

1045 ATLANTIC AVENUE
BROOKLYN, NEW YORK
TAX MAP ID 02020-0077

**PHASE II
ENVIRONMENTAL SITE ASSESSMENT
(ASTM 1903-11)**

PREPARED FOR:

BEB Capital
26 Harbor Park Drive
Port Washington, NY 11050

PREPARED BY:



P.W. Grosser Consulting, Inc.
630 Johnson Avenue, Suite 7
Bohemia, New York 11716
Phone: 631-589-6353
Fax: 631-589-8705

Jennifer Lewis, PG, Sr. Project Manager
James P. Rhodes, PG, COO

JenniferL@pwgrosser.com
JimR@pwgrosser.com

PWGC Project Number: TOT1901

APRIL 2019 – REVISED AUGUST 2019



**PHASE II ENVIRONMENTAL SITE ASSESSMENT
1045 ATLANTIC AVENUE, BROOKLYN, NEW YORK**

TABLE OF CONTENTS	PAGE
1.0 INTRODUCTION	1
2.0 BACKGROUND	2
2.1 Site Description and Features	2
2.2 Physical Setting	2
2.3 Site History and Land Use	2
2.4 Adjacent Property Land Use	2
2.5 Summary of Previous Assessments.....	3
2.5.1 Phase I ESA, May 2004	3
2.5.2 Phase II ESA, August 2004	3
2.5.3 Tank Abandonment Report, January 2005	4
2.5.4 Phase I ESA, August 2014	4
2.5.5 PWGC, Phase I ESA, March 2019	4
3.0 WORK PERFORMED AND RATIONALE	5
3.1 Scope of Assessment.....	5
3.2 Soil Quality Evaluation	5
3.2.1 Soil Boring Protocol	6
3.2.2 Sample Collection Protocol	7
3.2.3 Soil Analytical Results	8
3.3 Groundwater Investigation	12
3.3.1 Sampling Collection Protocol	13
3.3.2 Groundwater Analytical Results	13
3.4 Soil Vapor Intrusion Investigation	13
3.4.1 Sampling Protocol.....	14
3.4.2 Analytical Results.....	14
4.0 CONCLUSIONS AND RECOMMENDATIONS	16
4.1 Conclusions	16
5.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL	18
6.0 REFERENCES	19
7.0 LIMITATIONS	20



**PHASE II ENVIRONMENTAL SITE ASSESSMENT
1045 ATLANTIC AVENUE, BROOKLYN, NEW YORK**

FIGURES

FIGURE 1	Site Location Map
FIGURE 2	Site Plan
FIGURE 3	Soil Boring Exceedances
FIGURE 4	Groundwater Exceedances
FIGURE 5	Soil Vapor Exceedances

TABLES

TABLE 1	Soil Boring Details
TABLE 2	Soil Analytical Results – Volatile Organic Compounds
TABLE 3	Soil Analytical Results – Semi-Volatile Organic Compounds (CP-51)
TABLE 4	Soil Analytical Results – Metals (RCRA)
TABLE 5	Groundwater Sample Analytical Results – Chlorinated Volatile Organic Compounds
TABLE 6	Soil Vapor Analytical Results - Volatile Organic Compounds

APPENDICES

APPENDIX A	Soil Boring Logs
APPENDIX B	Laboratory Analytical Reports
APPENDIX C	Soil Vapor Sampling Log

ACRONYM	DEFINITION
ASP	Analytical Services Protocol
ASTM	American Society for Testing and Materials
CFR	Code of Federal Regulations
DER	Department of Environmental Remediation
ELAP	Environmental Laboratory Approval Program
EM	Electromagnetic
ESA	Environmental Site Assessment
GQS	Groundwater Quality Standard
GV	Guidance Value
NYCRR	New York Codes, Rules, and Regulations
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PCB	Polychlorinated Biphenyl
PID	Photo-ionization Detector
PWGC	P.W. Grosser Consulting, Inc.
QA/QC	Quality Assurance / Quality Control
REC	Recognized Environmental Condition
SCO	Soil Cleanup Objective
SVOC	Semi-volatile Organic Compound
USCS	Unified Soil Classification System
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VISL	USEPA Vapor Intrusion Screening Levels
VOC	Volatile Organic Compound



1.0 INTRODUCTION

BEB Capital (Client) retained P.W. Grosser Consulting, Inc. (PWGC) to prepare a Phase II Environmental Site Assessment (ESA) for the property located at 1045 Atlantic Avenue, Brooklyn, New York. The purpose of the Phase II ESA was to further evaluate recognized environmental conditions (RECs) identified in the Phase I ESA prepared by PWGC in March 2019 to obtain sound, scientifically valid data concerning actual property conditions.

Work was conducted in accordance with the American Society for Testing and Materials (ASTM) Standard E 1903-11 (Standard Practices for Environmental Site Assessment: Phase II Environmental Site Assessment Process) and in substantial conformance with the New York State Department of Environmental Conservation's (NYSDEC's) Division of Environmental Remediation's (DER's) Technical Guidance for Site Investigation and Remediation, May 2010 (DER-10).



2.0 BACKGROUND

2.1 Site Description and Features

The subject property consists of one parcel located at 1045 Atlantic Avenue in the Bedford-Stuyvesant neighborhood of Brooklyn, New York. The site is located in the Borough of Brooklyn and Kings County. The property is identified on the New York City Tax Map as 02020-0077. The subject property measures approximately 27,400 square feet and is occupied by a one-story industrial building, a warehouse building, and a concrete paved rear yard.

A Site Location Map is included as **Figure 1** and a Site Plan is included as **Figure 2**.

2.2 Physical Setting

The topography of the site and surrounding area was reviewed from the USGS 7.5-minute series topographic map for the Brooklyn, New York quadrangle. The property elevation is approximately 79 feet above the National Geodetic Vertical Datum (NGVD). Regional physiographic conditions are summarized below.

2.3 Site History and Land Use

Historical usage of the property indicates that it was first developed prior to 1888, used for residential purposes from at least 1888 to 1908, and commercial and industrial purposes from at least 1932 to the present. Historical usage of the subject property indicative of potential RECs includes usage of the property for metals manufacturing, auto repair, and petroleum delivery services.

2.4 Adjacent Property Land Use

Review of historical information for the properties surrounding the subject property indicate that the area has been developed prior to 1888. The area adjacent to the subject property has a history of manufacturing, industrial, and automotive repair usage. Historical usage of properties in the surrounding area indicative of potential RECs include the following:

- Adjacent auto repair to the east and west of the subject property.
- Manufacturing of toys, radios, etc. to the west of the subject property.
- Gasoline service stations up-gradient of the subject property.

2.5 Summary of Previous Assessments

2.5.1 Phase I ESA, May 2004

General Consolidated Industries, Inc. (GCI) issued a Phase I ESA for the subject property on August 20, 2014. This Phase I Report references an earlier Phase I from May 2004. A copy of this report was not supplied to PWGC. According to information included in the 2014 Phase I, the RECs from May 2004 included:

- Dye testing on the interior and exterior discharge points.
- The oil water separator (OWS) specifications should be reviewed and the OWS and associated drains should be properly sealed and abandoned.
- The former repair pit should be inspected and soil boring should be installed.
- Waste manifests for the waste oil produced by the site should be inspected.
- Exterior storage drums should be moved indoors or properly disposed of.
- Stained areas at the exterior diesel storage tank should be cleaned.
- A geophysical investigation should be conducted.
- A subsurface investigation should be conducted within the vicinity of the gasoline tanks as depicted on the Sanborn maps.
- Proper permitting of the onsite aboveground storage tanks (ASTs).
- Asbestos-containing materials should be abated and/or an Operations and Maintenance Program should be implemented.
- The open violations should be rectified.

2.5.2 Phase II ESA, August 2004

GCI issued a Phase II ESA in August 2004. The RECs from the May 2004 Phase I ESA were more succinctly summarized as:

- There was a concern that the sinks and/or drains may discharge to an onsite underground injection control (UIC) structure.
- Based on historical usage, there was a concern that undocumented USTs may be present.
- There was a concern that historical usage may have impacted subsurface soils and/or groundwater.

The Phase II included:

- Dye tests which confirmed that the interior and exterior drains, sinks, and sump pit are connected to the New York City Sewer System.
- A geophysical investigation was conducted which identified a 1,000-gallon underground storage tank (UST) along the northwest side of the industrial building and no magnetic anomaly was identified along the northeast side of the same building which corresponded to a historic location of a gasoline tank on the Sanborn maps.
- Soil borings were installed in the former repair pit, near the 1,000-gallon UST in the northwest, and in the northeast area where a gasoline tank was identified on the Sanborn maps. The soil results indicated that volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals met their respective NYSDEC Recommended Soil Cleanup Objectives (SCOs). One SVOC was slightly elevated which was stated to be 'due to site background conditions and is not considered a significant threat to human health.'

2.5.3 Tank Abandonment Report, January 2005

GCI issued a Tank Abandonment Report on January 24, 2005 for a tank abandonment that occurred at the subject property on December 22, 2004. A 1,000-gallon gasoline/diesel fuel UST was abandoned in place with foam, northwest of the industrial building, with piping and vent lines cut and removed. No further action was recommended by GCI. This appears to be the UST identified in the Phase II geophysical survey.

2.5.4 Phase I ESA, August 2014

The Phase I conducted in August 2014 by GCI (previously discussed in Section 2.5.1) identified one REC: there was a significant amount of staining around an exterior diesel tank and it was recommended that the area be power washed.

2.5.5 PWGC, Phase I ESA, March 2019

PWGC conducted a Phase I ESA for 1045 Atlantic Avenue in March 2019. Conditions determined to be RECs are detailed below:

- The site appeared to have been historically used for industrial purposes. Historic usage of the property for manufacturing, auto repair, and petroleum delivery services. Current operations included the

storage and use of hazardous substances and petroleum products at the site. An OWS had historically been utilized at the property which had the potential to leak. No information had been provided regarding sampling of soils below or adjacent to the OWS. The OWS was reportedly out of service, but had not been properly abandoned. Identified historical usages are likely to have used/stored hazardous substances and/or petroleum products at the site, as well.

- The subject property was listed as a petroleum bulk storage (PBS) site for one 3,000-gallon No. 2 Fuel oil AST located on the subject property. The tank is located in a subterranean vault with limited access for inspections. No violations or spills were associated with this tank. There were four additional ASTs that were identified during the site inspection, including one 275-gallon active diesel AST, one 275-gallon active waste oil AST, and two 275-gallon empty inactive ASTs. A significant amount of oil staining was observed at the exterior diesel oil AST believed to be the result of poor dispensing practices. A recommendation was made in a Phase I ESA prepared by GCI in August 2014, discussed below, to steam clean this area; however, since concrete is porous and significant staining was observed, sampling of the soil beneath the slab to determine if the subsurface has been impacted was warranted.
- The subject property was listed as a PBS, ERNS, and RCRA NonGen site. No violations or other issues were identified in the database report with respect to these listings; however, the site inspection did identify issues related to onsite petroleum storage and poor housekeeping practices which is a concern related to historic storage of chemicals.

3.0 WORK PERFORMED AND RATIONALE

3.1 Scope of Assessment

The Phase II ESA included the following tasks:

- Soil Quality Evaluation
- Groundwater Investigation
- Soil Vapor Intrusion Investigation

3.2 Soil Quality Evaluation

An initial soil quality evaluation was conducted on March 22, 2019 to determine if subsurface conditions at the site have been impacted by the following:

- Historic industrial use and poor housekeeping practices (SB006 and SB007);



- Presence of Diesel tank, Waste Oil Tank, and OWS (SB001, SB002, SB003, SB005, and SB008);
- Presence of an Inspection Pit (SB004); and,
- Drum storage area (Grab001).

Based on the results of the initial evaluation, PWGC returned to the site on April 9, 2019 to further delineate the subsurface conditions at the site and to evaluate groundwater quality beneath the site as it relates to the initial soil results. Soil and groundwater sample locations were performed, as follows:

- Soil and groundwater samples were collected to delineate the approximate upgradient soil quality and for additional investigation of chlorinated solvents near the SS002 location (SB009/GW002);
- Data gap near the western, central portion of the subject property (SB013);
- Soil and groundwater for additional delineation of the SB007 hotspot location for metals and chlorinated VOCs (SB010/GW001, SB011, and SB012); and,
- Data gap area near the former location of the two 275-gallon ASTs (SB014).

Boring locations were focused in areas where contaminants are more likely to impact the subsurface through preferential pathways, such as areas with cracks in the slab or patches and to further delineate soil and groundwater quality obtained during the initial sampling. Soil boring locations are illustrated on **Figure 2**. At the time of the initial Phase II ESA sampling, the waste oil AST had been removed.

A summary of soil boring locations, depths, rationales, and analyses is included on **Table 1**.

3.2.1 Soil Boring Protocol

Coastal Environmental Solutions (Coastal) of Medford, New York provided environmental drilling services during the investigation on March 22, 2019. A Geoprobe 54LT was utilized by Coastal to install the environmental soil borings. Eastern Environmental Solutions (Eastern) of Manorville, New York provided the environmental drilling services during the investigation on April 9, 2019. A Geoprobe 7822DT was utilized by Eastern to install the environmental soil borings. Prior to performing each soil boring, 10-mil polyethylene sheeting, sufficiently large to hold the anticipated number of soil cores, was laid on the ground in the area where each soil boring was performed.



Soils were collected continuously from ground surface to an approximate depth of 20 feet below grade surface (bgs) or refusal.

The soil cores were placed on the 10-mil polyethylene sheeting in the order they came out of the ground. The acetate liners were cut open and the soil core was screened for the presence of volatile organic vapors, which are commonly associated with petroleum products and industrial solvents, utilizing a photo-ionization detector (PID). Each soil core was classified by a hydrogeologist using the Unified Soil Classification System (USCS). A soil boring log was developed for each location and includes the characterization and screening data along with photo-documentation. Boring Logs are included in **Appendix A**.

Soil characterization indicated that urban fill was present in the soils from grade up to 7-feet bgs. PID results were mostly zero with a max reading of 2.0 parts per million (ppm) in SB003; however, the rainy conditions encountered during the initial investigation may have affected the PID results. There were no odors detected in any of the borings except a petroleum odor in SB008 from 0 to 2-feet bgs, which was beneath the former location of the waste oil tank. Native soils were mostly poorly graded medium to coarse grained sands or clayey sands.

3.2.2 Sample Collection Protocol

Sample intervals were chosen based on field screening results and depths related to evaluating the specific REC. During the initial investigation, samples were collected from the two-foot interval exhibiting the highest degree of contamination from each boring or, if contamination was not observed, from the 0 to 2-foot interval to evaluate historic site usage and diesel and waste oil tank surface staining and from the 2-foot interval beneath the subgrade OWS.

During the follow-up investigation on April 9th, samples were collected from the two-foot interval exhibiting the highest degree of contamination from each boring or, if contamination was not observed samples were collected from varying depths to assess the site's overall soil quality. The intermediate and deep soil sample depths were performed to attempt to determine soil quality beneath the historic fill layer, soil quality in the vicinity of the proposed future development depths, and to determine if chlorinated volatile organic compounds (CVOs)



identified in initial shallow soils continued with depth. Samples were collected and analyzed for the following chemical analyses, as discussed on **Table 1**:

- Volatile Organic Compounds (VOCs) by United States Environmental Protection Agency (USEPA) Method 8260 or VOCs by USEPA Method 8260, CP-51 List for petroleum related compounds only;
- Semi-Volatile Organic Compounds (SVOCs) by USEPA Method 8270, CP-51 List, and,
- RCRA Metals by USEPA Methods 6010/7471.

Samples collected for volatile organic analysis were collected directly from the acetate liners utilizing terra-core sampling devices. The remaining sample volumes were transferred to a stainless-steel bowl and homogenized. Once homogenized, samples were transferred to laboratory supplied glassware and packed in a cooler with ice and shipped under proper chain-of-custody procedures to Alpha Analytical Laboratory (Alpha), a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory, for the above analyses following NYSDEC Analytical Services Protocol (ASP)-Category A Deliverables.

3.2.3 Soil Analytical Results

Soil analytical results were compared to the NYSDEC's Title 6 New York Codes, Rules, and Regulations (NYCRR) Part 375 and Final Commissioner Policy, CP-51 Soil Cleanup Objectives (SCOs) for Unrestricted Use, Restricted Residential Use, Commercial Use, and Protection of Groundwater.

Historic Industrial Use and Poor Housekeeping Practices

Two soil samples were collected during the initial evaluation to determine if historic industrial use and/or poor housekeeping practices have impacted the soils of the subject property. SB006 (0 to 2 feet) and SB007 (4 to 6 feet) were collected and were analyzed for VOCs, SVOCs (CP-51 list), and RCRA Metals. Based on the results discussed below, PWGC collected additional samples from SB010, SB011, and SB012, to further delineate the impacts to soil on the subject property.

The results of the samples from the initial investigation, SB006 and SB007, indicated that these two samples contained concentrations of tetrachloroethene (PCE) and trichloroethene (TCE) that exceeded their respective Unrestricted Use SCOs; SB007 also contained a concentration of cis-1,2-dichloroethene (DCE) that exceeded its



Unrestricted Use SCO. The area around SB007 was vertically delineated with borings SB010, SB011, and SB012 and varying 2 foot sample intervals between 10 and 20 feet. Detectable concentrations of PCE, TCE, and DCE were observed in the four samples collected from these three borings; however, only the sample collected from SB011 (10 to 12 feet) contained an exceedance of Unrestricted Use SCOs for TCE.

SB006 did not contain SVOC exceedances of Unrestricted SCOs. SVOCs were detected at concentrations that exceeded the Unrestricted, Restricted-Residential, and/or Commercial Use SCOs in SB007, including: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene. The follow-up investigation indicated that SVOC impacts are not present at concentrations greater than Unrestricted Use SCOs in the deeper interval (10- to 12-feet) from SB010, SB011, or SB012. The presence of SVOCs in the shallow interval appears to be related to the presence of historic fill material.

Metal analytical results for SB006 and SB007 indicated there were impacts of lead, mercury, and chromium which exceeded their respective Unrestricted, Restricted-Residential, and/or Commercial Use SCOs. SB007 contained an initial concentration of chromium of 7,010 mg/kg, exceeding the Commercial Use SCO of 1,500 mg/kg. To confirm the results were not due to laboratory error, the same sample was re-analyzed for chromium only and the concentration on the second run was 7,960 mg/kg. The follow-up investigation indicates that metal impacts decrease with depth; however, chromium and mercury were still present and cadmium was also encountered in excess of their respective Unrestricted and/or Restricted-Residential Use SCOs in the deeper intervals of the step out borings SB010, SB011, and SB012.

Presence of Diesel Tank, Waste Oil Tank, and OWS

From the five soil borings conducted in the vicinity of the diesel tank, waste oil tank, and OWS, four soil samples were collected: SB002, SB003, SB005, and SB008. As borings SB001 and SB002 were conducted on opposite sides of the diesel tank and contained little visual or olfactory difference, only the sample from SB002 was submitted for analysis.



The results of the initial investigation indicated that these samples did not contain VOCs at concentrations exceeding Unrestricted SCOs, except for TCE, which exceeded its respective Unrestricted SCO in SB002 (0 to 2 feet) and SB003 (4 to 6 feet). Generally, most petroleum related VOCs were not detected at concentrations greater than detection limits and there were no exceedances of Unrestricted Use SCOs.

SVOCs were detected at concentrations that exceeded the Unrestricted, Restricted-Residential, and/or Commercial Use SCOs in SB002, SB003, and SB005, including: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene chrysene, dibenzo(a,h)anthracene, and, indeno(1,2,3-cd)pyrene. The presence of SVOCs in the shallow interval appears to be related to the presence of historic fill material, not petroleum contamination as there was no visual or olfactory evidence of petroleum impact in these borings.

Metals were also observed in SB003 and SB008 at concentrations exceeding Unrestricted and/or Restricted Residential SCOs, specifically cadmium, lead, and chromium in the shallow samples corresponding with historic fill depths. The concentration of cadmium identified in SB003 (2 to 4 feet) is 210 mg/kg; the Commercial Use SCO for cadmium is 9.3 mg/kg. This boring is located approximately 20 feet west of the warehouse building that was labeled as a spray room on Sanborn maps between 1951 and 2007. Chromium was detected at a concentration of 200 mg/kg in SB002 and 38 mg/kg in SB008. Metal concentrations did not exceed Unrestricted Use SCOs in SB005 and metals were not sampled in SB002.

Presence of an Inspection Pit

During the initial investigation, one soil sample was collected from boring SB004 (0 to 2 feet) in the vicinity of the inspection pit located in the warehouse building. This location appears to be east of the portion of the building that was used as a spray room.

The analytical results indicated that only one VOC was detected at a concentration exceeding its Unrestricted Use SCO. Total xylenes were detected at a concentration of 1.1 mg/kg. TCE was also detected at 0.19 mg/kg which is less than the Unrestricted Use SCO of 0.47 mg/kg.



SVOCs were detected at concentrations that exceeded the Unrestricted and/or Restricted-Residential SCOs in SB004, including: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and, indeno(1,2,3-cd)pyrene. This is likely due to the presence of historic fill underlying the subject property and not likely related to the presence of the inspection pit as there was no visual or olfactory evidence of petroleum impact in this boring.

Metal results exceeded Unrestricted and/or Restricted-Residential SCOs for cadmium, lead, and mercury in SB004 also coinciding with the historic fill layer. The concentration of cadmium at this location was 7.07 mg/kg and chromium was 79.6 mg/kg.

Drum Storage Area

A grab sample, Grab001, was collected from the drum storage area located in the northeast section of the site near the warehouse building from the 0 to 2-foot interval due to minor surface staining observed in this area.

VOCs and SVOCs, which were limited to the CP-51 list of petroleum related compounds, were not detected at concentrations which exceeded their respective Unrestricted Use SCOs in Grab001. Metals that exceeded their respective Unrestricted and/or Restricted-Residential SCOs included cadmium, chromium, lead, and mercury. The cadmium concentration at this location was 8.9 mg/kg and chromium was 63.3 mg/kg.

Further Delineation of Soil Quality and CVOCs

SB009 was collected during the follow-up investigation in the southwest, exterior portion of the subject property in order to obtain soil and groundwater quality in the vicinity of an elevated soil gas result (discussed in Section 3.4), as well as to provide insight to the potential of groundwater impact (discussed in Section 3.3) migrating onto the subject property from an up-gradient source. Soil samples were collected from deeper intervals, 10- to 12-feet (chlorinated VOCs [CVOCs], CP-51 SVOCs, and RCRA metals) and 18- to 20-feet (chlorinated VOCs only).

In the 10- to 12-feet interval, chlorinated VOCs and CP-51 SVOCs were less than detection limits and RCRA metals were not detected at concentrations exceeding Unrestricted Use SCOs. In the 18- to 20-feet interval, TCE was detected at 0.00054 mg/kg which is less than its Unrestricted Use SCO.



SB013 was also installed in the western portion of the site to further delineate overall soil quality and a sample was collected from the 10 to 12 feet interval. The sample was analyzed for CVOCs, SVOCs (CP-51 list), and RCRA metals.

PCE, TCE, and DCE were each detected in the sample; however, at concentrations less than their respective Unrestricted Use SCOs. SVOCs were not detected at concentrations exceeding detection limits. Metals were not detected at concentrations exceeding Unrestricted Use SCOs.

Former Location of the Two 275-gallon ASTs

SB014 was collected during the follow-up investigation in the vicinity of the former location of the two 275-gallon ASTs. Two samples were collected, one from the 4 to 6 feet interval and one from the 10 to 12 feet interval.

CVOCs were not detected at concentrations which exceeded Unrestricted Use SCOs except for TCE which was detected at 1.2 mg/kg in the deeper sample. The 4 to 6 feet sample contained several SVOC concentrations exceeding Unrestricted Use, Restricted Residential SCOs, and/or Commercial Use SCOs, but the 10 to 12 feet sample did not contain exceedances of Unrestricted Use SCOs. Lead and mercury were detected at concentrations exceeding their respective Unrestricted Use SCOs in the 4 to 6 foot sample; however, concentrations in the 10 to 12 feet sample were less than Unrestricted Use SCOs.

Analytical results are detailed in **Tables 2 through 4**; **Figure 3** shows the soil sample results that exceeded Unrestricted and/or Restricted-Residential; and, the complete laboratory analytical report is included in **Appendix B**.

3.3 Groundwater Investigation

In order to characterize groundwater quality, groundwater samples were collected during the follow-up investigation on April 9, 2019. Groundwater flow at the site is estimated to be towards the northeast. Two groundwater samples were collected, one from the approximate upgradient location (GW002) and one from the approximate downgradient location (GW001). These locations also correspond to an elevated soil gas result

(GW002) and the greatest concentration of CVOCs detected in shallow soil (GW001) at the site. Groundwater sampling locations are illustrated on **Figure 4**.

3.3.1 Sampling Collection Protocol

Following the completion of the soil borings at SB009 and SB010, Eastern installed a temporary 2-inch well in each borehole. Groundwater was encountered at approximately 75 feet bgs. The screen was set from 65- to 75-feet bgs in each borehole. Disposable polyethylene tubing was inserted into the water bearing zone of the screen point sampler. The end of the tubing was connected to a peristaltic pump with dedicated silicone tubing. Four casing volumes of water were purged from the temporary sampling point prior to the collection of samples.

Samples were collected in pre-cleaned laboratory supplied glassware and stored in a cooler on ice for transport to Alpha for analysis. Groundwater samples were analyzed for CVOCs by USEPA Method 8260.

3.3.2 Groundwater Analytical Results

Groundwater analytical results were compared to NYSDEC ambient water quality standards (AWQSs) specified in 6 NYCRR Part 703.

CVOCs were not detected at concentrations which exceeded AWQSs with the exception of chloroform in GW001 (0.19 µg/L) and TCE in GW001 (42 µg/L) and GW002 (8.8 µg/L). TCE was detected in on-site soils between 0 and 12 feet below grade at concentrations exceeding the Protection of Groundwater SCOs, indicating that an on-site source of TCE is present and may be contributing to the groundwater impact.

Analytical results are detailed in **Table 5** and **Figure 4** shows the groundwater sample results that exceeded AWQSs. The complete laboratory analytical report is included in **Appendix B**.

3.4 Soil Vapor Intrusion Investigation

To evaluate potential vapor intrusion at the subject property, a soil vapor intrusion investigation was performed. Sample locations were chosen by identifying potential pathways to the subsurface, such as cracks in the concrete slab, and installing the soil vapor probes several feet away from these cracks to prevent short-circuiting of the samples.

3.4.1 Sampling Protocol

Sampling was conducted in accordance with the NYSDOH “Guidance for Evaluating Soil Vapor Intrusion in New York State,” (NYSDOH Guidance) October 2006. Temporary soil vapor probes were installed immediately beneath the concrete slab in the main building and sealed to prevent ambient air intrusion. Prior to sampling, the integrity of the sampling port seals was tested using tracer gas analysis. The environment surrounding the seal was enriched with the tracer gas, helium, as readings were collected through the sampling probe with a portable helium detector. Tracer gas readings collected from each soil vapor probe were acceptable indicating the seals were intact and the sampling probes were acceptable for sample collection.

After the initial tracer gas test was performed, one to three volumes of the sample tubing was purged prior to collecting samples. Flow rates for both purging and collecting did not exceed 0.2 liters per minute to minimize potential indoor air infiltration during sampling.

Sub-slab samples were collected into 2.7-liter Summa® vacuum canisters fitted with 2-hour flow controllers. The samplers were batch certified clean by the laboratory. Proper quality assurance (QA) / quality control (QC) protocol was followed during the collection of soil gas samples to ensure that cross-contamination in the field did not occur. Canister sampling data sheets are included as **Appendix C**. The samples were submitted to Alpha for analysis of VOCs by USEPA Method TO-15.

3.4.2 Analytical Results

As New York State has not developed standards or guidance levels for soil vapor concentrations, soil vapor sample analytical data were compared to the USEPA Vapor Intrusion Screening Levels (VISLs) for default residential target sub-slab and near source gas concentration criteria, compiled August 2019, as specified at <https://www.epa.gov/vaporintrusion/vapor-intrusion-screening-level-calculator>. Analytical data are summarized in **Table 6** and **Figure 5** shows the soil vapor sample results that exceeded the EPA’s VISLs. A copy of the laboratory analytical report is included as **Appendix B**.

VOCs did not exceed their respective VISLs with the following exceptions:

- Chloroform ranged from non-detect to 7.23 µg/m³ (SS-002); and,



- TCE ranged from 193 $\mu\text{g}/\text{m}^3$ to 774 $\mu\text{g}/\text{m}^3$ (SS-001, SS-002, and SS-003).

PCE was also observed; however, not at concentrations exceeding VISLs. DCE and vinyl chloride, typical by-products of PCE, were not observed at concentrations greater than detection limits. The sub-slab TCE concentrations observed indicate that mitigation of a potential soil vapor intrusion concern is recommended by NYSDOH.



4.0 CONCLUSIONS AND RECOMMENDATIONS

PWGC has performed a Phase II ESA in conformance with the scope and limitations of ASTM Practice E1903-11 for the subject property. The Phase II ESA consisted of the following tasks:

- Soil Quality Evaluation
- Groundwater Quality Investigation
- Soil Vapor Intrusion Investigation

4.1 Conclusions

PWGC conducted an initial Phase II investigation for the subject property on March 22, 2019. Based on the results of the initial investigation, a follow-up investigation occurred on April 9, 2018. The investigations were conducted to determine if historic industrial use, poor housekeeping practices, and the presence of the inspection pit, drum storage, diesel tank, waste oil tank, and/or OWS have impacted the subsurface of the subject property.

Results of the investigations indicated that chlorinated VOCs, including TCE, were present in excess of their Unrestricted Use and Protection of Groundwater SCOs in the soil, in excess of AWQS in groundwater which was located at approximately 75 feet below grade, and EPA VISLs in the soil vapor. Impact in the soil was observed from grade to a depth of 12 feet below grade. Based on this information, PWGC has concluded that there is CVOC impact (mainly TCE) at the subject property that appears to be related to historic on-site activities. Generally, VOCs associated with petroleum impact were not observed at concentrations exceeding Unrestricted Use SCOs with the exception of xylene in one boring.

SVOCs were detected at concentrations that exceeded the Unrestricted, Restricted-Residential, and/or Commercial Use SCOs in soils from grade to 7 feet below grade which generally corresponds to the depths that historic fill were observed at. The presence of SVOCs in this shallow interval appears to be related to the presence of historic fill material and not petroleum contamination as there was no visual or olfactory evidence of petroleum impact in these borings.



Metal impacts of lead, mercury, cadmium, and chromium which exceeded Unrestricted, Restricted-Residential, and/or Commercial Use SCOs were observed in the shallow and deeper intervals in several of the soil borings. The concentrations of lead and mercury seem consistent with concentrations typically observed in historic fill material; however, concentrations of chromium and cadmium were higher and exceeded Commercial Use SCOs. The highest concentration of chromium was in SB007 (4 to 6 feet) at 7,960 mg/kg. Step-out borings were conducted horizontally and a deeper sample (SB011 from 10 to 12 feet) was collected in the vicinity of SB007; concentrations of chromium in these samples were approximately 700 mg/kg. The highest concentration of cadmium was detected in SB003 (2 to 4 feet) at 210 mg/kg; other nearby borings contained concentrations of cadmium around 8 mg/kg. The highest concentrations of cadmium and chromium are located just west of the warehouse building that was previously used as a spray room. The source of the metal impacts is likely due to historic usage of the subject property and the presence of historic fill.

In summary, there appears to be minimal petroleum contamination at the site, but historic fill material is present. The main classes of contaminants are chlorinated solvents which were detected in soils from 0 to 12 feet below grade, in groundwater at 75 feet below grade, and in sub-slab soil vapor samples and metals impact likely relating to the use of chromium and cadmium in the spray room.

Based on the information presented in this report, PWGC offers the following recommendations:

- If the property is to be redeveloped, it may be impacted by the presence of TCE in the soil, groundwater, and soil vapor. This may include enrolling the site as an E-designation site or in the Brownfield Cleanup Program. Enrollment in either of these programs will likely include additional investigation to determine the source of, and a remediation plan to address, the chlorinated solvents and metals detected in the subsurface. PWGC recommends that any future redevelopment plans also include a vapor barrier and/or a subsurface depressurization system to mitigate the migration of TCE and other chlorinated solvents into the indoor air of the new structures.
- Historic fill is present in the subsurface of the subject property from approximately 0 to 7-feet bgs. This material will require additional handling and disposal during redevelopment.



5.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR 312. I have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR 312.

Jennifer Lewis, PG
Senior Project Manager

James P. Rhodes, PG
Chief Operating Officer

Report Completion Date: April 25, 2019, Revised August 2019



6.0 REFERENCES

- 6 NYCRR Part 375 Environmental Remediation Programs Subparts 375-1 to 375-4 & 375-6.
- 6 NYCRR Part 703 Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations.
- CP-51 / Soil Cleanup Guidance.
- DER-10 / Technical Guidance for Site Investigation and Remediation.
- Standard practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process, ASTM Standard E 1903-11.
- P. W. Grosser Consulting, Phase I ESA, March 2019
- General Consolidated Industries, Inc., Phase I ESA, August 20, 2014.
- General Consolidated Industries, Inc., Tank Abandonment Report, January 2005
- General Consolidated Industries, Inc., Phase II ESA, August 2004



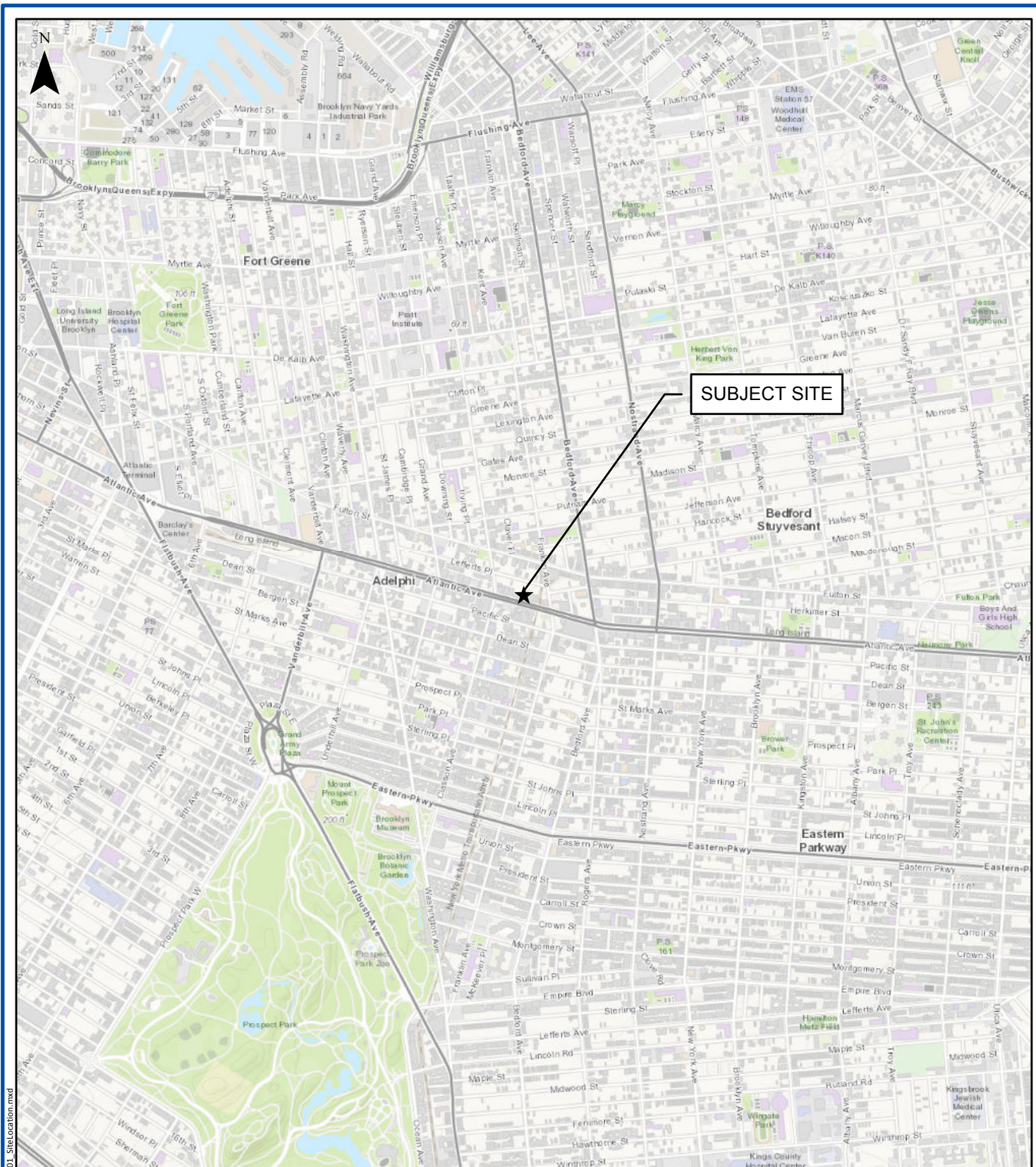
7.0 LIMITATIONS

The conclusions presented in this report are professional opinions based on the data described in this report. These opinions have been arrived at in accordance with currently accepted engineering and hydrogeologic standards and practices applicable to this location and are subject to the following inherent limitations:

1. The data presented in this report are from visual inspections and examination of records prepared by others. The passage of time, manifestation of latent conditions, or occurrence of future events may require further exploration of the site, analysis of data, and re-evaluation of the findings, observations, and conclusions presented in this report.
2. The data reported and the findings, observations, and conclusions expressed are limited by the scope of work. The scope of work was defined by the request of the client.
3. No warranty or guarantee, whether expressed or implied, is made with respect to the data reported, findings, observations, or conclusions. These are based solely upon site conditions in existence at the time of the investigation, and other information obtained and reviewed by PWGC.
4. The conclusions presented in this report are professional opinions based on data described in this report. They are intended only for the purpose, site location, and project indicated. This report is not a definitive study of contamination at the site and should not be interpreted as such.
5. This report is based, in part, on information supplied to PWGC by third-party sources. While efforts have been made to substantiate this third-party information, PWGC cannot attest to the completeness or accuracy of information provided by others.

