

# **18-46 Decatur Street Periodic Review Report**

18-46 Decatur Street, Ridgewood, Queens, New York  
Block 3579, Lot 45  
NYSDEC BCP Site Number: C241194

Prepared for:  
BHMQ Realty LLC  
18-46 Decatur Street  
Ridgewood, Queens, New York 11385

For Submittal to:  
NYS Department of Environmental Conservation  
Division of Environmental Remediation  
Remedial Bureau B  
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Prepared by:  
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&



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**June 2020**

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## **1.0 EXECUTIVE SUMMARY**

On behalf of BHMQ Realty LLC (the Remedial Party), Matthew M. Carroll, P.E. and Tenen Environmental, LLC (Tenen) have prepared this Periodic Review Report (PRR) for the property located at 18-46 Decatur Street (Block 3579, Lot 45) in the Ridgewood neighborhood of the borough of Queens, New York (the Site). The Site is 0.11-acre, rectangular parcel located approximately 100 feet south of the intersection of Decatur Street and Forest Avenue in Queens Community Board 5.

The Site is currently improved with a two-story warehouse building with offices on the second floor. The warehouse is currently used by Forest Builders Supply, an outpost for construction materials, as storage for overstock materials. There is no basement beneath the building, which was reportedly constructed in 1953. The building floor slab consists of approximately six inches of concrete. Surrounding properties include commercial and residential use buildings. A Site location map is included in Figure 1 and current Site uses are shown on Figure 2.

This document has been prepared in accordance with the Site Management Plan (SMP) dated December 2018 and approved by the New York State Department of Environmental Conservation (NYSDEC). The Site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Site # C214149, which was executed on February 16, 2017. A Certificate of Completion was issued for the Site on December 20, 2018.

The work completed and reported in this PRR complies with the SMP and includes the following: quarterly groundwater sampling; monthly inspections of institutional and engineering controls; and, quarterly inspections of institution and engineering controls. The Site is currently in compliance with the material elements of the SMP. The remedial program, as detailed in the SMP, continues to be effective.

Based on the approved SMP and an email dated October 16, 2019, the sampling events described in this PRR complete the SMP requirements for a total of one quarterly and one annual groundwater sampling event with low or asymptotic concentrations at acceptable levels and monthly operations, maintenance and monitoring of the sub-slab depressurization system (SSDS) and soil vapor extraction system (SVE).

## **2.0 BACKGROUND AND SETTING**

This section includes a description of the Site, and summaries of Site characteristics, historic operations and regulatory interactions.

### **2.1 Site Description**

The Site is located at 18-46 Decatur Street in the Ridgewood neighborhood of Queens, New York. The site is a 0.11-acre rectangular shaped parcel located approximately 100 feet south of the intersection of Decatur Street and Forest Avenue in Queens Community Board 5. The Site is currently improved with a two-story warehouse building with offices on the second floor. The warehouse is currently used by Forest Builders Supply, an outpost for construction materials, as storage for overstock materials. The Site is zoned as M1-4D, a manufacturing district typically including light industrial uses. The surrounding properties include mixed-use commercial and residential use buildings.

The Site is identified as Queens County Block 3579, Lot 45 on the New York City Tax Map. The Site is bounded by a two-story multi-family walk-up building to the north, a two-family building to the south, railroad tracks followed by Evergreen Park to the east, and a two-family building and an industrial/manufacturing building to the west. A Site Location Map is included as Figure 1.

### **2.2 Geological Setting**

According to the United States Geological Survey (USGS) Brooklyn-NY 7.5 Minute Topographic Quadrangle (2010), the Site elevation is approximately 80 feet above mean sea level (MSL) (NAVD). Based on the USGS map and observation of the local topography, the Site and surrounding area are generally flat with a slight slope downward from west to southwest.

The Site is underlain by approximately two-feet of light brown to dark brown medium sands and fill material, followed by glacial till, including light and dark brown fine to medium sand with cobbles. Prior boring logs completed during a 2016 Phase II Environmental Site Assessment were generally consistent with Tenen's finding. Refusals were encountered at all boring locations, likely due to the presence of cobbles and boulders in the glacial till.

The depth to groundwater is approximately 67 feet below grade surface. Groundwater monitoring wells are shown on Figure 3. Based on the well survey, the groundwater flow is generally to the south, and is shown on Figure 4.

### **2.3 Historic Operations**

The Site is currently used as a warehouse for building materials. Based on a review of historic information, the Site was used as a dry cleaner from at least 1991 to 2015. The former occupant of the Site, Full Dress Formals, was identified as a Small Quantity Generator of Hazardous Wastes on the regulatory database, with no violations. Prior uses include a warehouse of waterproofing materials, a knitting mill, wagon and auto storage and offices.

## **2.4 Regulatory Background**

BHMQ Realty LLC and the New York State Department of Environmental Conservation (NYSDEC) entered into a Brownfield Cleanup Agreement (BCA) on February 16, 2017, pursuant to which BHMQ Realty LLC agreed to remediate the 0.11-acre property located at 18-46 Decatur Street, Queens, NY. The Site was managed and remediated in accordance with the BCA and the NYSDEC-approved Remedial Action Work Plan (RAWP) dated April 9, 2018 prepared by Tenen.

After completion of the remedial work described in the RAWP, a Final Engineering Report (FER) was prepared by Tenen and certified by Matthew Carroll, P.E. on December 5, 2018. In order to manage residual contamination at the Site, Tenen prepared a Site Management Plan (SMP) dated December 5, 2018 and subsequently approved by the NYSDEC. The work described in this Annual Environmental Compliance Report was completed in accordance with the SMP.

### **3.0 ENGINEERING AND INSTITUTIONAL CONTROLS**

Several engineering controls (ECs) and institutional controls (ICs) are present at the Site to protect human health and the environment. A description of these controls and the current status of each are provided below. The Institutional and Engineering Controls Certification Form is included in Appendix 1.

#### **3.1 Engineering Controls**

##### *3.1.1 Soil Cover System*

Exposure to remaining contamination at the Site is prevented by a cover system. The cover system is comprised of a minimum of six inches of concrete building slab.

Current status: The soil cover system remains in place with no observed breach. The composite cover system is a permanent control and the quality and integrity of this system has been inspected annually as per the SMP. The inspection checklist is included in Appendix 1.

##### *3.1.2 Sub-Slab Depressurization System (SSDS)*

An active SSDS was installed to minimize the potential for vapor intrusion. The SSDS depressurizes below the current building slab as compared to the building environment. The SSDS consists of four suction pits installed beneath the building slab connected to a fan on the roof via cast iron (interior) and PVC (exterior) piping. The SSDS will continue to actively operate and will not be shut down unless written approval is obtained from the NYSDEC and NYSOH under a clear demonstration that the subsurface soil vapor conditions no longer present a potential impact to indoor air quality. Additional information on the SSDS is included in the SMP.

Current status: The active SSDS is functioning as designed. Monthly and quarterly inspection forms and checklists are included in Appendix 1.

##### *3.1.3 Soil Vapor Extraction System (SVE)*

An SVE System consists of three two-inch wells has been installed to remove remaining PCE contamination from the soil near the building foundations. The SVE system also addresses PCE in soil vapor and prevents off-Site migration of soil vapors. The three two-inch vertical SVE wells were constructed of four feet of slotted (0.020 inch) schedule 40 PVC screen. The extraction wells were installed to a depth of four feet below grade (ft-bg) and placed in a two-foot diameter gravel base. The extraction wells are plumbed into the same piping installed for the SSDS. The discharge location for the blower is located on the building roof, consistent with the NYSDEC DAR-1 guidance. The SVE system will continue to actively operate and will not be shut down unless written approval is obtained from the NYSDEC under a clear demonstration that the subsurface soil vapor conditions no longer present a potential impact to indoor air quality.

Current status: The SVE system is functioning as designed. Monthly and quarterly inspection forms and checklists are included in Appendix 1.

### **3.2 Institutional Controls**

#### *3.2.1 Compliance with SMP*

The following ICs are required to document compliance with the SMP:

- All ECs must be operated and maintained as specified in the SMP;
- All ECs must be inspected at a frequency and in a manner defined in the SMP;
- Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;
- Data and information pertinent to site management must be reported at the frequency and in a manner defined in the SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP; and
- Operation, maintenance and monitoring (OM&M), inspection and reporting of any mechanical or physical component of the remedy shall be performed as defined in the SMP;

Current status: The Environmental Easement remains in place. All systems are effective and currently operational. ICs requiring annual monitoring of groundwater, OM&M of engineering controls, and inspections of the engineering controls have been completed with the acceptance of this report. The required monitoring and inspections have been completed as required in the SMP.

#### *3.2.2 Use Restrictions*

The following use restrictions were placed on the property, in accordance with the Environmental Easement and SMP:

- The property may only be used for commercial use;
- New York City code prohibits the use of groundwater for potable purposes;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with the SMP;
- The potential for vapor intrusion must be evaluated for any buildings developed in within the IC boundaries, and any potential impacts that are identified must be monitored or mitigated; and
- Vegetable gardens and farming on the Site are prohibited.

Current status: The Site is used in accordance with all restrictions. Current site uses are shown on Figure 2.

#### **4.0 GROUNDWATER SAMPLING**

In June and September 2019, quarterly groundwater sampling was completed at the Site in accordance with the SMP. The NYSDEC approved of a reduction in groundwater sampling frequency from quarterly to annually in an e-mail dated October 16, 2019, noting that all other requirements of the SMP remain in effect.

The methodology and findings from the quarterly 2019 groundwater sampling are included below.

##### *5.1 2019 Groundwater Sampling*

###### *5.1.1 Methodology*

Three groundwater monitoring wells (MW-1 through MW-3) were sampled in accordance with the SMP. Samples were collected for analysis for VOCs in accordance with the Quality Assurance Project Plan (QAPP) included in the SMP. Groundwater monitoring was conducted on the following dates: June 13, 2019 and September 26, 2019. The monitoring well locations are shown on Figure 3.

As required by the SMP, the following procedure was implemented during each sampling event:

- Depth-to-water measurements were obtained from each well prior to sample collection.
- The equivalent of three well volumes of water was removed from each well prior to sampling.
- Low-flow sampling techniques were implemented for sample collection.
- Field instrumentation was employed to measure water temperature, pH, and turbidity at each sampled well. Monitoring of indicator parameters was employed in order to stabilize parameters before sample collection.
- All groundwater samples were placed in 40-milliliter vials provided by the laboratory. All sample containers were appropriately labeled and closed with no trapped air.
- Chain-of-custody documents were completed before shipment. The samples were placed in ice and secured in a cooler during shipment to the laboratory.
- All groundwater samples were analyzed at Alpha Analytical, Inc. (Alpha) for volatile organic compounds (VOCs) by EPA Method 8260. Alpha is certified by the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) as LABID 11148.

