 Samples Submitted: June 15, 2015  
 Laboratory Reference: 1506-151  
 Project: 15217E

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

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B5E @ 5'-5.5'</b>					
<b>Laboratory ID:</b>	<b>06-151-06</b>					
Dichlorodifluoromethane	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
Chloromethane	ND	0.0049	EPA 8260C	6-17-15	6-17-15	
Vinyl Chloride	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
Bromomethane	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
Chloroethane	ND	0.0049	EPA 8260C	6-17-15	6-17-15	
Trichlorofluoromethane	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloroethene	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
Iodomethane	ND	0.0049	EPA 8260C	6-17-15	6-17-15	
Methylene Chloride	ND	0.0049	EPA 8260C	6-17-15	6-17-15	
(trans) 1,2-Dichloroethene	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloroethane	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
2,2-Dichloropropane	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
(cis) 1,2-Dichloroethene	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
Bromochloromethane	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
Chloroform	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
1,1,1-Trichloroethane	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
Carbon Tetrachloride	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloropropene	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
1,2-Dichloroethane	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
Trichloroethene	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
1,2-Dichloropropane	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
Dibromomethane	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
Bromodichloromethane	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
2-Chloroethyl Vinyl Ether	ND	0.0049	EPA 8260C	6-17-15	6-17-15	
(cis) 1,3-Dichloropropene	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
(trans) 1,3-Dichloropropene	ND	0.00097	EPA 8260C	6-17-15	6-17-15	

Date of Report: June 19, 2015  
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 Project: 15217E

**HALOGENATED VOLATILES EPA 8260C**  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B5E @ 5'-5.5'</b>					
<b>Laboratory ID:</b>	<b>06-151-06</b>					
1,1,2-Trichloroethane	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
Tetrachloroethene	0.0049	0.00097	EPA 8260C	6-17-15	6-17-15	
1,3-Dichloropropane	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
Dibromochloromethane	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
1,2-Dibromoethane	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
Chlorobenzene	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
1,1,1,2-Tetrachloroethane	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
Bromoform	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
Bromobenzene	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
1,1,2,2-Tetrachloroethane	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
1,2,3-Trichloropropane	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
2-Chlorotoluene	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
4-Chlorotoluene	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
1,3-Dichlorobenzene	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
1,4-Dichlorobenzene	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
1,2-Dichlorobenzene	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
1,2-Dibromo-3-chloropropane	ND	0.0049	EPA 8260C	6-17-15	6-17-15	
1,2,4-Trichlorobenzene	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
Hexachlorobutadiene	ND	0.0049	EPA 8260C	6-17-15	6-17-15	
1,2,3-Trichlorobenzene	ND	0.00097	EPA 8260C	6-17-15	6-17-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>88</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>93</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>114</i>	<i>79-126</i>				

Date of Report: June 19, 2015  
 Samples Submitted: June 15, 2015  
 Laboratory Reference: 1506-151  
 Project: 15217E

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

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B6E @ 2'-2.5'</b>					
<b>Laboratory ID:</b>	<b>06-151-07</b>					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Chloromethane	ND	0.0055	EPA 8260C	6-17-15	6-17-15	
Vinyl Chloride	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Bromomethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Chloroethane	ND	0.0055	EPA 8260C	6-17-15	6-17-15	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Iodomethane	ND	0.0055	EPA 8260C	6-17-15	6-17-15	
Methylene Chloride	ND	0.0055	EPA 8260C	6-17-15	6-17-15	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Bromochloromethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Chloroform	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Trichloroethene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Dibromomethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Bromodichloromethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
2-Chloroethyl Vinyl Ether	ND	0.0055	EPA 8260C	6-17-15	6-17-15	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	

Date of Report: June 19, 2015  
 Samples Submitted: June 15, 2015  
 Laboratory Reference: 1506-151  
 Project: 15217E

HALOGENATED VOLATILES EPA 8260C  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B6E @ 2'-2.5'					
Laboratory ID:	06-151-07					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Tetrachloroethene	0.035	0.0011	EPA 8260C	6-17-15	6-17-15	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Dibromochloromethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Chlorobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Bromoform	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Bromobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
2-Chlorotoluene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
4-Chlorotoluene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,2-Dibromo-3-chloropropane	ND	0.0055	EPA 8260C	6-17-15	6-17-15	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Hexachlorobutadiene	ND	0.0055	EPA 8260C	6-17-15	6-17-15	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Surrogate:	Percent Recovery	Control Limits				
Dibromofluoromethane	89	76-131				
Toluene-d8	90	82-129				
4-Bromofluorobenzene	108	79-126				

Date of Report: June 19, 2015  
 Samples Submitted: June 15, 2015  
 Laboratory Reference: 1506-151  
 Project: 15217E

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

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B6E @ 5'-5.5'</b>					
<b>Laboratory ID:</b>	<b>06-151-08</b>					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Chloromethane	ND	0.0053	EPA 8260C	6-17-15	6-17-15	
Vinyl Chloride	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Bromomethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Chloroethane	ND	0.0053	EPA 8260C	6-17-15	6-17-15	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Iodomethane	ND	0.0053	EPA 8260C	6-17-15	6-17-15	
Methylene Chloride	ND	0.0053	EPA 8260C	6-17-15	6-17-15	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Bromochloromethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Chloroform	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Trichloroethene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Dibromomethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Bromodichloromethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
2-Chloroethyl Vinyl Ether	ND	0.0053	EPA 8260C	6-17-15	6-17-15	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	

Date of Report: June 19, 2015  
 Samples Submitted: June 15, 2015  
 Laboratory Reference: 1506-151  
 Project: 15217E