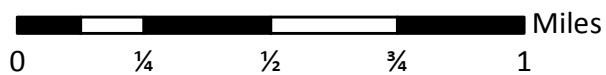


FIGURES



SITE LOCATION

1045 Atlantic Avenue
Brooklyn, NY



Project:	TOT1901
Date:	2/11/2019
Designed by:	HRM
Drawn by:	TS
Approved by:	HRM
Figure No:	1



PWGC
CLIENT DRIVEN SOLUTIONS

P.W. Grosser Consulting Engineer & Hydrogeologist, PC

630 Johnson Ave., Suite 7
Bohemia, NY 11716
Ph: 631-589-6353 • Fax: 631-589-8705
pwgc.info@pwgros.com



UNAUTHORIZED ALTERATION OR ADDITION TO THIS
DRAWING AND RELATED DOCUMENTS IS A VIOLATION
OF SEC. 7209 OF THE N.Y.S. EDUCATION LAW

DRAWING PREPARED FOR:

REVISION	DATE	INITIAL	COMMENTS
----------	------	---------	----------

DRAWING INFORMATION:

Project:	TOT1903	Designed by:	HRM
----------	---------	--------------	-----

Date:	8/30/2019	Drawn by:	PH
-------	-----------	-----------	----

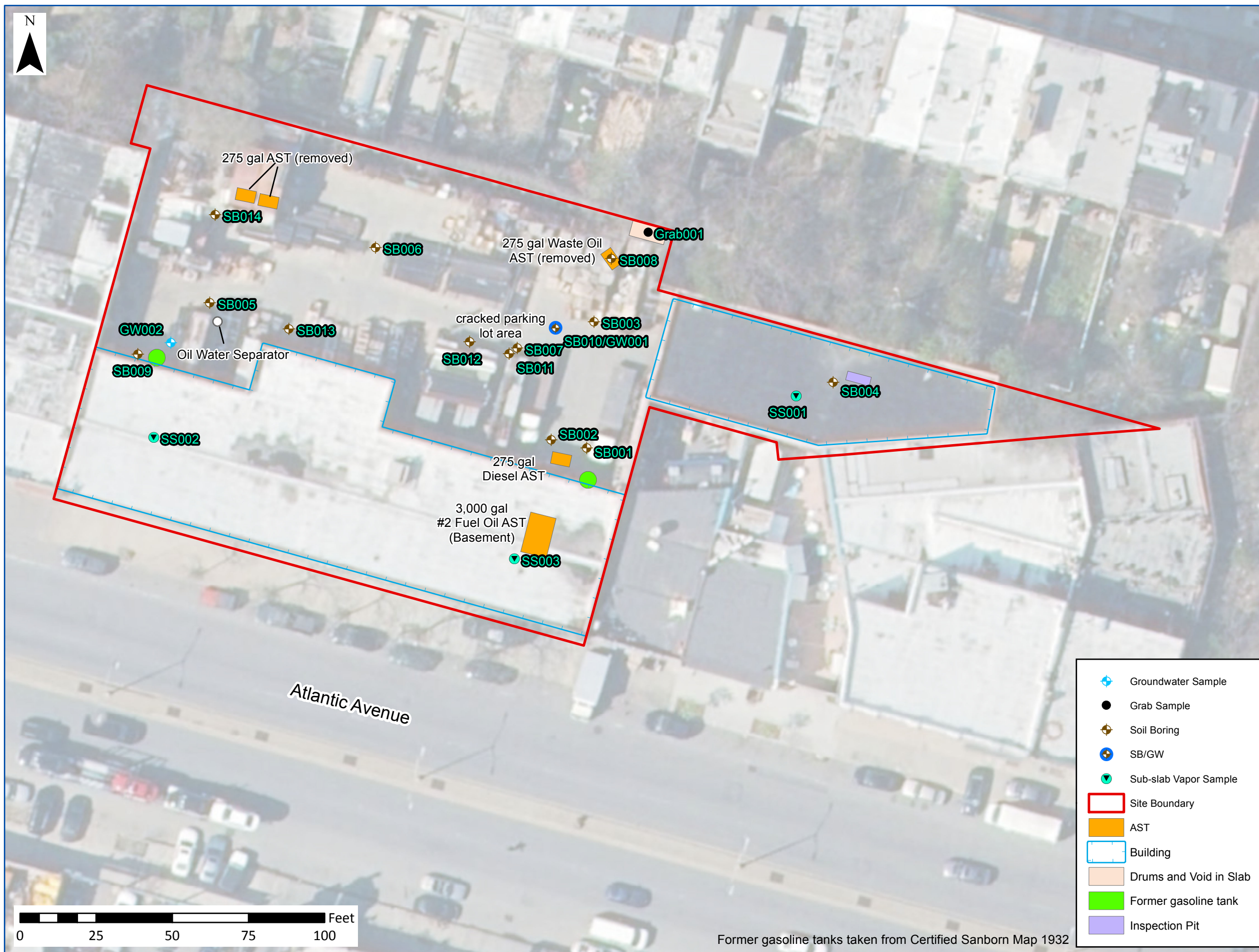
Scale:	AS SHOWN	Approved by:	HRM
--------	----------	--------------	-----

Site Plan with Sample Locations

1045 Atlantic Avenue
Brooklyn, NY

FIGURE NO:

2





SB014		
Sample Depth:	4-6'	10-12'
Sampling Date:	4/9/2019	4/9/2019
Chlorinated Volatiles by EPA 5035		
Trichloroethene	0.043	1.2
Semi-VOCs- CP-51 by EPA 8270 GC/MS		
Benzo(a)anthracene	5.2	0.096 J
Benzo(a)pyrene	5	0.088 J
Benzo(b)fluoranthene	6.7	0.12
Benzo(k)fluoranthene	2.2	0.11 U
Chrysene	5.2	0.09 J
Dibenzo(a,h)anthracene	0.66	0.11 U
Indeno(1,2,3-cd)pyrene	3.2	0.062 J
Metals, Total RCRA EPA 6010/7471		
Lead, Total	64.6	10.6
Mercury, Total	0.732	0.068 U

SB003		
Sample Depth:	2-4'	
Sampling Date:	3/22/2019	
Volatiles (TCL) by EPA 8260		
Trichloroethene	3.2	
Semi-VOCs- CP-51 by EPA 8270 GC/MS		
Benzo(a)anthracene	1.5	
Benzo(a)pyrene	1.5	
Benzo(b)fluoranthene	2	
Chrysene	1.5	
Indeno(1,2,3-cd)pyrene	1.2	
Metals, Total RCRA EPA 6010/7471		
Cadmium, Total	210	
Chromium, Total ³	200	
Lead, Total	217	

SB006		
Sample Depth:	0-2'	
Sampling Date:	3/22/2019	
Volatiles (TCL) by EPA 8260		
Tetrachloroethene	4.7	
Trichloroethene	0.67	
Metals, Total RCRA EPA 6010/7471		
Lead, Total	439	
Mercury, Total	0.585	

SB005		
Sample Depth:	5-7'	
Sampling Date:	3/22/2019	
Semi-VOCs- CP-51 by EPA 8270 GC/MS		
Benzo(a)anthracene	3.4	
Benzo(a)pyrene	3.2	
Benzo(b)fluoranthene	4.2	
Benzo(k)fluoranthene	1.2	
Chrysene	3.1	
Dibenzo(a,h)anthracene	0.39	
Indeno(1,2,3-cd)pyrene	1.9	

SB012		
Sample Depth:	4-6'	
Sampling Date:	4/9/2019	
Metals, Total RCRA EPA 6010/7471		
Chromium, Total ³	227	
Lead, Total	64.5	
Mercury, Total	0.469	

SB011		
Sample Depth:	10-12'	
Sampling Date:	4/9/2019	
Chlorinated Volatiles by EPA 5035		
Trichloroethene	0.59	
Metals, Total RCRA EPA 6010/7471		
Chromium, Total ³	687	

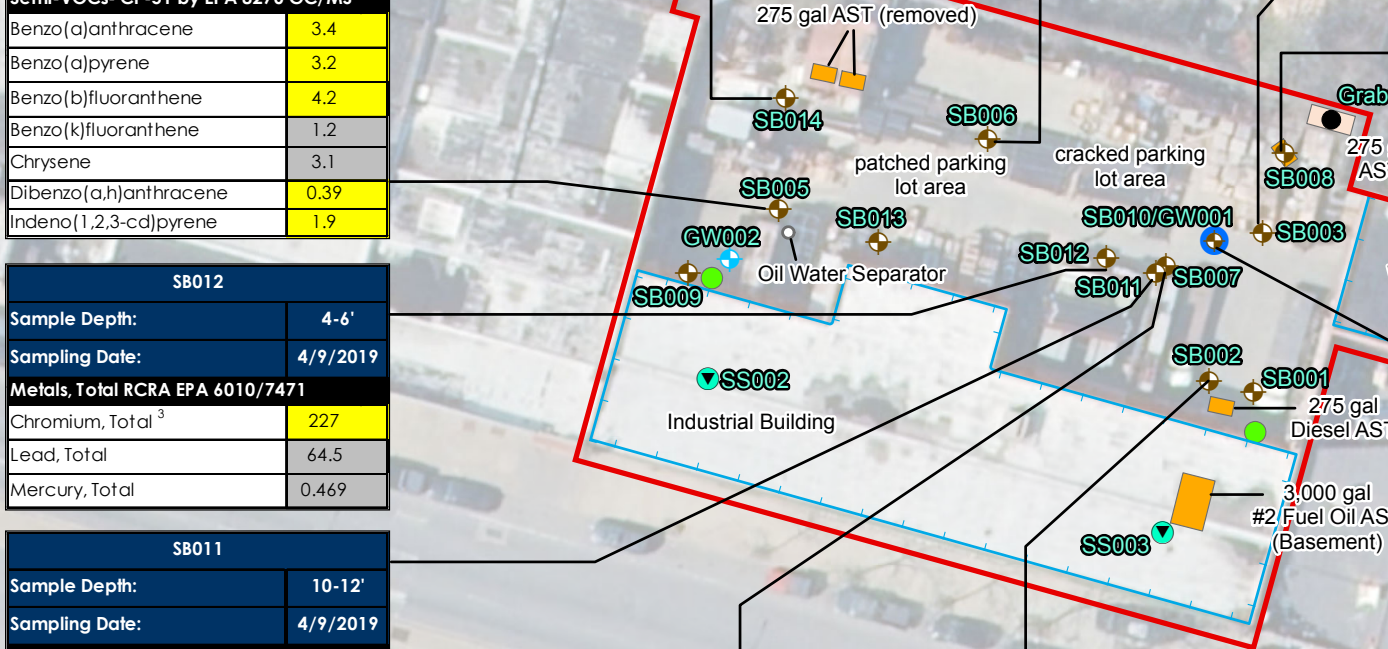
SB007		
Sample Depth:	4-6'	
Sampling Date:	3/22/2019	
Volatiles (TCL) by EPA 8260		
cis-1,2-Dichloroethene	0.42	
Tetrachloroethene	2	
Trichloroethene	6.3	
Semi-VOCs- CP-51 by EPA 8270 GC/MS		
Benzo(a)anthracene	8.2	
Benzo(a)pyrene	7.3	
Benzo(b)fluoranthene	10	
Benzo(k)fluoranthene	3.2	
Chrysene	8.5	
Metals, Total RCRA EPA 6010/7471		
Chromium, Total ³	79.60	
Lead, Total	73	
Mercury, Total	0.341	

SB002		
Sample Depth:	0-2'	
Sampling Date:	3/22/2019	
Volatiles (TCL) by EPA 8260		
Trichloroethene	2.3	
Semi-VOCs- CP-51 by EPA 8270 GC/MS		
Benzo(a)anthracene	2.7	
Benzo(a)pyrene	2.6	
Benzo(b)fluoranthene	3.6	
Benzo(k)fluoranthene	0.96	
Chrysene	2.5	
Dibenzo(a,h)anthracene	0.37 J	
Indeno(1,2,3-cd)pyrene	1.6	

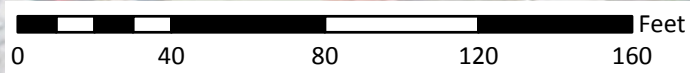
SB010		
Sample Depth:	4-6'	12-14'
Sampling Date:	4/9/2019	4/9/2019
Metals, Total RCRA EPA 6010/7471		
Cadmium, Total	8.52	8.14
Chromium, Total ³	698	51.4
Mercury, Total	1.27	0.069 U

SB004		
Sample Depth:	0-2'	
Sampling Date:	3/22/2019	
Volatiles (TCL) by EPA 8260		
Xylenes, Total	1.1	
Semi-VOCs- CP-51 by EPA 8270 GC/MS		
Benzo(a)anthracene	1.4	
Benzo(a)pyrene	1.4	
Benzo(b)fluoranthene	1.7	
Chrysene	1.4	
Indeno(1,2,3-cd)pyrene	0.84	
Metals, Total RCRA EPA 6010/7471		
Cadmium, Total	7.07	
Lead, Total	79.6	
Mercury, Total	0.227	

SB008		
Sample Depth:	0-2'	
Sampling Date:	3/22/2019	
Metals, Total RCRA EPA 6010/7471		
Chromium, Total ³	38	



Highlighted text denotes concentrations exceeding NYSDEC Unrestricted Use SCOs
Highlighted text denotes concentrations exceeding NYSDEC Unrestricted and Restricted Residential Use SCOs



Concentrations are in mg/kg
Former gasoline tanks taken from Certified Sanborn Map 1932

- Groundwater Sample
- Grab Sample
- Soil Boring
- SB/GW
- Sub-slab Vapor Sample
- Site Boundary
- Building
- Drums and Void in Slab
- Former gasoline tank
- Inspection Pit
- AST



P.W. Grosser Consulting Engineer & Hydrogeologist, PC

630 Johnson Ave., Suite 7
Bohemia, NY 11716
Ph: 631-589-6353 • Fax: 631-589-8705
pwgc.info@pwgrosser.com

UNAUTHORIZED ALTERATION OR ADDITION TO THIS
DRAWING AND RELATED DOCUMENTS IS A VIOLATION
OF SEC. 7209 OF THE N.Y.S. EDUCATION LAW

DRAWING PREPARED FOR:

REVISION DATE INITIAL COMMENTS

DRAWING INFORMATION:

Project: TOT1901 Designed by: HRM
Date: 8/30/2019 Drawn by: TS
Scale: AS SHOWN Approved by: HRM

Site Plan with Soil Sample Results

1045 Atlantic Avenue
Brooklyn, NY

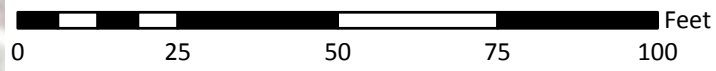
FIGURE NO:



GW001	
Sample Depth:	75-80'
Sampling Date:	4/9/2019
Volatile Organics by GC/MS in µg/L	
Chloroform	19
Trichloroethene	42

GW002	
Sample Depth:	75-80'
Sampling Date:	4/9/2019
Volatile Organics by GC/MS in µg/L	
Trichloroethene	8.8

Highlighted concentrations are in exceedance of 6 NYCRR Part 703.5.



Former gasoline tanks taken from Certified Sanborn Map 1932

- Groundwater Sample
- Grab Sample
- Soil Boring
- SB/GW
- Sub-slab Vapor Sample
- Site Boundary
- Building
- Drums and Void in Slab
- Former gasoline tank
- Inspection Pit
- AST



P.W. Grosser Consulting Engineer & Hydrogeologist, PC

630 Johnson Ave., Suite 7
Bohemia, NY 11716
Ph: 631-589-6353 • Fax: 631-589-8705
pwgc.info@pwgrosser.com

UNAUTHORIZED ALTERATION OR ADDITION TO THIS
DRAWING AND RELATED DOCUMENTS IS A VIOLATION
OF SEC. 7209 OF THE N.Y.S. EDUCATION LAW

DRAWING PREPARED FOR:

DRAWING INFORMATION:

Project:	TOT1903	Designed by:	HRM
Date:	8/30/2019	Drawn by:	PH
Scale:	AS SHOWN	Approved by:	HRM

Site Plan with
Groundwater Results

1045 Atlantic Avenue
Brooklyn, NY

FIGURE NO:



REVISION	DATE	INITIAL	COMMENTS

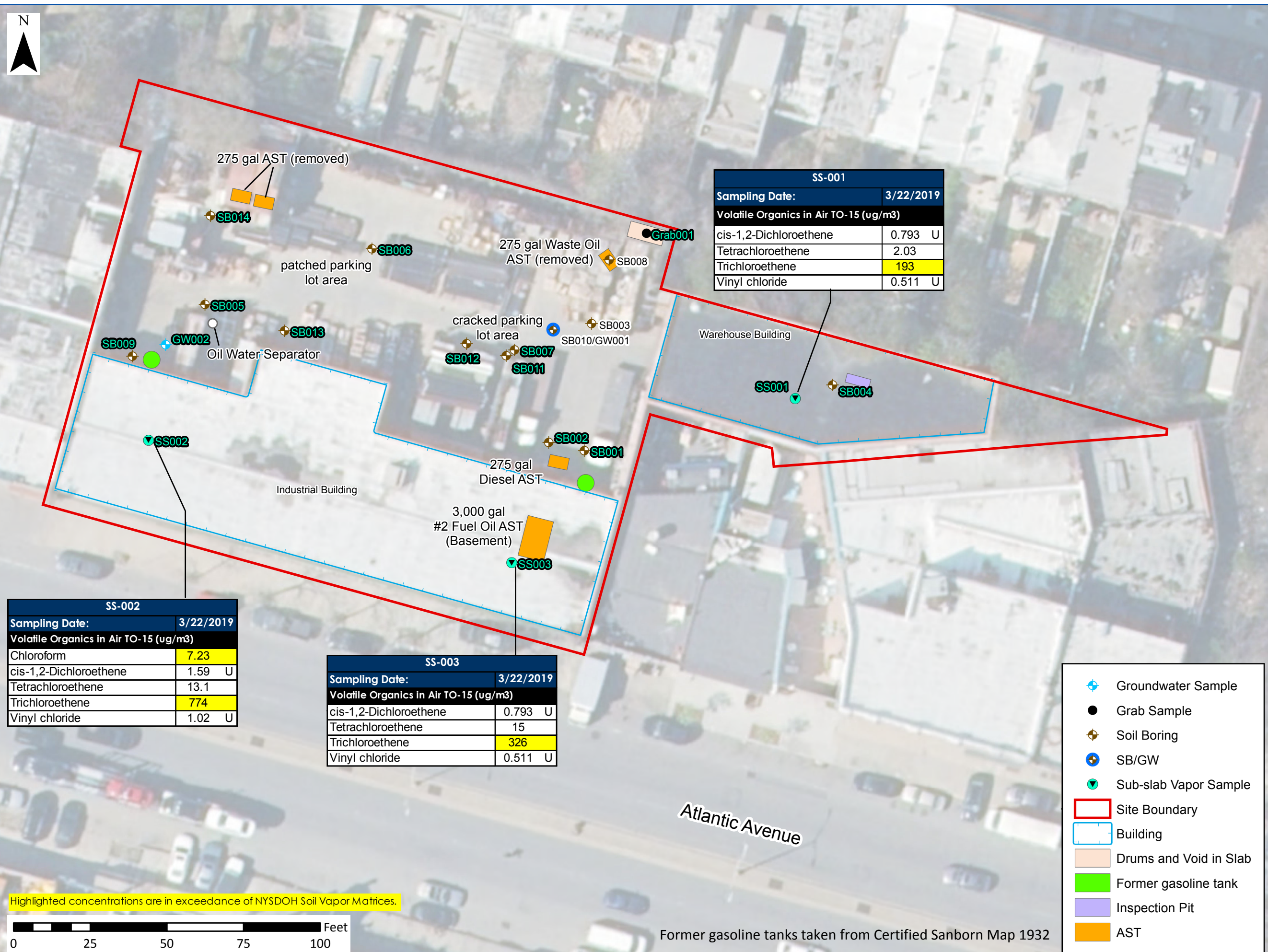
DRAWING INFORMATION:			
Project:	TOT1903	Designed by:	HRM
Date:	8/30/2019	Drawn by:	PH
Scale:	AS SHOWN	Approved by:	HRM

Site Plan with Soil Vapor Results

1045 Atlantic Avenue
Brooklyn, NY

FIGURE NO:

5





TABLES

Table 1
Soil Boring Details

1045 Atlantic Avenue, Brooklyn, NY

Soil Boring ID	Date	Rationale	Sample Interval (Feet bgs)	Analysis	Depth of Refusal (Feet bgs)
SB001	03/22/19	Diesel AST (sample not analyzed)	NA	NA	5
SB002	03/22/19	Diesel AST	0-2	VOC, SVOC (CP-51)	3.5
SB003	03/22/19	Waste Oil AST	2-4	VOC, SVOC (CP-51), Metals (RCRA)	5
SB004	03/22/19	Historic Use Inspection Pit	0-2	VOC, SVOC (CP-51), Metals (RCRA)	12.5
SB005	03/22/19	Oil Water Separator	5-7	VOC, SVOC (CP-51), Metals (RCRA)	10
SB006	03/22/19	Historic Use Parking Lot Patch	0-2	VOC, SVOC (CP-51), Metals (RCRA)	16
SB007	03/22/19	Historic Use Crack in Parking Lot	4-6	VOC, SVOC (CP-51), Metals (RCRA)	12
SB008	03/22/19	Waste Oil AST	0-2	VOC, SVOC (CP-51), Metals (RCRA)	4
SB009/ GW002	04/09/19	Approximate upgradient soil quality and for additional investigation of CVOCs at SS002	10-12	CVOC, SVOC (CP-51), Metals (RCRA)	20
			18-20	CVOC	
SB010/GW001	04/09/19	SB007 step out boring	4-6	Metals (RCRA)	20
			12-14	CVOC, SVOC (CP-51), Metals (RCRA)	
			18-20	CVOC	
SB011	4/9/2019	SB007 step out boring	10-12	CVOC, SVOC (CP-51), Metals (RCRA)	15
SB012	4/9/2019	SB007 step out boring	4-6	Metals (RCRA)	15
			10-12	CVOC, SVOC (CP-51), Metals (RCRA)	
SB013	4/9/2019	General Historic Use	10-12	CVOC, SVOC (CP-51), Metals (RCRA)	15
SB014	4/9/2019	Former 275-gallon AST Location	4-6	CVOC, SVOC (CP-51), Metals (RCRA)	15
			10-12	CVOC, SVOC (CP-51), Metals (RCRA)	
Grab001	4/9/2019	Drum Storage	0-2	VOC (CP-51), SVOC (CP-51), Metals (RCRA)	2

Table 2
Soil Analytical Results - VOCs

1045 Atlantic Ave, Brooklyn, NY

Client Sample ID:	NYSDEC SCOs Unrestricted Use ¹	NYSDEC SCOs Restricted Residential Use ²	NYSDEC SCOs Commercial Use ²	NYSDEC SCOs Protection of Groundwater ²	Grab-001 0-2' L1911583-08 3/22/2019	SB002 0-2' L1911583-01 3/22/2019	SB003 2-4' L1911583-02 3/22/2019	SB004 0-2' L1911583-03 3/22/2019	SB005 5-7' L1911583-04 3/22/2019	SB006 0-2' L1911583-05 3/22/2019	SB007 4-6' L1911583-06 3/22/2019	SB008 0-2' L1911583-07 3/22/2019	SB009		SB010		SB011 10-12' L1914341-06 4/9/2019	SB012 10-12' L1914341-08 4/9/2019	SB013 10-12' L1914341-09 4/9/2019	SB014		
Sample Depth:													10-12'	18-20'	12-14'	18-20'				4-6'	10-12'	
Laboratory ID:													L1914341-01 4/9/2019	L1914341-02 4/9/2019	L1914341-04 4/9/2019	L1914341-05 4/9/2019				L1914341-10 4/9/2019	L1914341-11 4/9/2019	
Sampling Date:																						
VOCs by USEPA method 8240 in mg/kg																						
1,1,1,2-Tetrachloroethane	NS	NS	NS	NS	-	-	0.03	U	0.035	U	0.035	U	0.0007	U	0.041	U	0.03	U	0.034	U	0.00076	U
1,1,1-Trichloroethane	0.68	100	500	0.68	-	-	0.03	U	0.035	U	0.035	U	0.0007	U	0.041	U	0.03	U	0.034	U	0.00076	U
1,1,2-Tetrachloroethane	NS	NS	NS	NS	-	-	0.03	U	0.035	U	0.035	U	0.0007	U	0.041	U	0.03	U	0.034	U	0.00076	U
1,1,2-Trichloroethane	NS	NS	NS	NS	-	-	0.06	U	0.071	U	0.07	U	0.0014	U	0.083	U	0.061	U	0.068	U	0.0015	U
1,1-Dichloroethane	0.27	26	240	0.27	-	-	0.06	U	0.071	U	0.07	U	0.0014	U	0.083	U	0.061	U	0.068	U	0.0015	U
1,1-Dichloroethene	0.33	100	500	0.33	-	-	0.06	U	0.071	U	0.07	U	0.0014	U	0.083	U	0.061	U	0.068	U	0.0015	U
1,1-Dichloropropene	NS	NS	NS	NS	-	-	0.03	U	0.035	U	0.035	U	0.0007	U	0.041	U	0.03	U	0.034	U	0.00076	U
1,2,3-Trichlorobenzene	NS	NS	NS	NS	-	-	0.12	U	0.14	U	0.14	U	0.0028	U	0.16	U	0.12	U	0.14	U	0.0031	U
1,2,3-Trichloropropane	NS	NS	NS	0.34	-	-	0.12	U	0.14	U	0.14	U	0.0028	U	0.16	U	0.12	U	0.06	J	0.0031	U
1,2,4,5-Tetramethylbenzene	NS	NS	NS	NS	-	-	0.039	J	0.14	U	0.02	J	0.0028	U	0.16	U	0.12	U	4.7	-	-	-
1,2,4-Trichlorobenzene	NS	NS	NS	3.4	-	-	0.12	U	0.14	U	0.14	U	0.0028	U	0.16	U	0.12	U	0.14	U	0.0031	U
1,2,4-Trimethylbenzene	3.6	52	190	3.6	0.0081	U	0.025	J	0.14	U	0.031	J	0.0028	U	0.16	U	0.12	U	0.081	J	-	-
1,2-Dibromo-3-chloropropane	NS	NS	NS	NS	-	-	0.18	U	0.21	U	0.21	U	0.0042	U	0.25	U	0.18	U	0.2	U	0.0046	U
1,2-Dibromoethane	NS	NS	NS	NS	-	-	0.06	U	0.071	U	0.07	U	0.0014	U	0.083	U	0.061	U	0.068	U	-	-
1,2-Dichlorobenzene	1.1	100.0	500.0	1.1	-	-	0.12	U	0.14	U	0.14	U	0.0028	U	0.16	U	0.12	U	0.14	U	0.0031	U
1,2-Dichloroethane	0.02	3.1	30	0.02	-	-	0.06	U	0.071	U	0.07	U	0.0014	U	0.083	U	0.061	U	0.068	U	0.0015	U
1,2-Dichloroethene, Total	NS	NS	NS	NS	-	-	-	-	-	-	0.07	U	-	-	0.083	U	0.42	-	-	-	0.0015	U
1,2-Dichloropropane	NS	NS	NS	NS	-	-	0.06	U	0.071	U	0.07	U	0.0014	U	0.083	U	0.061	U	0.068	U	0.0015	U
1,3,5-Trimethylbenzene	8.4	52	190	8.4	0.0011	J	0.024	J	0.14	U	0.021	J	0.0028	U	0.16	U	0.12	U	1.2	-	-	-
1,3-Dichlorobenzene	2.4	49.0	280.0	2.4	-	-	0.12	U	0.14	U	0.14	U	0.0028	U	0.16	U	0.12	U	0.14	U	0.0031	U
1,3-Dichloropropane	NS	NS	NS	0.3	-	-	0.12	U	0.14	U	0.14	U	0.0028	U	0.16	U	0.12	U	0.14	U	0.0031	U
1,3-Dichloropropene, Total	NS	NS	NS	NS	-	-	-	-	-	0.035	U	-	-	0.041	U	0.03	U	-	-	0.00076	U	
1,4-Dichlorobenzene	1.8	13.0	130.0	1.8	-	-	0.12	U	0.14	U	0.14	U	0.0028	U	0.16	U	0.12	U	0.14	U	0.0031	U
1,4-Dioxane	0.1	13	130	0.1	-	-	4.8	U	5.7	U	5.6	U	0.11	U	6.6	U	4.9	U	5.5	U	-	-
2,2-Dichloropropane	NS	NS	NS	NS	-	-	0.12	U	0.14	U	0.14	U	0.0028	U	0.16	U	0.12	U	0.14	U	0.0031	U
2-Butanone	0.12	100	500	0.3	-	-	0.6	U	0.71	U	0.7	U	0.014	U	0.83	U	0.61	U	0.68	U	-	-
2-Hexanone	NS	NS	NS	NS	-	-	0.6	U	0.71	U	0.7	U	0.014	U	0.83	U	0.61	U	0.68	U	-	-
4-Methyl-2-pentanone	NS	NS	NS	1	-	-	0.6	U	0.71	U	0.7	U	0.014	U	0.83	U	0.61	U	0.68	U	-	-
Acetone	0.05	100	500	0.05	-	-	0.6	U	0.71	U	0.7	U	0.017	U	0.83	U	0.61	U	0.68	U	-	-
Acrylonitrile	NS	NS	NS	NS	-	-	0.24	U	0.28	U	0.28	U	0.0056	U	0.33	U	0.24	U	0.27	U	-	-
Benzene	0.04	4.8	44	0.06	0.002	U	0.03	U	0.035	U	0.035	U	0.0007	U	0.041	U	0.03	U	0.034	U	-	-
Bromobenzene	NS	NS	NS	NS	-	-	0.12	U	0.14	U	0.14	U	0.0028	U	0.16	U	0.12	U	0.14	U	-	-
Bromochloromethane	NS	NS	NS	NS	-	-	0.12	U	0.14	U	0.14	U	0.0028	U	0.16	U	0.12	U	0.14	U	0.0031	U
Bromodichloromethane	NS	NS	NS	NS	-	-	0.03	U	0.035	U	0.035	U	0.0007	U	0.041	U	0.03	U	0.034	U	0.00039	U
Bromoform	NS	NS	NS	NS	-	-	0.24	U	0.28	U	0.28	U	0.0056	U	0.33	U	0.24	U	0.27	U	-	-
Bromomethane	NS	NS	NS	NS	-	-	0.069	J	0.14	U	0.085	J	0.0028	U	0.099	J	0.12	U	0.078	J	-	-
Carbon disulfide	NS	NS	NS	2.7	-	-	0.6	U	0.71	U	0.7	U	0.014	U	0.83	U	0.61	U	0.68	U	-	-
Carbon tetrachloride	0.74	2.4	22	0.76	-	-	0.06	U	0.071	U	0.07	U	0.0014	U	0.083	U	0.061	U	0.068	U	0.0015	U
Chlorobenzene	1.1	100	500	1.1	-	-	0.03	U	0.035	U	0.035	U	0.0007	U	0.041	U	0.03	U	0.034	U	0.00039	U
Chloroethane	NS	NS	NS	NS	-	-	0.12	U	0.14	U	0.14	U	0.0028	U	0.16	U	0.12	U	0.14	U	0.0031	U
Chloroform	0.4	49.0	350.0	0.4	-	-	0.09	U	0.11	U	0.1	U	0.0021	U	0.12	U	0.091	U	0.1	U	0.0023	U
Chloromethane	NS	NS	NS	NS	-	-	0.24	U	0.28	U	0.28	U	0.0056	U	0.33	U	0.24	U	0.27	U	0.0061	U
cis-1,2-Dichloroethene	0.25	100	500	0.25	-	-	0.2	-	0.033	J	0.07	U	0.0014	U	0.083	U	0.42	-	0.068	U	0.0015	U
cis-1,3-Dichloropropene	NS	NS	NS	NS	-	-	0.03	U	0.035	U	0.035	U	0.0007	U	0.041	U	0.03	U	0.034	U	0.00039	U
Dibromochloromethane	NS	NS	NS	NS	-	-	0.06	U	0.071	U	0.07	U	0.0014	U	0.083	U	0.061	U	0.068	U	0.0015	U
Dibromomethane	NS	NS	NS	NS	-	-	0.12	U	0.14	U	0.14	U	0.0028	U	0.16	U	0.12	U	0.14	U	-	-
Dichlorodifluoromethane	NS	NS	NS	NS	-	-	0.6	U	0.71	U	0.7	U	0.014	U	0.83	U	0.61	U	0.68	U	0.015	U
Ethyl ether	NS	NS	NS	NS	-	-	0.12	U	0.14	U	0.14	U	0.0028	U	0.16	U	0.12	U	0.14	U	-	-
Ethylbenzene	1	41	390	1	0.004	U	0.012	J	0.071	U	0.038	J	0.0014	U	0.083	U	0.061	U	0.068	U	-	-
Hexachlorobutadiene	NS	NS	NS	NS	-	-	0.24	U	0.28	U	0.28	U	0.0056	U	0.33	U	0.24	U	0.27	U	0.0061	U
Isopropylbenzene	NS	NS	NS	2.3	0.004	U	0.06	U	0.071	U	0.019	J	0.0014	U	0.083	U	0.061	U	0.068	U	-	-
Methyl tert butyl ether	0.93	100	500	0.93	-	-	0.12	U	0.14	U	0.14	U	0.00034	J	0.16	U	0.12	U	0.14	U	-	-
Methylene chloride	0.05	100	500	0.05	-	-	0.3	U	0.35	U	0.35	U	0.007	U	0.41	U	0.3	U	0.34	U	0.0076	U
n-Butylbenzene	12	100	500	12	0.002	J	0.013	J	0.071	U	0.07	U	0.0014	U	0.083	U	0.061	U	0.068	U	-	-
n-Propylbenzene	3.9	100	500	3.9	0.004	U	0.06	U	0.071	U	0.07	U	0.0014	U	0.083	U	0.061	U	0.068	U	-	-
Naphthalene	12	100	500	12	0.0053	J	0.16	J	0.28	U	0.19	J	0.0056	U	0.33	U	0.23	J	0.27	U	-	-
o-Chlorotoluene	NS	NS	NS	NS	-	-	0.12	U	0.14	U	0.14	U	0.0028	U	0.16	U	0.12	U	0.14	U	0.0031	U
o-Xylene	NS	NS	NS	NS	0.004	U	0.022	J	0.071	U	0.72	-	0.0014	U	0.083	U	0.061	U	0.023	J	-	-
p-Chlorotoluene	NS	NS	NS	NS	-	-	0.12	U	0.14	U	0.14	U	0.0028	U	0.16	U	0.12	U	0.14	U	0.0031	U
p-Diethylbenzene	NS	NS	NS	NS	-	-	0.047	J	0.14	U	0.032	J	0.0028	U	0.16	U	0.12	U	0.14	U	-	-
p-Ethyltoluene	NS	NS	NS	NS	-	-	0.036	J	0.14	U	0.14	U	0.0028	U	0.16	U	0.12	U	0.083	J	-	-
p-Isopropyltoluene	NS	NS	NS	10	0.00091	J	0.0099	J	0.071	U	0.07	U	0.0014	U	0.083	U	0.061	U	0.059	J	-	-
p/m-Xylene	NS	NS	NS	NS	0.0081	U	0.12	U	0.14	U	0.39	-	0.0028	U	0.16							

Table 3
Soil Analytical Results - CP-51 SVOCs

1045 Atlantic Ave, Brooklyn, NY

Client Sample ID: Sample Depth: Laboratory ID: Sampling Date:	NYSDEC SCOs Unrestricted Use 1	NYSDEC SCOs Restricted Residential Use 2	NYSDEC SCOs Commercial Use 2	NYSDEC SCOs Protection of Groundwater2	Grab-001 0-2' L1911583-08 3/22/2019	SB002 0-2' L1911583-01 3/22/2019	SB003 2-4' L1911583-02 3/22/2019	SB004 0-2' L1911583-03 3/22/2019	SB005 5-7' L1911583-04 3/22/2019	SB006 0-2' L1911583-05 3/22/2019	SB007 4-6' L1911583-06 3/22/2019	SB008 0-2' L1911583-07 3/22/2019	SB009 10-12' L1914341-01 4/9/2019	SB010 12-14' L1914341-04 4/9/2019	SB011 10-12' L1914341-06 4/9/2019	SB012 10-12' L1914341-08 4/9/2019	SB013 10-12' L1914341-09 4/9/2019	SB014 4-6' 10-12' L1914341-10 L1914341-11 4/9/2019	
SVOCs by USEPA method 8260 in mg/kg																			
Acenaphthene	20	100	500	98	0.35 U	0.17 J	0.062 J	0.09 J	0.5	0.027 J	0.96	1.5 J	0.15 U	0.14 U	0.15 U	0.14 U	0.15 U	0.93	0.14 U
Acenaphthylene	100	100	500	107	0.35 U	0.4 J	0.22	0.13 J	0.18 J	0.15 U	0.81	3.1 U	0.15 U	0.14 U	0.15 U	0.14 U	0.15 U	0.19 J	0.14 U
Anthracene	100	100	500	1,000	0.26 U	0.69	0.24	0.32	1.2	0.056 J	2.2	2.4 U	0.11 U	0.11 U	0.11 U	0.1 U	0.11 U	1.9	0.11 U
Benzo(a)anthracene	1	1	5.6	1	0.11 J	2.7	1.5	1.4	3.4	0.26	8.2	0.67 J	0.11 U	0.11 U	0.021 J	0.1 U	0.11 U	5.2	0.096 J
Benzo(a)pyrene	1	1	1	22	0.35 U	2.6	1.5	1.4	3.20	0.25	7.3	3.1 U	0.15 U	0.14 U	0.15 U	0.14 U	0.15 U	5	0.088 J
Benzo(b)fluoranthene	1	1	5.6	2	0.17 J	3.6	2	1.7	4.2	0.32	10	2.4 U	0.11 U	0.11 U	0.11 U	0.1 U	0.11 U	6.7	0.12
Benzo(ghi)perylene	100	100	500	1,000	0.14 J	1.5	1.1	0.79	1.8	0.14 J	3.4	3.1 U	0.15 U	0.14 U	0.15 U	0.14 U	0.15 U	2.8	0.054 J
Benzo(k)fluoranthene	0.8	3.9	56	1.7	0.26 U	0.96	0.7	0.55	1.2	0.11	3.2	2.4 U	0.11 U	0.11 U	0.11 U	0.1 U	0.11 U	2.2	0.11 U
Chrysene	1	3.9	56	1	0.16 J	2.5	1.5	1.4	3.1	0.28	8.5	0.76 J	0.11 U	0.11 U	0.021 J	0.1 U	0.11 U	5.2	0.09 J
Dibenzo(a,h)anthracene	0.33	0.33	0.56	1000	0.26 U	0.37 J	0.24	0.18	0.39	0.038 J	1	2.4 U	0.11 U	0.11 U	0.11 U	0.1 U	0.11 U	0.66	0.11 U
Fluoranthene	100	100	500	1,000	0.19 J	4.9	2.1	2.9	7.9	0.5	18	1 J	0.11 U	0.11 U	0.041 J	0.1 U	0.11 U	12	0.2
Fluorene	30	100	500	386	0.44 U	0.18 J	0.053 J	0.089 J	0.42	0.024 J	1	1.5 J	0.18 U	0.18 U	0.18 U	0.18 U	0.19 U	0.76 J	0.18 U
Indeno(1,2,3-cd)pyrene	0.5	0.5	5.6	8.2	0.12 J	1.6	1.2	0.84	1.9	0.15	4	3.1 U	0.15 U	0.14 U	0.15 U	0.14 U	0.15 U	3.2	0.062 J
Phenanthrene	100	100	500	1,000	0.21 J	2.4	0.82	1.5	5.3	0.36	15	3.4	0.11 U	0.11 U	0.035 J	0.1 U	0.11 U	9.8	0.1 J
Pyrene	100	100	500	1,000	0.26	5	2	2.8	6.8	0.54	15	3.9	0.11 U	0.11 U	0.033 J	0.1 U	0.11 U	10	0.17

Notes:
(1) NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use of Soil Cleanup Objective Table 375-6.8a
(2) NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restricted Use of Soil Cleanup Objective Table 375-6.8b
NS - No Standard
U - The analyte was analyzed for, but was not detected above the reported sample quantification limit.
J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

Highlighted text denotes concentrations exceeding Unrestricted Use or Protection of Groundwater
Highlighted text denotes concentrations exceeding NYSDEC Restricted Residential SCOs
Highlighted text denotes concentrations exceeding NYSDEC Commercial Use SCOs

Table 4
Soil Analytical Results - Total RCRA Metals

1045 Atlantic Ave, Brooklyn, NY

Client Sample ID:	NYSDEC SCOs Unrestricted Use ¹	NYSDEC SCOs Restricted Residential Use ²	NYSDEC SCOs Commercial Use ²	NYSDEC SCOs Protection of Groundwater ²	Grab-001	SB003	SB004	SB005	SB006	SB007	SB008	SB009	SB010		SB011	SB012		SB013	SB014	
Sample Depth:					0-2'	2-4'	0-2'	5-7'	0-2'	4-6'	0-2'	10-12'	4-6'	12-14'	10-12'	4-6'	10-12'	10-12'	4-6'	10-12'
Laboratory ID:					L1911583-08	L1911583-02	L1911583-03	L1911583-04	L1911583-05	L1911583-06	L1911583-07	L1914341-01	L1914341-03	L1914341-04	L1914341-06	L1914341-07	L1914341-08	L1914341-09	L1914341-10	L1914341-11
Sampling Date:					3/22/2019	3/22/2019	3/22/2019	3/22/2019	3/22/2019	3/22/2019	3/22/2019	4/9/2019	4/9/2019	4/9/2019	4/9/2019	4/9/2019	4/9/2019	4/9/2019	4/9/2019	4/9/2019
Metals, Total RCRA EPA 6010/7471																				
Arsenic, Total	13	16	16	16	4	4.53	3.72	1.93	5.69	3.6	2.9	0.744	2.29	1.02	2.38	2.61	0.838	2.15	3.1	2.98
Barium, Total	350	400	400	820	238	81.7	44.4	26.8	136	39.4	44.6	23.5	44.7	34.6	14.1	77.9	25.8	26.2	45.7	17
Cadmium, Total	2.5	4.3	9.3	7.5	8.9	210	7.07	0.363 J	0.327 J	2.21 U	1.17	0.594	8.52	8.14	0.324 J	0.197 J	0.289 J	0.382 J	0.415 U	0.416 U
Chromium, Total ³	30	180	1,500	NS	63.3	200	14.3	18	14	7,960	38	15	698	51.4	687	227	26.9	16.1	11.5	7.98
Lead, Total	63	400	1,000	450	148	217	79.6	27.6	439	73	59	4.2	51	6.15	5.43	64.5	2.65	9.61	64.6	10.6
Mercury, Total	0.18	0.81	2.8	0.73	0.239	0.145	0.227	0.17	0.585	0.341	0.076 U	0.071 U	1.27	0.069 U	0.02 J	0.469	0.067 U	0.071 U	0.732	0.068 U
Selenium, Total	3.9	180	1,500	4	1.58 J	0.215 J	0.287 J	0.325 J	0.475 J	4.41 U	0.225 J	0.323 J	0.213 J	0.853 U	0.864 U	0.939 U	0.826 U	0.178 J	0.212 J	0.15 J
Silver, Total	2	180	1,500	8.3	0.601 J	0.233 J	0.393 U	0.422 U	0.187 J	2.21 U	0.45 U	0.43 U	0.474 U	0.427 U	0.432 U	0.16 J	0.413 U	0.434 U	0.415 U	0.416 U

Notes:

Notes:

(1) NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Unrestricted Use of Soil Cleanup Objective Table 375-6.8a

(2) NYSDEC 6 NYCRR Environmental Remediation Programs Part 375 Restricted Use of Soil Cleanup Objective Table 375-6.8b

(3) Chromium SCOs listed are for trivalent chromium

NS - No Standard

U - The analyte was analyzed for, but was not detected above the reported sample quantification limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

Highlighted text denotes concentrations exceeding Unrestricted Use or Protection of Groundwater

Highlighted text denotes concentrations exceeding NYSDEC Restricted Residential SCOs

Highlighted text denotes concentrations exceeding NYSDEC Commercial Use SCOs

Table 5
Groundwater Sample Analytical Results - Chlorinated VOCs

1045 Atlantic Avenue, Brooklyn, NY

Client Sample ID:	New York Ambient Water Quality Standards ¹	GW001	GW002
Screened Interval:		75-80'	75-80'
Laboratory ID:		L1914341-12	L1914341-13
Sampling Date:		4/9/2019	4/9/2019
VOCs by USEPA method 8260 in µg/L			
1,1,1,2-Tetrachloroethane	5	2.5 U	2.5 U
1,1,1-Trichloroethane	5	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	5	0.5 U	0.5 U
1,1,2-Trichloroethane	1	1.5 U	1.5 U
1,1-Dichloroethane	5	2.5 U	2.5 U
1,1-Dichloroethene	5	0.5 U	0.5 U
1,1-Dichloropropene	5	2.5 U	2.5 U
1,2,3-Trichlorobenzene	5	2.5 U	2.5 U
1,2,3-Trichloropropane	0.04	2.5 U	2.5 U
1,2,4-Trichlorobenzene	5	2.5 U	2.5 U
1,2-Dibromo-3-chloropropane	0.04	2.5 U	2.5 U
1,2-Dichlorobenzene	3	2.5 U	2.5 U
1,2-Dichloroethane	0.6	0.5 U	0.5 U
1,2-Dichloroethene, Total	NS	1.5 J	2.5 U
1,2-Dichloropropane	1.0	1 U	1 U
1,3-Dichlorobenzene	3	2.5 U	2.5 U
1,3-Dichloropropane	5	2.5 U	2.5 U
1,3-Dichloropropene, Total	NS	0.5 U	0.5 U
1,4-Dichlorobenzene	3	2.5 U	2.5 U
2,2-Dichloropropane	5.0	2.5 U	2.5 U
Bromochloromethane	5	2.5 U	2.5 U
Bromodichloromethane	50	0.5 U	0.21 J
Carbon tetrachloride	5.0	0.5 U	0.5 U
Chlorobenzene	5	2.5 U	2.5 U
Chloroethane	5	2.5 U	2.5 U
Chloroform	7	19	5.3
Chloromethane	NS	2.5 U	2.5 U
cis-1,2-Dichloroethene	5	1.5 J	2.5 U
cis-1,3-Dichloropropene	0.4	0.5 U	0.5 U
Dibromochloromethane	50	0.5 U	0.2 J
Dichlorodifluoromethane	5	5 U	5 U
Hexachlorobutadiene	0.5	2.5 U	2.5 U
Methylene chloride	5	2.5 U	2.5 U
o-Chlorotoluene	5	2.5 U	2.5 U
p-Chlorotoluene	5	2.5 U	2.5 U
Tetrachloroethene	5	3	0.5 U
trans-1,2-Dichloroethene	5	2.5 U	2.5 U
trans-1,3-Dichloropropene	0.4	0.5 U	0.5 U
trans-1,4-Dichloro-2-butene	5	2.5 U	2.5 U
Trichloroethene	5	42	8.8
Trichlorofluoromethane	5.0	2.5 U	2.5 U
Vinyl chloride	2.0	1 U	1 U

Notes:

(1) NY-AWQS: New York TOGS 111 Ambient Water Quality Standards criteria reflects all addendum to criteria through June 2004.