Groundwater results were compared to the Division of Water TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations – Class GA (Class GA Standards). The Class GA Standards represent levels that are protective of the groundwater as a source of drinking water; however, groundwater is not utilized as potable water at the Site. Potable water for the Site is supplied to the City of New York from upstate New York reservoirs. Specifics regarding sampling protocol can be found in the SMP.

A summary of groundwater analytical results for the June and September 2019 sampling events are included on Figure 5. The concentrations of VOCs in groundwater from June 2019 and

September 2019 are provided in Tables 1 and 2 respectively. Laboratory deliverables are included in Appendix 3. A data usability summary report (DUSR) for the June 2019 and September 2019 sampling events are being prepared and will be provided when completed.

#### *5.1.2 Findings*

##### June 2019 Sampling Event

Groundwater samples were collected from monitoring wells MW-1, MW-2 and MW-3 for analysis of VOCs. Quality assurance/quality control samples were collected in accordance with the QAPP.

Groundwater quality parameters were not collected during the June 2019 sampling due to the presence of potassium permanganate in the groundwater. At a minimum, three well volumes were purged from the wells before a sample was collected.

PCE was detected in all samples ranging in concentration from 5.5 micrograms per liter (ug/l) in MW-3 to 26 ug/l in the MW-2 duplicate sample, in exceedance of the Class GA Standard of 5 ug/l. No other VOCs were detected in exceedance of the Class GA Standards.

##### September 2019 Sampling Event

Groundwater samples were collected from monitoring wells MW-1, MW-2 and MW-3 for analysis of VOCs. Quality assurance/quality control samples were collected in accordance with the QAPP.

PCE was detected in all samples ranging in concentration from 6 ug/l in MW-1 to 24 ug/l in the MW-2 duplicate sample, in exceedance of the Class GA Standard of 5 ug/l. No other VOCs were detected in exceedance of the Class GA Standards.

##### Summary

PCE remains the only compound detected above the Class GA Standards and at generally low and stable concentrations. TCE, previously undetected in groundwater, was present at an estimated concentration in one well during both post-remedial sampling events, which is an indication that the PCE is being oxidized.

## **5.0 CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Engineering and Institutional Controls**

An Institutional and Engineering Controls Certification Form and inspection checklists are included in Appendix 1.

Based on sampling results detailed in Sections 4, residual PCE contamination continues to be present in groundwater at low, stable concentrations. The cover system, SSDS and SVE system are functioning as designed.

The cover system remains in place with no observed breaches or excavation below the cap. The active SSDs and SVE system are in working condition with no observations of compromised structural integrity.

### **5.2 Groundwater Monitoring**

The most recent groundwater sampling indicated that residual PCE contamination associated with historic operations continues to be present in the groundwater.

A total of two rounds of sampling have been completed and the groundwater sampling frequency has been reduced to annually. Groundwater sampling will be conducted in September 2020.

### **5.3 Schedule**

As noted above, groundwater sampling frequency has been reduced to annually. Groundwater sampling will be conducted in September 2020. ICs and ECs will continue to be inspected on a monthly and quarterly basis as required by the SMP.

## **6.0 CERTIFICATIONS**

I, Matthew Carroll, am a Professional Engineer licensed in the State of New York. I certify that:

1. The discussion and interpretation of the groundwater sample analysis results are based on all sampling data collected to-date.
2. The engineering and institutional controls are either unchanged or are compliant with NYSDEC-approved modifications.
3. NYSDEC can access the property.
4. The engineering and institutional controls continue to be protective of human health and the environment and do not constitute a violation or failure to comply with the SMP and subsequent NYSDEC-approved modifications.

---

Matthew M. Carroll  
NYS PE License Number 091629

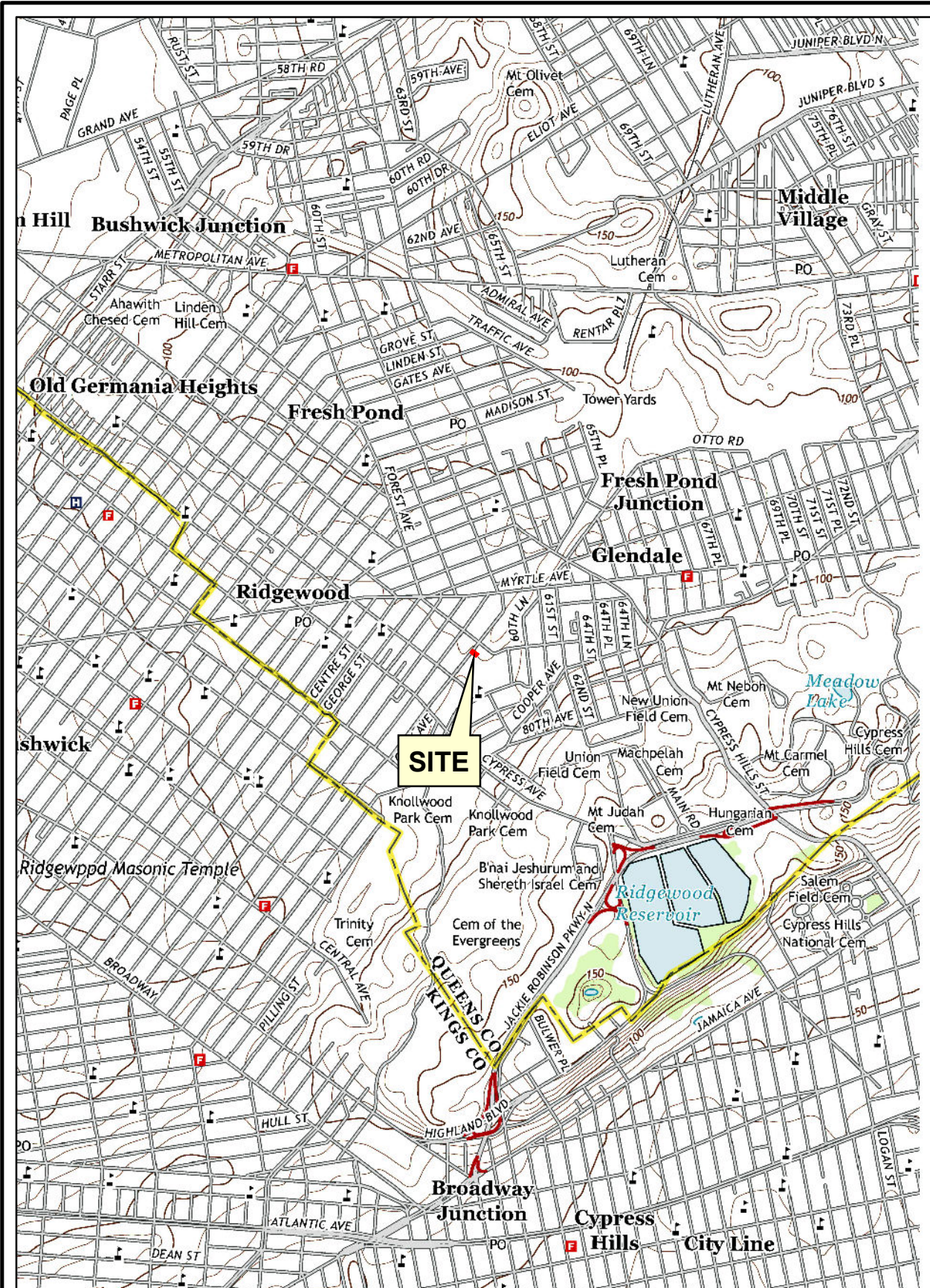
## **7.0 REFERENCES**

Site Management Plan, NYSDEC BCP Site No. C241194, Tenen Environmental LLC, December 2018.

Environmental Easement, BMHQ Realty LLC, September 19, 2018.

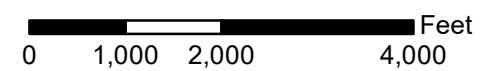
Final Engineering Report, NYSDEC BCP Site No. C241194, Tenen Environmental LLC, December 2018.

## Figures



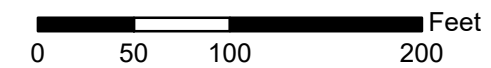
Basemap: USGS Brooklyn, NY, 2013  
<http://www.usgs.gov>

Site Location



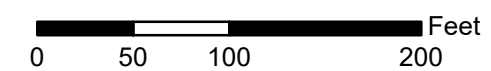
<http://gis.nyc.gov/taxmap/map.htm>

Department of Finance Digital Tax Map



Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User  
NYC Department of City Planning, Information Technology Division