### HALOGENATED VOLATILES EPA 8260C

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Client ID:</b>	<b>B6E @ 5'-5.5'</b>					
<b>Laboratory ID:</b>	06-151-08					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Tetrachloroethene	0.0023	0.0011	EPA 8260C	6-17-15	6-17-15	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Dibromochloromethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Chlorobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Bromoform	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Bromobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
2-Chlorotoluene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
4-Chlorotoluene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
1,2-Dibromo-3-chloropropane	ND	0.0053	EPA 8260C	6-17-15	6-17-15	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
Hexachlorobutadiene	ND	0.0053	EPA 8260C	6-17-15	6-17-15	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	6-17-15	6-17-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>84</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>90</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>110</i>	<i>79-126</i>				

Date of Report: June 19, 2015  
 Samples Submitted: June 15, 2015  
 Laboratory Reference: 1506-151  
 Project: 15217E

**HALOGENATED 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:	MB0617S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Chloromethane	ND	0.0050	EPA 8260C	6-17-15	6-17-15	
Vinyl Chloride	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Bromomethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Chloroethane	ND	0.0050	EPA 8260C	6-17-15	6-17-15	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Iodomethane	ND	0.0050	EPA 8260C	6-17-15	6-17-15	
Methylene Chloride	ND	0.0050	EPA 8260C	6-17-15	6-17-15	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Bromochloromethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Chloroform	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Trichloroethene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Dibromomethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Bromodichloromethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	6-17-15	6-17-15	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	

Date of Report: June 19, 2015  
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**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**  
 Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0617S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Tetrachloroethene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Dibromochloromethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Chlorobenzene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Bromoform	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Bromobenzene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
2-Chlorotoluene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
4-Chlorotoluene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	6-17-15	6-17-15	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	6-17-15	6-17-15	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	6-17-15	6-17-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>95</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>121</i>	<i>79-126</i>				

Date of Report: June 19, 2015  
 Samples Submitted: June 15, 2015  
 Laboratory Reference: 1506-151  
 Project: 15217E

**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**  
 Page 1 of 2

Matrix: Soil  
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0618S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
Chloromethane	ND	0.0050	EPA 8260C	6-18-15	6-18-15	
Vinyl Chloride	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
Bromomethane	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
Chloroethane	ND	0.0050	EPA 8260C	6-18-15	6-18-15	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
Iodomethane	ND	0.0050	EPA 8260C	6-18-15	6-18-15	
Methylene Chloride	ND	0.0050	EPA 8260C	6-18-15	6-18-15	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
Bromochloromethane	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
Chloroform	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
Trichloroethene	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
Dibromomethane	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
Bromodichloromethane	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	6-18-15	6-18-15	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	6-18-15	6-18-15	

Date of Report: June 19, 2015  
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**HALOGENATED VOLATILES EPA 8260C  
 METHOD BLANK QUALITY CONTROL**

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0618S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
Tetrachloroethene	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
Dibromochloromethane	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
Chlorobenzene	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
Bromoform	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
Bromobenzene	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
2-Chlorotoluene	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
4-Chlorotoluene	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	6-18-15	6-18-15	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	6-18-15	6-18-15	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	6-18-15	6-18-15	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>94</i>	<i>76-131</i>				
<i>Toluene-d8</i>	<i>92</i>	<i>82-129</i>				
<i>4-Bromofluorobenzene</i>	<i>115</i>	<i>79-126</i>				

Date of Report: June 19, 2015  
 Samples Submitted: June 15, 2015  
 Laboratory Reference: 1506-151  
 Project: 15217E

**HALOGENATED VOLATILES 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	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0617S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0460	0.0453	0.0500	0.0500	92	91	66-129	2	15	
Benzene	0.0477	0.0467	0.0500	0.0500	95	93	71-123	2	15	
Trichloroethene	0.0469	0.0462	0.0500	0.0500	94	92	75-115	2	15	
Toluene	0.0479	0.0482	0.0500	0.0500	96	96	75-120	1	15	
Chlorobenzene	0.0483	0.0460	0.0500	0.0500	97	92	75-121	5	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					90	83	76-131			
<i>Toluene-d8</i>					89	89	82-129			
<i>4-Bromofluorobenzene</i>					110	108	79-126			

Date of Report: June 19, 2015  
 Samples Submitted: June 15, 2015  
 Laboratory Reference: 1506-151  
 Project: 15217E

**HALOGENATED VOLATILES 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	
<b>SPIKE BLANKS</b>										
Laboratory ID:	SB0618S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0452	0.0425	0.0500	0.0500	90	85	66-129	6	15	
Benzene	0.0464	0.0467	0.0500	0.0500	93	93	71-123	1	15	
Trichloroethene	0.0460	0.0462	0.0500	0.0500	92	92	75-115	0	15	
Toluene	0.0472	0.0470	0.0500	0.0500	94	94	75-120	0	15	
Chlorobenzene	0.0460	0.0459	0.0500	0.0500	92	92	75-121	0	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					87	84	76-131			
<i>Toluene-d8</i>					90	88	82-129			
<i>4-Bromofluorobenzene</i>					109	109	79-126			

Date of Report: June 19, 2015  
Samples Submitted: June 15, 2015  
Laboratory Reference: 1506-151  
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**% MOISTURE**

Date Analyzed: 6-16-15

Client ID	Lab ID	% Moisture
B3E @ 6"-12"	06-151-01	11
B3E @ 5.5'-6'	06-151-02	17
B4E @ 3.5'-4'	06-151-03	6
B4E @ 6.5'-7'	06-151-04	10
B5E @ 6"-12"	06-151-05	9
B5E @ 5'-5.5'	06-151-06	14
B6E @ 2'-2.5'	06-151-07	9
B6E @ 5'-5.5'	06-151-08	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