NS - No Standard

U - The analyte was analyzed for, but was not detected above the reported sample quantification limit.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

Highlighted text denotes concentrations exceeding AWQS

Table 6
Soil Vapor Sample Analytical Results - VOCs

1045 Atlantic Avenue, Brooklyn, NY

Client Sample ID:		SS001	SS002	SS003
Laboratory ID:	EPA-VISL-TSSGC	L1911686-01	L1911686-02	L1911686-03
Sampling Date:		3/22/2019	3/22/2019	3/22/2019
Volatile Organics in Air TO-15 (µg/m³)				
1,1,1-Trichloroethane	17,400	1.09 U	2.18 U	1.09 U
1,1,2,2-Tetrachloroethane	1.61	1.37 U	2.75 U	1.37 U
1,1,2-Trichloroethane	0.695	1.09 U	2.18 U	1.09 U
1,1-Dichloroethane	58.5	0.809 U	1.62 U	0.809 U
1,1-Dichloroethene	695	0.793 U	1.59 U	0.793 U
1,2,4-Trichlorobenzene	6.95	1.48 U	2.97 U	1.48 U
1,2,4-Trimethylbenzene	209	1.39	1.97 U	27.3
1,2-Dibromoethane	0.156	1.54 U	3.07 U	1.54 U
1,2-Dichlorobenzene	695	1.2 U	2.4 U	1.2 U
1,2-Dichloroethane	3.6	0.809 U	1.62 U	0.809 U
1,2-Dichloropropane	13.9	0.924 U	1.85 U	0.924 U
1,3,5-Trimethylbenzene	209	0.983 U	1.97 U	7.13
1,3-Butadiene	3.12	1.25	0.885 U	0.442 U
1,3-Dichlorobenzene	NS	1.2 U	2.4 U	1.2 U
1,4-Dichlorobenzene	8.51	1.2 U	2.4 U	1.2 U
1,4-Dioxane	18.7	0.721 U	1.44 U	0.721 U
2,2,4-Trimethylpentane	NS	0.934 U	1.87 U	0.934 U
2-Butanone	17,400	92.3	54.9	18.9
2-Hexanone	104	9.67	11.1	0.82 U
3-Chloropropene	3.48	0.626 U	1.25 U	0.626 U
4-Ethyltoluene	NS	0.983 U	1.97 U	6.49
4-Methyl-2-pentanone	10,400	5.66	4.1 U	3.4
Acetone	107,000	174	60	61
Benzene	12	2.98	4.41	1.37
Benzyl chloride	1.91	1.04 U	2.07 U	1.04 U
Bromodichloromethane	2.53	1.34 U	2.68 U	1.34 U
Bromoform	85.1	2.07 U	4.14 U	2.07 U
Bromomethane	17.4	0.777 U	1.55 U	0.777 U
Carbon disulfide	2,430	8.16	2.42	3.1
Carbon tetrachloride	15.6	1.26 U	2.52 U	1.26 U
Chlorobenzene	174	0.921 U	1.84 U	0.921 U
Chloroethane	34,800	0.528 U	1.06 U	0.528 U
Chloroform	4.07	0.977 U	7.23	2.67
Chloromethane	313	1.15	0.826 U	0.413 U
cis-1,2-Dichloroethene	NS	0.793 U	1.59 U	0.793 U
cis-1,3-Dichloropropene	NS	0.908 U	1.82 U	0.908 U
Cyclohexane	20,900	3.28	1.38 U	1.25
Dibromochloromethane	NS	1.7 U	3.41 U	1.7 U
Dichlorodifluoromethane	348	2.1	1.98	2.06
Ethanol	NS	41.3	18.8 U	16.1
Ethyl Acetate	243	1.8 U	3.6 U	1.8 U
Ethylbenzene	37.4	3.51	1.74 U	1.23
Freon-113	17,400	1.53 U	3.07 U	1.53 U
Freon-114	NS	1.4 U	2.8 U	1.4 U
Heptane	1,390	2.66	2.37	1.36
Hexachlorobutadiene	4.25	2.13 U	4.27 U	2.13 U
Isopropanol	695	6.81	4.47	3.69
Methyl tert butyl ether	360	0.721 U	1.44 U	0.721 U
Methylene chloride	2,090	1.74 U	3.47 U	1.74 U
n-Hexane	2,430	2.52	1.41 U	1.25
o-Xylene	348	6.73	1.74 U	2.3
p/m-Xylene	348	17.4	3.74	5.08
Styrene	3,480	0.852 U	1.7 U	0.852 U
Tertiary butyl Alcohol	NS	2.06	3.03 U	1.52 U
Tetrachloroethene	139	2.03	13.1	15
Tetrahydrofuran	6,950	17.8	8.88	8.23
Toluene	17,400	5.43	4.03	3.05
trans-1,2-Dichloroethene	NS	0.793 U	1.59 U	0.793 U
trans-1,3-Dichloropropene	NS	0.908 U	1.82 U	0.908 U
Trichloroethene	6.95	193	774	326
Trichlorofluoromethane	NS	1.12 U	2.25 U	1.12 U
Vinyl bromide	2.92	0.874 U	1.75 U	0.874 U
Vinyl chloride	5.59	0.511 U	1.02 U	0.511 U

Notes:

EPA VISL Default Residential Target Sub-Slab & Near Source Soil Gas Concentrations Criteria per VISL Calculator, August 2019.
NS - No standard
U - Indicates that the analyte was not detected above the laboratory MDL
Highlighted text denotes concentrations exceeding VISL



APPENDIX A SOIL BORING LOGS

PROJECT #:		TOT1901			
SITE ADDRESS:		1405 Atlantic Avenue, Brooklyn, NY			
BORING ID:		SB-001		BORING DEPTH (FT):	CORE LENGTH (FT):
WELL ID:		N/A		BORING DIAMETER (IN):	WELL DIAMETER (IN):
DRILLING CONTRACTOR:		Coastal Environmental Solutions, Inc.		DATE STARTED:	DATE FINISHED:
DRILLING METHOD:		Direct Push		TIME STARTED:	TIME FINISHED:
DRILLING EQUIPMENT:		Geoprobe 54LT		LATITUDE:	LONGITUDE:
SAMPLING METHOD:		Macrocore		PROJECT MANAGER:	LOGGED BY:
				Heather Moran-Botta	Michael Gaul

DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0						0	
0						0	
1						1	
1						1	
2				URBAN FILL with brick, sand and gravel: medium brown, dry, no odor	0	2	
2						2	
2						2	
3						3	
3				POORLY GRADED SAND (SP) with rock fragments: light brown, dry, no odor, coarse	0	3	
4						4	
4				CLAYEY SAND (SC) with rock fragments: medium brown, dry, no odor	0	4	
4						4	
5						5	
5						5	

P.W. Grosser Consulting	End of Boring Depth (feet): 5	Water Table Symbol: ▼	Page 1 of 1
-------------------------	-------------------------------	-----------------------	-------------

PROJECT #:		TOT1901			
SITE ADDRESS:		1405 Atlantic Avenue, Brooklyn, NY			
BORING ID:		SB-002		BORING DEPTH (FT):	CORE LENGTH (FT):
WELL ID:		N/A		BORING DIAMETER (IN):	WELL DIAMETER (IN):
DRILLING CONTRACTOR:		Coastal Environmental Solutions, Inc.		DATE STARTED:	DATE FINISHED:
DRILLING METHOD:		Direct Push		TIME STARTED:	TIME FINISHED:
DRILLING EQUIPMENT:		Geoprobe 54LT		LATITUDE:	LONGITUDE:
SAMPLING METHOD:		Macrocore		PROJECT MANAGER:	LOGGED BY:
				Heather Moran-Botta	Michael Gaul

DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0				URBAN FILL with brick and sand: medium brown, dry, no odor	0	0	
0							
0							
1							
1							
1							
1							
1							
2							
2							
2				CLAYEY SAND (SC) with rock fragments: medium brown, dry, no odor	0	2	
2							
2							
2							
3							
3							
3							
3							
3							
3							

P.W. Grosser Consulting

End of Boring Depth (feet): 3.5

Water Table Symbol: ▼

Page 1 of 1

PROJECT #:		TOT1901			
SITE ADDRESS:		1405 Atlantic Avenue, Brooklyn, NY			
BORING ID:		SB-003		BORING DEPTH (FT):	CORE LENGTH (FT):
WELL ID:		N/A		BORING DIAMETER (IN):	WELL DIAMETER (IN):
DRILLING CONTRACTOR:		Coastal Environmental Solutions, Inc.		DATE STARTED:	DATE FINISHED:
DRILLING METHOD:		Direct Push		TIME STARTED:	TIME FINISHED:
DRILLING EQUIPMENT:		Geoprobe 54LT		LATITUDE:	LONGITUDE:
SAMPLING METHOD:		Macrocore		PROJECT MANAGER:	LOGGED BY:
				Heather Moran-Botta	Michael Gaul

DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0						0	
0						0	
1						1	
1						1	
2						2	
2				URBAN FILL with brick, slag and sand: medium brown, dry, no odor	2	2	
2						2	
3						3	
3						3	
4						4	
4						4	
4				POORLY GRADED SAND (SP) with rock fragments: medium brown, dry, no odor, coarse	1.5	4	
4						4	
5						5	
5						5	

P.W. Grosser Consulting	End of Boring Depth (feet): 5	Water Table Symbol: ▼	Page 1 of 1
-------------------------	-------------------------------	-----------------------	-------------

PROJECT #:		TOT1901					
SITE ADDRESS:		1405 Atlantic Avenue, Brooklyn, NY					
BORING ID:		SB-004		BORING DEPTH (FT):		CORE LENGTH (FT):	
WELL ID:		N/A		BORING DIAMETER (IN):		WELL DIAMETER (IN):	
DRILLING CONTRACTOR:		Coastal Environmental Solutions, Inc.		DATE STARTED:		DATE FINISHED:	
DRILLING METHOD:		Direct Push		TIME STARTED:		TIME FINISHED:	
DRILLING EQUIPMENT:		Geoprobe 54LT		LATITUDE:		LONGITUDE:	
SAMPLING METHOD:		Dual Tube		PROJECT MANAGER:		LOGGED BY:	
				Heather Moran-Botta		Michael Gaul	
DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0				URBAN FILL with brick, rock fragments and sand: medium brown, dry, no odor	0	0	
1						6	
2						7	
3				URBAN FILL with brick, glass, concrete and sand: dark brown, dry, no odor	0	4	
4						5	
5						6	
6				CLAYEY SAND (SC) with rock fragments: reddish brown, dry, no odor	0	7	
7						8	
8						9	
9				POORLY GRADED SAND (SW): light brown, dry, no odor, 100% fine sand, tightly compacted	0	10	
10						11	
11						12	
12						13	
13							
P.W. Grosser Consulting				End of Boring Depth (feet): 12.5		Water Table Symbol: ▼	
						Page 1 of 1	

PROJECT #:		TOT1901			
SITE ADDRESS:		1405 Atlantic Avenue, Brooklyn, NY			
BORING ID:		SB-005		BORING DEPTH (FT):	CORE LENGTH (FT):
WELL ID:		N/A		BORING DIAMETER (IN):	WELL DIAMETER (IN):
DRILLING CONTRACTOR:		Coastal Environmental Solutions, Inc.		DATE STARTED:	DATE FINISHED:
DRILLING METHOD:		Direct Push		TIME STARTED:	TIME FINISHED:
DRILLING EQUIPMENT:		Geoprobe 54LT		LATITUDE:	LONGITUDE:
SAMPLING METHOD:		Macrocore		PROJECT MANAGER:	LOGGED BY:
				Heather Moran-Botta	Michael Gaul

DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0						0	
1						1	
1						1	
2						2	
2						2	
3				URBAN FILL with brick and sand: dark brown, damp, no odor	0	3	
3						3	
4						4	
4						4	
5						5	
5						5	
6				POORLY GRADED SAND (SP) with rock fragments: medium brown, dry, no odor, coarse	0	6	
6						6	
7						7	
7						7	
8				POORLY GRADED SAND (SP): medium brown, dry, no odor, coarse	0	8	
8						8	
9						9	
9						9	
10						10	
10						10	

P.W. Grosser Consulting	End of Boring Depth (feet): 10	Water Table Symbol: ▼	Page 1 of 1
-------------------------	--------------------------------	-----------------------	-------------

PROJECT #:		TOT1901						
SITE ADDRESS:		1405 Atlantic Avenue, Brooklyn, NY						
BORING ID:		SB-006		BORING DEPTH (FT):		CORE LENGTH (FT):		
WELL ID:		N/A		BORING DIAMETER (IN):		WELL DIAMETER (IN):		
DRILLING CONTRACTOR:		Coastal Environmental Solutions, Inc.		DATE STARTED:		DATE FINISHED:		
DRILLING METHOD:		Direct Push		TIME STARTED:		TIME FINISHED:		
DRILLING EQUIPMENT:		Geoprobe 54LT		LATITUDE:		LONGITUDE:		
SAMPLING METHOD:		Dual Tube		PROJECT MANAGER:		LOGGED BY:		
				Heather Moran-Botta		Michael Gaul		
DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS	
0				URBAN FILL with brick, rock fragments and sand: medium brown, dry, no odor	0	0		
1						1		
2						2		
3						3		
4				CLAYEY SAND (SC): medium brown, dry, no odor	0	4		
5						5		
6						6		
7				POORLY GRADED SAND (SW): medium brown, dry, no odor, 100% fine sand, tightly compacted	0	7		
8						8		
9					0	9		
10						10		
11						11		
12						12		
13					0	13		
14						14		
15						15		
16						16		
P.W. Grosser Consulting		End of Boring Depth (feet): 16			Water Table Symbol: ▼			Page 1 of 1

PROJECT #:		TOT1901					
SITE ADDRESS:		1405 Atlantic Avenue, Brooklyn, NY					
BORING ID:		SB-007		BORING DEPTH (FT):		CORE LENGTH (FT):	
WELL ID:		N/A		BORING DIAMETER (IN):		WELL DIAMETER (IN):	
DRILLING CONTRACTOR:		Coastal Environmental Solutions, Inc.		DATE STARTED:		DATE FINISHED:	
DRILLING METHOD:		Direct Push		TIME STARTED:		TIME FINISHED:	
DRILLING EQUIPMENT:		Geoprobe 54LT		LATITUDE:		LONGITUDE:	
SAMPLING METHOD:		Dual Tube		PROJECT MANAGER:		LOGGED BY:	
				Heather Moran-Botta		Michael Gaul	
DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0						0	
1				URBAN FILL with brick and clayey sand: medium brown, dry, no odor	0	1	
2						2	
3				CLAYEY SAND (SC): medium brown, dry, no odor	0	3	
4						4	
5				POORLY GRADED SAND (SW): medium brown to black, dry, no odor	0	5	
6						6	
7				CLAYEY SAND (SC): medium brown, dry, no odor	0	7	
8						8	
9						9	
10				POORLY GRADED SAND (SW): medium brown, dry, no odor, 100% fine sand, tightly compacted	0	10	
11						11	
12						12	
P.W. Grosser Consulting				End of Boring Depth (feet): 12		Water Table Symbol: ▼	
						Page 1 of 1	

PROJECT #:		TOT1901			
SITE ADDRESS:		1405 Atlantic Avenue, Brooklyn, NY			
BORING ID:		SB-008		BORING DEPTH (FT):	CORE LENGTH (FT):
WELL ID:		N/A		BORING DIAMETER (IN):	WELL DIAMETER (IN):
DRILLING CONTRACTOR:		Coastal Environmental Solutions, Inc.		DATE STARTED:	DATE FINISHED:
DRILLING METHOD:		Hand Auger		TIME STARTED:	TIME FINISHED:
DRILLING EQUIPMENT:		Hand Auger		LATITUDE:	LONGITUDE:
SAMPLING METHOD:		Hand Auger		PROJECT MANAGER:	LOGGED BY:
				Heather Moran-Botta	Michael Gaul

DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0				URBAN FILL with brick, concrete, rock fragments and sand: dark brown, damp, petroleum odor	0	0	
0							
0							
1							
1							
1							
1							
1							
1							
1							
2				URBAN FILL with brick, rock fragments and sand: medium brown, damp, no odor	0	2	
2							
2							
2							
2							
2							
2							
2							
2							
2							
3						3	
3							
3							
3							
3							
3							
3							
3							
3							
3							
4						4	
4						4	

P.W. Grosser Consulting	End of Boring Depth (feet): 4	Water Table Symbol: ▼	Page 1 of 1
-------------------------	-------------------------------	-----------------------	-------------

PROJECT #:		TOT1901							
SITE ADDRESS:		1405 Atlantic Avenue, Brooklyn, NY							
BORING ID:		SB-009		BORING DEPTH (FT):		CORE LENGTH (FT):			
WELL ID:		N/A		BORING DIAMETER (IN):		WELL DIAMETER (IN):			
DRILLING CONTRACTOR:		Eastern Environmental Solutions, Inc.		DATE STARTED:		DATE FINISHED:			
DRILLING METHOD:		Direct Push		TIME STARTED:		TIME FINISHED:			
DRILLING EQUIPMENT:		Geoprobe 7822DT		LATITUDE:		LONGITUDE:			
SAMPLING METHOD:		Macrocore		PROJECT MANAGER:		LOGGED BY:			
				Heather Moran-Botta		Michael Gaul			
DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS		
0				URBAN FILL with brick, sand and concrete: medium brown, dry, no odor	0	0			
1						1			
2						2			
3				POORLY GRADED SAND (SP): medium brown, dry, no odor, coarse	0	3			
4						4			
5						5			
6						6			
7						7			
8						8			
9						9			
10						10			
11				POORLY GRADED SAND (SP) with rock fragments: medium brown, damp, tightly compacted, no odor, fine	0	11			
12						12			
13						13			
14						14			
15						15			
16						16			
17						17			
18						18			
19						19			
20						20			
P.W. Grosser Consulting		End of Boring Depth (feet): 20				Water Table Symbol: ▼		Page 1 of 1	

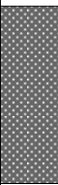
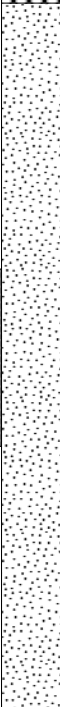
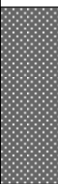
PROJECT #:		TOT1901					
SITE ADDRESS:		1405 Atlantic Avenue, Brooklyn, NY					
BORING ID:		SB-010		BORING DEPTH (FT):		CORE LENGTH (FT):	
WELL ID:		N/A		20		5	
DRILLING CONTRACTOR:		Eastern Environmental Solutions, Inc.		BORING DIAMETER (IN):		WELL DIAMETER (IN):	
DRILLING METHOD:		Direct Push		2		N/A	
DRILLING EQUIPMENT:		Geoprobe 7822DT		DATE STARTED:		DATE FINISHED:	
SAMPLING METHOD:		Macrocore		04/09/2019		04/09/2019	
				TIME STARTED:		TIME FINISHED:	
				10:00		11:05	
				LATITUDE:		LONGITUDE:	
				N/A		N/A	
				PROJECT MANAGER:		LOGGED BY:	
				Heather Moran-Botta		Michael Gaul	
DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0						0	
1				URBAN FILL with brick, concrete and sand: medium brown, dry, no odor	0	1	
2						2	
3				POORLY GRADED SAND (SP): medium brown, dry, no odor, fine	0	3	
4				CLAYEY SAND (SC) with rock fragments: dark brown, dry, no odor	0	4	
5						5	
6				CLAYEY SAND (SC): dark brown, dry, no odor, fine	0	6	
7						7	
8				CLAYEY SAND (SC): medium brown, damp, no odor, fine	0	8	
9						9	
10				POORLY GRADED SAND (SP): medium brown, dry, no odor, coarse	0	10	
11						11	
12				POORLY GRADED SAND (SP) with rock fragments and slag: medium brown, dry, no odor, fine	0	12	
13						13	
14						14	
15				POORLY GRADED SAND (SP) with rock fragments: medium brown, dry, no odor, fine	0	15	
16						16	
17						17	
18						18	
19						19	
20						20	
P.W. Grosser Consulting		End of Boring Depth (feet): 20			Water Table Symbol: ▼		Page 1 of 1

PROJECT #:		TOT1901					
SITE ADDRESS:		1405 Atlantic Avenue, Brooklyn, NY					
BORING ID:		SB-011		BORING DEPTH (FT):		CORE LENGTH (FT):	
WELL ID:		N/A		BORING DIAMETER (IN):		WELL DIAMETER (IN):	
DRILLING CONTRACTOR:		Eastern Environmental Solutions, Inc.		DATE STARTED:		DATE FINISHED:	
DRILLING METHOD:		Direct Push		TIME STARTED:		TIME FINISHED:	
DRILLING EQUIPMENT:		Geoprobe 7822DT		LATITUDE:		LONGITUDE:	
SAMPLING METHOD:		Macrocore		PROJECT MANAGER:		LOGGED BY:	
				Heather Moran-Botta		Michael Gaul	
DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0				URBAN FILL with brick, concrete and sand: medium brown, dry, no odor	0	0	
1						2	
2						3	
3				URBAN FILL with brick and sand: black discoloration, dry, no odor	0	4	
4						5	
5				CLAYEY SAND (SC): medium brown, dry, no odor, fine	0	6	
6						7	
7				POORLY GRADED SAND (SP) with rock fragments: medium brown, dry, no odor, fine	0	8	
8						9	
9						10	
10						11	
11						12	
12						13	
13						14	
14						15	
15							

P.W. Grosser Consulting	End of Boring Depth (feet): 15	Water Table Symbol: ▼	Page 1 of 1
-------------------------	--------------------------------	-----------------------	-------------

PROJECT #:		TOT1901					
SITE ADDRESS:		1405 Atlantic Avenue, Brooklyn, NY					
BORING ID:		SB-012		BORING DEPTH (FT):		CORE LENGTH (FT):	
WELL ID:		N/A		BORING DIAMETER (IN):		WELL DIAMETER (IN):	
DRILLING CONTRACTOR:		Eastern Environmental Solutions, Inc.		DATE STARTED:		DATE FINISHED:	
DRILLING METHOD:		Direct Push		TIME STARTED:		TIME FINISHED:	
DRILLING EQUIPMENT:		Geoprobe 7822DT		LATITUDE:		LONGITUDE:	
SAMPLING METHOD:		Macrocore		PROJECT MANAGER:		LOGGED BY:	
				Heather Moran-Botta		Michael Gaul	
DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0						0	
1				URBAN FILL with brick, concrete and sand: medium brown, dry, no odor	0	1	
2						2	
3				URBAN FILL with brick, ash and sand: dark brown, dry, no odor	0	3	
4				URBAN FILL with sand: black discoloration, dry, no odor	0	4	
5						5	
6				CLAYEY SAND (SC): medium brown, dry, no odor, fine	0	6	
7						7	
8				URBAN FILL with brick and sand: medium brown, dry, no odor	0	8	
9				POORLY GRADED SAND (SP): medium brown, dry, no odor, coarse	0	9	
10						10	
11				WELL GRADED SAND (SP) with rock fragments: medium brown, dry, no odor, fine to coarse	0	11	
12						12	
13						13	
14						14	
15						15	
P.W. Grosser Consulting				End of Boring Depth (feet): 15		Water Table Symbol: ▼	
						Page 1 of 1	

PROJECT #:		TOT1901							
SITE ADDRESS:		1405 Atlantic Avenue, Brooklyn, NY							
BORING ID:		SB-013		BORING DEPTH (FT):		CORE LENGTH (FT):			
WELL ID:		N/A		BORING DIAMETER (IN):		WELL DIAMETER (IN):			
DRILLING CONTRACTOR:		Eastern Environmental Solutions, Inc.		DATE STARTED:		DATE FINISHED:			
DRILLING METHOD:		Direct Push		TIME STARTED:		TIME FINISHED:			
DRILLING EQUIPMENT:		Geoprobe 7822DT		LATITUDE:		LONGITUDE:			
SAMPLING METHOD:		Macrocore		PROJECT MANAGER:		LOGGED BY:			
				Heather Moran-Botta		Michael Gaul			
DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS		
0				URBAN FILL with brick, concrete and sand: medium brown, dry, no odor	0	0			
1						1			
2						2			
3						3			
4						4			
5						5			
6				POORLY GRADED SAND (SP) with rock fragments: medium brown, dry, no odor, fine	0	6			
7						7			
8						8			
9						9			
10						10			
11						11			
12						12			
13						13			
14						14			
15						15			
P.W. Grosser Consulting		End of Boring Depth (feet): 15				Water Table Symbol: ▼		Page 1 of 1	

PROJECT #:		TOT1901						
SITE ADDRESS:		1405 Atlantic Avenue, Brooklyn, NY						
BORING ID:		SB-014		BORING DEPTH (FT):		CORE LENGTH (FT):		
WELL ID:		N/A		BORING DIAMETER (IN):		WELL DIAMETER (IN):		
DRILLING CONTRACTOR:		Eastern Environmental Solutions, Inc.		DATE STARTED:		DATE FINISHED:		
DRILLING METHOD:		Direct Push		TIME STARTED:		TIME FINISHED:		
DRILLING EQUIPMENT:		Geoprobe 7822DT		LATITUDE:		LONGITUDE:		
SAMPLING METHOD:		Macrocore		PROJECT MANAGER:		LOGGED BY:		
				Heather Moran-Botta		Michael Gaul		
DEPTH (feet)	RECOVERY INTERVAL	SAMPLE INTERVAL	USCS KEY	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS	
0				URBAN FILL with coal ash and sand: medium brown, dry, no odor	0	0		
1						1		
2						2		
3						3		
4				URBAN FILL with brick and sand: medium brown, dry, no odor	0	4		
5						5		
6						6		
7				POORLY GRADED SAND (SW): medium brown, dry, no odor, coarse	0	7		
8						8		
9						9		
10						10		
11				POORLY GRADED SAND (SW): medium brown, dry, no odor, fine	0	11		
12						12		
13						13		
14						14		
15						15		
P.W. Grosser Consulting		End of Boring Depth (feet): 15			Water Table Symbol: ▼			Page 1 of 1



APPENDIX B

LABORATORY ANALYTICAL REPORTS



ANALYTICAL REPORT

Lab Number:	L1911583
Client:	P. W. Grosser 630 Johnson Avenue Suite 7 Bohemia, NY 11716
ATTN:	Heather Moran-Botta
Phone:	(631) 589-6353
Project Name:	TOT1901
Project Number:	TOT1901
Report Date:	04/05/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: TOT1901
Project Number: TOT1901

Lab Number: L1911583
Report Date: 04/05/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1911583-01	SB002 0-2	SOIL	1045 ATLANTIC AVE.	03/22/19 09:45	03/22/19
L1911583-02	SB003 2-4	SOIL	1045 ATLANTIC AVE.	03/22/19 10:15	03/22/19
L1911583-03	SB004 0-2	SOIL	1045 ATLANTIC AVE.	03/22/19 11:15	03/22/19
L1911583-04	SB005 5-7	SOIL	1045 ATLANTIC AVE.	03/22/19 12:45	03/22/19
L1911583-05	SB006 0-2	SOIL	1045 ATLANTIC AVE.	03/22/19 13:20	03/22/19
L1911583-06	SB007 4-6	SOIL	1045 ATLANTIC AVE.	03/22/19 14:35	03/22/19
L1911583-07	SB008 0-2	SOIL	1045 ATLANTIC AVE.	03/22/19 14:48	03/22/19
L1911583-08	GRAB 001	SOIL	1045 ATLANTIC AVE.	03/22/19 14:59	03/22/19

Project Name: TOT1901**Lab Number:** L1911583**Project Number:** TOT1901**Report Date:** 04/05/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: TOT1901
Project Number: TOT1901

Lab Number: L1911583
Report Date: 04/05/19

Case Narrative (continued)

Report Revision

April 05, 2019: The Volatile Organics reporting list for L1911583-01, -02, -04, and -07 has been amended.

Report Submission

April 03, 2019: This final report includes the results of the Volatile Organics, Semivolatile Organics, and Total RCRA8 Metals performed on L1911583-02 and -08.

March 29, 2019: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L1911583-08: The internal standard (IS) response for 1,4-dichlorobenzene-d4 (35%) and the surrogate recovery for 4-bromofluorobenzene (139%) were outside the acceptance criteria; however, re-analysis achieved a similar result: 1,4-dichlorobenzene-d4 (46%). The results of both analyses are reported.

Semivolatile Organics

L1911583-01, -06, and -07: The sample has elevated detection limits due to the dilution required by the sample matrix.

L1911583-07: The surrogate recoveries are below the acceptance criteria for nitrobenzene-d5 (0%), 2-fluorobiphenyl (0%) and 4-terphenyl-d14 (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

Total Metals

L1911583-06: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Cristin Walker

Title: Technical Director/Representative

Date: 04/05/19

ORGANICS

VOLATILES

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-01
 Client ID: SB002 0-2
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 09:45
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 03/29/19 01:18
 Analyst: MKS
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	300	140	1
1,1-Dichloroethane	ND		ug/kg	60	8.7	1
Chloroform	ND		ug/kg	90	8.4	1
Carbon tetrachloride	ND		ug/kg	60	14.	1
1,2-Dichloropropane	ND		ug/kg	60	7.5	1
Dibromochloromethane	ND		ug/kg	60	8.4	1
1,1,2-Trichloroethane	ND		ug/kg	60	16.	1
Tetrachloroethene	ND		ug/kg	30	12.	1
Chlorobenzene	ND		ug/kg	30	7.6	1
Trichlorofluoromethane	ND		ug/kg	240	42.	1
1,2-Dichloroethane	ND		ug/kg	60	15.	1
1,1,1-Trichloroethane	ND		ug/kg	30	10.	1
Bromodichloromethane	ND		ug/kg	30	6.5	1
trans-1,3-Dichloropropene	ND		ug/kg	60	16.	1
cis-1,3-Dichloropropene	ND		ug/kg	30	9.5	1
1,1-Dichloropropene	ND		ug/kg	30	9.5	1
Bromoform	ND		ug/kg	240	15.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	30	10.	1
Benzene	ND		ug/kg	30	10.	1
Toluene	ND		ug/kg	60	33.	1
Ethylbenzene	12	J	ug/kg	60	8.5	1
Chloromethane	ND		ug/kg	240	56.	1
Bromomethane	69	J	ug/kg	120	35.	1
Vinyl chloride	ND		ug/kg	60	20.	1
Chloroethane	ND		ug/kg	120	27.	1
1,1-Dichloroethene	ND		ug/kg	60	14.	1
trans-1,2-Dichloroethene	ND		ug/kg	90	8.2	1
Trichloroethene	2300		ug/kg	30	8.2	1

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-01

Date Collected: 03/22/19 09:45

Client ID: SB002 0-2

Date Received: 03/22/19

Sample Location: 1045 ATLANTIC AVE.