Department of City Planning MapPLUTO - 2016 v2



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Drawn By LM

Checked By KM

Date May 2017

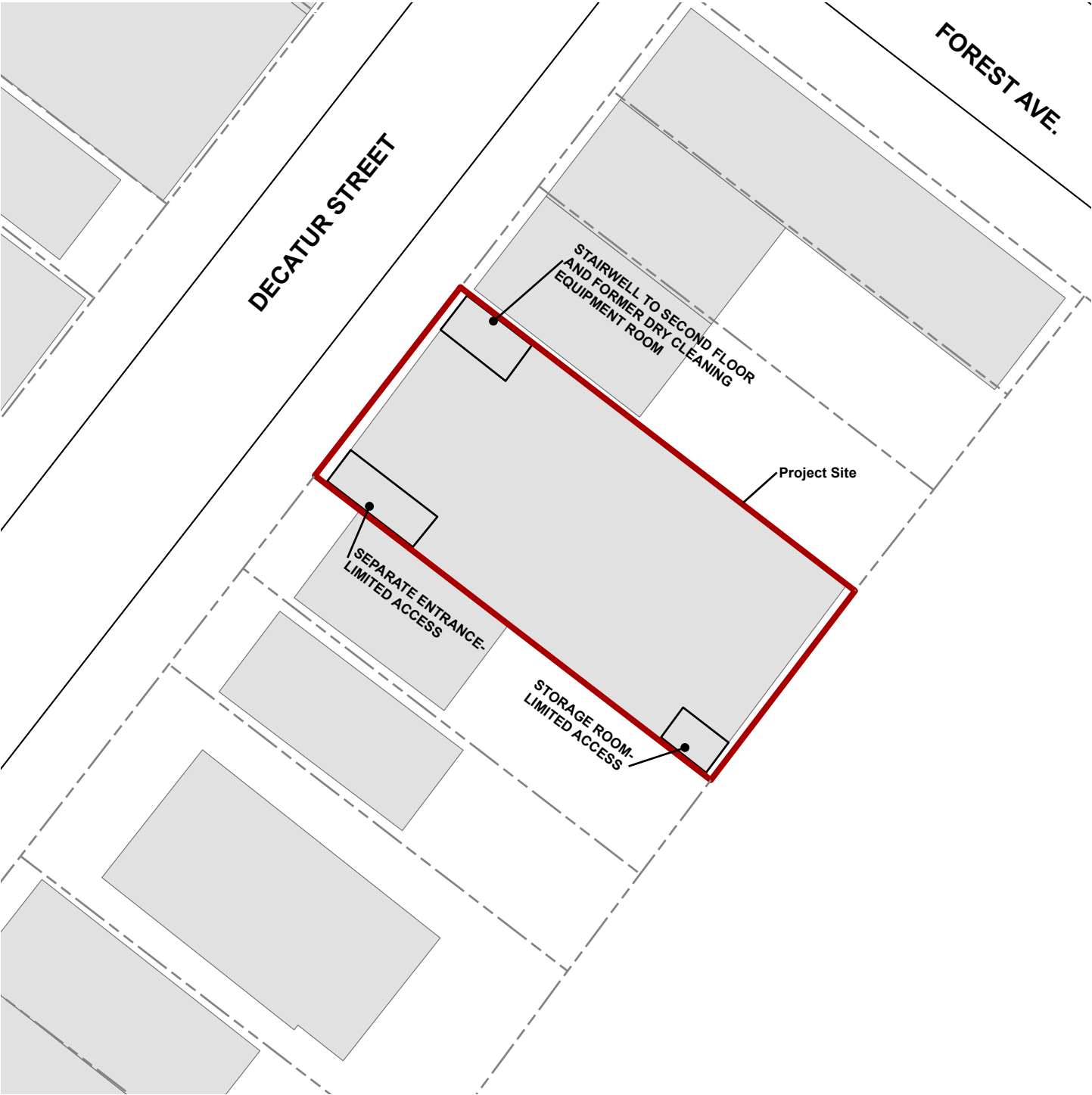
Scale As Noted

Site Location Map

Figure 1

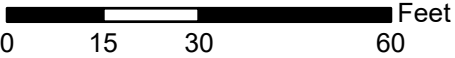
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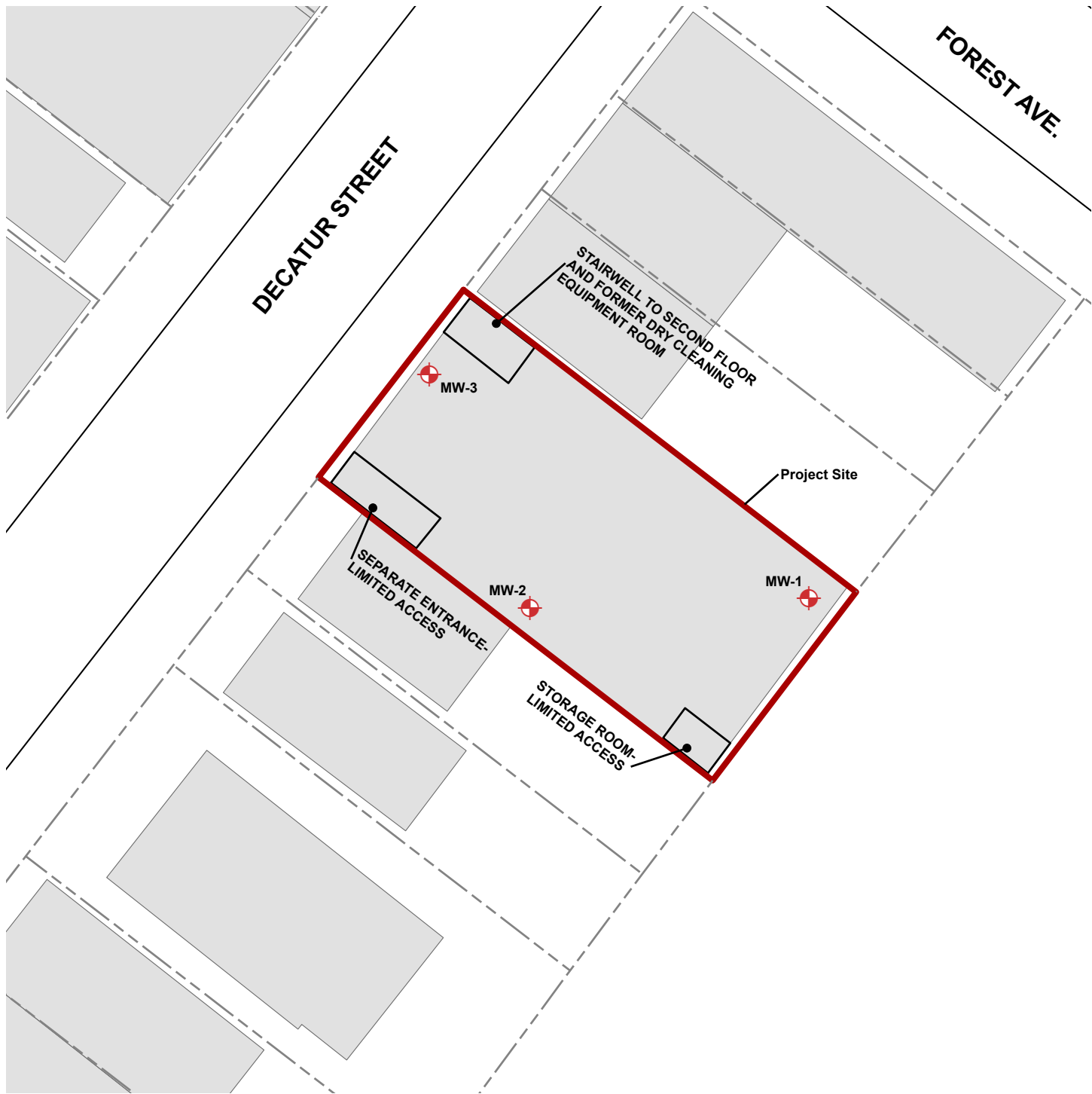
Legend

- Tax Lots
- Project Site



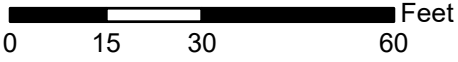
Tax Lot Source: NYC Dept. of Finance  
Building Source: NYC Dept. of Information Technology and Telecommunications, GIS Division

Drawing Title		Site Layout	Client	
Drawing No			18-46 Decatur Street Ridgewood, New York Block 3579, Lot 45	
Figure 2		Drawn By	LM	<div>TENEN ENVIRONMENTAL</div> Tenen Environmental, LLC 121 West 27th Street Suite 702 New York, NY 10001 O: (646) 606-2332 F: (646) 606-2379
		Checked By	CZ	
		Date	June 2020	
		Scale	As Noted	



**Legend**

- Monitoring Well Location
- Tax Lots
- Project Site



Drawing Title  
**Groundwater Monitoring  
Well Locations**

Drawing No  
**Figure 3**

Drawn By

LM

Checked By

CZ

Date

June 2020

Scale

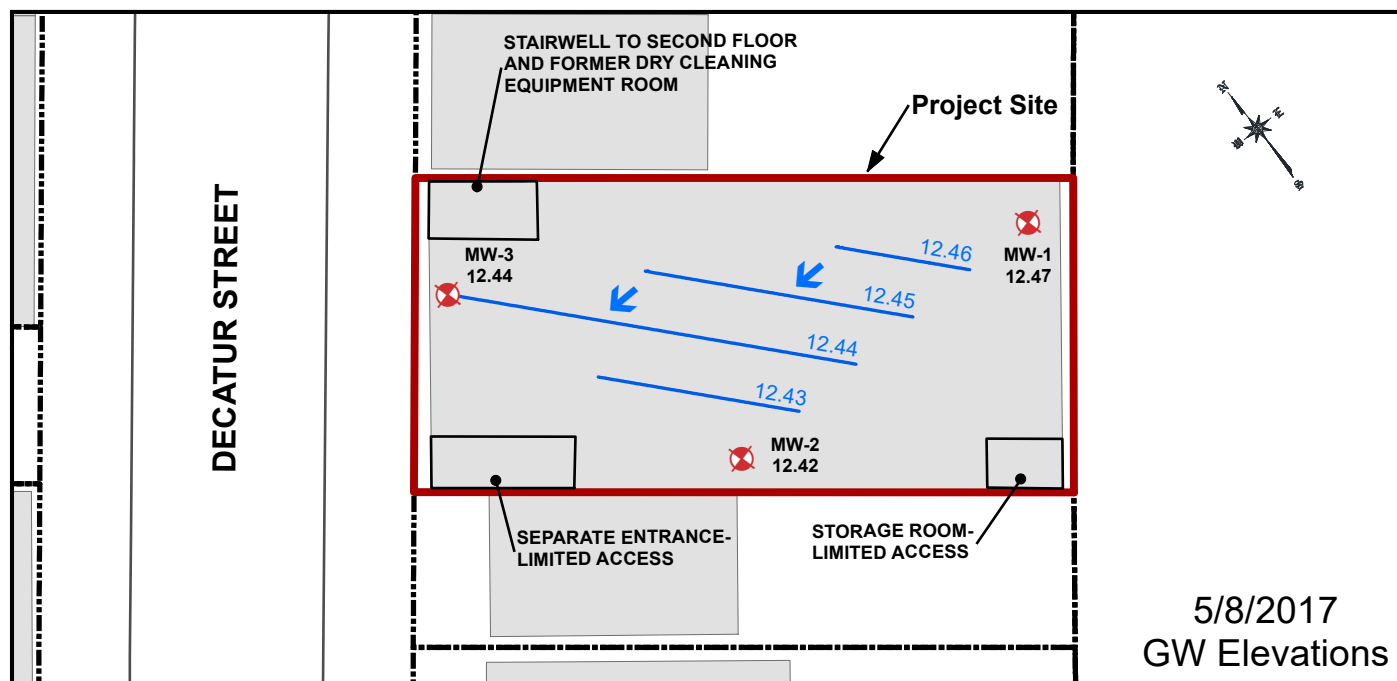
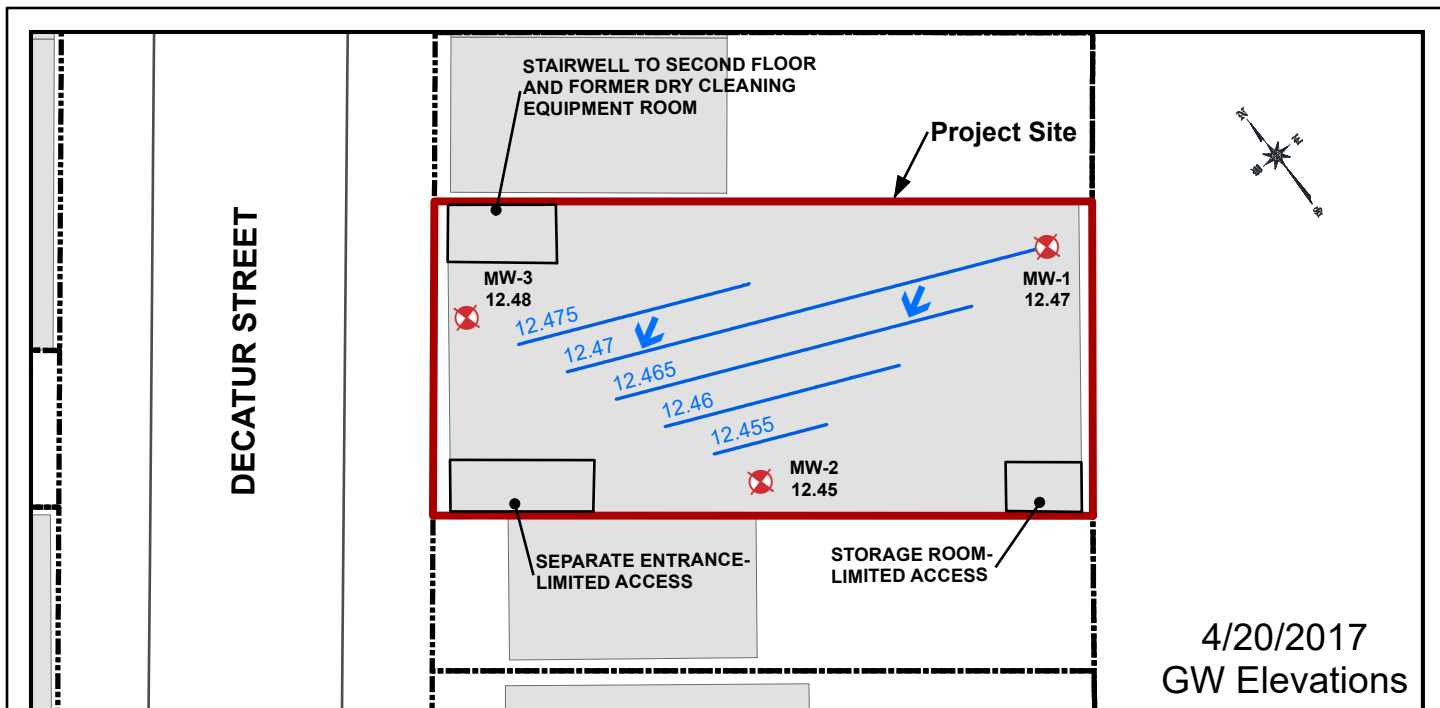
As Noted