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/kg	120	8.6	1
1,3-Dichlorobenzene	ND		ug/kg	120	8.9	1
1,4-Dichlorobenzene	ND		ug/kg	120	10.	1
Methyl tert butyl ether	ND		ug/kg	120	12.	1
p/m-Xylene	ND		ug/kg	120	34.	1
o-Xylene	22	J	ug/kg	60	17.	1
cis-1,2-Dichloroethene	200		ug/kg	60	10.	1
Dibromomethane	ND		ug/kg	120	14.	1
Styrene	ND		ug/kg	60	12.	1
Dichlorodifluoromethane	ND		ug/kg	600	55.	1
Acetone	ND		ug/kg	600	290	1
Carbon disulfide	ND		ug/kg	600	270	1
2-Butanone	ND		ug/kg	600	130	1
Vinyl acetate	ND		ug/kg	600	130	1
4-Methyl-2-pentanone	ND		ug/kg	600	77.	1
1,2,3-Trichloropropane	ND		ug/kg	120	7.6	1
2-Hexanone	ND		ug/kg	600	71.	1
Bromochloromethane	ND		ug/kg	120	12.	1
2,2-Dichloropropane	ND		ug/kg	120	12.	1
1,2-Dibromoethane	ND		ug/kg	60	17.	1
1,3-Dichloropropane	ND		ug/kg	120	10.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	30	7.9	1
Bromobenzene	ND		ug/kg	120	8.7	1
n-Butylbenzene	13	J	ug/kg	60	10.	1
sec-Butylbenzene	ND		ug/kg	60	8.8	1
tert-Butylbenzene	ND		ug/kg	120	7.1	1
o-Chlorotoluene	ND		ug/kg	120	11.	1
p-Chlorotoluene	ND		ug/kg	120	6.5	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	180	60.	1
Hexachlorobutadiene	ND		ug/kg	240	10.	1
Isopropylbenzene	ND		ug/kg	60	6.5	1
p-Isopropyltoluene	9.9	J	ug/kg	60	6.5	1
Naphthalene	160	J	ug/kg	240	39.	1
Acrylonitrile	ND		ug/kg	240	69.	1
n-Propylbenzene	ND		ug/kg	60	10.	1
1,2,3-Trichlorobenzene	ND		ug/kg	120	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	120	16.	1

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-01
 Client ID: SB002 0-2
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 09:45
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,3,5-Trimethylbenzene	24	J	ug/kg	120	12.	1
1,2,4-Trimethylbenzene	25	J	ug/kg	120	20.	1
1,4-Dioxane	ND		ug/kg	4800	2100	1
p-Diethylbenzene	47	J	ug/kg	120	11.	1
p-Ethyltoluene	36	J	ug/kg	120	23.	1
1,2,4,5-Tetramethylbenzene	39	J	ug/kg	120	11.	1
Ethyl ether	ND		ug/kg	120	20.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	300	85.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	94		70-130

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-02
 Client ID: SB003 2-4
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 10:15
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 04/03/19 01:42
 Analyst: NLK
 Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	350	160	1
1,1-Dichloroethane	ND		ug/kg	71	10.	1
Chloroform	ND		ug/kg	110	9.9	1
Carbon tetrachloride	ND		ug/kg	71	16.	1
1,2-Dichloropropane	ND		ug/kg	71	8.9	1
Dibromochloromethane	ND		ug/kg	71	9.9	1
1,1,2-Trichloroethane	ND		ug/kg	71	19.	1
Tetrachloroethene	35		ug/kg	35	14.	1
Chlorobenzene	ND		ug/kg	35	9.0	1
Trichlorofluoromethane	ND		ug/kg	280	49.	1
1,2-Dichloroethane	ND		ug/kg	71	18.	1
1,1,1-Trichloroethane	ND		ug/kg	35	12.	1
Bromodichloromethane	ND		ug/kg	35	7.7	1
trans-1,3-Dichloropropene	ND		ug/kg	71	19.	1
cis-1,3-Dichloropropene	ND		ug/kg	35	11.	1
1,1-Dichloropropene	ND		ug/kg	35	11.	1
Bromoform	ND		ug/kg	280	17.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	35	12.	1
Benzene	ND		ug/kg	35	12.	1
Toluene	ND		ug/kg	71	38.	1
Ethylbenzene	ND		ug/kg	71	10.	1
Chloromethane	ND		ug/kg	280	66.	1
Bromomethane	ND		ug/kg	140	41.	1
Vinyl chloride	ND		ug/kg	71	24.	1
Chloroethane	ND		ug/kg	140	32.	1
1,1-Dichloroethene	ND		ug/kg	71	17.	1
trans-1,2-Dichloroethene	ND		ug/kg	110	9.7	1
Trichloroethene	3200		ug/kg	35	9.7	1

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-02
 Client ID: SB003 2-4
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 10:15
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/kg	140	10.	1
1,3-Dichlorobenzene	ND		ug/kg	140	10.	1
1,4-Dichlorobenzene	ND		ug/kg	140	12.	1
Methyl tert butyl ether	ND		ug/kg	140	14.	1
p/m-Xylene	ND		ug/kg	140	40.	1
o-Xylene	ND		ug/kg	71	21.	1
cis-1,2-Dichloroethene	33	J	ug/kg	71	12.	1
Dibromomethane	ND		ug/kg	140	17.	1
Styrene	ND		ug/kg	71	14.	1
Dichlorodifluoromethane	ND		ug/kg	710	65.	1
Acetone	ND		ug/kg	710	340	1
Carbon disulfide	ND		ug/kg	710	320	1
2-Butanone	ND		ug/kg	710	160	1
Vinyl acetate	ND		ug/kg	710	150	1
4-Methyl-2-pentanone	ND		ug/kg	710	91.	1
1,2,3-Trichloropropane	ND		ug/kg	140	9.0	1
2-Hexanone	ND		ug/kg	710	84.	1
Bromochloromethane	ND		ug/kg	140	14.	1
2,2-Dichloropropane	ND		ug/kg	140	14.	1
1,2-Dibromoethane	ND		ug/kg	71	20.	1
1,3-Dichloropropane	ND		ug/kg	140	12.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	35	9.4	1
Bromobenzene	ND		ug/kg	140	10.	1
n-Butylbenzene	ND		ug/kg	71	12.	1
sec-Butylbenzene	ND		ug/kg	71	10.	1
tert-Butylbenzene	ND		ug/kg	140	8.4	1
o-Chlorotoluene	ND		ug/kg	140	14.	1
p-Chlorotoluene	ND		ug/kg	140	7.6	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	210	71.	1
Hexachlorobutadiene	ND		ug/kg	280	12.	1
Isopropylbenzene	ND		ug/kg	71	7.7	1
p-Isopropyltoluene	ND		ug/kg	71	7.7	1
Naphthalene	ND		ug/kg	280	46.	1
Acrylonitrile	ND		ug/kg	280	82.	1
n-Propylbenzene	ND		ug/kg	71	12.	1
1,2,3-Trichlorobenzene	ND		ug/kg	140	23.	1
1,2,4-Trichlorobenzene	ND		ug/kg	140	19.	1

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-02
 Client ID: SB003 2-4
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 10:15
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,3,5-Trimethylbenzene	ND		ug/kg	140	14.	1
1,2,4-Trimethylbenzene	ND		ug/kg	140	24.	1
1,4-Dioxane	ND		ug/kg	5700	2500	1
p-Diethylbenzene	ND		ug/kg	140	12.	1
p-Ethyltoluene	ND		ug/kg	140	27.	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	140	14.	1
Ethyl ether	ND		ug/kg	140	24.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	350	100	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	93		70-130

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-03
 Client ID: SB004 0-2
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 11:15
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 03/29/19 01:45
 Analyst: MKS
 Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	350	160	1
1,1-Dichloroethane	ND		ug/kg	70	10.	1
Chloroform	ND		ug/kg	100	9.8	1
Carbon tetrachloride	ND		ug/kg	70	16.	1
1,2-Dichloropropane	ND		ug/kg	70	8.7	1
Dibromochloromethane	ND		ug/kg	70	9.8	1
1,1,2-Trichloroethane	ND		ug/kg	70	19.	1
Tetrachloroethene	ND		ug/kg	35	14.	1
Chlorobenzene	ND		ug/kg	35	8.8	1
Trichlorofluoromethane	ND		ug/kg	280	48.	1
1,2-Dichloroethane	ND		ug/kg	70	18.	1
1,1,1-Trichloroethane	ND		ug/kg	35	12.	1
Bromodichloromethane	ND		ug/kg	35	7.6	1
trans-1,3-Dichloropropene	ND		ug/kg	70	19.	1
cis-1,3-Dichloropropene	ND		ug/kg	35	11.	1
1,3-Dichloropropene, Total	ND		ug/kg	35	11.	1
1,1-Dichloropropene	ND		ug/kg	35	11.	1
Bromoform	ND		ug/kg	280	17.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	35	12.	1
Benzene	ND		ug/kg	35	12.	1
Toluene	ND		ug/kg	70	38.	1
Ethylbenzene	38	J	ug/kg	70	9.8	1
Chloromethane	ND		ug/kg	280	65.	1
Bromomethane	85	J	ug/kg	140	40.	1
Vinyl chloride	ND		ug/kg	70	23.	1
Chloroethane	ND		ug/kg	140	32.	1
1,1-Dichloroethene	ND		ug/kg	70	16.	1
trans-1,2-Dichloroethene	ND		ug/kg	100	9.5	1

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-03
 Client ID: SB004 0-2
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 11:15
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	190		ug/kg	35	9.5	1
1,2-Dichlorobenzene	ND		ug/kg	140	10.	1
1,3-Dichlorobenzene	ND		ug/kg	140	10.	1
1,4-Dichlorobenzene	ND		ug/kg	140	12.	1
Methyl tert butyl ether	ND		ug/kg	140	14.	1
p/m-Xylene	390		ug/kg	140	39.	1
o-Xylene	720		ug/kg	70	20.	1
Xylenes, Total	1100		ug/kg	70	20.	1
cis-1,2-Dichloroethene	ND		ug/kg	70	12.	1
1,2-Dichloroethene, Total	ND		ug/kg	70	9.5	1
Dibromomethane	ND		ug/kg	140	16.	1
Styrene	ND		ug/kg	70	14.	1
Dichlorodifluoromethane	ND		ug/kg	700	64.	1
Acetone	ND		ug/kg	700	340	1
Carbon disulfide	ND		ug/kg	700	320	1
2-Butanone	ND		ug/kg	700	150	1
Vinyl acetate	ND		ug/kg	700	150	1
4-Methyl-2-pentanone	ND		ug/kg	700	89.	1
1,2,3-Trichloropropane	ND		ug/kg	140	8.8	1
2-Hexanone	ND		ug/kg	700	82.	1
Bromochloromethane	ND		ug/kg	140	14.	1
2,2-Dichloropropane	ND		ug/kg	140	14.	1
1,2-Dibromoethane	ND		ug/kg	70	19.	1
1,3-Dichloropropane	ND		ug/kg	140	12.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	35	9.2	1
Bromobenzene	ND		ug/kg	140	10.	1
n-Butylbenzene	ND		ug/kg	70	12.	1
sec-Butylbenzene	ND		ug/kg	70	10.	1
tert-Butylbenzene	ND		ug/kg	140	8.2	1
o-Chlorotoluene	ND		ug/kg	140	13.	1
p-Chlorotoluene	ND		ug/kg	140	7.5	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	210	70.	1
Hexachlorobutadiene	ND		ug/kg	280	12.	1
Isopropylbenzene	19	J	ug/kg	70	7.6	1
p-Isopropyltoluene	ND		ug/kg	70	7.6	1
Naphthalene	190	J	ug/kg	280	45.	1
Acrylonitrile	ND		ug/kg	280	80.	1

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-03
 Client ID: SB004 0-2
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 11:15
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	ND		ug/kg	70	12.	1
1,2,3-Trichlorobenzene	ND		ug/kg	140	22.	1
1,2,4-Trichlorobenzene	ND		ug/kg	140	19.	1
1,3,5-Trimethylbenzene	21	J	ug/kg	140	13.	1
1,2,4-Trimethylbenzene	31	J	ug/kg	140	23.	1
1,4-Dioxane	ND		ug/kg	5600	2400	1
p-Diethylbenzene	32	J	ug/kg	140	12.	1
p-Ethyltoluene	ND		ug/kg	140	27.	1
1,2,4,5-Tetramethylbenzene	20	J	ug/kg	140	13.	1
Ethyl ether	ND		ug/kg	140	24.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	350	99.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	94		70-130

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-04
 Client ID: SB005 5-7
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 12:45
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 03/29/19 05:28
 Analyst: MV
 Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	7.0	3.2	1
1,1-Dichloroethane	ND		ug/kg	1.4	0.20	1
Chloroform	ND		ug/kg	2.1	0.20	1
Carbon tetrachloride	ND		ug/kg	1.4	0.32	1
1,2-Dichloropropane	ND		ug/kg	1.4	0.18	1
Dibromochloromethane	ND		ug/kg	1.4	0.20	1
1,1,2-Trichloroethane	ND		ug/kg	1.4	0.38	1
Tetrachloroethene	ND		ug/kg	0.70	0.28	1
Chlorobenzene	ND		ug/kg	0.70	0.18	1
Trichlorofluoromethane	ND		ug/kg	5.6	0.98	1
1,2-Dichloroethane	ND		ug/kg	1.4	0.36	1
1,1,1-Trichloroethane	ND		ug/kg	0.70	0.24	1
Bromodichloromethane	ND		ug/kg	0.70	0.15	1
trans-1,3-Dichloropropene	ND		ug/kg	1.4	0.38	1
cis-1,3-Dichloropropene	ND		ug/kg	0.70	0.22	1
1,1-Dichloropropene	ND		ug/kg	0.70	0.22	1
Bromoform	ND		ug/kg	5.6	0.35	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.70	0.23	1
Benzene	ND		ug/kg	0.70	0.23	1
Toluene	ND		ug/kg	1.4	0.77	1
Ethylbenzene	ND		ug/kg	1.4	0.20	1
Chloromethane	ND		ug/kg	5.6	1.3	1
Bromomethane	ND		ug/kg	2.8	0.82	1
Vinyl chloride	ND		ug/kg	1.4	0.47	1
Chloroethane	ND		ug/kg	2.8	0.64	1
1,1-Dichloroethene	ND		ug/kg	1.4	0.34	1
trans-1,2-Dichloroethene	ND		ug/kg	2.1	0.19	1
Trichloroethene	1.1		ug/kg	0.70	0.19	1

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-04
 Client ID: SB005 5-7
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 12:45
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/kg	2.8	0.20	1
1,3-Dichlorobenzene	ND		ug/kg	2.8	0.21	1
1,4-Dichlorobenzene	ND		ug/kg	2.8	0.24	1
Methyl tert butyl ether	0.34	J	ug/kg	2.8	0.28	1
p/m-Xylene	ND		ug/kg	2.8	0.79	1
o-Xylene	ND		ug/kg	1.4	0.41	1
cis-1,2-Dichloroethene	ND		ug/kg	1.4	0.25	1
Dibromomethane	ND		ug/kg	2.8	0.34	1
Styrene	ND		ug/kg	1.4	0.28	1
Dichlorodifluoromethane	ND		ug/kg	14	1.3	1
Acetone	17		ug/kg	14	6.8	1
Carbon disulfide	ND		ug/kg	14	6.4	1
2-Butanone	ND		ug/kg	14	3.1	1
Vinyl acetate	ND		ug/kg	14	3.0	1
4-Methyl-2-pentanone	ND		ug/kg	14	1.8	1
1,2,3-Trichloropropane	ND		ug/kg	2.8	0.18	1
2-Hexanone	ND		ug/kg	14	1.7	1
Bromochloromethane	ND		ug/kg	2.8	0.29	1
2,2-Dichloropropane	ND		ug/kg	2.8	0.28	1
1,2-Dibromoethane	ND		ug/kg	1.4	0.39	1
1,3-Dichloropropane	ND		ug/kg	2.8	0.24	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.70	0.19	1
Bromobenzene	ND		ug/kg	2.8	0.20	1
n-Butylbenzene	ND		ug/kg	1.4	0.24	1
sec-Butylbenzene	ND		ug/kg	1.4	0.21	1
tert-Butylbenzene	ND		ug/kg	2.8	0.17	1
o-Chlorotoluene	ND		ug/kg	2.8	0.27	1
p-Chlorotoluene	ND		ug/kg	2.8	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.2	1.4	1
Hexachlorobutadiene	ND		ug/kg	5.6	0.24	1
Isopropylbenzene	ND		ug/kg	1.4	0.15	1
p-Isopropyltoluene	ND		ug/kg	1.4	0.15	1
Naphthalene	ND		ug/kg	5.6	0.92	1
Acrylonitrile	ND		ug/kg	5.6	1.6	1
n-Propylbenzene	ND		ug/kg	1.4	0.24	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.8	0.45	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.8	0.38	1

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-04
 Client ID: SB005 5-7
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 12:45
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,3,5-Trimethylbenzene	ND		ug/kg	2.8	0.27	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.8	0.47	1
1,4-Dioxane	ND		ug/kg	110	50.	1
p-Diethylbenzene	ND		ug/kg	2.8	0.25	1
p-Ethyltoluene	ND		ug/kg	2.8	0.54	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.8	0.27	1
Ethyl ether	ND		ug/kg	2.8	0.48	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	7.0	2.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	110		70-130

Project Name: TOT1901**Lab Number:** L1911583**Project Number:** TOT1901**Report Date:** 04/05/19**SAMPLE RESULTS**

Lab ID: L1911583-05
 Client ID: SB006 0-2
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 13:20
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 03/29/19 02:11
 Analyst: MKS
 Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	410	190	1
1,1-Dichloroethane	ND		ug/kg	83	12.	1
Chloroform	ND		ug/kg	120	12.	1
Carbon tetrachloride	ND		ug/kg	83	19.	1
1,2-Dichloropropane	ND		ug/kg	83	10.	1
Dibromochloromethane	ND		ug/kg	83	12.	1
1,1,2-Trichloroethane	ND		ug/kg	83	22.	1
Tetrachloroethene	4700		ug/kg	41	16.	1
Chlorobenzene	ND		ug/kg	41	10.	1
Trichlorofluoromethane	ND		ug/kg	330	58.	1
1,2-Dichloroethane	ND		ug/kg	83	21.	1
1,1,1-Trichloroethane	ND		ug/kg	41	14.	1
Bromodichloromethane	ND		ug/kg	41	9.0	1
trans-1,3-Dichloropropene	ND		ug/kg	83	22.	1
cis-1,3-Dichloropropene	ND		ug/kg	41	13.	1
1,3-Dichloropropene, Total	ND		ug/kg	41	13.	1
1,1-Dichloropropene	ND		ug/kg	41	13.	1
Bromoform	ND		ug/kg	330	20.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	41	14.	1
Benzene	ND		ug/kg	41	14.	1
Toluene	ND		ug/kg	83	45.	1
Ethylbenzene	ND		ug/kg	83	12.	1
Chloromethane	ND		ug/kg	330	77.	1
Bromomethane	99	J	ug/kg	160	48.	1
Vinyl chloride	ND		ug/kg	83	28.	1
Chloroethane	ND		ug/kg	160	37.	1
1,1-Dichloroethene	ND		ug/kg	83	20.	1
trans-1,2-Dichloroethene	ND		ug/kg	120	11.	1

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-05
 Client ID: SB006 0-2
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 13:20
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	670		ug/kg	41	11.	1
1,2-Dichlorobenzene	ND		ug/kg	160	12.	1
1,3-Dichlorobenzene	ND		ug/kg	160	12.	1
1,4-Dichlorobenzene	ND		ug/kg	160	14.	1
Methyl tert butyl ether	ND		ug/kg	160	17.	1
p/m-Xylene	ND		ug/kg	160	46.	1
o-Xylene	ND		ug/kg	83	24.	1
Xylenes, Total	ND		ug/kg	83	24.	1
cis-1,2-Dichloroethene	ND		ug/kg	83	14.	1
1,2-Dichloroethene, Total	ND		ug/kg	83	11.	1
Dibromomethane	ND		ug/kg	160	20.	1
Styrene	ND		ug/kg	83	16.	1
Dichlorodifluoromethane	ND		ug/kg	830	76.	1
Acetone	ND		ug/kg	830	400	1
Carbon disulfide	ND		ug/kg	830	380	1
2-Butanone	ND		ug/kg	830	180	1
Vinyl acetate	ND		ug/kg	830	180	1
4-Methyl-2-pentanone	ND		ug/kg	830	100	1
1,2,3-Trichloropropane	ND		ug/kg	160	10.	1
2-Hexanone	ND		ug/kg	830	98.	1
Bromochloromethane	ND		ug/kg	160	17.	1
2,2-Dichloropropane	ND		ug/kg	160	17.	1
1,2-Dibromoethane	ND		ug/kg	83	23.	1
1,3-Dichloropropane	ND		ug/kg	160	14.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	41	11.	1
Bromobenzene	ND		ug/kg	160	12.	1
n-Butylbenzene	ND		ug/kg	83	14.	1
sec-Butylbenzene	ND		ug/kg	83	12.	1
tert-Butylbenzene	ND		ug/kg	160	9.8	1
o-Chlorotoluene	ND		ug/kg	160	16.	1
p-Chlorotoluene	ND		ug/kg	160	8.9	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	250	82.	1
Hexachlorobutadiene	ND		ug/kg	330	14.	1
Isopropylbenzene	ND		ug/kg	83	9.0	1
p-Isopropyltoluene	ND		ug/kg	83	9.0	1
Naphthalene	ND		ug/kg	330	54.	1
Acrylonitrile	ND		ug/kg	330	95.	1

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-05
 Client ID: SB006 0-2
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 13:20
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	ND		ug/kg	83	14.	1
1,2,3-Trichlorobenzene	ND		ug/kg	160	27.	1
1,2,4-Trichlorobenzene	ND		ug/kg	160	22.	1
1,3,5-Trimethylbenzene	ND		ug/kg	160	16.	1
1,2,4-Trimethylbenzene	ND		ug/kg	160	28.	1
1,4-Dioxane	ND		ug/kg	6600	2900	1
p-Diethylbenzene	ND		ug/kg	160	15.	1
p-Ethyltoluene	ND		ug/kg	160	32.	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	160	16.	1
Ethyl ether	ND		ug/kg	160	28.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	410	120	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	95		70-130

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-06
 Client ID: SB007 4-6
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 14:35
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 03/29/19 15:02
 Analyst: BD
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	300	140	1
1,1-Dichloroethane	ND		ug/kg	61	8.8	1
Chloroform	ND		ug/kg	91	8.5	1
Carbon tetrachloride	ND		ug/kg	61	14.	1
1,2-Dichloropropane	ND		ug/kg	61	7.6	1
Dibromochloromethane	ND		ug/kg	61	8.5	1
1,1,2-Trichloroethane	ND		ug/kg	61	16.	1
Tetrachloroethene	2000		ug/kg	30	12.	1
Chlorobenzene	ND		ug/kg	30	7.7	1
Trichlorofluoromethane	ND		ug/kg	240	42.	1
1,2-Dichloroethane	ND		ug/kg	61	16.	1
1,1,1-Trichloroethane	ND		ug/kg	30	10.	1
Bromodichloromethane	ND		ug/kg	30	6.6	1
trans-1,3-Dichloropropene	ND		ug/kg	61	16.	1
cis-1,3-Dichloropropene	ND		ug/kg	30	9.6	1
1,3-Dichloropropene, Total	ND		ug/kg	30	9.6	1
1,1-Dichloropropene	ND		ug/kg	30	9.7	1
Bromoform	ND		ug/kg	240	15.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	30	10.	1
Benzene	ND		ug/kg	30	10.	1
Toluene	ND		ug/kg	61	33.	1
Ethylbenzene	ND		ug/kg	61	8.6	1
Chloromethane	ND		ug/kg	240	57.	1
Bromomethane	ND		ug/kg	120	35.	1
Vinyl chloride	ND		ug/kg	61	20.	1
Chloroethane	ND		ug/kg	120	27.	1
1,1-Dichloroethene	ND		ug/kg	61	14.	1
trans-1,2-Dichloroethene	ND		ug/kg	91	8.3	1

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-06
 Client ID: SB007 4-6
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 14:35
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	6300		ug/kg	30	8.3	1
1,2-Dichlorobenzene	ND		ug/kg	120	8.8	1
1,3-Dichlorobenzene	ND		ug/kg	120	9.0	1
1,4-Dichlorobenzene	ND		ug/kg	120	10.	1
Methyl tert butyl ether	ND		ug/kg	120	12.	1
p/m-Xylene	ND		ug/kg	120	34.	1
o-Xylene	ND		ug/kg	61	18.	1
Xylenes, Total	ND		ug/kg	61	18.	1
cis-1,2-Dichloroethene	420		ug/kg	61	11.	1
1,2-Dichloroethene, Total	420		ug/kg	61	8.3	1
Dibromomethane	ND		ug/kg	120	14.	1
Styrene	ND		ug/kg	61	12.	1
Dichlorodifluoromethane	ND		ug/kg	610	56.	1
Acetone	ND		ug/kg	610	290	1
Carbon disulfide	ND		ug/kg	610	280	1
2-Butanone	ND		ug/kg	610	130	1
Vinyl acetate	ND		ug/kg	610	130	1
4-Methyl-2-pentanone	ND		ug/kg	610	78.	1
1,2,3-Trichloropropane	ND		ug/kg	120	7.7	1
2-Hexanone	ND		ug/kg	610	72.	1
Bromochloromethane	ND		ug/kg	120	12.	1
2,2-Dichloropropane	ND		ug/kg	120	12.	1
1,2-Dibromoethane	ND		ug/kg	61	17.	1
1,3-Dichloropropane	ND		ug/kg	120	10.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	30	8.0	1
Bromobenzene	ND		ug/kg	120	8.8	1
n-Butylbenzene	ND		ug/kg	61	10.	1
sec-Butylbenzene	ND		ug/kg	61	8.9	1
tert-Butylbenzene	ND		ug/kg	120	7.2	1
o-Chlorotoluene	ND		ug/kg	120	12.	1
p-Chlorotoluene	ND		ug/kg	120	6.6	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	180	61.	1
Hexachlorobutadiene	ND		ug/kg	240	10.	1
Isopropylbenzene	ND		ug/kg	61	6.6	1
p-Isopropyltoluene	ND		ug/kg	61	6.6	1
Naphthalene	230	J	ug/kg	240	40.	1
Acrylonitrile	ND		ug/kg	240	70.	1

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-06
 Client ID: SB007 4-6
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 14:35
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	ND		ug/kg	61	10.	1
1,2,3-Trichlorobenzene	ND		ug/kg	120	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	120	16.	1
1,3,5-Trimethylbenzene	ND		ug/kg	120	12.	1
1,2,4-Trimethylbenzene	ND		ug/kg	120	20.	1
1,4-Dioxane	ND		ug/kg	4900	2100	1
p-Diethylbenzene	ND		ug/kg	120	11.	1
p-Ethyltoluene	ND		ug/kg	120	23.	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	120	12.	1
Ethyl ether	ND		ug/kg	120	21.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	300	86.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	93		70-130

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-07
 Client ID: SB008 0-2
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 14:48
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 03/29/19 02:37
 Analyst: MKS
 Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	340	160	1
1,1-Dichloroethane	ND		ug/kg	68	9.9	1
Chloroform	ND		ug/kg	100	9.6	1
Carbon tetrachloride	ND		ug/kg	68	16.	1
1,2-Dichloropropane	ND		ug/kg	68	8.6	1
Dibromochloromethane	ND		ug/kg	68	9.6	1
1,1,2-Trichloroethane	ND		ug/kg	68	18.	1
Tetrachloroethene	ND		ug/kg	34	13.	1
Chlorobenzene	ND		ug/kg	34	8.7	1
Trichlorofluoromethane	ND		ug/kg	270	48.	1
1,2-Dichloroethane	ND		ug/kg	68	18.	1
1,1,1-Trichloroethane	ND		ug/kg	34	11.	1
Bromodichloromethane	ND		ug/kg	34	7.5	1
trans-1,3-Dichloropropene	ND		ug/kg	68	19.	1
cis-1,3-Dichloropropene	ND		ug/kg	34	11.	1
1,1-Dichloropropene	ND		ug/kg	34	11.	1
Bromoform	ND		ug/kg	270	17.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	34	11.	1
Benzene	ND		ug/kg	34	11.	1
Toluene	ND		ug/kg	68	37.	1
Ethylbenzene	ND		ug/kg	68	9.6	1
Chloromethane	ND		ug/kg	270	64.	1
Bromomethane	78	J	ug/kg	140	40.	1
Vinyl chloride	ND		ug/kg	68	23.	1
Chloroethane	ND		ug/kg	140	31.	1
1,1-Dichloroethene	ND		ug/kg	68	16.	1
trans-1,2-Dichloroethene	ND		ug/kg	100	9.4	1
Trichloroethene	18	J	ug/kg	34	9.4	1

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-07
 Client ID: SB008 0-2
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 14:48
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2-Dichlorobenzene	ND		ug/kg	140	9.8	1
1,3-Dichlorobenzene	ND		ug/kg	140	10.	1
1,4-Dichlorobenzene	ND		ug/kg	140	12.	1
Methyl tert butyl ether	ND		ug/kg	140	14.	1
p/m-Xylene	ND		ug/kg	140	38.	1
o-Xylene	23	J	ug/kg	68	20.	1
cis-1,2-Dichloroethene	ND		ug/kg	68	12.	1
Dibromomethane	ND		ug/kg	140	16.	1
Styrene	ND		ug/kg	68	13.	1
Dichlorodifluoromethane	ND		ug/kg	680	63.	1
Acetone	ND		ug/kg	680	330	1
Carbon disulfide	ND		ug/kg	680	310	1
2-Butanone	ND		ug/kg	680	150	1
Vinyl acetate	ND		ug/kg	680	150	1
4-Methyl-2-pentanone	ND		ug/kg	680	88.	1
1,2,3-Trichloropropane	60	J	ug/kg	140	8.7	1
2-Hexanone	ND		ug/kg	680	81.	1
Bromochloromethane	ND		ug/kg	140	14.	1
2,2-Dichloropropane	ND		ug/kg	140	14.	1
1,2-Dibromoethane	ND		ug/kg	68	19.	1
1,3-Dichloropropane	ND		ug/kg	140	11.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	34	9.0	1
Bromobenzene	ND		ug/kg	140	9.9	1
n-Butylbenzene	ND		ug/kg	68	11.	1
sec-Butylbenzene	16	J	ug/kg	68	10.	1
tert-Butylbenzene	14	J	ug/kg	140	8.1	1
o-Chlorotoluene	ND		ug/kg	140	13.	1
p-Chlorotoluene	ND		ug/kg	140	7.4	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	200	68.	1
Hexachlorobutadiene	ND		ug/kg	270	12.	1
Isopropylbenzene	ND		ug/kg	68	7.5	1
p-Isopropyltoluene	59	J	ug/kg	68	7.5	1
Naphthalene	ND		ug/kg	270	44.	1
Acrylonitrile	ND		ug/kg	270	79.	1
n-Propylbenzene	ND		ug/kg	68	12.	1
1,2,3-Trichlorobenzene	ND		ug/kg	140	22.	1
1,2,4-Trichlorobenzene	ND		ug/kg	140	19.	1

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-07
 Client ID: SB008 0-2
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 14:48
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,3,5-Trimethylbenzene	1200		ug/kg	140	13.	1
1,2,4-Trimethylbenzene	81	J	ug/kg	140	23.	1
1,4-Dioxane	ND		ug/kg	5500	2400	1
p-Diethylbenzene	ND		ug/kg	140	12.	1
p-Ethyltoluene	83	J	ug/kg	140	26.	1
1,2,4,5-Tetramethylbenzene	4700		ug/kg	140	13.	1
Ethyl ether	ND		ug/kg	140	23.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	340	97.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	96		70-130

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-08
 Client ID: GRAB 001
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 14:59
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 04/03/19 02:13
 Analyst: NLK
 Percent Solids: 37%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Benzene	ND		ug/kg	2.3	0.78	1
Toluene	ND		ug/kg	4.7	2.5	1
Ethylbenzene	ND		ug/kg	4.7	0.66	1
p/m-Xylene	ND		ug/kg	9.3	2.6	1
o-Xylene	ND		ug/kg	4.7	1.4	1
Xylenes, Total	ND		ug/kg	4.7	1.4	1
n-Butylbenzene	ND		ug/kg	4.7	0.78	1
sec-Butylbenzene	ND		ug/kg	4.7	0.68	1
tert-Butylbenzene	ND		ug/kg	9.3	0.55	1
Isopropylbenzene	ND		ug/kg	4.7	0.51	1
p-Isopropyltoluene	2.0	J	ug/kg	4.7	0.51	1
Naphthalene	10	J	ug/kg	19	3.0	1
n-Propylbenzene	ND		ug/kg	4.7	0.80	1
1,3,5-Trimethylbenzene	3.4	J	ug/kg	9.3	0.90	1
1,2,4-Trimethylbenzene	1.8	J	ug/kg	9.3	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	113		70-130
4-Bromofluorobenzene	139	Q	70-130
Dibromofluoromethane	105		70-130

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-08 R

Date Collected: 03/22/19 14:59

Client ID: GRAB 001

Date Received: 03/22/19

Sample Location: 1045 ATLANTIC AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Analytical Method: 1,8260C

Analytical Date: 04/03/19 08:48

Analyst: MV

Percent Solids: 37%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Benzene	ND		ug/kg	2.0	0.67	1
Toluene	ND		ug/kg	4.0	2.2	1
Ethylbenzene	ND		ug/kg	4.0	0.57	1
p/m-Xylene	ND		ug/kg	8.1	2.3	1
o-Xylene	ND		ug/kg	4.0	1.2	1
Xylenes, Total	ND		ug/kg	4.0	1.2	1
n-Butylbenzene	2.0	J	ug/kg	4.0	0.68	1
sec-Butylbenzene	ND		ug/kg	4.0	0.59	1
tert-Butylbenzene	ND		ug/kg	8.1	0.48	1
Isopropylbenzene	ND		ug/kg	4.0	0.44	1
p-Isopropyltoluene	0.91	J	ug/kg	4.0	0.44	1
Naphthalene	5.3	J	ug/kg	16	2.6	1
n-Propylbenzene	ND		ug/kg	4.0	0.69	1
1,3,5-Trimethylbenzene	1.1	J	ug/kg	8.1	0.78	1
1,2,4-Trimethylbenzene	ND		ug/kg	8.1	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	122		70-130
Dibromofluoromethane	102		70-130

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 03/28/19 20:52
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1220920-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 03/28/19 20:52
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1220920-5					
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 03/28/19 20:52
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04 Batch: WG1220920-5					
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	107		70-130

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 03/28/19 18:49
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03,05,07 Batch: WG1220976-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9
1,1-Dichloropropene	ND		ug/kg	25	8.0
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	93	J	ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 03/28/19 18:49
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03,05,07 Batch: WG1220976-5					
1,2-Dichlorobenzene	ND		ug/kg	100	7.2
1,3-Dichlorobenzene	ND		ug/kg	100	7.4
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	ND		ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
Xylenes, Total	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8
Dibromomethane	ND		ug/kg	100	12.
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
Vinyl acetate	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
1,3-Dichloropropane	ND		ug/kg	100	8.4
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	6.6
Bromobenzene	ND		ug/kg	100	7.2
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
tert-Butylbenzene	ND		ug/kg	100	5.9
o-Chlorotoluene	ND		ug/kg	100	9.6

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 03/28/19 18:49
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03,05,07 Batch: WG1220976-5					
p-Chlorotoluene	ND		ug/kg	100	5.4
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Hexachlorobutadiene	ND		ug/kg	200	8.4
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
Naphthalene	ND		ug/kg	200	32.
Acrylonitrile	ND		ug/kg	200	58.
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.
1,4-Dioxane	ND		ug/kg	4000	1800
p-Diethylbenzene	ND		ug/kg	100	8.8
p-Ethyltoluene	ND		ug/kg	100	19.
1,2,4,5-Tetramethylbenzene	ND		ug/kg	100	9.6
Ethyl ether	ND		ug/kg	100	17.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	71.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	96		70-130

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 03/29/19 13:18
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 06 Batch: WG1221190-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9
1,1-Dichloropropene	ND		ug/kg	25	8.0
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	ND		ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 03/29/19 13:18
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 06 Batch: WG1221190-5					
1,2-Dichlorobenzene	ND		ug/kg	100	7.2
1,3-Dichlorobenzene	ND		ug/kg	100	7.4
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	11	J	ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
Xylenes, Total	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8
Dibromomethane	ND		ug/kg	100	12.
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
Vinyl acetate	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
1,3-Dichloropropane	ND		ug/kg	100	8.4
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	6.6
Bromobenzene	ND		ug/kg	100	7.2
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
tert-Butylbenzene	ND		ug/kg	100	5.9
o-Chlorotoluene	ND		ug/kg	100	9.6

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 03/29/19 13:18
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 06 Batch: WG1221190-5					
p-Chlorotoluene	ND		ug/kg	100	5.4
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Hexachlorobutadiene	ND		ug/kg	200	8.4
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
Naphthalene	ND		ug/kg	200	32.
Acrylonitrile	ND		ug/kg	200	58.
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.
1,4-Dioxane	ND		ug/kg	4000	1800
p-Diethylbenzene	ND		ug/kg	100	8.8
p-Ethyltoluene	ND		ug/kg	100	19.
1,2,4,5-Tetramethylbenzene	ND		ug/kg	100	9.6
Ethyl ether	ND		ug/kg	100	17.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	71.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	93		70-130

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 04/03/19 08:22
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 08 Batch: WG1222501-12					
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	97		70-130

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 04/02/19 20:10
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 08 Batch: WG1222501-5					
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	96		70-130

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 04/02/19 17:52
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 02 Batch: WG1222568-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,1-Dichloropropene	ND		ug/kg	25	8.0
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	ND		ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8
1,2-Dichlorobenzene	ND		ug/kg	100	7.2

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 04/02/19 17:52
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 02 Batch: WG1222568-5					
1,3-Dichlorobenzene	ND		ug/kg	100	7.4
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	11	J	ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
Dibromomethane	ND		ug/kg	100	12.
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
Vinyl acetate	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
1,3-Dichloropropane	ND		ug/kg	100	8.4
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	6.6
Bromobenzene	ND		ug/kg	100	7.2
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
tert-Butylbenzene	ND		ug/kg	100	5.9
o-Chlorotoluene	ND		ug/kg	100	9.6
p-Chlorotoluene	ND		ug/kg	100	5.4
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Hexachlorobutadiene	ND		ug/kg	200	8.4

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 04/02/19 17:52
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 02 Batch: WG1222568-5					
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
Naphthalene	ND		ug/kg	200	32.
Acrylonitrile	ND		ug/kg	200	58.
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.
1,4-Dioxane	ND		ug/kg	4000	1800
p-Diethylbenzene	ND		ug/kg	100	8.8
p-Ethyltoluene	ND		ug/kg	100	19.
1,2,4,5-Tetramethylbenzene	ND		ug/kg	100	9.6
Ethyl ether	ND		ug/kg	100	17.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	71.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	96		70-130

Lab Control Sample Analysis Batch Quality Control

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1220920-3 WG1220920-4								
Methylene chloride	94		84		70-130	11		30
1,1-Dichloroethane	97		86		70-130	12		30
Chloroform	104		92		70-130	12		30
Carbon tetrachloride	119		105		70-130	13		30
1,2-Dichloropropane	94		84		70-130	11		30
Dibromochloromethane	101		90		70-130	12		30
1,1,2-Trichloroethane	90		82		70-130	9		30
Tetrachloroethene	101		88		70-130	14		30
Chlorobenzene	94		84		70-130	11		30
Trichlorofluoromethane	162	Q	141	Q	70-139	14		30
1,2-Dichloroethane	106		94		70-130	12		30
1,1,1-Trichloroethane	113		101		70-130	11		30
Bromodichloromethane	108		95		70-130	13		30
trans-1,3-Dichloropropene	96		85		70-130	12		30
cis-1,3-Dichloropropene	102		91		70-130	11		30
1,1-Dichloropropene	107		96		70-130	11		30
Bromoform	94		86		70-130	9		30
1,1,2,2-Tetrachloroethane	81		76		70-130	6		30
Benzene	96		85		70-130	12		30
Toluene	92		81		70-130	13		30
Ethylbenzene	95		85		70-130	11		30
Chloromethane	86		77		52-130	11		30
Bromomethane	168	Q	137		57-147	20		30

Lab Control Sample Analysis Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1220920-3 WG1220920-4								
Vinyl chloride	96		86		67-130	11		30
Chloroethane	157	Q	136		50-151	14		30
1,1-Dichloroethene	159	Q	139	Q	65-135	13		30
trans-1,2-Dichloroethene	100		89		70-130	12		30
Trichloroethene	101		89		70-130	13		30
1,2-Dichlorobenzene	92		83		70-130	10		30
1,3-Dichlorobenzene	95		84		70-130	12		30
1,4-Dichlorobenzene	92		81		70-130	13		30
Methyl tert butyl ether	100		89		66-130	12		30
p/m-Xylene	96		86		70-130	11		30
o-Xylene	96		87		70-130	10		30
cis-1,2-Dichloroethene	100		87		70-130	14		30
Dibromomethane	104		92		70-130	12		30
Styrene	96		85		70-130	12		30
Dichlorodifluoromethane	115		100		30-146	14		30
Acetone	101		94		54-140	7		30
Carbon disulfide	150	Q	130		59-130	14		30
2-Butanone	91		88		70-130	3		30
Vinyl acetate	84		80		70-130	5		30
4-Methyl-2-pentanone	90		85		70-130	6		30
1,2,3-Trichloropropane	87		79		68-130	10		30
2-Hexanone	85		79		70-130	7		30
Bromochloromethane	108		96		70-130	12		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1220920-3 WG1220920-4								
2,2-Dichloropropane	106		92		70-130	14		30
1,2-Dibromoethane	96		85		70-130	12		30
1,3-Dichloropropane	92		84		69-130	9		30
1,1,1,2-Tetrachloroethane	98		88		70-130	11		30
Bromobenzene	92		82		70-130	11		30
n-Butylbenzene	91		82		70-130	10		30
sec-Butylbenzene	92		82		70-130	11		30
tert-Butylbenzene	93		82		70-130	13		30
o-Chlorotoluene	88		79		70-130	11		30
p-Chlorotoluene	91		80		70-130	13		30
1,2-Dibromo-3-chloropropane	90		84		68-130	7		30
Hexachlorobutadiene	104		90		67-130	14		30
Isopropylbenzene	91		82		70-130	10		30
p-Isopropyltoluene	94		84		70-130	11		30
Naphthalene	91		84		70-130	8		30
Acrylonitrile	87		82		70-130	6		30
n-Propylbenzene	90		81		70-130	11		30
1,2,3-Trichlorobenzene	95		86		70-130	10		30
1,2,4-Trichlorobenzene	96		86		70-130	11		30
1,3,5-Trimethylbenzene	92		82		70-130	11		30
1,2,4-Trimethylbenzene	92		82		70-130	11		30
1,4-Dioxane	112		103		65-136	8		30
p-Diethylbenzene	96		85		70-130	12		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04 Batch: WG1220920-3 WG1220920-4								
p-Ethyltoluene	94		84		70-130	11		30
1,2,4,5-Tetramethylbenzene	95		85		70-130	11		30
Ethyl ether	153	Q	134	Q	67-130	13		30
trans-1,4-Dichloro-2-butene	76		75		70-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	109		107		70-130
Toluene-d8	95		96		70-130
4-Bromofluorobenzene	95		96		70-130
Dibromofluoromethane	109		109		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03,05,07 Batch: WG1220976-3 WG1220976-4								
Methylene chloride	108		104		70-130	4		30
1,1-Dichloroethane	121		117		70-130	3		30
Chloroform	115		112		70-130	3		30
Carbon tetrachloride	111		107		70-130	4		30
1,2-Dichloropropane	120		118		70-130	2		30
Dibromochloromethane	100		98		70-130	2		30
1,1,2-Trichloroethane	108		104		70-130	4		30
Tetrachloroethene	99		95		70-130	4		30
Chlorobenzene	102		99		70-130	3		30
Trichlorofluoromethane	110		107		70-139	3		30
1,2-Dichloroethane	119		114		70-130	4		30
1,1,1-Trichloroethane	112		107		70-130	5		30
Bromodichloromethane	114		110		70-130	4		30
trans-1,3-Dichloropropene	109		104		70-130	5		30
cis-1,3-Dichloropropene	114		110		70-130	4		30
1,1-Dichloropropene	120		113		70-130	6		30
Bromoform	94		91		70-130	3		30
1,1,2,2-Tetrachloroethane	106		101		70-130	5		30
Benzene	114		110		70-130	4		30
Toluene	108		103		70-130	5		30
Ethylbenzene	108		105		70-130	3		30
Chloromethane	117		110		52-130	6		30
Bromomethane	124		118		57-147	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03,05,07 Batch: WG1220976-3 WG1220976-4								
Vinyl chloride	118		113		67-130	4		30
Chloroethane	119		115		50-151	3		30
1,1-Dichloroethene	106		103		65-135	3		30
trans-1,2-Dichloroethene	107		103		70-130	4		30
Trichloroethene	110		110		70-130	0		30
1,2-Dichlorobenzene	101		97		70-130	4		30
1,3-Dichlorobenzene	102		100		70-130	2		30
1,4-Dichlorobenzene	101		98		70-130	3		30
Methyl tert butyl ether	106		102		66-130	4		30
p/m-Xylene	103		99		70-130	4		30
o-Xylene	103		98		70-130	5		30
cis-1,2-Dichloroethene	105		102		70-130	3		30
Dibromomethane	109		108		70-130	1		30
Styrene	101		98		70-130	3		30
Dichlorodifluoromethane	120		113		30-146	6		30
Acetone	118		108		54-140	9		30
Carbon disulfide	111		107		59-130	4		30
2-Butanone	126		96		70-130	27		30
Vinyl acetate	120		115		70-130	4		30
4-Methyl-2-pentanone	100		100		70-130	0		30
1,2,3-Trichloropropane	106		104		68-130	2		30
2-Hexanone	107		103		70-130	4		30
Bromochloromethane	106		102		70-130	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03,05,07 Batch: WG1220976-3 WG1220976-4								
2,2-Dichloropropane	118		113		70-130	4		30
1,2-Dibromoethane	102		98		70-130	4		30
1,3-Dichloropropane	110		107		69-130	3		30
1,1,1,2-Tetrachloroethane	101		99		70-130	2		30
Bromobenzene	99		96		70-130	3		30
n-Butylbenzene	117		112		70-130	4		30
sec-Butylbenzene	112		108		70-130	4		30
tert-Butylbenzene	107		104		70-130	3		30
o-Chlorotoluene	112		108		70-130	4		30
p-Chlorotoluene	110		107		70-130	3		30
1,2-Dibromo-3-chloropropane	86		87		68-130	1		30
Hexachlorobutadiene	100		96		67-130	4		30
Isopropylbenzene	108		105		70-130	3		30
p-Isopropyltoluene	108		104		70-130	4		30
Naphthalene	91		90		70-130	1		30
Acrylonitrile	111		107		70-130	4		30
n-Propylbenzene	113		109		70-130	4		30
1,2,3-Trichlorobenzene	94		92		70-130	2		30
1,2,4-Trichlorobenzene	99		96		70-130	3		30
1,3,5-Trimethylbenzene	108		105		70-130	3		30
1,2,4-Trimethylbenzene	106		103		70-130	3		30
1,4-Dioxane	116		104		65-136	11		30
p-Diethylbenzene	106		103		70-130	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03,05,07 Batch: WG1220976-3 WG1220976-4								
p-Ethyltoluene	109		105		70-130	4		30
1,2,4,5-Tetramethylbenzene	101		98		70-130	3		30
Ethyl ether	113		108		67-130	5		30
trans-1,4-Dichloro-2-butene	119		115		70-130	3		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	104		106		70-130
Toluene-d8	98		98		70-130
4-Bromofluorobenzene	106		106		70-130
Dibromofluoromethane	99		100		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG1221190-3 WG1221190-4								
Methylene chloride	90		89		70-130	1		30
1,1-Dichloroethane	92		91		70-130	1		30
Chloroform	84		85		70-130	1		30
Carbon tetrachloride	84		84		70-130	0		30
1,2-Dichloropropane	88		89		70-130	1		30
Dibromochloromethane	85		86		70-130	1		30
1,1,2-Trichloroethane	93		93		70-130	0		30
Tetrachloroethene	86		85		70-130	1		30
Chlorobenzene	85		84		70-130	1		30
Trichlorofluoromethane	88		86		70-139	2		30
1,2-Dichloroethane	92		93		70-130	1		30
1,1,1-Trichloroethane	86		86		70-130	0		30
Bromodichloromethane	81		82		70-130	1		30
trans-1,3-Dichloropropene	94		95		70-130	1		30
cis-1,3-Dichloropropene	81		82		70-130	1		30
1,1-Dichloropropene	88		87		70-130	1		30
Bromoform	85		88		70-130	3		30
1,1,2,2-Tetrachloroethane	93		96		70-130	3		30
Benzene	83		83		70-130	0		30
Toluene	92		91		70-130	1		30
Ethylbenzene	92		90		70-130	2		30
Chloromethane	104		103		52-130	1		30
Bromomethane	98		98		57-147	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG1221190-3 WG1221190-4								
Vinyl chloride	88		87		67-130	1		30
Chloroethane	90		89		50-151	1		30
1,1-Dichloroethene	84		84		65-135	0		30
trans-1,2-Dichloroethene	85		84		70-130	1		30
Trichloroethene	83		82		70-130	1		30
1,2-Dichlorobenzene	86		87		70-130	1		30
1,3-Dichlorobenzene	89		88		70-130	1		30
1,4-Dichlorobenzene	88		87		70-130	1		30
Methyl tert butyl ether	85		86		66-130	1		30
p/m-Xylene	88		86		70-130	2		30
o-Xylene	86		85		70-130	1		30
cis-1,2-Dichloroethene	82		82		70-130	0		30
Dibromomethane	80		82		70-130	2		30
Styrene	86		85		70-130	1		30
Dichlorodifluoromethane	83		80		30-146	4		30
Acetone	120		124		54-140	3		30
Carbon disulfide	92		90		59-130	2		30
2-Butanone	99		102		70-130	3		30
Vinyl acetate	97		99		70-130	2		30
4-Methyl-2-pentanone	105		106		70-130	1		30
1,2,3-Trichloropropane	97		99		68-130	2		30
2-Hexanone	101		102		70-130	1		30
Bromochloromethane	78		79		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG1221190-3 WG1221190-4								
2,2-Dichloropropane	91		90		70-130	1		30
1,2-Dibromoethane	88		88		70-130	0		30
1,3-Dichloropropane	94		95		69-130	1		30
1,1,1,2-Tetrachloroethane	83		84		70-130	1		30
Bromobenzene	86		85		70-130	1		30
n-Butylbenzene	98		97		70-130	1		30
sec-Butylbenzene	94		94		70-130	0		30
tert-Butylbenzene	91		90		70-130	1		30
o-Chlorotoluene	95		94		70-130	1		30
p-Chlorotoluene	96		94		70-130	2		30
1,2-Dibromo-3-chloropropane	82		89		68-130	8		30
Hexachlorobutadiene	92		92		67-130	0		30
Isopropylbenzene	94		92		70-130	2		30
p-Isopropyltoluene	91		91		70-130	0		30
Naphthalene	81		86		70-130	6		30
Acrylonitrile	104		105		70-130	1		30
n-Propylbenzene	96		95		70-130	1		30
1,2,3-Trichlorobenzene	84		87		70-130	4		30
1,2,4-Trichlorobenzene	85		87		70-130	2		30
1,3,5-Trimethylbenzene	94		92		70-130	2		30
1,2,4-Trimethylbenzene	92		91		70-130	1		30
1,4-Dioxane	102		106		65-136	4		30
p-Diethylbenzene	91		90		70-130	1		30

Lab Control Sample Analysis Batch Quality Control

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06 Batch: WG1221190-3 WG1221190-4								
p-Ethyltoluene	94		92		70-130	2		30
1,2,4,5-Tetramethylbenzene	86		87		70-130	1		30
Ethyl ether	86		87		67-130	1		30
trans-1,4-Dichloro-2-butene	110		115		70-130	4		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	112		114		70-130
Toluene-d8	109		106		70-130
4-Bromofluorobenzene	104		107		70-130
Dibromofluoromethane	95		96		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 08 Batch: WG1222501-10 WG1222501-11								
Benzene	110		104		70-130	6		30
Toluene	110		105		70-130	5		30
Ethylbenzene	114		109		70-130	4		30
p/m-Xylene	118		111		70-130	6		30
o-Xylene	118		113		70-130	4		30
n-Butylbenzene	116		109		70-130	6		30
sec-Butylbenzene	118		112		70-130	5		30
tert-Butylbenzene	117		110		70-130	6		30
Isopropylbenzene	119		112		70-130	6		30
p-Isopropyltoluene	118		112		70-130	5		30
Naphthalene	108		109		70-130	1		30
n-Propylbenzene	117		110		70-130	6		30
1,3,5-Trimethylbenzene	116		110		70-130	5		30
1,2,4-Trimethylbenzene	118		112		70-130	5		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	95		94		70-130
Toluene-d8	101		100		70-130
4-Bromofluorobenzene	103		101		70-130
Dibromofluoromethane	96		96		70-130

Lab Control Sample Analysis Batch Quality Control

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 08 Batch: WG1222501-3 WG1222501-4								
Benzene	112		114		70-130	2		30
Toluene	112		114		70-130	2		30
Ethylbenzene	116		117		70-130	1		30
p/m-Xylene	118		120		70-130	2		30
o-Xylene	119		121		70-130	2		30
n-Butylbenzene	115		114		70-130	1		30
sec-Butylbenzene	117		116		70-130	1		30
tert-Butylbenzene	117		116		70-130	1		30
Isopropylbenzene	119		118		70-130	1		30
p-Isopropyltoluene	118		118		70-130	0		30
Naphthalene	110		117		70-130	6		30
n-Propylbenzene	116		116		70-130	0		30
1,3,5-Trimethylbenzene	118		117		70-130	1		30
1,2,4-Trimethylbenzene	119		120		70-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	94		96		70-130
Toluene-d8	101		100		70-130
4-Bromofluorobenzene	103		102		70-130
Dibromofluoromethane	96		98		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02 Batch: WG1222568-3 WG1222568-4								
Methylene chloride	90		89		70-130	1		30
1,1-Dichloroethane	94		93		70-130	1		30
Chloroform	88		87		70-130	1		30
Carbon tetrachloride	84		83		70-130	1		30
1,2-Dichloropropane	92		91		70-130	1		30
Dibromochloromethane	86		87		70-130	1		30
1,1,2-Trichloroethane	96		95		70-130	1		30
Tetrachloroethene	84		83		70-130	1		30
Chlorobenzene	86		84		70-130	2		30
Trichlorofluoromethane	85		83		70-139	2		30
1,2-Dichloroethane	98		97		70-130	1		30
1,1,1-Trichloroethane	86		86		70-130	0		30
Bromodichloromethane	86		86		70-130	0		30
trans-1,3-Dichloropropene	97		97		70-130	0		30
cis-1,3-Dichloropropene	86		85		70-130	1		30
1,1-Dichloropropene	89		87		70-130	2		30
Bromoform	88		90		70-130	2		30
1,1,2,2-Tetrachloroethane	98		97		70-130	1		30
Benzene	86		85		70-130	1		30
Toluene	93		90		70-130	3		30
Ethylbenzene	92		91		70-130	1		30
Chloromethane	100		98		52-130	2		30
Bromomethane	101		95		57-147	6		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02 Batch: WG1222568-3 WG1222568-4								
Vinyl chloride	83		82		67-130	1		30
Chloroethane	88		88		50-151	0		30
1,1-Dichloroethene	82		82		65-135	0		30
trans-1,2-Dichloroethene	85		83		70-130	2		30
Trichloroethene	86		83		70-130	4		30
1,2-Dichlorobenzene	89		89		70-130	0		30
1,3-Dichlorobenzene	90		89		70-130	1		30
1,4-Dichlorobenzene	90		88		70-130	2		30
Methyl tert butyl ether	89		88		66-130	1		30
p/m-Xylene	88		86		70-130	2		30
o-Xylene	87		85		70-130	2		30
cis-1,2-Dichloroethene	84		83		70-130	1		30
Dibromomethane	85		84		70-130	1		30
Styrene	87		86		70-130	1		30
Dichlorodifluoromethane	72		71		30-146	1		30
Acetone	129		128		54-140	1		30
Carbon disulfide	90		88		59-130	2		30
2-Butanone	114		103		70-130	10		30
Vinyl acetate	102		100		70-130	2		30
4-Methyl-2-pentanone	111		108		70-130	3		30
1,2,3-Trichloropropane	102		102		68-130	0		30
2-Hexanone	106		105		70-130	1		30
Bromochloromethane	81		80		70-130	1		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02 Batch: WG1222568-3 WG1222568-4								
2,2-Dichloropropane	92		92		70-130	0		30
1,2-Dibromoethane	90		89		70-130	1		30
1,3-Dichloropropane	97		96		69-130	1		30
1,1,1,2-Tetrachloroethane	84		84		70-130	0		30
Bromobenzene	86		85		70-130	1		30
n-Butylbenzene	97		96		70-130	1		30
sec-Butylbenzene	95		93		70-130	2		30
tert-Butylbenzene	91		90		70-130	1		30
o-Chlorotoluene	96		95		70-130	1		30
p-Chlorotoluene	98		96		70-130	2		30
1,2-Dibromo-3-chloropropane	91		91		68-130	0		30
Hexachlorobutadiene	89		88		67-130	1		30
Isopropylbenzene	93		92		70-130	1		30
p-Isopropyltoluene	92		91		70-130	1		30
Naphthalene	86		88		70-130	2		30
Acrylonitrile	109		107		70-130	2		30
n-Propylbenzene	96		95		70-130	1		30
1,2,3-Trichlorobenzene	85		86		70-130	1		30
1,2,4-Trichlorobenzene	87		87		70-130	0		30
1,3,5-Trimethylbenzene	95		94		70-130	1		30
1,2,4-Trimethylbenzene	94		93		70-130	1		30
1,4-Dioxane	123		114		65-136	8		30
p-Diethylbenzene	92		91		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02 Batch: WG1222568-3 WG1222568-4								
p-Ethyltoluene	95		93		70-130	2		30
1,2,4,5-Tetramethylbenzene	89		88		70-130	1		30
Ethyl ether	90		87		67-130	3		30
trans-1,4-Dichloro-2-butene	117		120		70-130	3		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	116		116		70-130
Toluene-d8	106		106		70-130
4-Bromofluorobenzene	108		108		70-130
Dibromofluoromethane	96		98		70-130

SEMIVOLATILES

Project Name: TOT1901**Lab Number:** L1911583**Project Number:** TOT1901**Report Date:** 04/05/19**SAMPLE RESULTS**

Lab ID: L1911583-01 D

Date Collected: 03/22/19 09:45

Client ID: SB002 0-2

Date Received: 03/22/19

Sample Location: 1045 ATLANTIC AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Extraction Method: EPA 3546

Analytical Method: 1,8270D

Extraction Date: 03/26/19 02:11

Analytical Date: 03/27/19 09:48

Analyst: KR

Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	170	J	ug/kg	720	93.	5
Fluoranthene	4900		ug/kg	540	100	5
Benzo(a)anthracene	2700		ug/kg	540	100	5
Benzo(a)pyrene	2600		ug/kg	720	220	5
Benzo(b)fluoranthene	3600		ug/kg	540	150	5
Benzo(k)fluoranthene	960		ug/kg	540	140	5
Chrysene	2500		ug/kg	540	94.	5
Acenaphthylene	400	J	ug/kg	720	140	5
Anthracene	690		ug/kg	540	180	5
Benzo(ghi)perylene	1500		ug/kg	720	100	5
Fluorene	180	J	ug/kg	900	87.	5
Phenanthrene	2400		ug/kg	540	110	5
Dibenzo(a,h)anthracene	370	J	ug/kg	540	100	5
Indeno(1,2,3-cd)pyrene	1600		ug/kg	720	120	5
Pyrene	5000		ug/kg	540	89.	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	56		23-120
2-Fluorobiphenyl	96		30-120
4-Terphenyl-d14	62		18-120

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-02
 Client ID: SB003 2-4
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 10:15
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 04/01/19 16:25
 Analyst: IM
 Percent Solids: 87%

Extraction Method: EPA 3546
 Extraction Date: 03/31/19 12:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	62	J	ug/kg	150	20.	1
Fluoranthene	2100		ug/kg	110	22.	1
Benzo(a)anthracene	1500		ug/kg	110	21.	1
Benzo(a)pyrene	1500		ug/kg	150	46.	1
Benzo(b)fluoranthene	2000		ug/kg	110	32.	1
Benzo(k)fluoranthene	700		ug/kg	110	30.	1
Chrysene	1500		ug/kg	110	20.	1
Acenaphthylene	220		ug/kg	150	29.	1
Anthracene	240		ug/kg	110	37.	1
Benzo(ghi)perylene	1100		ug/kg	150	22.	1
Fluorene	53	J	ug/kg	190	18.	1
Phenanthrene	820		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	240		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	1200		ug/kg	150	26.	1
Pyrene	2000		ug/kg	110	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	99		23-120
2-Fluorobiphenyl	95		30-120
4-Terphenyl-d14	79		18-120

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-03
 Client ID: SB004 0-2
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 11:15
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 03/27/19 06:25
 Analyst: KR
 Percent Solids: 96%

Extraction Method: EPA 3546
 Extraction Date: 03/26/19 02:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	90	J	ug/kg	140	18.	1
Fluoranthene	2900		ug/kg	100	20.	1
Benzo(a)anthracene	1400		ug/kg	100	19.	1
Benzo(a)pyrene	1400		ug/kg	140	42.	1
Benzo(b)fluoranthene	1700		ug/kg	100	29.	1
Benzo(k)fluoranthene	550		ug/kg	100	27.	1
Chrysene	1400		ug/kg	100	18.	1
Acenaphthylene	130	J	ug/kg	140	26.	1
Anthracene	320		ug/kg	100	33.	1
Benzo(ghi)perylene	790		ug/kg	140	20.	1
Fluorene	89	J	ug/kg	170	16.	1
Phenanthrene	1500		ug/kg	100	21.	1
Dibenzo(a,h)anthracene	180		ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	840		ug/kg	140	24.	1
Pyrene	2800		ug/kg	100	17.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	89		23-120
2-Fluorobiphenyl	124	Q	30-120
4-Terphenyl-d14	86		18-120

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-04 D

Date Collected: 03/22/19 12:45

Client ID: SB005 5-7

Date Received: 03/22/19

Sample Location: 1045 ATLANTIC AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Extraction Method: EPA 3546

Analytical Method: 1,8270D

Extraction Date: 03/26/19 02:11

Analytical Date: 03/28/19 02:08

Analyst: EK

Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	500		ug/kg	280	37.	2
Fluoranthene	7900		ug/kg	210	41.	2
Benzo(a)anthracene	3400		ug/kg	210	40.	2
Benzo(a)pyrene	3200		ug/kg	280	87.	2
Benzo(b)fluoranthene	4200		ug/kg	210	60.	2
Benzo(k)fluoranthene	1200		ug/kg	210	57.	2
Chrysene	3100		ug/kg	210	37.	2
Acenaphthylene	180	J	ug/kg	280	55.	2
Anthracene	1200		ug/kg	210	70.	2
Benzo(ghi)perylene	1800		ug/kg	280	42.	2
Fluorene	420		ug/kg	360	35.	2
Phenanthrene	5300		ug/kg	210	43.	2
Dibenzo(a,h)anthracene	390		ug/kg	210	41.	2
Indeno(1,2,3-cd)pyrene	1900		ug/kg	280	50.	2
Pyrene	6800		ug/kg	210	35.	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	130	Q	30-120
4-Terphenyl-d14	83		18-120

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-05
 Client ID: SB006 0-2
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 13:20
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 03/27/19 05:34
 Analyst: KR
 Percent Solids: 88%

Extraction Method: EPA 3546
 Extraction Date: 03/26/19 02:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	27	J	ug/kg	150	19.	1
Fluoranthene	500		ug/kg	110	22.	1
Benzo(a)anthracene	260		ug/kg	110	21.	1
Benzo(a)pyrene	250		ug/kg	150	46.	1
Benzo(b)fluoranthene	320		ug/kg	110	32.	1
Benzo(k)fluoranthene	110		ug/kg	110	30.	1
Chrysene	280		ug/kg	110	20.	1
Acenaphthylene	ND		ug/kg	150	29.	1
Anthracene	56	J	ug/kg	110	37.	1
Benzo(ghi)perylene	140	J	ug/kg	150	22.	1
Fluorene	24	J	ug/kg	190	18.	1
Phenanthrene	360		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	38	J	ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	150		ug/kg	150	26.	1
Pyrene	540		ug/kg	110	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	115		30-120
4-Terphenyl-d14	84		18-120

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-06 D

Date Collected: 03/22/19 14:35

Client ID: SB007 4-6

Date Received: 03/22/19

Sample Location: 1045 ATLANTIC AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Extraction Method: EPA 3546

Analytical Method: 1,8270D

Extraction Date: 03/26/19 02:11

Analytical Date: 03/28/19 02:33

Analyst: EK

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	960		ug/kg	730	95.	5
Fluoranthene	18000		ug/kg	550	100	5
Benzo(a)anthracene	8200		ug/kg	550	100	5
Benzo(a)pyrene	7300		ug/kg	730	220	5
Benzo(b)fluoranthene	10000		ug/kg	550	150	5
Benzo(k)fluoranthene	3200		ug/kg	550	150	5
Chrysene	8500		ug/kg	550	95.	5
Acenaphthylene	810		ug/kg	730	140	5
Anthracene	2200		ug/kg	550	180	5
Benzo(ghi)perylene	3400		ug/kg	730	110	5
Fluorene	1000		ug/kg	920	89.	5
Phenanthrene	15000		ug/kg	550	110	5
Dibenzo(a,h)anthracene	1000		ug/kg	550	110	5
Indeno(1,2,3-cd)pyrene	4000		ug/kg	730	130	5
Pyrene	15000		ug/kg	550	91.	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	126	Q	30-120
4-Terphenyl-d14	79		18-120

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-07 D

Date Collected: 03/22/19 14:48

Client ID: SB008 0-2

Date Received: 03/22/19

Sample Location: 1045 ATLANTIC AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Extraction Method: EPA 3546

Analytical Method: 1,8270D

Extraction Date: 03/26/19 02:11

Analytical Date: 03/29/19 13:38

Analyst: JG

Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	1500	J	ug/kg	3100	410	20
Fluoranthene	1000	J	ug/kg	2400	450	20
Benzo(a)anthracene	670	J	ug/kg	2400	440	20
Benzo(a)pyrene	ND		ug/kg	3100	960	20
Benzo(b)fluoranthene	ND		ug/kg	2400	660	20
Benzo(k)fluoranthene	ND		ug/kg	2400	630	20
Chrysene	760	J	ug/kg	2400	410	20
Acenaphthylene	ND		ug/kg	3100	600	20
Anthracene	ND		ug/kg	2400	760	20
Benzo(ghi)perylene	ND		ug/kg	3100	460	20
Fluorene	1500	J	ug/kg	3900	380	20
Phenanthrene	3400		ug/kg	2400	480	20
Dibenzo(a,h)anthracene	ND		ug/kg	2400	450	20
Indeno(1,2,3-cd)pyrene	ND		ug/kg	3100	550	20
Pyrene	3900		ug/kg	2400	390	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	0	Q	23-120
2-Fluorobiphenyl	0	Q	30-120
4-Terphenyl-d14	0	Q	18-120

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-08
 Client ID: GRAB 001
 Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 14:59
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 04/01/19 16:48
 Analyst: IM
 Percent Solids: 37%

Extraction Method: EPA 3546
 Extraction Date: 03/31/19 12:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	350	46.	1
Fluoranthene	190	J	ug/kg	260	51.	1
Benzo(a)anthracene	110	J	ug/kg	260	50.	1
Benzo(a)pyrene	ND		ug/kg	350	110	1
Benzo(b)fluoranthene	170	J	ug/kg	260	74.	1
Benzo(k)fluoranthene	ND		ug/kg	260	71.	1
Chrysene	160	J	ug/kg	260	46.	1
Acenaphthylene	ND		ug/kg	350	68.	1
Anthracene	ND		ug/kg	260	86.	1
Benzo(ghi)perylene	140	J	ug/kg	350	52.	1
Fluorene	ND		ug/kg	440	43.	1
Phenanthrene	210	J	ug/kg	260	54.	1
Dibenzo(a,h)anthracene	ND		ug/kg	260	51.	1
Indeno(1,2,3-cd)pyrene	120	J	ug/kg	350	62.	1
Pyrene	260		ug/kg	260	44.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	60		23-120
2-Fluorobiphenyl	65		30-120
4-Terphenyl-d14	44		18-120

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 03/27/19 21:43
 Analyst: RC

Extraction Method: EPA 3546
 Extraction Date: 03/26/19 02:11

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-07 Batch: WG1219431-1					
Acenaphthene	ND		ug/kg	130	17.
Fluoranthene	ND		ug/kg	97	19.
Benzo(a)anthracene	ND		ug/kg	97	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	97	27.
Benzo(k)fluoranthene	ND		ug/kg	97	26.
Chrysene	ND		ug/kg	97	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	97	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	97	20.
Dibenzo(a,h)anthracene	ND		ug/kg	97	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	97	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	111		25-120
Phenol-d6	113		10-120
Nitrobenzene-d5	123	Q	23-120
2-Fluorobiphenyl	115		30-120
2,4,6-Tribromophenol	117		10-136
4-Terphenyl-d14	115		18-120

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 03/31/19 17:16
 Analyst: SZ

Extraction Method: EPA 3546
 Extraction Date: 03/30/19 14:39

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02,08 Batch: WG1221418-1					
Acenaphthene	ND		ug/kg	130	17.
Fluoranthene	ND		ug/kg	99	19.
Benzo(a)anthracene	ND		ug/kg	99	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	82		25-120
Phenol-d6	78		10-120
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	79		30-120
2,4,6-Tribromophenol	94		10-136
4-Terphenyl-d14	82		18-120

Lab Control Sample Analysis Batch Quality Control

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-07 Batch: WG1219431-2 WG1219431-3								
Acenaphthene	88		87		31-137	1		50
Fluoranthene	86		84		40-140	2		50
Benzo(a)anthracene	91		93		40-140	2		50
Benzo(a)pyrene	102		99		40-140	3		50
Benzo(b)fluoranthene	103		100		40-140	3		50
Benzo(k)fluoranthene	93		96		40-140	3		50
Chrysene	91		95		40-140	4		50
Acenaphthylene	93		90		40-140	3		50
Anthracene	80		81		40-140	1		50
Benzo(ghi)perylene	90		85		40-140	6		50
Fluorene	91		91		40-140	0		50
Phenanthrene	79		80		40-140	1		50
Dibenzo(a,h)anthracene	88		83		40-140	6		50
Indeno(1,2,3-cd)pyrene	88		85		40-140	3		50
Pyrene	87		85		35-142	2		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	90		98		25-120
Phenol-d6	91		97		10-120
Nitrobenzene-d5	97		107		23-120
2-Fluorobiphenyl	90		88		30-120
2,4,6-Tribromophenol	100		90		10-136
4-Terphenyl-d14	89		85		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,08 Batch: WG1221418-2 WG1221418-3								
Acenaphthene	84		87		31-137	4		50
Fluoranthene	84		85		40-140	1		50
Benzo(a)anthracene	90		88		40-140	2		50
Benzo(a)pyrene	103		100		40-140	3		50
Benzo(b)fluoranthene	99		97		40-140	2		50
Benzo(k)fluoranthene	94		93		40-140	1		50
Chrysene	88		87		40-140	1		50
Acenaphthylene	84		86		40-140	2		50
Anthracene	81		81		40-140	0		50
Benzo(ghi)perylene	85		85		40-140	0		50
Fluorene	92		91		40-140	1		50
Phenanthrene	80		80		40-140	0		50
Dibenzo(a,h)anthracene	84		84		40-140	0		50
Indeno(1,2,3-cd)pyrene	88		88		40-140	0		50
Pyrene	83		84		35-142	1		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	79		82		25-120
Phenol-d6	76		79		10-120
Nitrobenzene-d5	80		80		23-120
2-Fluorobiphenyl	79		81		30-120
2,4,6-Tribromophenol	98		100		10-136
4-Terphenyl-d14	79		78		18-120

METALS

Project Name: TOT1901**Lab Number:** L1911583**Project Number:** TOT1901**Report Date:** 04/05/19**SAMPLE RESULTS**

Lab ID: L1911583-02

Date Collected: 03/22/19 10:15

Client ID: SB003 2-4

Date Received: 03/22/19

Sample Location: 1045 ATLANTIC AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	4.53		mg/kg	0.448	0.093	1	03/28/19 22:40	04/01/19 19:05	EPA 3050B	1,6010D	AB
Barium, Total	81.7		mg/kg	0.448	0.078	1	03/28/19 22:40	04/01/19 19:05	EPA 3050B	1,6010D	AB
Cadmium, Total	210		mg/kg	0.448	0.044	1	03/28/19 22:40	04/01/19 19:05	EPA 3050B	1,6010D	AB
Chromium, Total	200		mg/kg	0.448	0.043	1	03/28/19 22:40	04/01/19 19:05	EPA 3050B	1,6010D	AB
Lead, Total	217		mg/kg	2.24	0.120	1	03/28/19 22:40	04/01/19 19:05	EPA 3050B	1,6010D	AB
Mercury, Total	0.145		mg/kg	0.072	0.015	1	03/29/19 07:00	03/29/19 16:20	EPA 7471B	1,7471B	GD
Selenium, Total	0.215	J	mg/kg	0.896	0.116	1	03/28/19 22:40	04/01/19 19:05	EPA 3050B	1,6010D	AB
Silver, Total	0.233	J	mg/kg	0.448	0.127	1	03/28/19 22:40	04/01/19 19:05	EPA 3050B	1,6010D	AB



Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-03

Date Collected: 03/22/19 11:15

Client ID: SB004 0-2

Date Received: 03/22/19

Sample Location: 1045 ATLANTIC AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	3.72		mg/kg	0.393	0.082	1	03/26/19 19:16	03/29/19 01:07	EPA 3050B	1,6010D	AB
Barium, Total	44.4		mg/kg	0.393	0.068	1	03/26/19 19:16	03/29/19 01:07	EPA 3050B	1,6010D	AB
Cadmium, Total	7.07		mg/kg	0.393	0.039	1	03/26/19 19:16	03/29/19 01:07	EPA 3050B	1,6010D	AB
Chromium, Total	14.3		mg/kg	0.393	0.038	1	03/26/19 19:16	03/29/19 01:07	EPA 3050B	1,6010D	AB
Lead, Total	79.6		mg/kg	1.97	0.105	1	03/26/19 19:16	03/29/19 01:07	EPA 3050B	1,6010D	AB
Mercury, Total	0.227		mg/kg	0.066	0.014	1	03/26/19 10:00	03/26/19 16:04	EPA 7471B	1,7471B	GD
Selenium, Total	0.287	J	mg/kg	0.786	0.101	1	03/26/19 19:16	03/29/19 01:07	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.393	0.111	1	03/26/19 19:16	03/29/19 01:07	EPA 3050B	1,6010D	AB



Project Name: TOT1901**Lab Number:** L1911583**Project Number:** TOT1901**Report Date:** 04/05/19**SAMPLE RESULTS**

Lab ID: L1911583-04

Date Collected: 03/22/19 12:45

Client ID: SB005 5-7

Date Received: 03/22/19

Sample Location: 1045 ATLANTIC AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	1.93		mg/kg	0.422	0.088	1	03/26/19 19:16	03/29/19 01:11	EPA 3050B	1,6010D	AB
Barium, Total	26.8		mg/kg	0.422	0.074	1	03/26/19 19:16	03/29/19 01:11	EPA 3050B	1,6010D	AB
Cadmium, Total	0.363	J	mg/kg	0.422	0.041	1	03/26/19 19:16	03/29/19 01:11	EPA 3050B	1,6010D	AB
Chromium, Total	17.9		mg/kg	0.422	0.041	1	03/26/19 19:16	03/29/19 01:11	EPA 3050B	1,6010D	AB
Lead, Total	27.6		mg/kg	2.11	0.113	1	03/26/19 19:16	03/29/19 01:11	EPA 3050B	1,6010D	AB
Mercury, Total	0.170		mg/kg	0.068	0.014	1	03/26/19 10:00	03/26/19 16:06	EPA 7471B	1,7471B	GD
Selenium, Total	0.325	J	mg/kg	0.844	0.109	1	03/26/19 19:16	03/29/19 01:11	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.422	0.119	1	03/26/19 19:16	03/29/19 01:11	EPA 3050B	1,6010D	AB



Project Name: TOT1901**Lab Number:** L1911583**Project Number:** TOT1901**Report Date:** 04/05/19**SAMPLE RESULTS**

Lab ID: L1911583-05

Date Collected: 03/22/19 13:20

Client ID: SB006 0-2

Date Received: 03/22/19

Sample Location: 1045 ATLANTIC AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	5.69		mg/kg	0.436	0.091	1	03/26/19 19:16	03/29/19 01:16	EPA 3050B	1,6010D	AB
Barium, Total	136		mg/kg	0.436	0.076	1	03/26/19 19:16	03/29/19 01:16	EPA 3050B	1,6010D	AB
Cadmium, Total	0.327	J	mg/kg	0.436	0.043	1	03/26/19 19:16	03/29/19 01:16	EPA 3050B	1,6010D	AB
Chromium, Total	13.7		mg/kg	0.436	0.042	1	03/26/19 19:16	03/29/19 01:16	EPA 3050B	1,6010D	AB
Lead, Total	439		mg/kg	2.18	0.117	1	03/26/19 19:16	03/29/19 01:16	EPA 3050B	1,6010D	AB
Mercury, Total	0.585		mg/kg	0.071	0.015	1	03/26/19 10:00	03/26/19 16:12	EPA 7471B	1,7471B	GD
Selenium, Total	0.475	J	mg/kg	0.871	0.112	1	03/26/19 19:16	03/29/19 01:16	EPA 3050B	1,6010D	AB
Silver, Total	0.187	J	mg/kg	0.436	0.123	1	03/26/19 19:16	03/29/19 01:16	EPA 3050B	1,6010D	AB



Project Name: TOT1901**Lab Number:** L1911583**Project Number:** TOT1901**Report Date:** 04/05/19**SAMPLE RESULTS**

Lab ID: L1911583-06

Date Collected: 03/22/19 14:35

Client ID: SB007 4-6

Date Received: 03/22/19

Sample Location: 1045 ATLANTIC AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	3.60		mg/kg	2.21	0.459	5	03/26/19 19:16	03/29/19 02:35	EPA 3050B	1,6010D	AB
Barium, Total	39.4		mg/kg	2.21	0.384	5	03/26/19 19:16	03/29/19 02:35	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	2.21	0.216	5	03/26/19 19:16	03/29/19 02:35	EPA 3050B	1,6010D	AB
Chromium, Total	7010		mg/kg	2.21	0.212	5	03/26/19 19:16	03/29/19 02:35	EPA 3050B	1,6010D	AB
Lead, Total	73.0		mg/kg	11.0	0.591	5	03/26/19 19:16	03/29/19 02:35	EPA 3050B	1,6010D	AB
Mercury, Total	0.341		mg/kg	0.070	0.015	1	03/26/19 10:00	03/26/19 16:14	EPA 7471B	1,7471B	GD
Selenium, Total	ND		mg/kg	4.41	0.569	5	03/26/19 19:16	03/29/19 02:35	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	2.21	0.624	5	03/26/19 19:16	03/29/19 02:35	EPA 3050B	1,6010D	AB



Project Name: TOT1901**Lab Number:** L1911583**Project Number:** TOT1901**Report Date:** 04/05/19**SAMPLE RESULTS**

Lab ID: L1911583-07

Date Collected: 03/22/19 14:48

Client ID: SB008 0-2

Date Received: 03/22/19

Sample Location: 1045 ATLANTIC AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	2.90		mg/kg	0.450	0.094	1	03/26/19 19:16	03/29/19 01:43	EPA 3050B	1,6010D	AB
Barium, Total	44.6		mg/kg	0.450	0.078	1	03/26/19 19:16	03/29/19 01:43	EPA 3050B	1,6010D	AB
Cadmium, Total	1.17		mg/kg	0.450	0.044	1	03/26/19 19:16	03/29/19 01:43	EPA 3050B	1,6010D	AB
Chromium, Total	38.0		mg/kg	0.450	0.043	1	03/26/19 19:16	03/29/19 01:43	EPA 3050B	1,6010D	AB
Lead, Total	59.0		mg/kg	2.25	0.120	1	03/26/19 19:16	03/29/19 01:43	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.076	0.016	1	03/26/19 10:00	03/26/19 16:16	EPA 7471B	1,7471B	GD
Selenium, Total	0.225	J	mg/kg	0.899	0.116	1	03/26/19 19:16	03/29/19 01:43	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.450	0.127	1	03/26/19 19:16	03/29/19 01:43	EPA 3050B	1,6010D	AB



Project Name: TOT1901**Lab Number:** L1911583**Project Number:** TOT1901**Report Date:** 04/05/19**SAMPLE RESULTS**

Lab ID: L1911583-08

Date Collected: 03/22/19 14:59

Client ID: GRAB 001

Date Received: 03/22/19

Sample Location: 1045 ATLANTIC AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 37%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	4.00		mg/kg	1.00	0.208	1	03/28/19 22:40	04/01/19 19:09	EPA 3050B	1,6010D	AB
Barium, Total	238		mg/kg	1.00	0.174	1	03/28/19 22:40	04/01/19 19:09	EPA 3050B	1,6010D	AB
Cadmium, Total	8.90		mg/kg	1.00	0.098	1	03/28/19 22:40	04/01/19 19:09	EPA 3050B	1,6010D	AB
Chromium, Total	63.3		mg/kg	1.00	0.096	1	03/28/19 22:40	04/01/19 19:09	EPA 3050B	1,6010D	AB
Lead, Total	148		mg/kg	5.01	0.268	1	03/28/19 22:40	04/01/19 19:09	EPA 3050B	1,6010D	AB
Mercury, Total	0.239		mg/kg	0.170	0.036	1	03/29/19 07:00	03/29/19 16:22	EPA 7471B	1,7471B	GD
Selenium, Total	1.58	J	mg/kg	2.00	0.258	1	03/28/19 22:40	04/01/19 19:09	EPA 3050B	1,6010D	AB
Silver, Total	0.601	J	mg/kg	1.00	0.283	1	03/28/19 22:40	04/01/19 19:09	EPA 3050B	1,6010D	AB



Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 03-07 Batch: WG1219462-1										
Mercury, Total	ND		mg/kg	0.083	0.018	1	03/26/19 10:00	03/26/19 15:40	1,7471B	GD

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 03-07 Batch: WG1219830-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	03/26/19 19:16	03/28/19 22:18	1,6010D	AB
Barium, Total	ND		mg/kg	0.400	0.070	1	03/26/19 19:16	03/28/19 22:18	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.400	0.039	1	03/26/19 19:16	03/28/19 22:18	1,6010D	AB
Chromium, Total	ND		mg/kg	0.400	0.038	1	03/26/19 19:16	03/28/19 22:18	1,6010D	AB
Lead, Total	ND		mg/kg	2.00	0.107	1	03/26/19 19:16	03/28/19 22:18	1,6010D	AB
Selenium, Total	ND		mg/kg	0.800	0.103	1	03/26/19 19:16	03/28/19 22:18	1,6010D	AB
Silver, Total	ND		mg/kg	0.400	0.113	1	03/26/19 19:16	03/28/19 22:18	1,6010D	AB