Client

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**18-46 Decatur Street  
Ridgewood, New York  
Block 3579, Lot 45**



0 15 30 60 Feet

### Legend

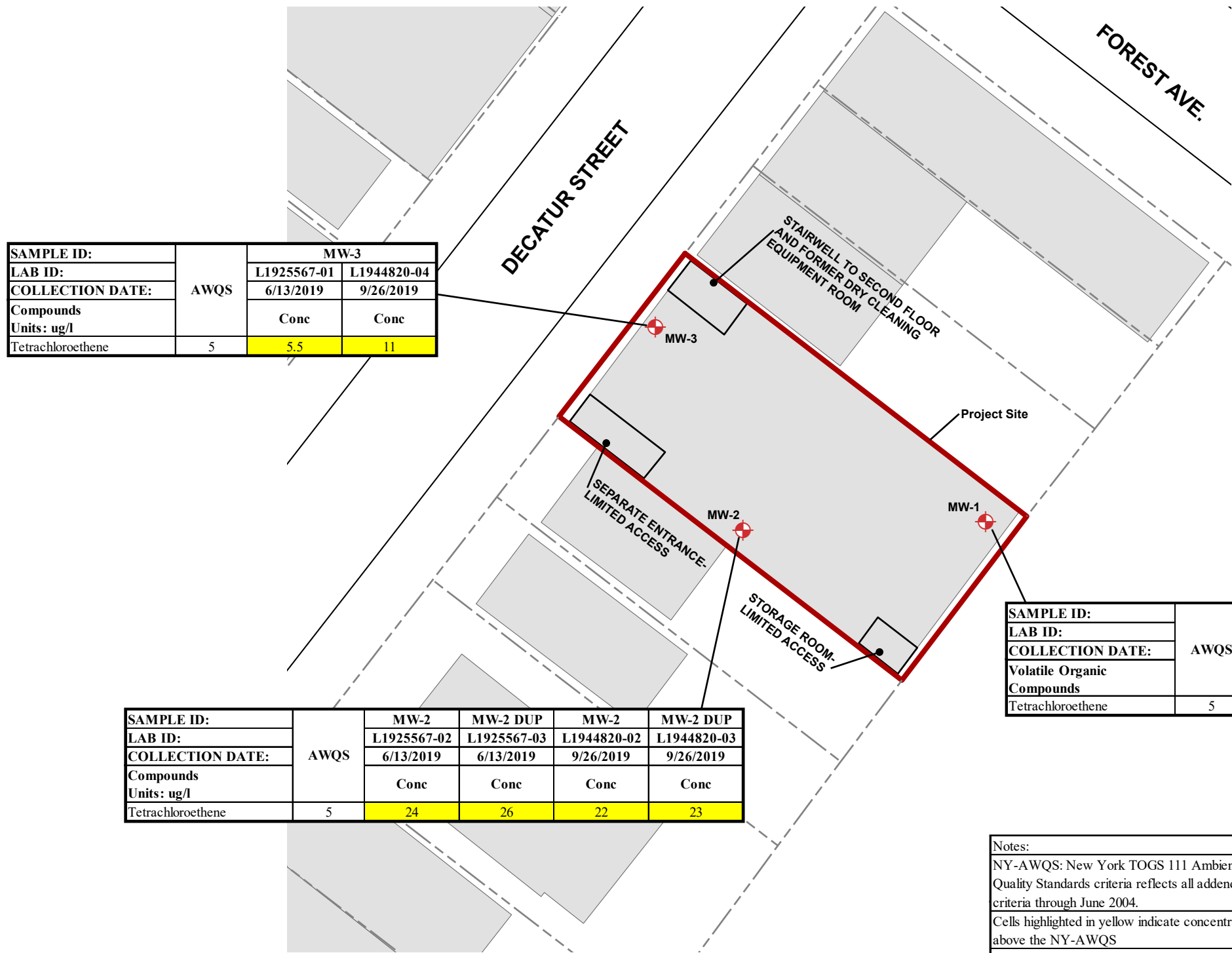
-  Monitoring Well Location
-  Groundwater Flow Direction
-  Groundwater Elevation Contour

Tax Lot Source: NYC Dept. of Finance

Building Source: NYC Dept. of IT and Telecommunications, GIS Division

Groundwater contours interpolated with the aid of ESRI ArcGIS Spatial Analyst

Drawing No.  <b>Figure 4</b>	Drawn By LM Checked By KM	<div style="background-color: #00AEEF; color: white; padding: 5px; text-align: center;"> <b>TENEN ENVIRONMENTAL</b> </div> Tenen Environmental, LLC 121 West 27th Street, Suite 702 New York, NY 10001 O: (646) 606-2332 F: (646) 606-2379	<b>18-46 Decatur Street Ridgewood, New York Block 3579, Lot 45</b>
Drawing Title  <b>Groundwater Contour Map</b>	Date July 2018 Scale As Noted		



Client

18-46 Decatur Street  
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DateJune 2020

ScaleAs Noted

Contaminant Distribution  
in Groundwater Samples

Figure 5

## Tables

**Table 1 - Volatile Organic Compounds in Groundwater June 2019**  
**18-46 Decatur Street - Queens, NY**

SAMPLE ID:	AWQS	MW-1		MW-2		MW-2 DUP		MW-3		FIELD BLANK		TRIP BLANK	
LAB ID:		L1925567-04		L1925567-02		L1925567-03		L1925567-01		L1925567-05		L1925567-06	
COLLECTION DATE:		6/13/2019		6/13/2019		6/13/2019		6/13/2019		6/13/2019		6/13/2019	
Volatile Organic Compounds Units: ug/l		Conc	Q	Conc	Q	Conc	Q	Conc	Q	Conc	Q	Conc	Q
Methylene chloride	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,1-Dichloroethane	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Chloroform	7	0.7	U	0.7	U	0.7	U	0.94	J	0.7	U	0.7	U
Carbon tetrachloride	5	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U
1,2-Dichloropropane	1	0.14	U	0.14	U	0.14	U	0.14	U	0.14	U	0.14	U
Dibromochloromethane	50	0.15	U	0.15	U	0.15	U	0.15	U	0.15	U	0.15	U
1,1,2-Trichloroethane	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethene	5	12		24		26		5.5		0.18	U	0.18	U
Chlorobenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Trichlorofluoromethane	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,2-Dichloroethane	0.6	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U
1,1,1-Trichloroethane	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Bromodichloromethane	50	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U
trans-1,3-Dichloropropene	0.4	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U
cis-1,3-Dichloropropene	0.4	0.14	U	0.14	U	0.14	U	0.14	U	0.14	U	0.14	U
1,3-Dichloropropene, Total	--	0.14	U	0.14	U	0.14	U	0.14	U	0.14	U	0.14	U
1,1-Dichloropropene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Bromoform	50	0.65	U	0.65	U	0.65	U	5.9		0.65	U	0.65	U
1,1,2,2-Tetrachloroethane	5	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U
Benzene	1	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U
Toluene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Ethylbenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Chloromethane		0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Bromomethane	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Vinyl chloride	2	0.07	U	0.07	U	0.07	U	0.07	U	0.07	U	0.07	U
Chloroethane	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,1-Dichloroethene	5	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U
trans-1,2-Dichloroethene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Trichloroethene	5	0.18	U	0.21	J	0.18	U	0.18	U	0.18	U	0.18	U
1,2-Dichlorobenzene	3	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,3-Dichlorobenzene	3	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,4-Dichlorobenzene	3	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Methyl tert butyl ether	10	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
p/m-Xylene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
o-Xylene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Xylenes, Total	--	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
cis-1,2-Dichloroethene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,2-Dichloroethene, Total	--	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Dibromomethane	5	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	0.04	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Acrylonitrile	5	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Styrene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Dichlorodifluoromethane	5	1	U	1	U	1	U	1	U	1	U	1	U
Acetone	50	8.6		8.4		3.4	J	4.6	J	9.9		3.9	J
Carbon disulfide	60	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	50	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U
Vinyl acetate	--	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-pentanone	--	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	50	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
2,2-Dichloropropane	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,2-Dibromoethane	0.0006	0.65	U	0.65	U	0.65	U	0.65	U	0.65	U	0.65	U
1,3-Dichloropropane	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,1,1,2-Tetrachloroethane	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Bromobenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
n-Butylbenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
sec-Butylbenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
tert-Butylbenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
o-Chlorotoluene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
p-Chlorotoluene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,2-Dibromo-3-chloropropane	0.04	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Hexachlorobutadiene	0.5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Isopropylbenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
p-Isopropyltoluene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Naphthalene	10	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
n-Propylbenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,2,3-Trichlorobenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,2,4-Trichlorobenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,3,5-Trimethylbenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,2,4-Trimethylbenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,4-Dioxane	--	61	U	61	U	61	U	61	U	61	U	61	U
p-Diethylbenzene	--	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
p-Ethyltoluene	--	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,2,4,5-Tetramethylbenzene	5	0.54	U	0.54	U	0.54	U	0.54	U	0.54	U	0.54	U
Ethyl ether	--	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
trans-1,4-Dichloro-2-butene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Total VOCs	--	20.6	-	32.61	-	29.4	-	16.94	-	9.9	-	3.9	-