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 02,08 Batch: WG1220770-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	03/28/19 22:40	04/01/19 15:38	1,6010D	AB
Barium, Total	ND		mg/kg	0.400	0.070	1	03/28/19 22:40	04/01/19 15:38	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.400	0.039	1	03/28/19 22:40	04/01/19 15:38	1,6010D	AB
Chromium, Total	ND		mg/kg	0.400	0.038	1	03/28/19 22:40	04/01/19 15:38	1,6010D	AB
Lead, Total	ND		mg/kg	2.00	0.107	1	03/28/19 22:40	04/01/19 15:38	1,6010D	AB
Selenium, Total	ND		mg/kg	0.800	0.103	1	03/28/19 22:40	04/01/19 15:38	1,6010D	AB
Silver, Total	ND		mg/kg	0.400	0.113	1	03/28/19 22:40	04/01/19 15:38	1,6010D	AB



Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 3050B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 02,08 Batch: WG1220896-1									
Mercury, Total	ND	mg/kg	0.083	0.018	1	03/29/19 07:00	03/29/19 16:05	1,7471B	GD

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03-07 Batch: WG1219462-2 SRM Lot Number: D101-540								
Mercury, Total	100		-		65-135	-		
Total Metals - Mansfield Lab Associated sample(s): 03-07 Batch: WG1219830-2 SRM Lot Number: D101-540								
Arsenic, Total	105		-		83-117	-		
Barium, Total	100		-		83-118	-		
Cadmium, Total	104		-		83-117	-		
Chromium, Total	102		-		81-118	-		
Lead, Total	102		-		83-117	-		
Selenium, Total	102		-		79-121	-		
Silver, Total	104		-		80-120	-		
Total Metals - Mansfield Lab Associated sample(s): 02,08 Batch: WG1220770-2 SRM Lot Number: D101-540								
Arsenic, Total	93		-		83-117	-		
Barium, Total	84		-		83-118	-		
Cadmium, Total	95		-		83-117	-		
Chromium, Total	92		-		81-118	-		
Lead, Total	89		-		83-117	-		
Selenium, Total	90		-		79-121	-		
Silver, Total	88		-		80-120	-		

Lab Control Sample Analysis
Batch Quality Control**Project Name:** TOT1901**Project Number:** TOT1901**Lab Number:** L1911583**Report Date:** 04/05/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02,08 Batch: WG1220896-2 SRM Lot Number: D101-540					
Mercury, Total	86	-	65-135	-	

Matrix Spike Analysis **Batch Quality Control**

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03-07 QC Batch ID: WG1219462-3 WG1219462-4 QC Sample: L1911625-17 Client ID: MS Sample												
Mercury, Total	ND	0.138	0.139	100		0.136	97		80-120	2		20
Total Metals - Mansfield Lab Associated sample(s): 03-07 QC Batch ID: WG1219830-3 QC Sample: L1911499-08 Client ID: MS Sample												
Arsenic, Total	0.518J	9.41	10.3	109		-	-		75-125	-		20
Barium, Total	16.8	157	176	101		-	-		75-125	-		20
Cadmium, Total	0.146J	4	3.81	95		-	-		75-125	-		20
Chromium, Total	5.56	15.7	20.5	95		-	-		75-125	-		20
Lead, Total	8.65	40	42.8	85		-	-		75-125	-		20
Selenium, Total	ND	9.41	9.52	101		-	-		75-125	-		20
Silver, Total	ND	23.5	26.0	110		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 02,08 QC Batch ID: WG1220770-3 QC Sample: L1911910-01 Client ID: MS Sample												
Arsenic, Total	12.2	14.5	26.4	98		-	-		75-125	-		20
Barium, Total	82.7	242	325	100		-	-		75-125	-		20
Cadmium, Total	0.764	6.18	6.62	95		-	-		75-125	-		20
Chromium, Total	33.8	24.2	56.8	95		-	-		75-125	-		20
Lead, Total	1260	61.8	1060	0	Q	-	-		75-125	-		20
Selenium, Total	ND	14.5	13.1	90		-	-		75-125	-		20
Silver, Total	0.261J	36.4	34.4	95		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 02,08 QC Batch ID: WG1220896-3 QC Sample: L1911987-05 Client ID: MS Sample												
Mercury, Total	ND	0.144	0.124	86		-	-		80-120	-		20

Lab Duplicate Analysis *Batch Quality Control*

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03-07 QC Batch ID: WG1219830-4 QC Sample: L1911499-08 Client ID: DUP Sample						
Arsenic, Total	0.518J	0.405J	mg/kg	NC		20
Barium, Total	16.8	17.3	mg/kg	3		20
Cadmium, Total	0.146J	0.148J	mg/kg	NC		20
Chromium, Total	5.56	5.97	mg/kg	7		20
Lead, Total	8.65	7.45	mg/kg	15		20
Selenium, Total	ND	0.257J	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20
Total Metals - Mansfield Lab Associated sample(s): 02,08 QC Batch ID: WG1220770-4 QC Sample: L1911910-01 Client ID: DUP Sample						
Lead, Total	1260	1120	mg/kg	12		20
Total Metals - Mansfield Lab Associated sample(s): 02,08 QC Batch ID: WG1220896-4 QC Sample: L1911987-05 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/kg	NC		20

INORGANICS & MISCELLANEOUS

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-01

Client ID: SB002 0-2

Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 09:45

Date Received: 03/22/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.5		%	0.100	NA	1	-	03/23/19 12:20	121,2540G	RI



Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-02

Client ID: SB003 2-4

Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 10:15

Date Received: 03/22/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.4		%	0.100	NA	1	-	03/27/19 22:36	121,2540G	YA



Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-03

Client ID: SB004 0-2

Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 11:15

Date Received: 03/22/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	95.6		%	0.100	NA	1	-	03/23/19 12:20	121,2540G	RI



Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-04

Client ID: SB005 5-7

Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 12:45

Date Received: 03/22/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	91.8		%	0.100	NA	1	-	03/23/19 12:20	121,2540G	RI



Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-05

Client ID: SB006 0-2

Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 13:20

Date Received: 03/22/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.3		%	0.100	NA	1	-	03/23/19 12:20	121,2540G	RI



Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-06

Client ID: SB007 4-6

Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 14:35

Date Received: 03/22/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.9		%	0.100	NA	1	-	03/23/19 12:20	121,2540G	RI



Project Name: TOT1901**Project Number:** TOT1901**Lab Number:** L1911583**Report Date:** 04/05/19**SAMPLE RESULTS****Lab ID:** L1911583-07**Client ID:** SB008 0-2**Sample Location:** 1045 ATLANTIC AVE.**Date Collected:** 03/22/19 14:48**Date Received:** 03/22/19**Field Prep:** Not Specified**Sample Depth:****Matrix:** Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.6		%	0.100	NA	1	-	03/23/19 12:20	121,2540G	RI



Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

SAMPLE RESULTS

Lab ID: L1911583-08

Client ID: GRAB 001

Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 14:59

Date Received: 03/22/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	37.4		%	0.100	NA	1	-	03/27/19 22:36	121,2540G	YA



Lab Duplicate Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911583

Report Date: 04/05/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01,03-07 QC Batch ID: WG1218837-1 QC Sample: L1911593-01 Client ID: DUP Sample						
Solids, Total	91.4	91.4	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 02,08 QC Batch ID: WG1220363-1 QC Sample: L1912112-01 Client ID: DUP Sample						
Solids, Total	92.6	92.6	%	0		20

Project Name: TOT1901
Project Number: TOT1901

Serial_No:04051916:35
Lab Number: L1911583
Report Date: 04/05/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler **Custody Seal**
A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1911583-01A	Vial MeOH preserved	A	NA		3.1	Y	Absent		NYCP51-8260HLW(14)
L1911583-01B	Vial water preserved	A	NA		3.1	Y	Absent	23-MAR-19 09:04	NYCP51-8260HLW(14)
L1911583-01C	Vial water preserved	A	NA		3.1	Y	Absent	23-MAR-19 09:04	NYCP51-8260HLW(14)
L1911583-01D	Plastic 2oz unpreserved for TS	A	NA		3.1	Y	Absent		TS(7)
L1911583-01E	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14)
L1911583-02A	Vial MeOH preserved	A	NA		3.1	Y	Absent		NYCP51-8260HLW(14)
L1911583-02B	Vial water preserved	A	NA		3.1	Y	Absent	23-MAR-19 09:04	NYCP51-8260HLW(14)
L1911583-02C	Vial water preserved	A	NA		3.1	Y	Absent	23-MAR-19 09:04	NYCP51-8260HLW(14)
L1911583-02D	Plastic 2oz unpreserved for TS	A	NA		3.1	Y	Absent		TS(7)
L1911583-02E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.1	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),5035KITS(),HG-T(28),CD-TI(180)
L1911583-02F	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14)
L1911583-03A	Vial MeOH preserved	A	NA		3.1	Y	Absent		NYTCL-8260HLW(14)
L1911583-03B	Vial water preserved	A	NA		3.1	Y	Absent	23-MAR-19 09:04	NYTCL-8260HLW(14)
L1911583-03C	Vial water preserved	A	NA		3.1	Y	Absent	23-MAR-19 09:04	NYTCL-8260HLW(14)
L1911583-03D	Plastic 2oz unpreserved for TS	A	NA		3.1	Y	Absent		TS(7)
L1911583-03E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.1	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1911583-03F	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14)
L1911583-04A	Vial MeOH preserved	A	NA		3.1	Y	Absent		NYCP51-8260HLW(14)
L1911583-04B	Vial water preserved	A	NA		3.1	Y	Absent	23-MAR-19 09:04	NYCP51-8260HLW(14)
L1911583-04C	Vial water preserved	A	NA		3.1	Y	Absent	23-MAR-19 09:04	NYCP51-8260HLW(14)
L1911583-04D	Plastic 2oz unpreserved for TS	A	NA		3.1	Y	Absent		TS(7)

Project Name: TOT1901
Project Number: TOT1901

Serial_No: 04051916:35
Lab Number: L1911583
Report Date: 04/05/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1911583-04D1	Plastic 2oz unpreserved for TS	A	NA		3.1	Y	Absent		TS(7)
L1911583-04E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.1	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1911583-04F	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14)
L1911583-05A	Vial MeOH preserved	A	NA		3.1	Y	Absent		NYTCL-8260HLW(14)
L1911583-05B	Vial water preserved	A	NA		3.1	Y	Absent	23-MAR-19 09:04	NYTCL-8260HLW(14)
L1911583-05C	Vial water preserved	A	NA		3.1	Y	Absent	23-MAR-19 09:04	NYTCL-8260HLW(14)
L1911583-05D	Plastic 2oz unpreserved for TS	A	NA		3.1	Y	Absent		TS(7)
L1911583-05D1	Plastic 2oz unpreserved for TS	A	NA		3.1	Y	Absent		TS(7)
L1911583-05E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.1	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1911583-05F	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14)
L1911583-06A	Vial MeOH preserved	A	NA		3.1	Y	Absent		NYTCL-8260HLW(14)
L1911583-06B	Vial water preserved	A	NA		3.1	Y	Absent	23-MAR-19 09:04	NYTCL-8260HLW(14)
L1911583-06C	Vial water preserved	A	NA		3.1	Y	Absent	23-MAR-19 09:04	NYTCL-8260HLW(14)
L1911583-06D	Plastic 2oz unpreserved for TS	A	NA		3.1	Y	Absent		TS(7)
L1911583-06D1	Plastic 2oz unpreserved for TS	A	NA		3.1	Y	Absent		TS(7)
L1911583-06E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.1	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1911583-06F	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14)
L1911583-07A	Vial MeOH preserved	A	NA		3.1	Y	Absent		NYCP51-8260HLW(14)
L1911583-07B	Vial water preserved	A	NA		3.1	Y	Absent	23-MAR-19 09:04	NYCP51-8260HLW(14)
L1911583-07C	Vial water preserved	A	NA		3.1	Y	Absent	23-MAR-19 09:04	NYCP51-8260HLW(14)
L1911583-07D	Plastic 2oz unpreserved for TS	A	NA		3.1	Y	Absent		TS(7)
L1911583-07D1	Plastic 2oz unpreserved for TS	A	NA		3.1	Y	Absent		TS(7)
L1911583-07E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.1	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1911583-07F	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14)
L1911583-08A	Vial MeOH preserved	A	NA		3.1	Y	Absent		NYCP51-8260HLW(14)

Project Name: TOT1901
Project Number: TOT1901

Serial_No: 04051916:35
Lab Number: L1911583
Report Date: 04/05/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1911583-08B	Vial water preserved	A	NA		3.1	Y	Absent	23-MAR-19 09:04	NYCP51-8260HLW(14)
L1911583-08C	Vial water preserved	A	NA		3.1	Y	Absent	23-MAR-19 09:04	NYCP51-8260HLW(14)
L1911583-08D	Plastic 2oz unpreserved for TS	A	NA		3.1	Y	Absent		TS(7)
L1911583-08E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.1	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),5035KITS(),HG-T(28),CD-TI(180)
L1911583-08F	Glass 120ml/4oz unpreserved	A	NA		3.1	Y	Absent		NYCP51-PAH(14)

Project Name: TOT1901

Lab Number: L1911583

Project Number: TOT1901

Report Date: 04/05/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: TOT1901**Lab Number:** L1911583**Project Number:** TOT1901**Report Date:** 04/05/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: TOT1901**Lab Number:** L1911583**Project Number:** TOT1901**Report Date:** 04/05/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.

ID No.:17873

Facility: **Company-wide**

Revision 12

Department: **Quality Assurance**

Published Date: 10/9/2018 4:58:19 PM

Title: **Certificate/Approval Program Summary**

Page 1 of 1

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**EPA 6860:** SCM: Perchlorate**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg. EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <u>1</u> of <u>1</u>		Date Rec'd in Lab <u>3/22/19</u>		ALPHA Job # <u>11911583</u>	
		Project Information Project Name: <u>TOT1901</u> Project Location: <u>1045 Atlantic Ave</u> Project # <u>TOT1901</u> (Use Project name as Project #) ☐		Deliverables ☐ ASP-A ☐ ASP-B ☐ EQUIS (1 File) ☐ EQUIS (4 File) ☐ Other		Billing Information ☒ Same as Client Info PO #			
Client Information Client: <u>PW Grosser</u> Address: <u>630 Johnson Bohemia NY</u> Phone: <u>631-589-6353</u> Fax: <u>hmcraen-botta@pryor.com</u> Email: <u>hmcraen-botta@pryor.com</u>		Project Manager: <u>Hester Moran Botta</u> ALPHAQuote #: Turn-Around Time Standard ☒ Rush (only if pre approved) ☐		Regulatory Requirement ☐ NY TOGS ☐ NY Part 375 ☐ AWQ Standards ☒ NY CP-51 ☒ NY Restricted Use ☐ Other ☒ NY Unrestricted Use ☐ NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: ☐ NJ ☐ NY ☐ Other:			
These samples have been previously analyzed by Alpha ☐						ANALYSIS <u>CPE1 VOC</u> <u>TCL VOC</u> <u>CPE1 SVOC</u> <u>RCRA Metals</u>		Sample Filtration ☐ Done ☐ Lab to do Preservation ☐ Lab to do (Please Specify below)	
Other project specific requirements/comments:						Sample Specific Comments		Total Bottles	
Please specify Metals or TAL.									
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials				
		Date	Time						
<u>1158301</u>	<u>SB002 0-2</u>	<u>3/22/19</u>	<u>945</u>	<u>Soil</u>	<u>MG</u>	<u>X</u>		<u>X</u>	
<u>-02</u>	<u>SB003 2-4</u>		<u>1015</u>			<u>X</u>		<u>X</u>	<u>Hold</u>
<u>-03</u>	<u>SB004 0-2</u>		<u>1115</u>				<u>X</u>	<u>X</u>	
<u>-04</u>	<u>SB005 5-7</u>		<u>1245</u>			<u>X</u>		<u>X</u>	
<u>-05</u>	<u>SB006 0-2</u>		<u>1320</u>				<u>X</u>	<u>X</u>	
<u>-06</u>	<u>SB007 4-6</u>		<u>1435</u>				<u>X</u>	<u>X</u>	
<u>-07</u>	<u>SB008 0-2</u>		<u>1448</u>			<u>X</u>		<u>X</u>	
<u>-08</u>	<u>Grab 001</u>	<u>↓</u>	<u>1459</u>	<u>↓</u>	<u>↓</u>	<u>X</u>		<u>X</u>	<u>Hold</u>
Preservative Code:		Container Code		Westboro: Certification No: MA935		Container Type			
A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Mansfield: Certification No: MA015		Preservative			
				Relinquished By:		Date/Time		Received By:	
				<u>George Wagner</u>		<u>3/22/19 1625</u>		<u>George Wagner</u>	
				<u>D. Santos</u>		<u>3/22/19 1810</u>		<u>D. Santos</u>	
						<u>3/22/19 2220</u>		<u>3/22/19 1525</u>	
								<u>3/22/19 1900</u>	
								<u>3/22/19 2220</u>	
Form No: 01-25 HC (rev. 30-Sept-2013)						Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)			



ANALYTICAL REPORT

Lab Number:	L1911686
Client:	P. W. Grosser 630 Johnson Avenue Suite 7 Bohemia, NY 11716
ATTN:	Heather Moran-Botta
Phone:	(631) 589-6353
Project Name:	TOT1901
Project Number:	TOT1901
Report Date:	04/02/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com



Project Name: TOT1901**Project Number:** TOT1901**Lab Number:** L1911686**Report Date:** 04/02/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1911686-01	SSG01	SOIL_VAPOR	1645 ATLANTIC AVE.	03/22/19 14:26	03/22/19
L1911686-02	SSG02	SOIL_VAPOR	1645 ATLANTIC AVE.	03/22/19 14:29	03/22/19
L1911686-03	SSG03	SOIL_VAPOR	1645 ATLANTIC AVE.	03/22/19 14:32	03/22/19

Project Name: TOT1901
Project Number: TOT1901

Lab Number: L1911686
Report Date: 04/02/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: TOT1901

Lab Number: L1911686

Project Number: TOT1901

Report Date: 04/02/19

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on March 22, 2019. The canister certification results are provided as an addendum.

L1911686-02: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

The WG1221432-3 LCS recovery for propylene (139%) and ethyl acetate (153%) is above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of this analyte.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 04/02/19

AIR

Project Name: TOT1901**Lab Number:** L1911686**Project Number:** TOT1901**Report Date:** 04/02/19**SAMPLE RESULTS**

Lab ID: L1911686-01
 Client ID: SSG01
 Sample Location: 1645 ATLANTIC AVE.

Date Collected: 03/22/19 14:26
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 03/31/19 02:17
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.425	0.200	--	2.10	0.989	--		1
Chloromethane	0.556	0.200	--	1.15	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	0.563	0.200	--	1.25	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	21.9	5.00	--	41.3	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	73.4	1.00	--	174	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	2.77	0.500	--	6.81	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	0.680	0.500	--	2.06	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	2.62	0.200	--	8.16	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	31.3	0.500	--	92.3	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: TOT1901**Lab Number:** L1911686**Project Number:** TOT1901**Report Date:** 04/02/19**SAMPLE RESULTS**

Lab ID: L1911686-01

Client ID: SSG01

Sample Location: 1645 ATLANTIC AVE.

Date Collected: 03/22/19 14:26

Date Received: 03/22/19

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	6.04	0.500	--	17.8	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.716	0.200	--	2.52	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.932	0.200	--	2.98	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.952	0.200	--	3.28	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	35.9	0.200	--	193	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.648	0.200	--	2.66	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	1.38	0.500	--	5.66	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	1.44	0.200	--	5.43	0.754	--		1
2-Hexanone	2.36	0.200	--	9.67	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	0.299	0.200	--	2.03	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.808	0.200	--	3.51	0.869	--		1



Project Name: TOT1901**Lab Number:** L1911686**Project Number:** TOT1901**Report Date:** 04/02/19**SAMPLE RESULTS**

Lab ID: L1911686-01
 Client ID: SSG01
 Sample Location: 1645 ATLANTIC AVE.

Date Collected: 03/22/19 14:26
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	4.00	0.400	--	17.4	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	1.55	0.200	--	6.73	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	0.282	0.200	--	1.39	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	99		60-140



Project Name: TOT1901**Lab Number:** L1911686**Project Number:** TOT1901**Report Date:** 04/02/19**SAMPLE RESULTS**

Lab ID: L1911686-02 D
 Client ID: SSG02
 Sample Location: 1645 ATLANTIC AVE.

Date Collected: 03/22/19 14:29
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 03/31/19 02:55
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.400	0.400	--	1.98	1.98	--		2
Chloromethane	ND	0.400	--	ND	0.826	--		2
Freon-114	ND	0.400	--	ND	2.80	--		2
Vinyl chloride	ND	0.400	--	ND	1.02	--		2
1,3-Butadiene	ND	0.400	--	ND	0.885	--		2
Bromomethane	ND	0.400	--	ND	1.55	--		2
Chloroethane	ND	0.400	--	ND	1.06	--		2
Ethanol	ND	10.0	--	ND	18.8	--		2
Vinyl bromide	ND	0.400	--	ND	1.75	--		2
Acetone	25.1	2.00	--	59.6	4.75	--		2
Trichlorofluoromethane	ND	0.400	--	ND	2.25	--		2
Isopropanol	1.82	1.00	--	4.47	2.46	--		2
1,1-Dichloroethene	ND	0.400	--	ND	1.59	--		2
Tertiary butyl Alcohol	ND	1.00	--	ND	3.03	--		2
Methylene chloride	ND	1.00	--	ND	3.47	--		2
3-Chloropropene	ND	0.400	--	ND	1.25	--		2
Carbon disulfide	0.778	0.400	--	2.42	1.25	--		2
Freon-113	ND	0.400	--	ND	3.07	--		2
trans-1,2-Dichloroethene	ND	0.400	--	ND	1.59	--		2
1,1-Dichloroethane	ND	0.400	--	ND	1.62	--		2
Methyl tert butyl ether	ND	0.400	--	ND	1.44	--		2
2-Butanone	18.6	1.00	--	54.9	2.95	--		2
cis-1,2-Dichloroethene	ND	0.400	--	ND	1.59	--		2



Project Name: TOT1901**Lab Number:** L1911686**Project Number:** TOT1901**Report Date:** 04/02/19**SAMPLE RESULTS**

Lab ID: L1911686-02 D
 Client ID: SSG02
 Sample Location: 1645 ATLANTIC AVE.

Date Collected: 03/22/19 14:29
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	1.00	--	ND	3.60	--		2
Chloroform	1.48	0.400	--	7.23	1.95	--		2
Tetrahydrofuran	3.01	1.00	--	8.88	2.95	--		2
1,2-Dichloroethane	ND	0.400	--	ND	1.62	--		2
n-Hexane	ND	0.400	--	ND	1.41	--		2
1,1,1-Trichloroethane	ND	0.400	--	ND	2.18	--		2
Benzene	1.38	0.400	--	4.41	1.28	--		2
Carbon tetrachloride	ND	0.400	--	ND	2.52	--		2
Cyclohexane	ND	0.400	--	ND	1.38	--		2
1,2-Dichloropropane	ND	0.400	--	ND	1.85	--		2
Bromodichloromethane	ND	0.400	--	ND	2.68	--		2
1,4-Dioxane	ND	0.400	--	ND	1.44	--		2
Trichloroethene	144	0.400	--	774	2.15	--		2
2,2,4-Trimethylpentane	ND	0.400	--	ND	1.87	--		2
Heptane	0.578	0.400	--	2.37	1.64	--		2
cis-1,3-Dichloropropene	ND	0.400	--	ND	1.82	--		2
4-Methyl-2-pentanone	ND	1.00	--	ND	4.10	--		2
trans-1,3-Dichloropropene	ND	0.400	--	ND	1.82	--		2
1,1,2-Trichloroethane	ND	0.400	--	ND	2.18	--		2
Toluene	1.07	0.400	--	4.03	1.51	--		2
2-Hexanone	2.71	0.400	--	11.1	1.64	--		2
Dibromochloromethane	ND	0.400	--	ND	3.41	--		2
1,2-Dibromoethane	ND	0.400	--	ND	3.07	--		2
Tetrachloroethene	1.93	0.400	--	13.1	2.71	--		2
Chlorobenzene	ND	0.400	--	ND	1.84	--		2
Ethylbenzene	ND	0.400	--	ND	1.74	--		2



Project Name: TOT1901**Lab Number:** L1911686**Project Number:** TOT1901**Report Date:** 04/02/19**SAMPLE RESULTS**

Lab ID: L1911686-02 D
 Client ID: SSG02
 Sample Location: 1645 ATLANTIC AVE.

Date Collected: 03/22/19 14:29
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	0.862	0.800	--	3.74	3.47	--		2
Bromoform	ND	0.400	--	ND	4.14	--		2
Styrene	ND	0.400	--	ND	1.70	--		2
1,1,2,2-Tetrachloroethane	ND	0.400	--	ND	2.75	--		2
o-Xylene	ND	0.400	--	ND	1.74	--		2
4-Ethyltoluene	ND	0.400	--	ND	1.97	--		2
1,3,5-Trimethylbenzene	ND	0.400	--	ND	1.97	--		2
1,2,4-Trimethylbenzene	ND	0.400	--	ND	1.97	--		2
Benzyl chloride	ND	0.400	--	ND	2.07	--		2
1,3-Dichlorobenzene	ND	0.400	--	ND	2.40	--		2
1,4-Dichlorobenzene	ND	0.400	--	ND	2.40	--		2
1,2-Dichlorobenzene	ND	0.400	--	ND	2.40	--		2
1,2,4-Trichlorobenzene	ND	0.400	--	ND	2.97	--		2
Hexachlorobutadiene	ND	0.400	--	ND	4.27	--		2

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	97		60-140



Project Name: TOT1901**Lab Number:** L1911686**Project Number:** TOT1901**Report Date:** 04/02/19**SAMPLE RESULTS**

Lab ID: L1911686-03
 Client ID: SSG03
 Sample Location: 1645 ATLANTIC AVE.

Date Collected: 03/22/19 14:32
 Date Received: 03/22/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 03/31/19 03:34
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.416	0.200	--	2.06	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	8.56	5.00	--	16.1	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	25.6	1.00	--	60.8	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	1.50	0.500	--	3.69	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	0.994	0.200	--	3.10	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	6.41	0.500	--	18.9	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: TOT1901**Lab Number:** L1911686**Project Number:** TOT1901**Report Date:** 04/02/19**SAMPLE RESULTS**

Lab ID: L1911686-03

Client ID: SSG03

Sample Location: 1645 ATLANTIC AVE.

Date Collected: 03/22/19 14:32

Date Received: 03/22/19

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	0.547	0.200	--	2.67	0.977	--		1
Tetrahydrofuran	2.79	0.500	--	8.23	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.355	0.200	--	1.25	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.430	0.200	--	1.37	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.364	0.200	--	1.25	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	60.6	0.200	--	326	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.333	0.200	--	1.36	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	0.830	0.500	--	3.40	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.809	0.200	--	3.05	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	2.21	0.200	--	15.0	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.284	0.200	--	1.23	0.869	--		1



Project Name: TOT1901**Lab Number:** L1911686**Project Number:** TOT1901**Report Date:** 04/02/19**SAMPLE RESULTS**

Lab ID: L1911686-03

Client ID: SSG03

Sample Location: 1645 ATLANTIC AVE.

Date Collected: 03/22/19 14:32

Date Received: 03/22/19

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	1.17	0.400	--	5.08	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.529	0.200	--	2.30	0.869	--		1
4-Ethyltoluene	1.32	0.200	--	6.49	0.983	--		1
1,3,5-Trimethylbenzene	1.45	0.200	--	7.13	0.983	--		1
1,2,4-Trimethylbenzene	5.55	0.200	--	27.3	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	96		60-140



Project Name: TOT1901

Lab Number: L1911686

Project Number: TOT1901

Report Date: 04/02/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 03/30/19 14:49

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1221432-4								
Propylene	ND	0.500	--	ND	0.861	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: TOT1901

Lab Number: L1911686

Project Number: TOT1901

Report Date: 04/02/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 03/30/19 14:49

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1221432-4								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1



Project Name: TOT1901

Lab Number: L1911686

Project Number: TOT1901

Report Date: 04/02/19

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 03/30/19 14:49

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1221432-4								
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911686

Report Date: 04/02/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1221432-3								
Propylene	139	Q	-		70-130	-		
Dichlorodifluoromethane	92		-		70-130	-		
Chloromethane	88		-		70-130	-		
Freon-114	104		-		70-130	-		
Vinyl chloride	123		-		70-130	-		
1,3-Butadiene	105		-		70-130	-		
Bromomethane	109		-		70-130	-		
Chloroethane	98		-		70-130	-		
Ethanol	109		-		40-160	-		
Vinyl bromide	97		-		70-130	-		
Acetone	76		-		40-160	-		
Trichlorofluoromethane	72		-		70-130	-		
Isopropanol	81		-		40-160	-		
1,1-Dichloroethene	110		-		70-130	-		
Tertiary butyl Alcohol	105		-		70-130	-		
Methylene chloride	99		-		70-130	-		
3-Chloropropene	122		-		70-130	-		
Carbon disulfide	101		-		70-130	-		
Freon-113	104		-		70-130	-		
trans-1,2-Dichloroethene	118		-		70-130	-		
1,1-Dichloroethane	114		-		70-130	-		
Methyl tert butyl ether	83		-		70-130	-		
Vinyl acetate	110		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911686

Report Date: 04/02/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1221432-3								
2-Butanone	101		-		70-130	-		
cis-1,2-Dichloroethene	122		-		70-130	-		
Ethyl Acetate	153	Q	-		70-130	-		
Chloroform	102		-		70-130	-		
Tetrahydrofuran	108		-		70-130	-		
1,2-Dichloroethane	86		-		70-130	-		
n-Hexane	121		-		70-130	-		
1,1,1-Trichloroethane	76		-		70-130	-		
Benzene	97		-		70-130	-		
Carbon tetrachloride	85		-		70-130	-		
Cyclohexane	120		-		70-130	-		
1,2-Dichloropropane	114		-		70-130	-		
Bromodichloromethane	99		-		70-130	-		
1,4-Dioxane	108		-		70-130	-		
Trichloroethene	100		-		70-130	-		
2,2,4-Trimethylpentane	123		-		70-130	-		
Heptane	93		-		70-130	-		
cis-1,3-Dichloropropene	96		-		70-130	-		
4-Methyl-2-pentanone	94		-		70-130	-		
trans-1,3-Dichloropropene	77		-		70-130	-		
1,1,2-Trichloroethane	104		-		70-130	-		
Toluene	106		-		70-130	-		
2-Hexanone	94		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1911686

Report Date: 04/02/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1221432-3								
Dibromochloromethane	110		-		70-130	-		
1,2-Dibromoethane	102		-		70-130	-		
Tetrachloroethene	98		-		70-130	-		
Chlorobenzene	104		-		70-130	-		
Ethylbenzene	104		-		70-130	-		
p/m-Xylene	102		-		70-130	-		
Bromoform	118		-		70-130	-		
Styrene	99		-		70-130	-		
1,1,2,2-Tetrachloroethane	125		-		70-130	-		
o-Xylene	104		-		70-130	-		
4-Ethyltoluene	99		-		70-130	-		
1,3,5-Trimethylbenzene	98		-		70-130	-		
1,2,4-Trimethylbenzene	101		-		70-130	-		
Benzyl chloride	107		-		70-130	-		
1,3-Dichlorobenzene	100		-		70-130	-		
1,4-Dichlorobenzene	97		-		70-130	-		
1,2-Dichlorobenzene	100		-		70-130	-		
1,2,4-Trichlorobenzene	93		-		70-130	-		
Hexachlorobutadiene	98		-		70-130	-		

Project Name: TOT1901

Project Number: TOT1901

Serial_No:04021913:43
Lab Number: L1911686

Report Date: 04/02/19

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1911686-01	SSG01	01144	SV20	03/22/19	287629		-	-	-	Pass	18.9	16.3	15
L1911686-01	SSG01	2030	2.7L Can	03/22/19	287629	L1910654-01	Pass	-29.7	-5.5	-	-	-	-
L1911686-02	SSG02	01245	SV20	03/22/19	287629		-	-	-	Pass	19.1	16.2	16
L1911686-02	SSG02	348	2.7L Can	03/22/19	287629	L1910654-01	Pass	-29.7	-5.3	-	-	-	-
L1911686-03	SSG03	01141	SV20	03/22/19	287629		-	-	-	Pass	19.6	16.7	16
L1911686-03	SSG03	2341	2.7L Can	03/22/19	287629	L1910654-01	Pass	-29.7	-5.9	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1910654
Report Date: 04/02/19

Air Canister Certification Results

Lab ID: L1910654-01
Client ID: CAN 186 SHELF 2
Sample Location:

Date Collected: 03/18/19 16:00
Date Received: 03/19/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 03/19/19 17:23
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Chlorodifluoromethane	ND	0.200	--	ND	0.707	--		1
Propylene	ND	0.500	--	ND	0.861	--		1
Propane	ND	0.500	--	ND	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Methanol	ND	5.00	--	ND	6.55	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Butane	ND	0.200	--	ND	0.475	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	ND	0.842	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acrolein	ND	0.500	--	ND	1.15	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Acetonitrile	ND	0.200	--	ND	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
Ethyl ether	ND	0.200	--	ND	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1910654
Report Date: 04/02/19

Air Canister Certification Results

Lab ID: L1910654-01
Client ID: CAN 186 SHELF 2
Sample Location:

Date Collected: 03/18/19 16:00
Date Received: 03/19/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
Xylenes, total	ND	0.600	--	ND	0.869	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
2,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Diisopropyl ether	ND	0.200	--	ND	0.836	--		1
tert-Butyl Ethyl Ether	ND	0.200	--	ND	0.836	--		1
1,2-Dichloroethene (total)	ND	1.00	--	ND	1.00	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1910654
Report Date: 04/02/19

Air Canister Certification Results

Lab ID: L1910654-01
Client ID: CAN 186 SHELF 2
Sample Location:

Date Collected: 03/18/19 16:00
Date Received: 03/19/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1910654
Report Date: 04/02/19

Air Canister Certification Results

Lab ID: L1910654-01
Client ID: CAN 186 SHELF 2
Sample Location:

Date Collected: 03/18/19 16:00
Date Received: 03/19/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane	ND	0.200	--	ND	1.05	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
2-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
4-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
tert-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Decane	ND	0.200	--	ND	1.16	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2-Dibromo-3-chloropropane	ND	0.200	--	ND	1.93	--		1
Undecane	ND	0.200	--	ND	1.28	--		1
Dodecane	ND	0.200	--	ND	1.39	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Naphthalene	ND	0.200	--	ND	1.05	--		1
1,2,3-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1910654**Project Number:** CANISTER QC BAT**Report Date:** 04/02/19**Air Canister Certification Results**

Lab ID: L1910654-01

Date Collected: 03/18/19 16:00

Client ID: CAN 186 SHELF 2

Date Received: 03/19/19

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Silanol, Trimethyl-	3.2	NJ	ppbV		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	95		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1910654
Report Date: 04/02/19

Air Canister Certification Results

Lab ID: L1910654-01
Client ID: CAN 186 SHELF 2
Sample Location:

Date Collected: 03/18/19 16:00
Date Received: 03/19/19
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 03/19/19 17:23
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT

Lab Number: L1910654
Report Date: 04/02/19

Air Canister Certification Results

Lab ID: L1910654-01
Client ID: CAN 186 SHELF 2
Sample Location:

Date Collected: 03/18/19 16:00
Date Received: 03/19/19
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L1910654**Project Number:** CANISTER QC BAT**Report Date:** 04/02/19**Air Canister Certification Results**

Lab ID: L1910654-01

Date Collected: 03/18/19 16:00

Client ID: CAN 186 SHELF 2

Date Received: 03/19/19

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
p-Isopropyltoluene	ND	0.200	--	ND	1.10	--		1
1,2-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
n-Butylbenzene	ND	0.200	--	ND	1.10	--		1
1,2,4-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Naphthalene	ND	0.050	--	ND	0.262	--		1
1,2,3-Trichlorobenzene	ND	0.050	--	ND	0.371	--		1
Hexachlorobutadiene	ND	0.050	--	ND	0.533	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	100		60-140
chlorobenzene-d5	95		60-140

Project Name: TOT1901**Lab Number:** L1911686**Project Number:** TOT1901**Report Date:** 04/02/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

N/A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1911686-01A	Canister - 2.7 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1911686-02A	Canister - 2.7 Liter	N/A	NA			Y	Absent		TO15-LL(30)
L1911686-03A	Canister - 2.7 Liter	N/A	NA			Y	Absent		TO15-LL(30)

Project Name: TOT1901

Lab Number: L1911686

Project Number: TOT1901

Report Date: 04/02/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCS D	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report



Project Name: TOT1901**Lab Number:** L1911686**Project Number:** TOT1901**Report Date:** 04/02/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: Data Usability Report



Project Name: TOT1901**Lab Number:** L1911686**Project Number:** TOT1901**Report Date:** 04/02/19

REFERENCES

- 48 Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air. Second Edition. EPA/625/R-96/010b, January 1999.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.

ID No.:17873

Facility: **Company-wide**

Revision 12

Department: **Quality Assurance**

Published Date: 10/9/2018 4:58:19 PM

Title: **Certificate/Approval Program Summary**

Page 1 of 1

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**EPA 6860:** SCM: Perchlorate**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg. EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.



AIR ANALYSIS

PAGE _____ OF _____

Date Rec'd in Lab: 3/23/19

ALPHA Job #: 21911686

320 Forbes Blvd, Mansfield, MA 02048
TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: PW Grosser
Address: 630 Johnson Ave
Bohemia NY
Phone: 631-589-6353

Fax:

Email: himoran-bottle@ppl.grower.com

☐ These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

Project Information

Project Name:	TOT 1901
Project Location:	1645 Atlantic Ave
Project #:	TOT 1901
Project Manager:	Heather McLean-Bott
ALPHA Quote #:	

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due:

Time:

Report Information - Data Deliverables

☐ FAX
☐ ADE_x

Criteria Checker:

(Default based on Regulatory Criteria Indicated)

Other Formats:

☐ EMAIL (standard pdf report)

☐ Additional Deliverables:

Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm
-----------	---------	------------

ANALYSIS

All Columns Below Must Be Filled Out

[illegible]

*SAMPLE MATRIX CODES

AA = Ambient Air (Indoor/Outdoor)
SV = Soil Vapor/Landfill Gas/SVE
Other = Please Specify

Container Type

Relinquished By:

Date/Time

Received By:

Date/Time:



ANALYTICAL REPORT

Lab Number:	L1913187
Client:	P. W. Grosser 630 Johnson Avenue Suite 7 Bohemia, NY 11716
ATTN:	Heather Moran-Botta
Phone:	(631) 589-6353
Project Name:	TOT1901
Project Number:	TOT1901
Report Date:	04/03/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: TOT1901
Project Number: TOT1901

Lab Number: L1913187
Report Date: 04/03/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1913187-01	SB007 4-6	SOIL	1045 ATLANTIC AVE.	03/22/19 14:35	03/22/19

Project Name: TOT1901**Lab Number:** L1913187**Project Number:** TOT1901**Report Date:** 04/03/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: TOT1901

Lab Number: L1913187

Project Number: TOT1901

Report Date: 04/03/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

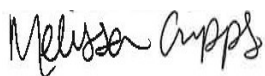
Total Metals

The WG1222328-3 MS recovery for chromium (0%), performed on L1913187-01, does not apply because the sample concentration is greater than four times the spike amount added.

The WG1222328-4 Laboratory Duplicate RPD for chromium (36%), performed on L1913187-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Melissa Cripps

Title: Technical Director/Representative

Date: 04/03/19

METALS

Project Name: TOT1901**Lab Number:** L1913187**Project Number:** TOT1901**Report Date:** 04/03/19**SAMPLE RESULTS**

Lab ID: L1913187-01

Date Collected: 03/22/19 14:35

Client ID: SB007 4-6

Date Received: 03/22/19

Sample Location: 1045 ATLANTIC AVE.

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	7960		mg/kg	4.27	0.410	10	04/02/19 22:35	04/03/19 12:18	EPA 3050B	1,6010D	LC



Project Name: TOT1901

Lab Number: L1913187

Project Number: TOT1901

Report Date: 04/03/19

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1222328-1										
Chromium, Total	ND		mg/kg	0.400	0.038	1	04/02/19 22:35	04/03/19 12:10	1,6010D	LC

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis
Batch Quality Control**Project Name:** TOT1901**Project Number:** TOT1901**Lab Number:** L1913187**Report Date:** 04/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1222328-2 SRM Lot Number: D101-540								
Chromium, Total	94		-		81-118	-		

Matrix Spike Analysis

Batch Quality Control

Project Name: TOT1901

Lab Number: L1913187

Project Number: TOT1901

Report Date: 04/03/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1222328-3 QC Sample: L1913187-01 Client ID: SB007 4-6												
Chromium, Total	7960	17.5	7590	0	Q	-	-		75-125	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1913187

Report Date: 04/03/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1222328-4 QC Sample: L1913187-01 Client ID: SB007 4-6						
Chromium, Total	7960	5550	mg/kg	36	Q	20

INORGANICS & MISCELLANEOUS

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1913187

Report Date: 04/03/19

SAMPLE RESULTS

Lab ID: L1913187-01

Client ID: SB007 4-6

Sample Location: 1045 ATLANTIC AVE.

Date Collected: 03/22/19 14:35

Date Received: 03/22/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.9		%	0.100	NA	1	-	03/23/19 12:20	121,2540G	RI



Lab Duplicate Analysis
*Batch Quality Control***Project Name:** TOT1901**Project Number:** TOT1901**Lab Number:** L1913187**Report Date:** 04/03/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1218837-1 QC Sample: L1911593-01 Client ID: DUP Sample						
Solids, Total	91.4	91.4	%	0		20

Project Name: TOT1901
Project Number: TOT1901

Serial_No:04031914:29
Lab Number: L1913187
Report Date: 04/03/19

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1913187-01A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.1	Y	Absent		CR-TI(180)

Project Name: TOT1901

Lab Number: L1913187

Project Number: TOT1901

Report Date: 04/03/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: TOT1901**Lab Number:** L1913187**Project Number:** TOT1901**Report Date:** 04/03/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: TOT1901
Project Number: TOT1901

Lab Number: L1913187
Report Date: 04/03/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 12

Published Date: 10/9/2018 4:58:19 PM

Page 1 of 1

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**EPA 6860:** SCM: Perchlorate**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg. EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

L1913187 4/2/19 KB

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-899-9220 FAX: 508-899-9193		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <u>1</u> of <u>1</u>		Date Rec'd in Lab <u>3/22/19</u>		ALPHA Job # 11911583			
Client Information Client: <u>PN 6055R</u> Address: <u>630 Johnson</u> <u>Bohemia NY</u> Phone: <u>631-589-6353</u> Fax: _____ Email: <u>hmoren-bott@pnys.com</u>		Project Information Project Name: <u>TOT1901</u> Project Location: <u>1045 Atlantic Ave</u> Project # <u>TOT1901</u> (Use Project name as Project #) ☐ Project Manager: <u>Hester Moran Bott</u> ALPHAQuote #: _____ Turn-Around Time Standard ☒ Due Date: _____ Rush (only if pre approved) ☐ # of Days: _____		Deliverables ☐ ASP-A ☐ ASP-B ☐ EQUIS (1 File) ☐ EQUIS (4 File) ☐ Other _____		Billing Information ☒ Same as Client Info PO # _____		Regulatory Requirement ☐ NY TOGS ☐ NY Part 375 ☐ AWQ Standards ☒ NY CP-51 ☒ NY Restricted Use ☐ Other _____ ☒ NY Unrestricted Use ☐ NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: ☐ NJ ☐ NY ☐ Other: _____	
These samples have been previously analyzed by Alpha ☐ Other project specific requirements/comments: _____ Please specify Metals or TAL: _____		ANALYSIS CPELVOC TELVOC CP51SVOC RCPA METALS <u>Chromium</u> <u>Lead</u>		Sample Filtration ☐ Lab to do Preservation ☐ Lab to do (Please Specify below) _____ Sample Specific Comments _____		Sample ID ALPHA Lab ID (Lab Use Only) Sample ID Collection Date Time Sample Matrix Sampler's Initials		Preservative Code A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other			
Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)		Relinquished By: <u>[Signature]</u> <u>3/22/19 1615</u> Received By: <u>[Signature]</u> <u>3/22/19 1525</u> <u>[Signature]</u> <u>3/22/19 1810</u> <u>[Signature]</u> <u>3/22/19 2220</u>			
Form No: 01-25 HC (rev. 30-Sept-2013)											



ANALYTICAL REPORT

Lab Number:	L1914341
Client:	P. W. Grosser 630 Johnson Avenue Suite 7 Bohemia, NY 11716
ATTN:	Heather Moran-Botta
Phone:	(631) 589-6353
Project Name:	TOT1901
Project Number:	TOT1901
Report Date:	04/15/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1914341-01	SB009 10-12	SOIL	1045 ATLANTIC AVE	04/09/19 09:00	04/09/19
L1914341-02	SB009 18-20	SOIL	1045 ATLANTIC AVE	04/09/19 09:15	04/09/19
L1914341-03	SB010 4-6	SOIL	1045 ATLANTIC AVE	04/09/19 10:10	04/09/19
L1914341-04	SB010 12-14	SOIL	1045 ATLANTIC AVE	04/09/19 10:29	04/09/19
L1914341-05	SB010 18-20	SOIL	1045 ATLANTIC AVE	04/09/19 10:30	04/09/19
L1914341-06	SB011 10-12	SOIL	1045 ATLANTIC AVE	04/09/19 12:05	04/09/19
L1914341-07	SB012 4-6	SOIL	1045 ATLANTIC AVE	04/09/19 12:25	04/09/19
L1914341-08	SB012 10-12	SOIL	1045 ATLANTIC AVE	04/09/19 12:30	04/09/19
L1914341-09	SB013 10-12	SOIL	1045 ATLANTIC AVE	04/09/19 12:45	04/09/19
L1914341-10	SB014 4-6	SOIL	1045 ATLANTIC AVE	04/09/19 13:00	04/09/19
L1914341-11	SB014 10-12	SOIL	1045 ATLANTIC AVE	04/09/19 13:10	04/09/19
L1914341-12	GW001	WATER	1045 ATLANTIC AVE	04/09/19 11:30	04/09/19
L1914341-13	GW002	WATER	1045 ATLANTIC AVE	04/09/19 14:45	04/09/19

Project Name: TOT1901
Project Number: TOT1901

Lab Number: L1914341
Report Date: 04/15/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: TOT1901
Project Number: TOT1901

Lab Number: L1914341
Report Date: 04/15/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Semivolatile Organics

L1914341-10: The sample has elevated detection limits due to the dilution required by the sample matrix.

Total Metals

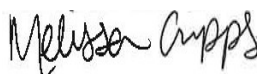
The WG1225496-3 MS recovery, performed on L1914341-10, is outside the acceptance criteria for cadmium (69%). A post digestion spike was performed and yielded an unacceptable recovery for cadmium (75%). The serial dilution recovery was not applicable; therefore, this element fails the matrix test and the result reported in the native sample should be considered estimated.

The WG1225496-3 MS recovery, performed on L1914341-10, is outside the acceptance criteria for chromium (68%). A post digestion spike was performed and was within acceptance criteria.

The WG1225496-4 Laboratory Duplicate RPD for lead (22%), performed on L1914341-10, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Melissa Cripps

Title: Technical Director/Representative

Date: 04/15/19

ORGANICS

VOLATILES

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-01
 Client ID: SB009 10-12
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 09:00
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 04/11/19 12:24
 Analyst: JC
 Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	7.6	3.5	1
1,1-Dichloroethane	ND		ug/kg	1.5	0.22	1
Chloroform	ND		ug/kg	2.3	0.21	1
Carbon tetrachloride	ND		ug/kg	1.5	0.35	1
1,2-Dichloropropane	ND		ug/kg	1.5	0.19	1
Dibromochloromethane	ND		ug/kg	1.5	0.21	1
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.41	1
Tetrachloroethene	ND		ug/kg	0.76	0.30	1
Chlorobenzene	ND		ug/kg	0.76	0.19	1
Trichlorofluoromethane	ND		ug/kg	6.1	1.1	1
1,2-Dichloroethane	ND		ug/kg	1.5	0.39	1
1,1,1-Trichloroethane	ND		ug/kg	0.76	0.26	1
Bromodichloromethane	ND		ug/kg	0.76	0.17	1
trans-1,3-Dichloropropene	ND		ug/kg	1.5	0.42	1
cis-1,3-Dichloropropene	ND		ug/kg	0.76	0.24	1
1,3-Dichloropropene, Total	ND		ug/kg	0.76	0.24	1
1,1-Dichloropropene	ND		ug/kg	0.76	0.24	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.76	0.25	1
Chloromethane	ND		ug/kg	6.1	1.4	1
Vinyl chloride	ND		ug/kg	1.5	0.51	1
Chloroethane	ND		ug/kg	3.1	0.69	1
1,1-Dichloroethene	ND		ug/kg	1.5	0.36	1
trans-1,2-Dichloroethene	ND		ug/kg	2.3	0.21	1
Trichloroethene	0.50	J	ug/kg	0.76	0.21	1
1,2-Dichlorobenzene	ND		ug/kg	3.1	0.22	1
1,3-Dichlorobenzene	ND		ug/kg	3.1	0.23	1
1,4-Dichlorobenzene	ND		ug/kg	3.1	0.26	1
cis-1,2-Dichloroethene	ND		ug/kg	1.5	0.27	1

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-01
 Client ID: SB009 10-12
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 09:00
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2-Dichloroethene, Total	ND		ug/kg	1.5	0.21	1
Dichlorodifluoromethane	ND		ug/kg	15	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	3.1	0.19	1
Bromochloromethane	ND		ug/kg	3.1	0.31	1
2,2-Dichloropropane	ND		ug/kg	3.1	0.31	1
1,3-Dichloropropane	ND		ug/kg	3.1	0.26	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.76	0.20	1
o-Chlorotoluene	ND		ug/kg	3.1	0.29	1
p-Chlorotoluene	ND		ug/kg	3.1	0.16	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.6	1.5	1
Hexachlorobutadiene	ND		ug/kg	6.1	0.26	1
1,2,3-Trichlorobenzene	ND		ug/kg	3.1	0.49	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.1	0.42	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	7.6	2.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	107		70-130

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-02
 Client ID: SB009 18-20
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 09:15
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 04/11/19 12:50
 Analyst: JC
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	3.9	1.8	1
1,1-Dichloroethane	ND		ug/kg	0.78	0.11	1
Chloroform	0.45	J	ug/kg	1.2	0.11	1
Carbon tetrachloride	ND		ug/kg	0.78	0.18	1
1,2-Dichloropropane	ND		ug/kg	0.78	0.10	1
Dibromochloromethane	ND		ug/kg	0.78	0.11	1
1,1,2-Trichloroethane	ND		ug/kg	0.78	0.21	1
Tetrachloroethene	ND		ug/kg	0.39	0.15	1
Chlorobenzene	ND		ug/kg	0.39	0.10	1
Trichlorofluoromethane	ND		ug/kg	3.1	0.54	1
1,2-Dichloroethane	ND		ug/kg	0.78	0.20	1
1,1,1-Trichloroethane	ND		ug/kg	0.39	0.13	1
Bromodichloromethane	ND		ug/kg	0.39	0.09	1
trans-1,3-Dichloropropene	ND		ug/kg	0.78	0.21	1
cis-1,3-Dichloropropene	ND		ug/kg	0.39	0.12	1
1,3-Dichloropropene, Total	ND		ug/kg	0.39	0.12	1
1,1-Dichloropropene	ND		ug/kg	0.39	0.12	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.39	0.13	1
Chloromethane	ND		ug/kg	3.1	0.72	1
Vinyl chloride	ND		ug/kg	0.78	0.26	1
Chloroethane	ND		ug/kg	1.6	0.35	1
1,1-Dichloroethene	ND		ug/kg	0.78	0.18	1
trans-1,2-Dichloroethene	ND		ug/kg	1.2	0.11	1
Trichloroethene	0.54		ug/kg	0.39	0.11	1
1,2-Dichlorobenzene	ND		ug/kg	1.6	0.11	1
1,3-Dichlorobenzene	ND		ug/kg	1.6	0.12	1
1,4-Dichlorobenzene	ND		ug/kg	1.6	0.13	1
cis-1,2-Dichloroethene	ND		ug/kg	0.78	0.14	1

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-02
 Client ID: SB009 18-20
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 09:15
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2-Dichloroethene, Total	ND		ug/kg	0.78	0.11	1
Dichlorodifluoromethane	ND		ug/kg	7.8	0.71	1
1,2,3-Trichloropropane	ND		ug/kg	1.6	0.10	1
Bromochloromethane	ND		ug/kg	1.6	0.16	1
2,2-Dichloropropane	ND		ug/kg	1.6	0.16	1
1,3-Dichloropropane	ND		ug/kg	1.6	0.13	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.39	0.10	1
o-Chlorotoluene	ND		ug/kg	1.6	0.15	1
p-Chlorotoluene	ND		ug/kg	1.6	0.08	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.3	0.78	1
Hexachlorobutadiene	ND		ug/kg	3.1	0.13	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.6	0.25	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.6	0.21	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	3.9	1.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	108		70-130

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-04
 Client ID: SB010 12-14
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 10:29
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 04/11/19 13:16
 Analyst: JC
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.5	2.5	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	0.34	J	ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.1	0.25	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.29	1
Tetrachloroethene	4.5		ug/kg	0.55	0.21	1
Chlorobenzene	ND		ug/kg	0.55	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.4	0.76	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	0.55	0.18	1
Bromodichloromethane	ND		ug/kg	0.55	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.30	1
cis-1,3-Dichloropropene	ND		ug/kg	0.55	0.17	1
1,3-Dichloropropene, Total	ND		ug/kg	0.55	0.17	1
1,1-Dichloropropene	ND		ug/kg	0.55	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.55	0.18	1
Chloromethane	ND		ug/kg	4.4	1.0	1
Vinyl chloride	ND		ug/kg	1.1	0.37	1
Chloroethane	ND		ug/kg	2.2	0.50	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1
Trichloroethene	50		ug/kg	0.55	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,3-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	0.19	1
cis-1,2-Dichloroethene	1.8		ug/kg	1.1	0.19	1

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-04
 Client ID: SB010 12-14
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 10:29
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2-Dichloroethene, Total	1.8		ug/kg	1.1	0.15	1
Dichlorodifluoromethane	ND		ug/kg	11	1.0	1
1,2,3-Trichloropropane	ND		ug/kg	2.2	0.14	1
Bromochloromethane	ND		ug/kg	2.2	0.22	1
2,2-Dichloropropane	ND		ug/kg	2.2	0.22	1
1,3-Dichloropropane	ND		ug/kg	2.2	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.55	0.14	1
o-Chlorotoluene	ND		ug/kg	2.2	0.21	1
p-Chlorotoluene	ND		ug/kg	2.2	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.3	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.4	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	0.35	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	0.30	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.5	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	108		70-130

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-05
 Client ID: SB010 18-20
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 10:30
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 04/11/19 14:34
 Analyst: PK
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.3	2.0	1
1,1-Dichloroethane	ND		ug/kg	0.86	0.12	1
Chloroform	0.46	J	ug/kg	1.3	0.12	1
Carbon tetrachloride	ND		ug/kg	0.86	0.20	1
1,2-Dichloropropane	ND		ug/kg	0.86	0.11	1
Dibromochloromethane	ND		ug/kg	0.86	0.12	1
1,1,2-Trichloroethane	ND		ug/kg	0.86	0.23	1
Tetrachloroethene	5.1		ug/kg	0.43	0.17	1
Chlorobenzene	ND		ug/kg	0.43	0.11	1
Trichlorofluoromethane	ND		ug/kg	3.4	0.60	1
1,2-Dichloroethane	ND		ug/kg	0.86	0.22	1
1,1,1-Trichloroethane	ND		ug/kg	0.43	0.14	1
Bromodichloromethane	ND		ug/kg	0.43	0.09	1
trans-1,3-Dichloropropene	ND		ug/kg	0.86	0.23	1
cis-1,3-Dichloropropene	ND		ug/kg	0.43	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	0.43	0.14	1
1,1-Dichloropropene	ND		ug/kg	0.43	0.14	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.43	0.14	1
Chloromethane	ND		ug/kg	3.4	0.80	1
Vinyl chloride	ND		ug/kg	0.86	0.29	1
Chloroethane	ND		ug/kg	1.7	0.39	1
1,1-Dichloroethene	ND		ug/kg	0.86	0.20	1
trans-1,2-Dichloroethene	ND		ug/kg	1.3	0.12	1
Trichloroethene	45		ug/kg	0.43	0.12	1
1,2-Dichlorobenzene	ND		ug/kg	1.7	0.12	1
1,3-Dichlorobenzene	ND		ug/kg	1.7	0.13	1
1,4-Dichlorobenzene	ND		ug/kg	1.7	0.15	1
cis-1,2-Dichloroethene	2.5		ug/kg	0.86	0.15	1

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-05
 Client ID: SB010 18-20
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 10:30
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2-Dichloroethene, Total	2.5		ug/kg	0.86	0.12	1
Dichlorodifluoromethane	ND		ug/kg	8.6	0.78	1
1,2,3-Trichloropropane	ND		ug/kg	1.7	0.11	1
Bromochloromethane	ND		ug/kg	1.7	0.18	1
2,2-Dichloropropane	ND		ug/kg	1.7	0.17	1
1,3-Dichloropropane	ND		ug/kg	1.7	0.14	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.43	0.11	1
o-Chlorotoluene	ND		ug/kg	1.7	0.16	1
p-Chlorotoluene	ND		ug/kg	1.7	0.09	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.6	0.86	1
Hexachlorobutadiene	ND		ug/kg	3.4	0.14	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.7	0.28	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.7	0.23	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.3	1.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	109		70-130

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-06
 Client ID: SB011 10-12
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 12:05
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 04/11/19 08:56
 Analyst: MV
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	310	140	1
1,1-Dichloroethane	ND		ug/kg	62	9.0	1
Chloroform	ND		ug/kg	93	8.7	1
Carbon tetrachloride	ND		ug/kg	62	14.	1
1,2-Dichloropropane	ND		ug/kg	62	7.8	1
Dibromochloromethane	ND		ug/kg	62	8.7	1
1,1,2-Trichloroethane	ND		ug/kg	62	17.	1
Tetrachloroethene	310		ug/kg	31	12.	1
Chlorobenzene	ND		ug/kg	31	7.9	1
Trichlorofluoromethane	ND		ug/kg	250	43.	1
1,2-Dichloroethane	ND		ug/kg	62	16.	1
1,1,1-Trichloroethane	ND		ug/kg	31	10.	1
Bromodichloromethane	ND		ug/kg	31	6.8	1
trans-1,3-Dichloropropene	ND		ug/kg	62	17.	1
cis-1,3-Dichloropropene	ND		ug/kg	31	9.8	1
1,3-Dichloropropene, Total	ND		ug/kg	31	9.8	1
1,1-Dichloropropene	ND		ug/kg	31	9.9	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	31	10.	1
Chloromethane	ND		ug/kg	250	58.	1
Vinyl chloride	ND		ug/kg	62	21.	1
Chloroethane	ND		ug/kg	120	28.	1
1,1-Dichloroethene	ND		ug/kg	62	15.	1
trans-1,2-Dichloroethene	ND		ug/kg	93	8.5	1
Trichloroethene	590		ug/kg	31	8.5	1
1,2-Dichlorobenzene	ND		ug/kg	120	9.0	1
1,3-Dichlorobenzene	ND		ug/kg	120	9.2	1
1,4-Dichlorobenzene	ND		ug/kg	120	11.	1
cis-1,2-Dichloroethene	32	J	ug/kg	62	11.	1

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-06
 Client ID: SB011 10-12
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 12:05
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2-Dichloroethene, Total	32	J	ug/kg	62	8.5	1
Dichlorodifluoromethane	ND		ug/kg	620	57.	1
1,2,3-Trichloropropane	ND		ug/kg	120	7.9	1
Bromochloromethane	ND		ug/kg	120	13.	1
2,2-Dichloropropane	ND		ug/kg	120	12.	1
1,3-Dichloropropane	ND		ug/kg	120	10.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	31	8.2	1
o-Chlorotoluene	ND		ug/kg	120	12.	1
p-Chlorotoluene	ND		ug/kg	120	6.7	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	190	62.	1
Hexachlorobutadiene	ND		ug/kg	250	10.	1
1,2,3-Trichlorobenzene	ND		ug/kg	120	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	120	17.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	310	88.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	103		70-130

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-08
 Client ID: SB012 10-12
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 12:30
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 04/11/19 13:42
 Analyst: JC
 Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.7	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.94	0.14	1
Chloroform	ND		ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.94	0.22	1
1,2-Dichloropropane	ND		ug/kg	0.94	0.12	1
Dibromochloromethane	ND		ug/kg	0.94	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.94	0.25	1
Tetrachloroethene	3.8		ug/kg	0.47	0.18	1
Chlorobenzene	ND		ug/kg	0.47	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.8	0.66	1
1,2-Dichloroethane	ND		ug/kg	0.94	0.24	1
1,1,1-Trichloroethane	ND		ug/kg	0.47	0.16	1
Bromodichloromethane	ND		ug/kg	0.47	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.94	0.26	1
cis-1,3-Dichloropropene	ND		ug/kg	0.47	0.15	1
1,3-Dichloropropene, Total	ND		ug/kg	0.47	0.15	1
1,1-Dichloropropene	ND		ug/kg	0.47	0.15	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.47	0.16	1
Chloromethane	ND		ug/kg	3.8	0.88	1
Vinyl chloride	ND		ug/kg	0.94	0.32	1
Chloroethane	ND		ug/kg	1.9	0.43	1
1,1-Dichloroethene	ND		ug/kg	0.94	0.22	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.13	1
Trichloroethene	14		ug/kg	0.47	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	1.9	0.16	1
cis-1,2-Dichloroethene	0.44	J	ug/kg	0.94	0.16	1

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-08
 Client ID: SB012 10-12
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 12:30
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2-Dichloroethene, Total	0.44	J	ug/kg	0.94	0.13	1
Dichlorodifluoromethane	ND		ug/kg	9.4	0.86	1
1,2,3-Trichloropropane	ND		ug/kg	1.9	0.12	1
Bromochloromethane	ND		ug/kg	1.9	0.19	1
2,2-Dichloropropane	ND		ug/kg	1.9	0.19	1
1,3-Dichloropropane	ND		ug/kg	1.9	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.47	0.12	1
o-Chlorotoluene	ND		ug/kg	1.9	0.18	1
p-Chlorotoluene	ND		ug/kg	1.9	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.8	0.94	1
Hexachlorobutadiene	ND		ug/kg	3.8	0.16	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.9	0.30	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.9	0.26	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.7	1.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	109		70-130

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-09
 Client ID: SB013 10-12
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 12:45
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 04/11/19 14:08
 Analyst: PK
 Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.3	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.15	1
Chloroform	0.22	J	ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.1	0.24	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.13	1
Dibromochloromethane	ND		ug/kg	1.1	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.28	1
Tetrachloroethene	9.9		ug/kg	0.53	0.21	1
Chlorobenzene	ND		ug/kg	0.53	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.2	0.74	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.27	1
1,1,1-Trichloroethane	ND		ug/kg	0.53	0.18	1
Bromodichloromethane	ND		ug/kg	0.53	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.29	1
cis-1,3-Dichloropropene	ND		ug/kg	0.53	0.17	1
1,3-Dichloropropene, Total	ND		ug/kg	0.53	0.17	1
1,1-Dichloropropene	ND		ug/kg	0.53	0.17	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.53	0.18	1
Chloromethane	ND		ug/kg	4.2	0.99	1
Vinyl chloride	ND		ug/kg	1.1	0.36	1
Chloroethane	ND		ug/kg	2.1	0.48	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.14	1
Trichloroethene	71		ug/kg	0.53	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
cis-1,2-Dichloroethene	1.8		ug/kg	1.1	0.19	1

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-09
 Client ID: SB013 10-12
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 12:45
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2-Dichloroethene, Total	1.8		ug/kg	1.1	0.14	1
Dichlorodifluoromethane	ND		ug/kg	11	0.97	1
1,2,3-Trichloropropane	ND		ug/kg	2.1	0.14	1
Bromochloromethane	ND		ug/kg	2.1	0.22	1
2,2-Dichloropropane	ND		ug/kg	2.1	0.21	1
1,3-Dichloropropane	ND		ug/kg	2.1	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.53	0.14	1
o-Chlorotoluene	ND		ug/kg	2.1	0.20	1
p-Chlorotoluene	ND		ug/kg	2.1	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.2	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.2	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.34	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.29	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.3	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	88		70-130

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-10
 Client ID: SB014 4-6
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 13:00
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 04/11/19 15:00
 Analyst: PK
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.4	2.0	1
1,1-Dichloroethane	ND		ug/kg	0.88	0.13	1
Chloroform	ND		ug/kg	1.3	0.12	1
Carbon tetrachloride	ND		ug/kg	0.88	0.20	1
1,2-Dichloropropane	ND		ug/kg	0.88	0.11	1
Dibromochloromethane	ND		ug/kg	0.88	0.12	1
1,1,2-Trichloroethane	ND		ug/kg	0.88	0.24	1
Tetrachloroethene	1.7		ug/kg	0.44	0.17	1
Chlorobenzene	ND		ug/kg	0.44	0.11	1
Trichlorofluoromethane	ND		ug/kg	3.5	0.61	1
1,2-Dichloroethane	ND		ug/kg	0.88	0.23	1
1,1,1-Trichloroethane	ND		ug/kg	0.44	0.15	1
Bromodichloromethane	ND		ug/kg	0.44	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.88	0.24	1
cis-1,3-Dichloropropene	ND		ug/kg	0.44	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	0.44	0.14	1
1,1-Dichloropropene	ND		ug/kg	0.44	0.14	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.44	0.15	1
Chloromethane	ND		ug/kg	3.5	0.82	1
Vinyl chloride	ND		ug/kg	0.88	0.30	1
Chloroethane	ND		ug/kg	1.8	0.40	1
1,1-Dichloroethene	ND		ug/kg	0.88	0.21	1
trans-1,2-Dichloroethene	ND		ug/kg	1.3	0.12	1
Trichloroethene	43		ug/kg	0.44	0.12	1
1,2-Dichlorobenzene	ND		ug/kg	1.8	0.13	1
1,3-Dichlorobenzene	ND		ug/kg	1.8	0.13	1
1,4-Dichlorobenzene	ND		ug/kg	1.8	0.15	1
cis-1,2-Dichloroethene	0.22	J	ug/kg	0.88	0.15	1

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-10
 Client ID: SB014 4-6
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 13:00
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
1,2-Dichloroethene, Total	0.22	J	ug/kg	0.88	0.12	1
Dichlorodifluoromethane	ND		ug/kg	8.8	0.81	1
1,2,3-Trichloropropane	ND		ug/kg	1.8	0.11	1
Bromochloromethane	ND		ug/kg	1.8	0.18	1
2,2-Dichloropropane	ND		ug/kg	1.8	0.18	1
1,3-Dichloropropane	ND		ug/kg	1.8	0.15	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.44	0.12	1
o-Chlorotoluene	ND		ug/kg	1.8	0.17	1
p-Chlorotoluene	ND		ug/kg	1.8	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.6	0.88	1
Hexachlorobutadiene	ND		ug/kg	3.5	0.15	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.8	0.28	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.8	0.24	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.4	1.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	109		70-130

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-11
 Client ID: SB014 10-12
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 13:10
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 04/11/19 09:48
 Analyst: MV
 Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	380	170	1
1,1-Dichloroethane	ND		ug/kg	75	11.	1
Chloroform	ND		ug/kg	110	10.	1
Carbon tetrachloride	ND		ug/kg	75	17.	1
1,2-Dichloropropane	ND		ug/kg	75	9.4	1
Dibromochloromethane	ND		ug/kg	75	10.	1
1,1,2-Trichloroethane	ND		ug/kg	75	20.	1
Tetrachloroethene	ND		ug/kg	38	15.	1
Chlorobenzene	ND		ug/kg	38	9.6	1
Trichlorofluoromethane	ND		ug/kg	300	52.	1
1,2-Dichloroethane	ND		ug/kg	75	19.	1
1,1,1-Trichloroethane	ND		ug/kg	38	12.	1
Bromodichloromethane	ND		ug/kg	38	8.2	1
trans-1,3-Dichloropropene	ND		ug/kg	75	20.	1
cis-1,3-Dichloropropene	ND		ug/kg	38	12.	1
1,3-Dichloropropene, Total	ND		ug/kg	38	12.	1
1,1-Dichloropropene	ND		ug/kg	38	12.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	38	12.	1
Chloromethane	ND		ug/kg	300	70.	1
Vinyl chloride	ND		ug/kg	75	25.	1
Chloroethane	ND		ug/kg	150	34.	1
1,1-Dichloroethene	ND		ug/kg	75	18.	1
trans-1,2-Dichloroethene	ND		ug/kg	110	10.	1
Trichloroethene	1200		ug/kg	38	10.	1
1,2-Dichlorobenzene	ND		ug/kg	150	11.	1
1,3-Dichlorobenzene	ND		ug/kg	150	11.	1
1,4-Dichlorobenzene	ND		ug/kg	150	13.	1
cis-1,2-Dichloroethene	13	J	ug/kg	75	13.	1

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-11
 Client ID: SB014 10-12
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 13:10
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
1,2-Dichloroethene, Total	13	J	ug/kg	75	10.	1
Dichlorodifluoromethane	ND		ug/kg	750	69.	1
1,2,3-Trichloropropane	ND		ug/kg	150	9.6	1
Bromochloromethane	ND		ug/kg	150	15.	1
2,2-Dichloropropane	ND		ug/kg	150	15.	1
1,3-Dichloropropane	ND		ug/kg	150	12.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	38	9.9	1
o-Chlorotoluene	ND		ug/kg	150	14.	1
p-Chlorotoluene	ND		ug/kg	150	8.1	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	220	75.	1
Hexachlorobutadiene	ND		ug/kg	300	13.	1
1,2,3-Trichlorobenzene	ND		ug/kg	150	24.	1
1,2,4-Trichlorobenzene	ND		ug/kg	150	20.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	380	110	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	104		70-130

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-12
 Client ID: GW001
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 11:30
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 04/12/19 00:11
 Analyst: MAB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	19		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	3.0		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Chloromethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	42		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.5	J	ug/l	2.5	0.70	1

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-12
 Client ID: GW001
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 11:30
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichloroethene, Total	1.5	J	ug/l	2.5	0.70	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	102		70-130

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-13
 Client ID: GW002
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 14:45
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 04/12/19 00:39
 Analyst: MAB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	5.3		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	0.20	J	ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	0.21	J	ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Chloromethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	8.8		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-13
 Client ID: GW002
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 14:45
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	102		70-130

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 04/11/19 07:12
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 06,11 Batch: WG1225452-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9
1,1-Dichloropropene	ND		ug/kg	25	8.0
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Chloromethane	ND		ug/kg	200	47.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8
1,2-Dichlorobenzene	ND		ug/kg	100	7.2
1,3-Dichlorobenzene	ND		ug/kg	100	7.4
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 04/11/19 07:12
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 06,11 Batch: WG1225452-5					
Dichlorodifluoromethane	ND		ug/kg	500	46.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
Bromochloromethane	ND		ug/kg	100	10.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,3-Dichloropropane	ND		ug/kg	100	8.4
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	6.6
o-Chlorotoluene	ND		ug/kg	100	9.6
p-Chlorotoluene	ND		ug/kg	100	5.4
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Hexachlorobutadiene	ND		ug/kg	200	8.4
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	71.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	99		70-130

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 04/11/19 07:12
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-02,04-05,08-10 Batch: WG1225475-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Chloromethane	ND		ug/kg	4.0	0.93
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 04/11/19 07:12
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-02,04-05,08-10 Batch: WG1225475-5					
Dichlorodifluoromethane	ND		ug/kg	10	0.92
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
o-Chlorotoluene	ND		ug/kg	2.0	0.19
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	99		70-130

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 04/11/19 18:39
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 12-13 Batch: WG1225825-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Chloromethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 04/11/19 18:39
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 12-13 Batch: WG1225825-5					
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	101		70-130

Lab Control Sample Analysis Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06,11 Batch: WG1225452-3 WG1225452-4								
Methylene chloride	98		97		70-130	1		30
1,1-Dichloroethane	109		105		70-130	4		30
Chloroform	112		115		70-130	3		30
Carbon tetrachloride	120		118		70-130	2		30
1,2-Dichloropropane	105		103		70-130	2		30
Dibromochloromethane	107		107		70-130	0		30
1,1,2-Trichloroethane	102		100		70-130	2		30
Tetrachloroethene	114		111		70-130	3		30
Chlorobenzene	107		106		70-130	1		30
Trichlorofluoromethane	124		121		70-139	2		30
1,2-Dichloroethane	104		104		70-130	0		30
1,1,1-Trichloroethane	119		118		70-130	1		30
Bromodichloromethane	111		111		70-130	0		30
trans-1,3-Dichloropropene	107		105		70-130	2		30
cis-1,3-Dichloropropene	114		113		70-130	1		30
1,1-Dichloropropene	116		113		70-130	3		30
1,1,2,2-Tetrachloroethane	96		93		70-130	3		30
Chloromethane	95		92		52-130	3		30
Vinyl chloride	100		96		67-130	4		30
Chloroethane	114		111		50-151	3		30
1,1-Dichloroethene	114		112		65-135	2		30
trans-1,2-Dichloroethene	114		113		70-130	1		30
Trichloroethene	113		113		70-130	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06,11 Batch: WG1225452-3 WG1225452-4								
1,2-Dichlorobenzene	106		104		70-130	2		30
1,3-Dichlorobenzene	109		106		70-130	3		30
1,4-Dichlorobenzene	107		104		70-130	3		30
cis-1,2-Dichloroethene	115		113		70-130	2		30
Dichlorodifluoromethane	105		101		30-146	4		30
1,2,3-Trichloropropane	97		91		68-130	6		30
Bromochloromethane	116		114		70-130	2		30
2,2-Dichloropropane	119		117		70-130	2		30
1,3-Dichloropropane	102		103		69-130	1		30
1,1,1,2-Tetrachloroethane	110		110		70-130	0		30
o-Chlorotoluene	109		105		70-130	4		30
p-Chlorotoluene	110		106		70-130	4		30
1,2-Dibromo-3-chloropropane	101		94		68-130	7		30
Hexachlorobutadiene	113		109		67-130	4		30
1,2,3-Trichlorobenzene	108		104		70-130	4		30
1,2,4-Trichlorobenzene	108		104		70-130	4		30
trans-1,4-Dichloro-2-butene	89		87		70-130	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 06,11 Batch: WG1225452-3 WG1225452-4								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		96		70-130
Toluene-d8	98		98		70-130
4-Bromofluorobenzene	100		99		70-130
Dibromofluoromethane	99		100		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02,04-05,08-10 Batch: WG1225475-3 WG1225475-4								
Methylene chloride	98		97		70-130	1		30
1,1-Dichloroethane	109		105		70-130	4		30
Chloroform	112		115		70-130	3		30
Carbon tetrachloride	120		118		70-130	2		30
1,2-Dichloropropane	105		103		70-130	2		30
Dibromochloromethane	107		107		70-130	0		30
1,1,2-Trichloroethane	102		100		70-130	2		30
Tetrachloroethene	114		111		70-130	3		30
Chlorobenzene	107		106		70-130	1		30
Trichlorofluoromethane	124		121		70-139	2		30
1,2-Dichloroethane	104		104		70-130	0		30
1,1,1-Trichloroethane	119		118		70-130	1		30
Bromodichloromethane	111		111		70-130	0		30
trans-1,3-Dichloropropene	107		105		70-130	2		30
cis-1,3-Dichloropropene	114		113		70-130	1		30
1,1-Dichloropropene	116		113		70-130	3		30
1,1,2,2-Tetrachloroethane	96		93		70-130	3		30
Chloromethane	95		92		52-130	3		30
Vinyl chloride	100		96		67-130	4		30
Chloroethane	114		111		50-151	3		30
1,1-Dichloroethene	114		112		65-135	2		30
trans-1,2-Dichloroethene	114		113		70-130	1		30
Trichloroethene	113		113		70-130	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02,04-05,08-10 Batch: WG1225475-3 WG1225475-4								
1,2-Dichlorobenzene	106		104		70-130	2		30
1,3-Dichlorobenzene	109		106		70-130	3		30
1,4-Dichlorobenzene	107		104		70-130	3		30
cis-1,2-Dichloroethene	115		113		70-130	2		30
Dichlorodifluoromethane	105		101		30-146	4		30
1,2,3-Trichloropropane	97		91		68-130	6		30
Bromochloromethane	116		114		70-130	2		30
2,2-Dichloropropane	119		117		70-130	2		30
1,3-Dichloropropane	102		103		69-130	1		30
1,1,1,2-Tetrachloroethane	110		110		70-130	0		30
o-Chlorotoluene	109		105		70-130	4		30
p-Chlorotoluene	110		106		70-130	4		30
1,2-Dibromo-3-chloropropane	101		94		68-130	7		30
Hexachlorobutadiene	113		109		67-130	4		30
1,2,3-Trichlorobenzene	108		104		70-130	4		30
1,2,4-Trichlorobenzene	108		104		70-130	4		30
trans-1,4-Dichloro-2-butene	89		87		70-130	2		30

Lab Control Sample Analysis Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
-----------	------------------	------	-------------------	------	---------------------	-----	------	---------------

Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02,04-05,08-10 Batch: WG1225475-3 WG1225475-4

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		96		70-130
Toluene-d8	98		98		70-130
4-Bromofluorobenzene	100		99		70-130
Dibromofluoromethane	99		100		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12-13 Batch: WG1225825-3 WG1225825-4								
Methylene chloride	99		97		70-130	2		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	98		100		63-132	2		20
1,2-Dichloropropane	110		100		70-130	10		20
Dibromochloromethane	100		98		63-130	2		20
1,1,2-Trichloroethane	100		100		70-130	0		20
Tetrachloroethene	96		95		70-130	1		20
Chlorobenzene	99		100		75-130	1		20
Trichlorofluoromethane	95		95		62-150	0		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	100		99		67-130	1		20
Bromodichloromethane	100		98		67-130	2		20
trans-1,3-Dichloropropene	110		100		70-130	10		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
1,1-Dichloropropene	97		99		70-130	2		20
1,1,2,2-Tetrachloroethane	110		110		67-130	0		20
Chloromethane	92		94		64-130	2		20
Vinyl chloride	96		100		55-140	4		20
Chloroethane	96		96		55-138	0		20
1,1-Dichloroethene	95		96		61-145	1		20
trans-1,2-Dichloroethene	98		100		70-130	2		20
Trichloroethene	99		97		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12-13 Batch: WG1225825-3 WG1225825-4								
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
cis-1,2-Dichloroethene	98		99		70-130	1		20
1,2,3-Trichloropropane	120		110		64-130	9		20
Dichlorodifluoromethane	69		71		36-147	3		20
Bromochloromethane	99		96		70-130	3		20
2,2-Dichloropropane	110		110		63-133	0		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	100		100		64-130	0		20
o-Chlorotoluene	95		97		70-130	2		20
p-Chlorotoluene	110		110		70-130	0		20
1,2-Dibromo-3-chloropropane	100		96		41-144	4		20
Hexachlorobutadiene	98		100		63-130	2		20
1,2,3-Trichlorobenzene	98		100		70-130	2		20
1,2,4-Trichlorobenzene	98		98		70-130	0		20
trans-1,4-Dichloro-2-butene	130		130		70-130	0		20