Notes:

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

Cells highlighted in yellow indicate concentrations above the NY-AWQS

Cells shaded in grey indicate MDL values above the NY-AWQS

DUP = designation for duplicate sample

MDL = Maximum Detection Limit

RL = Reporting Limit

Q = Laboratory Qualifier

For U qualified entries, the MDL is shown

U = not detected at or above the MDL

For J qualified entries, the estimated concentration is shown

J = estimated value, indicating the detected value is below the RL, but above the MDL

-- = No standard

Results and MDL values are in micrograms per liter (ug/L)

Table 2 - Volatile Organic Compounds in Groundwater, September 2019  
18-46 Decatur Street - Queens, NY

SAMPLE ID:	NY-AWQS	MW-1		MW-2		MW-2 DUP		MW-3		FIELD BLANK		TRIP BLANK	
LAB ID:		L1944820-01		L1944820-02		L1944820-03		L1944820-04		L1944820-05		L1944820-06	
COLLECTION DATE:		9/26/2019		9/26/2019		9/26/2019		9/26/2019		9/26/2019		9/26/2019	
Volatile Organic Compounds Units: ug/l		Conc	Q	Conc	Q	Conc	Q	Conc	Q	Conc	Q	Conc	Q
Methylene chloride	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,1-Dichloroethane	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Chloroform	7	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Carbon tetrachloride	5	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U
1,2-Dichloropropane	1	0.14	U	0.14	U	0.14	U	0.14	U	0.14	U	0.14	U
Dibromochloromethane	50	0.15	U	0.15	U	0.15	U	0.15	U	0.15	U	0.15	U
1,1,2-Trichloroethane	1	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Tetrachloroethene	5	6		22		23		11		0.18	U	0.18	U
Chlorobenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Trichlorofluoromethane	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,2-Dichloroethane	0.6	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U	0.13	U
1,1,1-Trichloroethane	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Bromodichloromethane	50	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U	0.19	U
trans-1,3-Dichloropropene	0.4	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U
cis-1,3-Dichloropropene	0.4	0.14	U	0.14	U	0.14	U	0.14	U	0.14	U	0.14	U
1,3-Dichloropropene, Total	--	0.14	U	0.14	U	0.14	U	0.14	U	0.14	U	0.14	U
1,1-Dichloropropene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Bromoform	50	0.65	U	0.65	U	0.65	U	0.65	U	0.65	U	0.65	U
1,1,2,2-Tetrachloroethane	5	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U
Benzene	1	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U	0.16	U
Toluene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Ethylbenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Chloromethane	--	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Bromomethane	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Vinyl chloride	2	0.07	U	0.07	U	0.07	U	0.07	U	0.07	U	0.07	U
Chloroethane	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,1-Dichloroethene	5	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U	0.17	U
trans-1,2-Dichloroethene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Trichloroethene	5	0.18	U	0.18	U	0.19	J	0.18	U	0.18	U	0.18	U
1,2-Dichlorobenzene	3	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,3-Dichlorobenzene	3	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,4-Dichlorobenzene	3	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Methyl tert butyl ether	10	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
p/m-Xylene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
o-Xylene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Xylenes, Total	--	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
cis-1,2-Dichloroethene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,2-Dichloroethene, Total	--	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Dibromomethane	5	1	U	1	U	1	U	1	U	1	U	1	U
1,2,3-Trichloropropane	0.04	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Acrylonitrile	5	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Styrene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Dichlorodifluoromethane	5	1	U	1	U	1	U	1	U	1	U	1	U
Acetone	50	3.3	J	1.5	U	1.5	U	1.5	U	1.5	U	1.5	U
Carbon disulfide	60	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone	50	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U	1.9	U
Vinyl acetate	--	1	U	1	U	1	U	1	U	1	U	1	U
4-Methyl-2-pentanone	--	1	U	1	U	1	U	1	U	1	U	1	U
2-Hexanone	50	1	U	1	U	1	U	1	U	1	U	1	U
Bromochloromethane	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
2,2-Dichloropropane	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,2-Dibromoethane	0.0006	0.65	U	0.65	U	0.65	U	0.65	U	0.65	U	0.65	U
1,3-Dichloropropane	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,1,1,2-Tetrachloroethane	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Bromobenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
n-Butylbenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
sec-Butylbenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
tert-Butylbenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
o-Chlorotoluene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
p-Chlorotoluene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,2-Dibromo-3-chloropropane	0.04	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Hexachlorobutadiene	0.5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Isopropylbenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
p-Isopropyltoluene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Naphthalene	10	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
n-Propylbenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,2,3-Trichlorobenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,2,4-Trichlorobenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,3,5-Trimethylbenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,2,4-Trimethylbenzene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,4-Dioxane	--	61	U	61	U	61	U	61	U	61	U	61	U
p-Diethylbenzene	--	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
p-Ethyltoluene	--	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
1,2,4,5-Tetramethylbenzene	5	0.54	U	0.54	U	0.54	U	0.54	U	0.54	U	0.54	U
Ethyl ether	--	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
trans-1,4-Dichloro-2-butene	5	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U	0.7	U
Total VOCs	--	9.3	-	22	-	23.19	-	11	-	-	-	-	-

Notes:

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

Cells highlighted in yellow indicate concentrations above the NY-AWQS

Cells shaded in grey indicate MDL values above the NY-AWQS

DUP = designation for duplicate sample

MDL = Maximum Detection Limit

RL = Reporting Limit

Q = Laboratory Qualifier

For U qualified entries, the MDL is shown

U = not detected at or above the MDL

For J qualified entries, the estimated concentration is shown

J = estimated value, indicating the detected value is below the RL, but above the MDL

-- = No standard

Results and MDL values are in micrograms per liter (ug/L)

**Appendix 1**  
**IC/EC Certifications and Checklists**



Enclosure 2  
**NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**  
**Site Management Periodic Review Report Notice**  
**Institutional and Engineering Controls Certification Form**



**Site No.**                      **C241194**                      **Site Details**                      **Box 1**

**Site Name** 18-46 Decatur Street

Site Address: 18-46 Decatur Street      Zip Code: 11385  
City/Town: Ridgewood  
County: Queens  
Site Acreage: 0.116

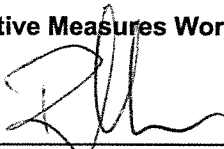
Reporting Period: December 20, 2018 to April 20, 2020

- |  | YES                        | NO                         |
|--|----------------------------|----------------------------|
| 1. Is the information above correct?   | X <input type="checkbox"/> | <input type="checkbox"/>   |
| If NO, include handwritten above or on a separate sheet.   |                            |                            |
| 2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?                              | X <input type="checkbox"/> | <input type="checkbox"/>   |
| 3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?   | <input type="checkbox"/>   | X <input type="checkbox"/> |
| 4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?                      | <input type="checkbox"/>   | X <input type="checkbox"/> |
| <b>If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.</b> |                            |                            |
| 5. Is the site currently undergoing development?   | <input type="checkbox"/>   | X <input type="checkbox"/> |

- |  | YES                        | NO                       |
|--|----------------------------|--------------------------|
| 6. Is the current site use consistent with the use(s) listed below?<br>Commercial and Industrial | X <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Are all ICs/ECs in place and functioning as designed?   | X <input type="checkbox"/> | <input type="checkbox"/> |

**IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and  
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

  
\_\_\_\_\_  
Signature of Owner, Remedial Party or Designated Representative

6-5-20  
\_\_\_\_\_  
Date

**Box 2A**

YES NO

8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?

☐ ☒

**If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.**

9. Are the assumptions in the Qualitative Exposure Assessment still valid?  
(The Qualitative Exposure Assessment must be certified every five years)

☒ ☐

**If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.**

**SITE NO. C241194****Box 3****Description of Institutional Controls**ParcelOwnerInstitutional Control**4-3579-45****BMHQ Realty LLC**

Monitoring Plan  
Site Management Plan  
O&M Plan

Ground Water Use Restriction  
Landuse Restriction  
IC/EC Plan

1. requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
2. allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
3. restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or NYCDOHMH; and
4. requires compliance with the Department approved Site Management Plan.

**Box 4****Description of Engineering Controls**ParcelEngineering Control**4-3579-45**

Cover System  
Air Sparging/Soil Vapor Extraction  
Monitoring Wells  
Vapor Mitigation

1. A building foundation/slab currently exists across the Site and will be maintained to allow for commercial use of the Site.
2. Soil vapor extraction (SVE) system to remove volatile organic compounds (VOCs) from the subsurface.
3. A sub-slab depressurization system to prevent the migration of vapors into the building from soil and/or groundwater.
4. In-situ chemical oxidation or reduction to treat volatile contaminants in groundwater.

### Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

X ☐ ☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

X ☐ ☐

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and  
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

**A Corrective Measures Work Plan must be submitted along with this form to address these issues.**

  
\_\_\_\_\_  
Signature of Owner, Remedial Party or Designated Representative

6-5-20  
\_\_\_\_\_  
Date

IC CERTIFICATIONS  
SITE NO. C241194

Box 6

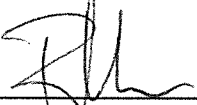
**SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE**

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I BEN MESSING at 7 4-02 Forest Avenue, Ridgewood, NY 11385,  
print name print business address

am certifying as Owner (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

  
Signature of Owner, Remedial Party, or Designated Representative  
Rendering Certification

6-5-20  
Date

## IC/EC CERTIFICATIONS

**Box 7**

### Qualified Environmental Professional Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Matthew M. Carroll at 1085 Sackett Avenue, Bronx, NY 10461,  
print name print business address

am certifying as a Qualified Environmental Professional for the Owner  
(Owner or Remedial Party)



\_\_\_\_\_  
Signature of Qualified Environmental Professional, for  
the Owner or Remedial Party, Rendering Certification

\_\_\_\_\_  
Stamp  
(Required for PE)

06/05/2020

\_\_\_\_\_  
Date

**18-46 Decatur Street  
Site Management - Quarterly Inspection**

Engineering Controls	Condition	Field Notes/Observations:
Sub-slab Depressurization (SSD) and Soil Vapor Extraction (SVE) System	Observe visible components (fan, vacuum alarm/monitor, vacuum gauge, tubing, riser pipe, etc.) for physical wear, damage and operational issues, and replace as necessary	No signs of physical wear, damage or operational issues
	Remove any blockages in vacuum monitor and gauge tubing and riser pipe taps	No blockages observed.
	Verify operation of vacuum monitor by disconnecting tubing from riser pipe and noting if the building notification system goes into alarm mode	Alarm operational
	Verify operation of vacuum gauge by disconnecting tubing from riser pipe and noting if the indicator moves to zero (check high and low pressure ports to see if they are plugged correctly)	Vacuum gauge operational
	Inspect riser pipe penetrations in concrete slab for proper seal	Sealed properly
	Inspect riser pipe connections at fan for leaks and tightness	No leaks
	Inspect power to fan by operating dedicated switch	Fan has power
Site Cover (annual)	Visual inspection of concrete floors and perforations through floor for cracking or degradation	No signs of cracking.

Pressure Field Extension Testing		
MP-1	0.60	in-wc
MP-2	0.40	in-wc
MP-3	N/A - Flooding, location is water	in-wc
SVE-1	0.88	in-wc
SVE-2	1.45	in-wc
SVE-3	1.24	in-wc
MP-4	0.12	in-wc

Name of inspector:

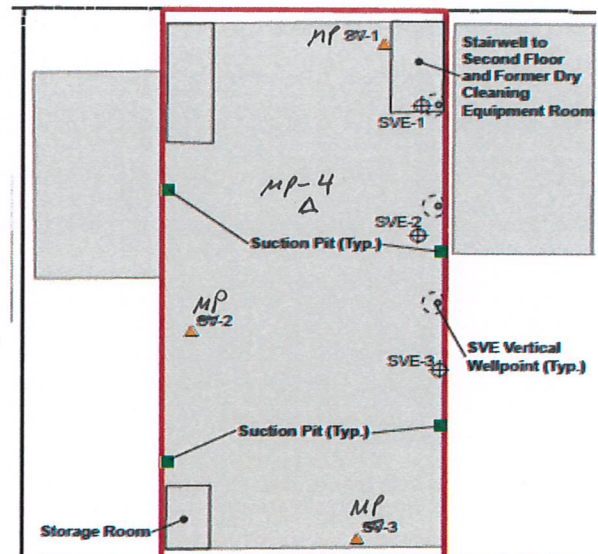
KRISTEN METSNER

Signature of inspector:

*[Handwritten Signature]*

Date of inspection:

6/13/19



18-46 Decatur Street  
Site Management - Monthly Inspection Checklist

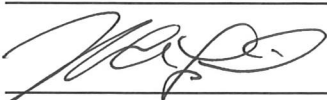
Engineering Controls	Condition	No	Yes	Deficiencies (if any):
Sub-slab Depressurization System (SSDS)	Has piping been inspected to confirm operation of appropriate valves		✓	None.
Soil Vapor Extraction (SVE) System	Has piping been inspected to confirm operation of appropriate valves		✓	None.

Comments/Notes:

Name of inspector:

KRISTEN MEISNER

Signature of inspector:



Date of inspection:

6/13/19

**18-46 Decatur Street  
Site Management Quarterly Inspection**

Engineering Controls	Condition	Field Notes/Observations:
Sub-slab Depressurization (SSD) and Soil Vapor Extraction (SVE) System	Observe visible components (fan, vacuum alarm/monitor, vacuum gauge, tubing, riser pipe, etc.) for physical wear, damage and operational issues, and replace as necessary	No damage
	Remove any blockages in vacuum monitor and gauge tubing and riser pipe taps	No blockages
	Verify operation of vacuum monitor by disconnecting tubing from riser pipe and noting if the building notification system goes into alarm mode	Alarm operational
	Verify operation of vacuum gauge by disconnecting tubing from riser pipe and noting if the indicator moves to zero (check high and low pressure ports to see if they are plugged correctly)	Gauge operational
	Inspect riser pipe penetrations in concrete slab for proper seal	Sealed properly
	Inspect riser pipe connections at fan for leaks and tightness	No leaks
	Inspect power to fan by operating dedicated switch	Fan operational
Site Cover (annual)	Visual inspection of concrete floors and perforations through floor for cracking or degradation	No cracks

Pressure Field Extension Testing		
MP-1	0.60	in-wc
MP-2	0.42	in-wc
MP-3	M/A water logged	in-wc
SVE-1	1.267	in-wc
SVE-2	1.655	in-wc
SVE-3	0.173	in-wc

MP-4 0.124  
Name of inspector:

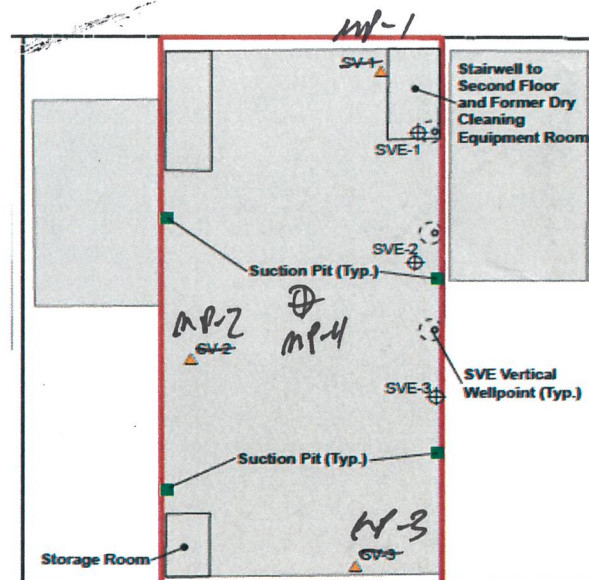
KRISTEN MEINER

Signature of inspector:

*[Handwritten Signature]*

Date of inspection:

9/26/19



**18-46 Decatur Street  
Site Management - Quarterly Inspection**

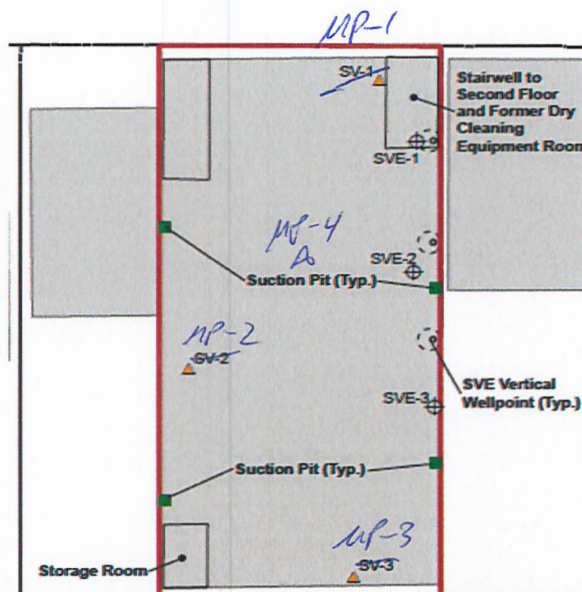
Engineering Controls	Condition	Field Notes/Observations:
Sub-slab Depressurization (SSD) and Soil Vapor Extraction (SVE) System	Observe visible components (fan, vacuum alarm/monitor, vacuum gauge, tubing, riser pipe, etc.) for physical wear, damage and operational issues, and replace as necessary	No damage. ✓
	Remove any blockages in vacuum monitor and gauge tubing and riser pipe taps	No blockages. ✓
	Verify operation of vacuum monitor by disconnecting tubing from riser pipe and noting if the building notification system goes into alarm mode	Alarms ok ✓
	Verify operation of vacuum gauge by disconnecting tubing from riser pipe and noting if the indicator moves to zero (check high and low pressure ports to see if they are plugged correctly)	Gauge ok ✓
	Inspect riser pipe penetrations in concrete slab for proper seal	Sealed properly ✓
	Inspect riser pipe connections at fan for leaks and tightness	No leaks ✓
	Inspect power to fan by operating dedicated switch	Fan operational ✓
Site Cover (annual)	Visual inspection of concrete floors and perforations through floor for cracking or degradation	No cracks ✓

Pressure Field Extension Testing		
MP-1	No access due to construction	in-wc
MP-2	No access due to construction	in-wc
MP-3	N/A water logged	in-wc
SVE-1	1.107	in-wc
SVE-2	No access due to construction	in-wc
SVE-3	No access due to construction	in-wc

MP-4 0.134 in-wc  
Name of inspector: KRISTEN Meisner

Signature of inspector: 

Date of inspection: 1/15/20



Notes: active construction at site, interior modifications  
No perforations to building slab.

18-46 Decatur Street  
Site Management - Monthly Inspection Checklist

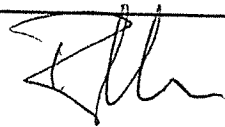
Engineering Controls	Condition	No	Yes	Deficiencies (if any):
Sub-slab Depressurization System (SSDS)	Has piping been inspected to confirm operation of appropriate valves		✓	none
Soil Vapor Extraction (SVE) System	Has piping been inspected to confirm operation of appropriate valves		✓	none

Comments/Notes:

Name of inspector:

BERND MESSING

Signature of inspector:



Date of inspection:

SEPT 4th / 2019

**18-46 Decatur Street**  
**Site Management - Monthly Inspection Checklist**

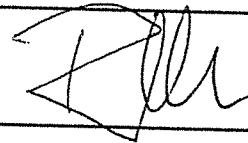
Engineering Controls	Condition	No	Yes	Deficiencies (if any):
Sub-slab Depressurization System (SSDS)	Has piping been inspected to confirm operation of appropriate valves		✓	NONE
Soil Vapor Extraction (SVE) System	Has piping been inspected to confirm operation of appropriate valves		✓	NONE

Comments/Notes:

Name of inspector:

BIRND MESSING

Signature of inspector:

✓ 

Date of inspection:

JULY 7<sup>th</sup> / 2019

18-46 Decatur Street  
Site Management - Monthly Inspection Checklist

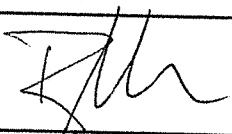
Engineering Controls	Condition	No	Yes	Deficiencies (if any):
Sub-slab Depressurization System (SSDS)	Has piping been inspected to confirm operation of appropriate valves		✓	NONE
Soil Vapor Extraction (SVE) System	Has piping been inspected to confirm operation of appropriate valves		✓	NONE

Comments/Notes:

Name of inspector:

BERND MESSING

Signature of inspector:



Date of inspection:

AUGUST 15<sup>th</sup> / 2019

**18-46 Decatur Street**  
**Site Management - Monthly Inspection Checklist**

Engineering Controls	Condition	No	Yes	Deficiencies (if any):
Sub-slab Depressurization System (SSDS)	Has piping been inspected to confirm operation of appropriate valves		✓	NONE
Soil Vapor Extraction (SVE) System	Has piping been inspected to confirm operation of appropriate valves		✓	NONE

Comments/Notes:

Name of inspector:

BERND MESSING

Signature of inspector:



Date of inspection:

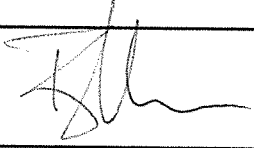
OCT 14<sup>th</sup> 2019

**18-46 Decatur Street**  
**Site Management - Monthly Inspection Checklist**

Engineering Controls	Condition	No	Yes	Deficiencies (if any):
Sub-slab Depressurization System (SSDS)	Has piping been inspected to confirm operation of appropriate valves		✓	NONE
Soil Vapor Extraction (SVE) System	Has piping been inspected to confirm operation of appropriate valves		✓	NONE