Lab Control Sample Analysis Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12-13 Batch: WG1225825-3 WG1225825-4								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	113		112		70-130
Toluene-d8	102		105		70-130
4-Bromofluorobenzene	102		106		70-130
Dibromofluoromethane	101		99		70-130

SEMIVOLATILES

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-01
 Client ID: SB009 10-12
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 09:00
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 04/13/19 00:37
 Analyst: EK
 Percent Solids: 89%

Extraction Method: EPA 3546
 Extraction Date: 04/12/19 10:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	19.	1
Fluoranthene	ND		ug/kg	110	21.	1
Benzo(a)anthracene	ND		ug/kg	110	21.	1
Benzo(a)pyrene	ND		ug/kg	150	45.	1
Benzo(b)fluoranthene	ND		ug/kg	110	31.	1
Benzo(k)fluoranthene	ND		ug/kg	110	30.	1
Chrysene	ND		ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	150	28.	1
Anthracene	ND		ug/kg	110	36.	1
Benzo(ghi)perylene	ND		ug/kg	150	22.	1
Fluorene	ND		ug/kg	180	18.	1
Phenanthrene	ND		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	26.	1
Pyrene	ND		ug/kg	110	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	75		30-120
4-Terphenyl-d14	56		18-120

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-04
 Client ID: SB010 12-14
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 10:29
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 04/13/19 00:11
 Analyst: EK
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 04/12/19 10:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	19.	1
Fluoranthene	ND		ug/kg	110	21.	1
Benzo(a)anthracene	ND		ug/kg	110	20.	1
Benzo(a)pyrene	ND		ug/kg	140	44.	1
Benzo(b)fluoranthene	ND		ug/kg	110	30.	1
Benzo(k)fluoranthene	ND		ug/kg	110	29.	1
Chrysene	ND		ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	140	28.	1
Anthracene	ND		ug/kg	110	35.	1
Benzo(ghi)perylene	ND		ug/kg	140	21.	1
Fluorene	ND		ug/kg	180	18.	1
Phenanthrene	ND		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	25.	1
Pyrene	ND		ug/kg	110	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	81		30-120
4-Terphenyl-d14	74		18-120

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-06
 Client ID: SB011 10-12
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 12:05
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 04/13/19 02:46
 Analyst: EK
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 04/12/19 10:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	19.	1
Fluoranthene	41	J	ug/kg	110	21.	1
Benzo(a)anthracene	21	J	ug/kg	110	21.	1
Benzo(a)pyrene	ND		ug/kg	150	45.	1
Benzo(b)fluoranthene	ND		ug/kg	110	31.	1
Benzo(k)fluoranthene	ND		ug/kg	110	29.	1
Chrysene	21	J	ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	150	28.	1
Anthracene	ND		ug/kg	110	36.	1
Benzo(ghi)perylene	ND		ug/kg	150	22.	1
Fluorene	ND		ug/kg	180	18.	1
Phenanthrene	35	J	ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	26.	1
Pyrene	33	J	ug/kg	110	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	76		30-120
4-Terphenyl-d14	74		18-120

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-08
 Client ID: SB012 10-12
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 12:30
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 04/13/19 01:28
 Analyst: EK
 Percent Solids: 94%

Extraction Method: EPA 3546
 Extraction Date: 04/12/19 10:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	18.	1
Fluoranthene	ND		ug/kg	100	20.	1
Benzo(a)anthracene	ND		ug/kg	100	20.	1
Benzo(a)pyrene	ND		ug/kg	140	43.	1
Benzo(b)fluoranthene	ND		ug/kg	100	29.	1
Benzo(k)fluoranthene	ND		ug/kg	100	28.	1
Chrysene	ND		ug/kg	100	18.	1
Acenaphthylene	ND		ug/kg	140	27.	1
Anthracene	ND		ug/kg	100	34.	1
Benzo(ghi)perylene	ND		ug/kg	140	20.	1
Fluorene	ND		ug/kg	180	17.	1
Phenanthrene	ND		ug/kg	100	21.	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	24.	1
Pyrene	ND		ug/kg	100	17.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	79		30-120
4-Terphenyl-d14	63		18-120

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-09
 Client ID: SB013 10-12
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 12:45
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 04/13/19 01:03
 Analyst: EK
 Percent Solids: 88%

Extraction Method: EPA 3546
 Extraction Date: 04/12/19 10:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	19.	1
Fluoranthene	ND		ug/kg	110	22.	1
Benzo(a)anthracene	ND		ug/kg	110	21.	1
Benzo(a)pyrene	ND		ug/kg	150	46.	1
Benzo(b)fluoranthene	ND		ug/kg	110	32.	1
Benzo(k)fluoranthene	ND		ug/kg	110	30.	1
Chrysene	ND		ug/kg	110	20.	1
Acenaphthylene	ND		ug/kg	150	29.	1
Anthracene	ND		ug/kg	110	37.	1
Benzo(ghi)perylene	ND		ug/kg	150	22.	1
Fluorene	ND		ug/kg	190	18.	1
Phenanthrene	ND		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	26.	1
Pyrene	ND		ug/kg	110	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	57		23-120
2-Fluorobiphenyl	67		30-120
4-Terphenyl-d14	65		18-120

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-10 D

Date Collected: 04/09/19 13:00

Client ID: SB014 4-6

Date Received: 04/09/19

Sample Location: 1045 ATLANTIC AVE

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Extraction Method: EPA 3546

Analytical Method: 1,8270D

Extraction Date: 04/12/19 10:25

Analytical Date: 04/14/19 19:02

Analyst: ALS

Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	930		ug/kg	730	95.	5
Fluoranthene	12000		ug/kg	550	100	5
Benzo(a)anthracene	5200		ug/kg	550	100	5
Benzo(a)pyrene	5000		ug/kg	730	220	5
Benzo(b)fluoranthene	6700		ug/kg	550	150	5
Benzo(k)fluoranthene	2200		ug/kg	550	150	5
Chrysene	5200		ug/kg	550	95.	5
Acenaphthylene	190	J	ug/kg	730	140	5
Anthracene	1900		ug/kg	550	180	5
Benzo(ghi)perylene	2800		ug/kg	730	110	5
Fluorene	760	J	ug/kg	910	89.	5
Phenanthrene	9800		ug/kg	550	110	5
Dibenzo(a,h)anthracene	660		ug/kg	550	100	5
Indeno(1,2,3-cd)pyrene	3200		ug/kg	730	130	5
Pyrene	10000		ug/kg	550	91.	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	69		30-120
4-Terphenyl-d14	62		18-120

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-11
 Client ID: SB014 10-12
 Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 13:10
 Date Received: 04/09/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 04/13/19 04:29
 Analyst: EK
 Percent Solids: 93%

Extraction Method: EPA 3546
 Extraction Date: 04/12/19 10:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	18.	1
Fluoranthene	200		ug/kg	110	20.	1
Benzo(a)anthracene	96	J	ug/kg	110	20.	1
Benzo(a)pyrene	88	J	ug/kg	140	44.	1
Benzo(b)fluoranthene	120		ug/kg	110	30.	1
Benzo(k)fluoranthene	ND		ug/kg	110	29.	1
Chrysene	90	J	ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	140	28.	1
Anthracene	ND		ug/kg	110	35.	1
Benzo(ghi)perylene	54	J	ug/kg	140	21.	1
Fluorene	ND		ug/kg	180	17.	1
Phenanthrene	100	J	ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	62	J	ug/kg	140	25.	1
Pyrene	170		ug/kg	110	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	90		30-120
4-Terphenyl-d14	95		18-120

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 04/14/19 11:36
 Analyst: SZ

Extraction Method: EPA 3546
 Extraction Date: 04/12/19 10:00

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01,04,06,08-11 Batch: WG1225813-1					
Acenaphthene	ND		ug/kg	130	17.
Fluoranthene	ND		ug/kg	100	19.
Benzo(a)anthracene	ND		ug/kg	100	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	100	28.
Benzo(k)fluoranthene	ND		ug/kg	100	26.
Chrysene	ND		ug/kg	100	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	100	32.
Benzo(ghi)perylene	ND		ug/kg	130	20.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	100	20.
Dibenzo(a,h)anthracene	ND		ug/kg	100	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	100	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	79		25-120
Phenol-d6	79		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	78		30-120
2,4,6-Tribromophenol	87		10-136
4-Terphenyl-d14	79		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,04,06,08-11 Batch: WG1225813-2 WG1225813-3								
Acenaphthene	67		81		31-137	19		50
Fluoranthene	66		80		40-140	19		50
Benzo(a)anthracene	77		90		40-140	16		50
Benzo(a)pyrene	82		98		40-140	18		50
Benzo(b)fluoranthene	80		93		40-140	15		50
Benzo(k)fluoranthene	75		91		40-140	19		50
Chrysene	73		87		40-140	18		50
Acenaphthylene	72		87		40-140	19		50
Anthracene	65		76		40-140	16		50
Benzo(ghi)perylene	66		78		40-140	17		50
Fluorene	72		86		40-140	18		50
Phenanthrene	64		77		40-140	18		50
Dibenzo(a,h)anthracene	64		76		40-140	17		50
Indeno(1,2,3-cd)pyrene	68		82		40-140	19		50
Pyrene	65		79		35-142	19		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	69		83		25-120
Phenol-d6	70		85		10-120
Nitrobenzene-d5	68		82		23-120
2-Fluorobiphenyl	66		80		30-120
2,4,6-Tribromophenol	72		92		10-136
4-Terphenyl-d14	62		74		18-120

METALS

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-01

Date Collected: 04/09/19 09:00

Client ID: SB009 10-12

Date Received: 04/09/19

Sample Location: 1045 ATLANTIC AVE

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.744		mg/kg	0.430	0.090	1	04/11/19 15:55	04/12/19 17:15	EPA 3050B	1,6010D	AB
Barium, Total	23.5		mg/kg	0.430	0.075	1	04/11/19 15:55	04/12/19 17:15	EPA 3050B	1,6010D	AB
Cadmium, Total	0.594		mg/kg	0.430	0.042	1	04/11/19 15:55	04/12/19 17:15	EPA 3050B	1,6010D	AB
Chromium, Total	15.0		mg/kg	0.430	0.041	1	04/11/19 15:55	04/12/19 17:15	EPA 3050B	1,6010D	AB
Lead, Total	4.20		mg/kg	2.15	0.115	1	04/11/19 15:55	04/12/19 17:15	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.071	0.015	1	04/11/19 05:20	04/11/19 13:24	EPA 7471B	1,7471B	GD
Selenium, Total	0.323	J	mg/kg	0.860	0.111	1	04/11/19 15:55	04/12/19 17:15	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.430	0.122	1	04/11/19 15:55	04/12/19 17:15	EPA 3050B	1,6010D	AB



Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-03

Date Collected: 04/09/19 10:10

Client ID: SB010 4-6

Date Received: 04/09/19

Sample Location: 1045 ATLANTIC AVE

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	2.29		mg/kg	0.474	0.099	1	04/11/19 15:55	04/12/19 17:20	EPA 3050B	1,6010D	AB
Barium, Total	44.7		mg/kg	0.474	0.082	1	04/11/19 15:55	04/12/19 17:20	EPA 3050B	1,6010D	AB
Cadmium, Total	8.52		mg/kg	0.474	0.046	1	04/11/19 15:55	04/12/19 17:20	EPA 3050B	1,6010D	AB
Chromium, Total	698		mg/kg	4.74	0.455	10	04/11/19 15:55	04/12/19 19:23	EPA 3050B	1,6010D	AB
Lead, Total	51.0		mg/kg	2.37	0.127	1	04/11/19 15:55	04/12/19 17:20	EPA 3050B	1,6010D	AB
Mercury, Total	1.27		mg/kg	0.075	0.016	1	04/11/19 05:20	04/11/19 13:26	EPA 7471B	1,7471B	GD
Selenium, Total	0.213	J	mg/kg	0.947	0.122	1	04/11/19 15:55	04/12/19 17:20	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.474	0.134	1	04/11/19 15:55	04/12/19 17:20	EPA 3050B	1,6010D	AB



Project Name: TOT1901**Lab Number:** L1914341**Project Number:** TOT1901**Report Date:** 04/15/19**SAMPLE RESULTS**

Lab ID: L1914341-04

Date Collected: 04/09/19 10:29

Client ID: SB010 12-14

Date Received: 04/09/19

Sample Location: 1045 ATLANTIC AVE

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	1.02		mg/kg	0.427	0.089	1	04/11/19 15:55	04/12/19 17:25	EPA 3050B	1,6010D	AB
Barium, Total	34.6		mg/kg	0.427	0.074	1	04/11/19 15:55	04/12/19 17:25	EPA 3050B	1,6010D	AB
Cadmium, Total	8.14		mg/kg	0.427	0.042	1	04/11/19 15:55	04/12/19 17:25	EPA 3050B	1,6010D	AB
Chromium, Total	51.4		mg/kg	0.427	0.041	1	04/11/19 15:55	04/12/19 17:25	EPA 3050B	1,6010D	AB
Lead, Total	6.15		mg/kg	2.13	0.114	1	04/11/19 15:55	04/12/19 17:25	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.069	0.015	1	04/11/19 05:20	04/11/19 13:28	EPA 7471B	1,7471B	GD
Selenium, Total	ND		mg/kg	0.853	0.110	1	04/11/19 15:55	04/12/19 17:25	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.427	0.121	1	04/11/19 15:55	04/12/19 17:25	EPA 3050B	1,6010D	AB



Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-06

Date Collected: 04/09/19 12:05

Client ID: SB011 10-12

Date Received: 04/09/19

Sample Location: 1045 ATLANTIC AVE

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	2.38		mg/kg	0.432	0.090	1	04/11/19 15:55	04/12/19 17:30	EPA 3050B	1,6010D	AB
Barium, Total	14.1		mg/kg	0.432	0.075	1	04/11/19 15:55	04/12/19 17:30	EPA 3050B	1,6010D	AB
Cadmium, Total	0.324	J	mg/kg	0.432	0.042	1	04/11/19 15:55	04/12/19 17:30	EPA 3050B	1,6010D	AB
Chromium, Total	687		mg/kg	4.32	0.414	10	04/11/19 15:55	04/12/19 19:27	EPA 3050B	1,6010D	AB
Lead, Total	5.43		mg/kg	2.16	0.116	1	04/11/19 15:55	04/12/19 17:30	EPA 3050B	1,6010D	AB
Mercury, Total	0.020	J	mg/kg	0.070	0.015	1	04/11/19 05:20	04/11/19 13:30	EPA 7471B	1,7471B	GD
Selenium, Total	ND		mg/kg	0.864	0.111	1	04/11/19 15:55	04/12/19 17:30	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.432	0.122	1	04/11/19 15:55	04/12/19 17:30	EPA 3050B	1,6010D	AB



Project Name: TOT1901**Lab Number:** L1914341**Project Number:** TOT1901**Report Date:** 04/15/19**SAMPLE RESULTS**

Lab ID: L1914341-07

Date Collected: 04/09/19 12:25

Client ID: SB012 4-6

Date Received: 04/09/19

Sample Location: 1045 ATLANTIC AVE

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	2.61		mg/kg	0.470	0.098	1	04/11/19 15:55	04/12/19 17:35	EPA 3050B	1,6010D	AB
Barium, Total	77.9		mg/kg	0.470	0.082	1	04/11/19 15:55	04/12/19 17:35	EPA 3050B	1,6010D	AB
Cadmium, Total	0.197	J	mg/kg	0.470	0.046	1	04/11/19 15:55	04/12/19 17:35	EPA 3050B	1,6010D	AB
Chromium, Total	227		mg/kg	0.470	0.045	1	04/11/19 15:55	04/12/19 17:35	EPA 3050B	1,6010D	AB
Lead, Total	64.5		mg/kg	2.35	0.126	1	04/11/19 15:55	04/12/19 17:35	EPA 3050B	1,6010D	AB
Mercury, Total	0.469		mg/kg	0.078	0.016	1	04/11/19 05:20	04/11/19 13:33	EPA 7471B	1,7471B	GD
Selenium, Total	ND		mg/kg	0.939	0.121	1	04/11/19 15:55	04/12/19 17:35	EPA 3050B	1,6010D	AB
Silver, Total	0.160	J	mg/kg	0.470	0.133	1	04/11/19 15:55	04/12/19 17:35	EPA 3050B	1,6010D	AB



Project Name: TOT1901**Lab Number:** L1914341**Project Number:** TOT1901**Report Date:** 04/15/19**SAMPLE RESULTS**

Lab ID: L1914341-08

Date Collected: 04/09/19 12:30

Client ID: SB012 10-12

Date Received: 04/09/19

Sample Location: 1045 ATLANTIC AVE

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	0.838		mg/kg	0.413	0.086	1	04/11/19 15:55	04/12/19 17:39	EPA 3050B	1,6010D	AB
Barium, Total	25.8		mg/kg	0.413	0.072	1	04/11/19 15:55	04/12/19 17:39	EPA 3050B	1,6010D	AB
Cadmium, Total	0.289	J	mg/kg	0.413	0.041	1	04/11/19 15:55	04/12/19 17:39	EPA 3050B	1,6010D	AB
Chromium, Total	26.9		mg/kg	0.413	0.040	1	04/11/19 15:55	04/12/19 17:39	EPA 3050B	1,6010D	AB
Lead, Total	2.65		mg/kg	2.06	0.111	1	04/11/19 15:55	04/12/19 17:39	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.067	0.014	1	04/11/19 05:20	04/11/19 13:35	EPA 7471B	1,7471B	GD
Selenium, Total	ND		mg/kg	0.826	0.106	1	04/11/19 15:55	04/12/19 17:39	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.413	0.117	1	04/11/19 15:55	04/12/19 17:39	EPA 3050B	1,6010D	AB



Project Name: TOT1901**Lab Number:** L1914341**Project Number:** TOT1901**Report Date:** 04/15/19**SAMPLE RESULTS**

Lab ID: L1914341-09

Date Collected: 04/09/19 12:45

Client ID: SB013 10-12

Date Received: 04/09/19

Sample Location: 1045 ATLANTIC AVE

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	2.15		mg/kg	0.434	0.090	1	04/11/19 15:55	04/12/19 17:44	EPA 3050B	1,6010D	AB
Barium, Total	26.2		mg/kg	0.434	0.076	1	04/11/19 15:55	04/12/19 17:44	EPA 3050B	1,6010D	AB
Cadmium, Total	0.382	J	mg/kg	0.434	0.043	1	04/11/19 15:55	04/12/19 17:44	EPA 3050B	1,6010D	AB
Chromium, Total	16.1		mg/kg	0.434	0.042	1	04/11/19 15:55	04/12/19 17:44	EPA 3050B	1,6010D	AB
Lead, Total	9.61		mg/kg	2.17	0.116	1	04/11/19 15:55	04/12/19 17:44	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.071	0.015	1	04/11/19 05:20	04/11/19 13:37	EPA 7471B	1,7471B	GD
Selenium, Total	0.178	J	mg/kg	0.869	0.112	1	04/11/19 15:55	04/12/19 17:44	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.434	0.123	1	04/11/19 15:55	04/12/19 17:44	EPA 3050B	1,6010D	AB



Project Name: TOT1901**Lab Number:** L1914341**Project Number:** TOT1901**Report Date:** 04/15/19**SAMPLE RESULTS**

Lab ID: L1914341-10

Date Collected: 04/09/19 13:00

Client ID: SB014 4-6

Date Received: 04/09/19

Sample Location: 1045 ATLANTIC AVE

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	3.10		mg/kg	0.415	0.086	1	04/11/19 16:45	04/12/19 19:23	EPA 3050B	1,6010D	MC
Barium, Total	45.7		mg/kg	0.415	0.072	1	04/11/19 16:45	04/12/19 19:23	EPA 3050B	1,6010D	MC
Cadmium, Total	ND		mg/kg	0.415	0.041	1	04/11/19 16:45	04/12/19 19:23	EPA 3050B	1,6010D	MC
Chromium, Total	11.5		mg/kg	0.415	0.040	1	04/11/19 16:45	04/12/19 19:23	EPA 3050B	1,6010D	MC
Lead, Total	64.6		mg/kg	2.07	0.111	1	04/11/19 16:45	04/12/19 19:23	EPA 3050B	1,6010D	MC
Mercury, Total	0.732		mg/kg	0.069	0.015	1	04/11/19 05:20	04/11/19 13:43	EPA 7471B	1,7471B	GD
Selenium, Total	0.212	J	mg/kg	0.830	0.107	1	04/11/19 16:45	04/12/19 19:23	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.415	0.117	1	04/11/19 16:45	04/12/19 19:23	EPA 3050B	1,6010D	MC



Project Name: TOT1901**Lab Number:** L1914341**Project Number:** TOT1901**Report Date:** 04/15/19**SAMPLE RESULTS**

Lab ID: L1914341-11

Date Collected: 04/09/19 13:10

Client ID: SB014 10-12

Date Received: 04/09/19

Sample Location: 1045 ATLANTIC AVE

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Arsenic, Total	2.98		mg/kg	0.416	0.087	1	04/11/19 16:45	04/12/19 19:40	EPA 3050B	1,6010D	MC
Barium, Total	17.0		mg/kg	0.416	0.072	1	04/11/19 16:45	04/12/19 19:40	EPA 3050B	1,6010D	MC
Cadmium, Total	ND		mg/kg	0.416	0.041	1	04/11/19 16:45	04/12/19 19:40	EPA 3050B	1,6010D	MC
Chromium, Total	7.98		mg/kg	0.416	0.040	1	04/11/19 16:45	04/12/19 19:40	EPA 3050B	1,6010D	MC
Lead, Total	10.6		mg/kg	2.08	0.112	1	04/11/19 16:45	04/12/19 19:40	EPA 3050B	1,6010D	MC
Mercury, Total	ND		mg/kg	0.068	0.014	1	04/11/19 05:20	04/11/19 13:45	EPA 7471B	1,7471B	GD
Selenium, Total	0.150	J	mg/kg	0.832	0.107	1	04/11/19 16:45	04/12/19 19:40	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.416	0.118	1	04/11/19 16:45	04/12/19 19:40	EPA 3050B	1,6010D	MC



Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01,03-04,06-11 Batch: WG1225257-1										
Mercury, Total	ND		mg/kg	0.083	0.018	1	04/11/19 05:20	04/11/19 12:49	1,7471B	GD

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01,03-04,06-09 Batch: WG1225486-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	04/11/19 15:55	04/12/19 16:13	1,6010D	AB
Barium, Total	ND		mg/kg	0.400	0.070	1	04/11/19 15:55	04/12/19 16:13	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.400	0.039	1	04/11/19 15:55	04/12/19 16:13	1,6010D	AB
Chromium, Total	ND		mg/kg	0.400	0.038	1	04/11/19 15:55	04/12/19 16:13	1,6010D	AB
Lead, Total	ND		mg/kg	2.00	0.107	1	04/11/19 15:55	04/12/19 16:13	1,6010D	AB
Selenium, Total	ND		mg/kg	0.800	0.103	1	04/11/19 15:55	04/12/19 16:13	1,6010D	AB
Silver, Total	ND		mg/kg	0.400	0.113	1	04/11/19 15:55	04/12/19 16:13	1,6010D	AB

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 10-11 Batch: WG1225496-1										
Arsenic, Total	ND		mg/kg	0.400	0.083	1	04/11/19 16:45	04/12/19 18:38	1,6010D	MC
Barium, Total	ND		mg/kg	0.400	0.070	1	04/11/19 16:45	04/12/19 18:38	1,6010D	MC
Cadmium, Total	ND		mg/kg	0.400	0.039	1	04/11/19 16:45	04/12/19 18:38	1,6010D	MC
Chromium, Total	ND		mg/kg	0.400	0.038	1	04/11/19 16:45	04/12/19 18:38	1,6010D	MC
Lead, Total	ND		mg/kg	2.00	0.107	1	04/11/19 16:45	04/12/19 18:38	1,6010D	MC
Selenium, Total	ND		mg/kg	0.800	0.103	1	04/11/19 16:45	04/12/19 18:38	1,6010D	MC
Silver, Total	ND		mg/kg	0.400	0.113	1	04/11/19 16:45	04/12/19 18:38	1,6010D	MC

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03-04,06-11 Batch: WG1225257-2 SRM Lot Number: D101-540								
Mercury, Total	98		-		65-135	-		
Total Metals - Mansfield Lab Associated sample(s): 01,03-04,06-09 Batch: WG1225486-2 SRM Lot Number: D101-540								
Arsenic, Total	98		-		83-117	-		
Barium, Total	90		-		83-118	-		
Cadmium, Total	94		-		83-117	-		
Chromium, Total	89		-		81-118	-		
Lead, Total	92		-		83-117	-		
Selenium, Total	102		-		79-121	-		
Silver, Total	90		-		80-120	-		
Total Metals - Mansfield Lab Associated sample(s): 10-11 Batch: WG1225496-2 SRM Lot Number: D101-540								
Arsenic, Total	111		-		83-117	-		
Barium, Total	97		-		83-118	-		
Cadmium, Total	104		-		83-117	-		
Chromium, Total	102		-		81-118	-		
Lead, Total	109		-		83-117	-		
Selenium, Total	108		-		79-121	-		
Silver, Total	100		-		80-120	-		

Matrix Spike Analysis

Batch Quality Control

Project Name: TOT1901
Project Number: TOT1901

Lab Number: L1914341
Report Date: 04/15/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03-04,06-11 QC Batch ID: WG1225257-3 QC Sample: L1914183-01 Client ID: MS Sample												
Mercury, Total	0.015J	0.132	0.178	135	Q	-	-		80-120	-		20
Total Metals - Mansfield Lab Associated sample(s): 01,03-04,06-09 QC Batch ID: WG1225486-3 QC Sample: L1914112-05 Client ID: MS Sample												
Arsenic, Total	5.72	11	15.0	84		-	-		75-125	-		20
Barium, Total	40.6	184	180	76		-	-		75-125	-		20
Cadmium, Total	0.425J	4.69	3.95	84		-	-		75-125	-		20
Chromium, Total	13.9	18.4	26.8	70	Q	-	-		75-125	-		20
Lead, Total	11.4	46.9	45.0	72	Q	-	-		75-125	-		20
Selenium, Total	0.298J	11	9.21	84		-	-		75-125	-		20
Silver, Total	ND	27.6	23.0	83		-	-		75-125	-		20
Total Metals - Mansfield Lab Associated sample(s): 10-11 QC Batch ID: WG1225496-3 QC Sample: L1914341-10 Client ID: SB014 4-6												
Arsenic, Total	3.10	10.2	11.2	80		-	-		75-125	-		20
Barium, Total	45.7	169	172	75		-	-		75-125	-		20
Cadmium, Total	ND	4.31	2.97	69	Q	-	-		75-125	-		20
Chromium, Total	11.5	16.9	23.1	68	Q	-	-		75-125	-		20
Lead, Total	64.6	43.1	98.5	78		-	-		75-125	-		20
Selenium, Total	0.212J	10.2	7.96	78		-	-		75-125	-		20
Silver, Total	ND	25.4	20.1	79		-	-		75-125	-		20

Lab Duplicate Analysis *Batch Quality Control*

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01,03-04,06-11 QC Batch ID: WG1225257-4 QC Sample: L1914183-01 Client ID: DUP Sample						
Mercury, Total	0.015J	0.019J	mg/kg	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01,03-04,06-09 QC Batch ID: WG1225486-4 QC Sample: L1914112-05 Client ID: DUP Sample						
Chromium, Total	13.9	13.6	mg/kg	2		20
Total Metals - Mansfield Lab Associated sample(s): 10-11 QC Batch ID: WG1225496-4 QC Sample: L1914341-10 Client ID: SB014 4-6						
Arsenic, Total	3.10	3.15	mg/kg	2		20
Barium, Total	45.7	43.7	mg/kg	4		20
Cadmium, Total	ND	ND	mg/kg	NC		20
Chromium, Total	11.5	11.4	mg/kg	1		20
Lead, Total	64.6	80.3	mg/kg	22	Q	20
Selenium, Total	0.212J	0.182J	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20

INORGANICS & MISCELLANEOUS

Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-01

Client ID: SB009 10-12

Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 09:00

Date Received: 04/09/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.8		%	0.100	NA	1	-	04/10/19 09:54	121,2540G	RI



Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-02

Client ID: SB009 18-20

Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 09:15

Date Received: 04/09/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.5		%	0.100	NA	1	-	04/10/19 09:54	121,2540G	RI



Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-03

Client ID: SB010 4-6

Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 10:10

Date Received: 04/09/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.7		%	0.100	NA	1	-	04/10/19 09:54	121,2540G	RI



Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-04

Client ID: SB010 12-14

Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 10:29

Date Received: 04/09/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	91.2		%	0.100	NA	1	-	04/10/19 09:54	121,2540G	RI



Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-05

Client ID: SB010 18-20

Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 10:30

Date Received: 04/09/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	91.2		%	0.100	NA	1	-	04/10/19 09:54	121,2540G	RI



Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-06

Client ID: SB011 10-12

Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 12:05

Date Received: 04/09/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.6		%	0.100	NA	1	-	04/10/19 09:54	121,2540G	RI



Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-07

Client ID: SB012 4-6

Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 12:25

Date Received: 04/09/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.7		%	0.100	NA	1	-	04/10/19 09:54	121,2540G	RI



Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-08

Client ID: SB012 10-12

Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 12:30

Date Received: 04/09/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	94.1		%	0.100	NA	1	-	04/10/19 09:54	121,2540G	RI



Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-09

Client ID: SB013 10-12

Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 12:45

Date Received: 04/09/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.4		%	0.100	NA	1	-	04/10/19 09:54	121,2540G	RI



Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-10

Client ID: SB014 4-6

Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 13:00

Date Received: 04/09/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	91.0		%	0.100	NA	1	-	04/10/19 09:54	121,2540G	RI



Project Name: TOT1901

Project Number: TOT1901

Lab Number: L1914341

Report Date: 04/15/19

SAMPLE RESULTS

Lab ID: L1914341-11

Client ID: SB014 10-12

Sample Location: 1045 ATLANTIC AVE

Date Collected: 04/09/19 13:10

Date Received: 04/09/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.0		%	0.100	NA	1	-	04/10/19 09:54	121,2540G	RI



Lab Duplicate Analysis
*Batch Quality Control***Project Name:** TOT1901**Project Number:** TOT1901**Lab Number:** L1914341**Report Date:** 04/15/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-11 QC Batch ID: WG1224907-1 QC Sample: L1914243-01 Client ID: DUP Sample						
Solids, Total	93.9	93.9	%	0		20

Project Name: TOT1901**Lab Number:** L1914341**Project Number:** TOT1901**Report Date:** 04/15/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information**Cooler** **Custody Seal**

A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1914341-01A	Vial MeOH preserved	A	NA		4.4	Y	Absent		NYTCL-8260HLW(14)
L1914341-01B	Vial water preserved	A	NA		4.4	Y	Absent	10-APR-19 07:32	NYTCL-8260HLW(14)
L1914341-01C	Vial water preserved	A	NA		4.4	Y	Absent	10-APR-19 07:32	NYTCL-8260HLW(14)
L1914341-01D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L1914341-01E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.4	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1914341-01F	Glass 120ml/4oz unpreserved	A	NA		4.4	Y	Absent		NYCP51-PAH(14)
L1914341-02A	Vial MeOH preserved	A	NA		4.4	Y	Absent		NYTCL-8260HLW(14)
L1914341-02B	Vial water preserved	A	NA		4.4	Y	Absent	10-APR-19 07:32	NYTCL-8260HLW(14)
L1914341-02C	Vial water preserved	A	NA		4.4	Y	Absent	10-APR-19 07:32	NYTCL-8260HLW(14)
L1914341-02D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L1914341-03A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.4	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1914341-03B	Glass 60ml unpreserved split	A	NA		4.4	Y	Absent		TS(7)
L1914341-04A	Vial MeOH preserved	A	NA		4.4	Y	Absent		NYTCL-8260HLW(14)
L1914341-04B	Vial water preserved	A	NA		4.4	Y	Absent	10-APR-19 07:32	NYTCL-8260HLW(14)
L1914341-04C	Vial water preserved	A	NA		4.4	Y	Absent	10-APR-19 07:32	NYTCL-8260HLW(14)
L1914341-04D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L1914341-04E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.4	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1914341-04F	Glass 120ml/4oz unpreserved	A	NA		4.4	Y	Absent		NYCP51-PAH(14)
L1914341-05A	Vial MeOH preserved	A	NA		4.4	Y	Absent		NYTCL-8260HLW(14)
L1914341-05B	Vial water preserved	A	NA		4.4	Y	Absent	10-APR-19 07:32	NYTCL-8260HLW(14)

Project Name: TOT1901
Project Number: TOT1901

Serial_No: 04151911:47
Lab Number: L1914341
Report Date: 04/15/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1914341-05C	Vial water preserved	A	NA		4.4	Y	Absent	10-APR-19 07:32	NYTCL-8260HLW(14)
L1914341-05D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L1914341-06A	Vial MeOH preserved	A	NA		4.4	Y	Absent		NYTCL-8260HLW(14)
L1914341-06B	Vial water preserved	A	NA		4.4	Y	Absent	10-APR-19 07:32	NYTCL-8260HLW(14)
L1914341-06C	Vial water preserved	A	NA		4.4	Y	Absent	10-APR-19 07:32	NYTCL-8260HLW(14)
L1914341-06D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L1914341-06E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.4	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1914341-06F	Glass 120ml/4oz unpreserved	A	NA		4.4	Y	Absent		NYCP51-PAH(14)
L1914341-07A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.4	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1914341-07B	Glass 60ml unpreserved split	A	NA		4.4	Y	Absent		TS(7)
L1914341-08A	Vial MeOH preserved	A	NA		4.4	Y	Absent		NYTCL-8260HLW(14)
L1914341-08B	Vial water preserved	A	NA		4.4	Y	Absent	10-APR-19 07:32	NYTCL-8260HLW(14)
L1914341-08C	Vial water preserved	A	NA		4.4	Y	Absent	10-APR-19 07:32	NYTCL-8260HLW(14)
L1914341-08D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L1914341-08E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.4	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1914341-08F	Glass 120ml/4oz unpreserved	A	NA		4.4	Y	Absent		NYCP51-PAH(14)
L1914341-09A	Vial MeOH preserved	A	NA		4.4	Y	Absent		NYTCL-8260HLW(14)
L1914341-09B	Vial water preserved	A	NA		4.4	Y	Absent	10-APR-19 07:32	NYTCL-8260HLW(14)
L1914341-09C	Vial water preserved	A	NA		4.4	Y	Absent	10-APR-19 07:32	NYTCL-8260HLW(14)
L1914341-09D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L1914341-09E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.4	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1914341-09F	Glass 120ml/4oz unpreserved	A	NA		4.4	Y	Absent		NYCP51-PAH(14)
L1914341-10A	Vial MeOH preserved	A	NA		4.4	Y	Absent		NYTCL-8260HLW(14)
L1914341-10B	Vial water preserved	A	NA		4.4	Y	Absent	10-APR-19 07:32	NYTCL-8260HLW(14)
L1914341-10C	Vial water preserved	A	NA		4.4	Y	Absent	10-APR-19 07:32	NYTCL-8260HLW(14)

Project Name: TOT1901
Project Number: TOT1901

Serial_No: 04151911:47
Lab Number: L1914341
Report Date: 04/15/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1914341-10D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L1914341-10E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.4	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1914341-10F	Glass 120ml/4oz unpreserved	A	NA		4.4	Y	Absent		NYCP51-PAH(14)
L1914341-11A	Vial MeOH preserved	A	NA		4.4	Y	Absent		NYTCL-8260HLW(14)
L1914341-11B	Vial water preserved	A	NA		4.4	Y	Absent	10-APR-19 07:32	NYTCL-8260HLW(14)
L1914341-11C	Vial water preserved	A	NA		4.4	Y	Absent	10-APR-19 07:32	NYTCL-8260HLW(14)
L1914341-11D	Plastic 2oz unpreserved for TS	A	NA		4.4	Y	Absent		TS(7)
L1914341-11E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.4	Y	Absent		AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),HG-T(28),CD-TI(180)
L1914341-11F	Glass 120ml/4oz unpreserved	A	NA		4.4	Y	Absent		NYCP51-PAH(14)
L1914341-12A	Vial HCl preserved	A	NA		4.4	Y	Absent		NYTCL-8260(14)
L1914341-12B	Vial HCl preserved	A	NA		4.4	Y	Absent		NYTCL-8260(14)
L1914341-12C	Vial HCl preserved	A	NA		4.4	Y	Absent		NYTCL-8260(14)
L1914341-13A	Vial HCl preserved	A	NA		4.4	Y	Absent		NYTCL-8260(14)
L1914341-13B	Vial HCl preserved	A	NA		4.4	Y	Absent		NYTCL-8260(14)
L1914341-13C	Vial HCl preserved	A	NA		4.4	Y	Absent		NYTCL-8260(14)

Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: TOT1901

Lab Number: L1914341

Project Number: TOT1901

Report Date: 04/15/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: TOT1901**Lab Number:** L1914341**Project Number:** TOT1901**Report Date:** 04/15/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**Revision **12**

Published Date: 10/9/2018 4:58:19 PM

Page 1 of 1

Certification Information

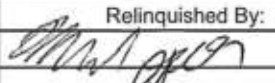
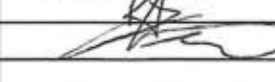
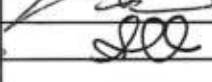
The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**EPA 6860:** SCM: Perchlorate**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**Biological Tissue Matrix:** EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg. EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1 Hg.****SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page 1 of 2		Date Rec'd in Lab 4/10/19		ALPHA Job # 11914341					
		Project Information Project Name: TOT1901 Project Location: 1045 Atlantic Ave Project # TOT1901 (Use Project name as Project #) ☐				Deliverables ☐ ASP-A ☐ ASP-B ☐ EQUIS (1 File) ☐ EQUIS (4 File) ☐ Other		Billing Information ☒ Same as Client Info PO #					
		Client Information Client: PW Grosser Consulting Address: 630 Johnson Ave Bohemia NY 11716 Phone: (631)-589-6353 Fax: Email: hrmoran-botta@pwgrosser.com				Regulatory Requirement ☐ NY TOGS ☐ NY Part 375 ☐ AWQ Standards ☒ NY CP-51 ☒ NY Restricted Use ☐ Other ☒ NY Unrestricted Use ☐ NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: ☐ NJ ☐ NY ☐ Other:					
Turn-Around Time Standard ☐ Due Date: Rush (only if pre approved) ☒ # of Days: 4													
These samples have been previously analyzed by Alpha ☐				ANALYSIS				Sample Filtration ☐ Done ☐ Lab to do ☐ Preservation ☐ Lab to do (Please Specify below)					
Other project specific requirements/comments:				Please specify Metals or TAL.				Total Bottles					
ALPHA Lab ID (Lab Use Only)		Sample ID		Collection Date Time		Sample Matrix		Sampler's Initials		RCRA Metals CP-51 SVOCs TCL VOCs		Sample Specific Comments	
M341-01		SB009 10-12		4/9/19 0900		Soil		MG		X X X			
-02		SB009 18-20		0915						X			
-03		SB010 4-6		1010						X			
-04		SB010 12-14		1029						X X X			
-05		SB010 18-20		1030						X			
-06		SB011 10-12		1205						X X X			
-07		SB012 4-6		1228						X			
-08		SB012 10-12		1230						X X X			
-09		SB013 10-12		1245						X X X			
-10		SB014 4-6		1300						X X X			
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type		Preservative				Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	
Relinquished By:		Date/Time		Received By:		Date/Time							
		4/9/19 1700		Derrick Jackson AAL		4/9/19 1700							
		4/10/19 0235				4/10/19 0235							

Page 2
of 2

4/10/10

1914341

Form No: 01-25 HC (rev. 30-Sept-2013)



APPENDIX C

SOIL VAPOR SAMPLING LOG

1045 Atlantic Avenue, Brooklyn, NY
Soil Vapor Sampling Log

Sample ID	Date	Start Time	End Time	Initial Vacuum (Hg)	Final Vacuum (Hg)	Canister ID	Regulator ID
SS001	3/22/2019	12:20	14:26	-29.7	-5.22	2030	01144
SS002	3/22/2019	12:27	14:29	-29.7	-5.79	348	1245
SS003	3/22/2019	12:32	14:32	-29.7	-5.77	2341	01141