Comments/Notes: EVERYTHING GOOD ORDER

Name of inspector: BERND MESSING

Signature of inspector: 

Date of inspection: 11-12-19

**18-46 Decatur Street**  
**Site Management - Monthly Inspection Checklist**

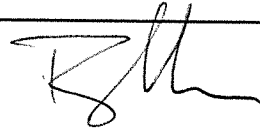
Engineering Controls	Condition	No	Yes	Deficiencies (if any):
Sub-slab Depressurization System (SSDS)	Has piping been inspected to confirm operation of appropriate valves		✓	NONE
Soil Vapor Extraction (SVE) System	Has piping been inspected to confirm operation of appropriate valves		✓	NONE

Comments/Notes:

Name of inspector:

BERND MESSING

Signature of inspector:



Date of inspection:

12-3-19

Kmeisner

18-46 Decatur Street  
Site Management - Monthly Inspection Checklist

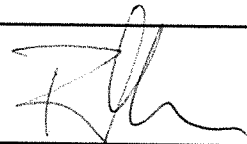
Engineering Controls	Condition	No	Yes	Deficiencies (if any):
Sub-slab Depressurization System (SSDS)	Has piping been inspected to confirm operation of appropriate valves		✓	NONE
Soil Vapor Extraction (SVE) System	Has piping been inspected to confirm operation of appropriate valves		✓	NONE

Comments/Notes:

Name of inspector:

BEN MESSING

Signature of inspector:



Date of inspection:

1-7-2020

**18-46 Decatur Street**  
**Site Management - Monthly Inspection Checklist**

Engineering Controls	Condition	No	Yes	Deficiencies (if any):
Sub-slab Depressurization System (SSDS)	Has piping been inspected to confirm operation of appropriate valves		✓	NONE
Soil Vapor Extraction (SVE) System	Has piping been inspected to confirm operation of appropriate valves		✓	NONE

Comments/Notes:

Name of inspector:

ALFRED ZIEGLER

Signature of inspector:

Alfred Ziegler

Date of inspection:

2-7-2020

**18-46 Decatur Street**  
**Site Management - Monthly Inspection Checklist**

Engineering Controls	Condition	No	Yes	Deficiencies (if any):
Sub-slab Depressurization System (SSDS)	Has piping been inspected to confirm operation of appropriate valves		✓	NONE
Soil Vapor Extraction (SVE) System	Has piping been inspected to confirm operation of appropriate valves		✓	NONE

Comments/Notes:

Name of inspector:

ALFRED ZIEGLER

Signature of inspector:

*Alfred Ziegler*

Date of inspection:

3/9/2020

**18-46 Decatur Street**  
**Site Management - Monthly Inspection Checklist**

Engineering Controls	Condition	No	Yes	Deficiencies (if any):
Sub-slab Depressurization System (SSDS)	Has piping been inspected to confirm operation of appropriate valves		✓	NONE
Soil Vapor Extraction (SVE) System	Has piping been inspected to confirm operation of appropriate valves		✓	NONE

Comments/Notes:

Name of inspector:

ALFRED ZIEGLER

Signature of inspector:

Alfred Ziegler

Date of inspection:

4/4/2020

**18-46 Decatur Street**  
**Site Management - Monthly Inspection Checklist**

Engineering Controls	Condition	No	Yes	Deficiencies (if any):
Sub-slab Depressurization System (SSDS)	Has piping been inspected to confirm operation of appropriate valves		✓	NONE
Soil Vapor Extraction (SVE) System	Has piping been inspected to confirm operation of appropriate valves		✓	NONE

Comments/Notes:

Name of inspector:

ALFRED ZIEGLER

Signature of inspector:

Alfred Ziegler

Date of inspection:

5/1/2020

**18-46 Decatur Street**  
**Site Management - Monthly Inspection Checklist**

Engineering Controls	Condition	No	Yes	Deficiencies (if any):
Sub-slab Depressurization System (SSDS)	Has piping been inspected to confirm operation of appropriate valves		✓	
Soil Vapor Extraction (SVE) System	Has piping been inspected to confirm operation of appropriate valves		✓	

Comments/Notes:

Name of inspector:

ALFRED ZIEGLER

Signature of inspector:

*Alfred Ziegler*

Date of inspection:

6/1/2020

**Appendix 2**  
**Laboratory Deliverables**



## ANALYTICAL REPORT

Lab Number: L1954437

Client: Tenen Environmental, LLC  
121 West 27th Street  
Suite 702  
New York City, NY 10001

ATTN: Mohamed Ahmed

Phone: (646) 606-2332

Project Name: 18-46 DECATUR STREET

Project Number: 18-46 DECATUR STREET

Report Date: 11/19/19

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](http://www.alphalab.com)



**Project Name:** 18-46 DECATUR STREET  
**Project Number:** 18-46 DECATUR STREET

**Lab Number:** L1954437  
**Report Date:** 11/19/19

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1954437-01	MW-3	WATER	QUEENS, NY	06/13/19 11:10	06/13/19
L1954437-02	MW-2	WATER	QUEENS, NY	06/13/19 12:30	06/13/19
L1954437-03	MW-2 DUP	WATER	QUEENS, NY	06/13/19 12:40	06/13/19
L1954437-04	MW-1	WATER	QUEENS, NY	06/13/19 13:45	06/13/19
L1954437-05	FIELD BLANK	WATER	QUEENS, NY	06/13/19 13:45	06/13/19
L1954437-06	TRIP BLANK	WATER	QUEENS, NY	06/13/19 00:00	06/13/19

**Project Name:** 18-46 DECATUR STREET  
**Project Number:** 18-46 DECATUR STREET

**Lab Number:** L1954437  
**Report Date:** 11/19/19

### 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:** 18-46 DECATUR STREET  
**Project Number:** 18-46 DECATUR STREET

**Lab Number:** L1954437  
**Report Date:** 11/19/19

### Case Narrative (continued)

#### Report Submission

This report contains the results of the Volatile Organics analysis.

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

#### Sample Receipt

L1954437-01 and -03: The Client ID was specified by the client.

L1954437-05: Sample containers for the analysis of Volatile Organics were received for the "FIELD BLANK" sample, but were not listed on the chain of custody. The analysis was performed.

#### Volatile Organics

L1954437-05: The Field Blank has a result for acetone present above the reporting limit. The sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over. The Acetone result should be considered estimated due to co-elution with a non-target compound.

The WG1250654-8/-9 MS/MSD recoveries, performed on L1954437-01, are below the acceptance criteria for trans-1,3-dichloropropene (0%/0%), cis-1,3-dichloropropene (0%/0%), 1,1-dichloropropene (0%/0%), bromomethane (19%/20%), vinyl chloride (0%/0%), 1,1-dichloroethene (0%/0%), trans-1,2-dichloroethene (0%/0%), trichloroethene (14%/11%), p/m-xylene (44%/46%), cis-1,2-dichloroethene (0%/0%), acrylonitrile (0%/0%), styrene (0%/0%), vinyl acetate (24%/24%), naphthalene (40%/11%), 1,3,5-trimethylbenzene (0%/0%), 1,2,4-trimethylbenzene (0%/0%), 1,2,4,5-tetramethylbenzene (0%/0%) and trans-1,4-dichloro-2-butene (0%/0%) due to sample matrix interference. The MS/MSD set were reanalyzed and achieved similar results.

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 Sturgis* Melissa Sturgis

Title: Technical Director/Representative

Date: 11/19/19

# ORGANICS

# **VOLATILES**

**Project Name:** 18-46 DECATUR STREET**Lab Number:** L1954437**Project Number:** 18-46 DECATUR STREE**Report Date:** 11/19/19**SAMPLE RESULTS**

Lab ID: L1954437-01

Date Collected: 06/13/19 11:10

Client ID: MW-3

Date Received: 06/13/19

Sample Location: QUEENS, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 06/19/19 17:11

Analyst: PK

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	0.94	J	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	5.5		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
Bromoform	5.9		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	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

**Project Name:** 18-46 DECATUR STREET**Lab Number:** L1954437**Project Number:** 18-46 DECATUR STREE**Report Date:** 11/19/19**SAMPLE RESULTS****Lab ID:** L1954437-01**Date Collected:** 06/13/19 11:10**Client ID:** MW-3**Date Received:** 06/13/19**Sample Location:** QUEENS, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		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
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	4.6	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	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
1,2-Dibromoethane	ND		ug/l	2.0	0.65	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
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	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
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** 18-46 DECATUR STREET**Lab Number:** L1954437**Project Number:** 18-46 DECATUR STREE**Report Date:** 11/19/19**SAMPLE RESULTS****Lab ID:** L1954437-01**Date Collected:** 06/13/19 11:10**Client ID:** MW-3**Date Received:** 06/13/19**Sample Location:** QUEENS, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	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	116		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	91		70-130

**Project Name:** 18-46 DECATUR STREET**Lab Number:** L1954437**Project Number:** 18-46 DECATUR STREE**Report Date:** 11/19/19**SAMPLE RESULTS**

Lab ID: L1954437-02

Date Collected: 06/13/19 12:30

Client ID: MW-2

Date Received: 06/13/19

Sample Location: QUEENS, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 06/19/19 02:34

Analyst: PD

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	ND		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	24		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
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	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

**Project Name:** 18-46 DECATUR STREET**Lab Number:** L1954437**Project Number:** 18-46 DECATUR STREE**Report Date:** 11/19/19**SAMPLE RESULTS**

Lab ID: L1954437-02

Date Collected: 06/13/19 12:30

Client ID: MW-2

Date Received: 06/13/19

Sample Location: QUEENS, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.21	J	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
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	8.4		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	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
1,2-Dibromoethane	ND		ug/l	2.0	0.65	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
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	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
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** 18-46 DECATUR STREET**Lab Number:** L1954437**Project Number:** 18-46 DECATUR STREE**Report Date:** 11/19/19**SAMPLE RESULTS****Lab ID:** L1954437-02**Date Collected:** 06/13/19 12:30**Client ID:** MW-2**Date Received:** 06/13/19**Sample Location:** QUEENS, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	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	118		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	109		70-130

**Project Name:** 18-46 DECATUR STREET**Lab Number:** L1954437**Project Number:** 18-46 DECATUR STREE**Report Date:** 11/19/19**SAMPLE RESULTS**

Lab ID: L1954437-03

Date Collected: 06/13/19 12:40

Client ID: MW-2 DUP

Date Received: 06/13/19

Sample Location: QUEENS, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 06/19/19 02:56

Analyst: PD

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	ND		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	26		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
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	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

**Project Name:** 18-46 DECATUR STREET**Lab Number:** L1954437**Project Number:** 18-46 DECATUR STREE**Report Date:** 11/19/19**SAMPLE RESULTS**

Lab ID: L1954437-03

Date Collected: 06/13/19 12:40

Client ID: MW-2 DUP

Date Received: 06/13/19

Sample Location: QUEENS, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		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
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.4	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	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
1,2-Dibromoethane	ND		ug/l	2.0	0.65	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
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	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
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** 18-46 DECATUR STREET**Lab Number:** L1954437**Project Number:** 18-46 DECATUR STREE**Report Date:** 11/19/19**SAMPLE RESULTS****Lab ID:** L1954437-03**Date Collected:** 06/13/19 12:40**Client ID:** MW-2 DUP**Date Received:** 06/13/19**Sample Location:** QUEENS, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	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	113		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	107		70-130

**Project Name:** 18-46 DECATUR STREET**Lab Number:** L1954437**Project Number:** 18-46 DECATUR STREE**Report Date:** 11/19/19**SAMPLE RESULTS**

Lab ID: L1954437-04

Date Collected: 06/13/19 13:45

Client ID: MW-1

Date Received: 06/13/19

Sample Location: QUEENS, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 06/19/19 03:18

Analyst: PD

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	ND		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	12		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
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	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

**Project Name:** 18-46 DECATUR STREET**Lab Number:** L1954437**Project Number:** 18-46 DECATUR STREE**Report Date:** 11/19/19**SAMPLE RESULTS**

Lab ID: L1954437-04

Date Collected: 06/13/19 13:45

Client ID: MW-1

Date Received: 06/13/19

Sample Location: QUEENS, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		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
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	8.6		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	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
1,2-Dibromoethane	ND		ug/l	2.0	0.65	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
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	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
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** 18-46 DECATUR STREET**Lab Number:** L1954437**Project Number:** 18-46 DECATUR STREE**Report Date:** 11/19/19**SAMPLE RESULTS****Lab ID:** L1954437-04**Date Collected:** 06/13/19 13:45**Client ID:** MW-1**Date Received:** 06/13/19**Sample Location:** QUEENS, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	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	113		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	110		70-130

**Project Name:** 18-46 DECATUR STREET**Lab Number:** L1954437**Project Number:** 18-46 DECATUR STREE**Report Date:** 11/19/19**SAMPLE RESULTS**

Lab ID: L1954437-05

Date Collected: 06/13/19 13:45

Client ID: FIELD BLANK

Date Received: 06/13/19

Sample Location: QUEENS, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 06/19/19 01:06

Analyst: PD

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	ND		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	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	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
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	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

**Project Name:** 18-46 DECATUR STREET**Lab Number:** L1954437**Project Number:** 18-46 DECATUR STREE**Report Date:** 11/19/19**SAMPLE RESULTS****Lab ID:** L1954437-05**Date Collected:** 06/13/19 13:45**Client ID:** FIELD BLANK**Date Received:** 06/13/19**Sample Location:** QUEENS, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		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
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	9.9		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	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
1,2-Dibromoethane	ND		ug/l	2.0	0.65	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
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	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
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** 18-46 DECATUR STREET**Lab Number:** L1954437**Project Number:** 18-46 DECATUR STREE**Report Date:** 11/19/19**SAMPLE RESULTS****Lab ID:** L1954437-05**Date Collected:** 06/13/19 13:45**Client ID:** FIELD BLANK**Date Received:** 06/13/19**Sample Location:** QUEENS, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	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	99		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	114		70-130

**Project Name:** 18-46 DECATUR STREET**Lab Number:** L1954437**Project Number:** 18-46 DECATUR STREE**Report Date:** 11/19/19**SAMPLE RESULTS**

Lab ID: L1954437-06

Date Collected: 06/13/19 00:00

Client ID: TRIP BLANK

Date Received: 06/13/19

Sample Location: QUEENS, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 06/19/19 01:28

Analyst: PD

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	ND		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	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	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
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	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

**Project Name:** 18-46 DECATUR STREET**Lab Number:** L1954437**Project Number:** 18-46 DECATUR STREE**Report Date:** 11/19/19**SAMPLE RESULTS**

Lab ID: L1954437-06

Date Collected: 06/13/19 00:00

Client ID: TRIP BLANK

Date Received: 06/13/19

Sample Location: QUEENS, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		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
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.9	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	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
1,2-Dibromoethane	ND		ug/l	2.0	0.65	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
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	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
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** 18-46 DECATUR STREET**Lab Number:** L1954437**Project Number:** 18-46 DECATUR STREE**Report Date:** 11/19/19**SAMPLE RESULTS****Lab ID:** L1954437-06**Date Collected:** 06/13/19 00:00**Client ID:** TRIP BLANK**Date Received:** 06/13/19**Sample Location:** QUEENS, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	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	116		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	109		70-130

Project Name: 18-46 DECATUR STREET

Lab Number: L1954437

Project Number: 18-46 DECATUR STREET

Report Date: 11/19/19

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 06/18/19 21:49  
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-06 Batch: WG1250464-5					
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
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	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

**Project Name:** 18-46 DECATUR STREET  
**Project Number:** 18-46 DECATUR STREET

**Lab Number:** L1954437  
**Report Date:** 11/19/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
 Analytical Date: 06/18/19 21:49  
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-06 Batch: WG1250464-5					
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
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	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
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	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
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

**Project Name:** 18-46 DECATUR STREET  
**Project Number:** 18-46 DECATUR STREET

**Lab Number:** L1954437  
**Report Date:** 11/19/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
 Analytical Date: 06/18/19 21:49  
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-06 Batch: WG1250464-5					
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
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	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	108		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	106		70-130

**Project Name:** 18-46 DECATUR STREET  
**Project Number:** 18-46 DECATUR STREET

**Lab Number:** L1954437  
**Report Date:** 11/19/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
 Analytical Date: 06/19/19 11:01  
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1250654-5					
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
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	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

Project Name: 18-46 DECATUR STREET

Lab Number: L1954437

Project Number: 18-46 DECATUR STREET

Report Date: 11/19/19

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 06/19/19 11:01  
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1250654-5					
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
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	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
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	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
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

**Project Name:** 18-46 DECATUR STREET  
**Project Number:** 18-46 DECATUR STREET

**Lab Number:** L1954437  
**Report Date:** 11/19/19

**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C  
 Analytical Date: 06/19/19 11:01  
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1250654-5					
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
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	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	114		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	91		70-130

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: 18-46 DECATUR STREET

Lab Number: L1954437

Project Number: 18-46 DECATUR STREET

Report Date: 11/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-06 Batch: WG1250464-3 WG1250464-4								
Methylene chloride	100		99		70-130	1		20
1,1-Dichloroethane	96		93		70-130	3		20
Chloroform	96		93		70-130	3		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	95		96		70-130	1		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	97		96		70-130	1		20
Tetrachloroethene	100		94		70-130	6		20
Chlorobenzene	96		93		75-130	3		20
Trichlorofluoromethane	120		120		62-150	0		20
1,2-Dichloroethane	99		95		70-130	4		20
1,1,1-Trichloroethane	93		93		67-130	0		20
Bromodichloromethane	100		98		67-130	2		20
trans-1,3-Dichloropropene	83		81		70-130	2		20
cis-1,3-Dichloropropene	88		88		70-130	0		20
1,1-Dichloropropene	92		90		70-130	2		20
Bromoform	99		97		54-136	2		20
1,1,2,2-Tetrachloroethane	91		90		67-130	1		20
Benzene	97		95		70-130	2		20
Toluene	93		88		70-130	6		20
Ethylbenzene	92		87		70-130	6		20
Chloromethane	91		91		64-130	0		20
Bromomethane	140	Q	130		39-139	7		20

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: 18-46 DECATUR STREET

Lab Number: L1954437

Project Number: 18-46 DECATUR STREET

Report Date: 11/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-06 Batch: WG1250464-3 WG1250464-4								
Vinyl chloride	100		100		55-140	0		20
Chloroethane	160	Q	170	Q	55-138	6		20
1,1-Dichloroethene	100		92		61-145	8		20
trans-1,2-Dichloroethene	93		87		70-130	7		20
Trichloroethene	100		93		70-130	7		20
1,2-Dichlorobenzene	92		87		70-130	6		20
1,3-Dichlorobenzene	92		88		70-130	4		20
1,4-Dichlorobenzene	90		86		70-130	5		20
Methyl tert butyl ether	88		80		63-130	10		20
p/m-Xylene	95		90		70-130	5		20
o-Xylene	95		90		70-130	5		20
cis-1,2-Dichloroethene	93		96		70-130	3		20
Dibromomethane	110		100		70-130	10		20
1,2,3-Trichloropropane	87		85		64-130	2		20
Acrylonitrile	88		89		70-130	1		20
Styrene	95		90		70-130	5		20
Dichlorodifluoromethane	110		100		36-147	10		20
Acetone	110		120		58-148	9		20
Carbon disulfide	98		98		51-130	0		20
2-Butanone	94		89		63-138	5		20
Vinyl acetate	84		82		70-130	2		20
4-Methyl-2-pentanone	82		84		59-130	2		20
2-Hexanone	73		78		57-130	7		20

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 18-46 DECATUR STREET

**Lab Number:** L1954437

**Project Number:** 18-46 DECATUR STREET

**Report Date:** 11/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-06 Batch: WG1250464-3 WG1250464-4								
Bromochloromethane	100		100		70-130	0		20
2,2-Dichloropropane	81		77		63-133	5		20
1,2-Dibromoethane	98		93		70-130	5		20
1,3-Dichloropropane	97		94		70-130	3		20
1,1,1,2-Tetrachloroethane	99		95		64-130	4		20
Bromobenzene	91		87		70-130	4		20
n-Butylbenzene	86		81		53-136	6		20
sec-Butylbenzene	88		83		70-130	6		20
tert-Butylbenzene	88		85		70-130	3		20
o-Chlorotoluene	85		80		70-130	6		20
p-Chlorotoluene	84		80		70-130	5		20
1,2-Dibromo-3-chloropropane	100		93		41-144	7		20
Hexachlorobutadiene	94		86		63-130	9		20
Isopropylbenzene	86		82		70-130	5		20
p-Isopropyltoluene	88		81		70-130	8		20
Naphthalene	76		76		70-130	0		20
n-Propylbenzene	87		82		69-130	6		20
1,2,3-Trichlorobenzene	88		87		70-130	1		20
1,2,4-Trichlorobenzene	88		85		70-130	3		20
1,3,5-Trimethylbenzene	87		82		64-130	6		20
1,2,4-Trimethylbenzene	87		82		70-130	6		20
1,4-Dioxane	184	Q	200	Q	56-162	8		20
p-Diethylbenzene	84		79		70-130	6		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 18-46 DECATUR STREET

**Lab Number:** L1954437

**Project Number:** 18-46 DECATUR STREET

**Report Date:** 11/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-06 Batch: WG1250464-3 WG1250464-4								
p-Ethyltoluene	88		83		70-130	6		20
1,2,4,5-Tetramethylbenzene	79		74		70-130	7		20
Ethyl ether	91		95		59-134	4		20
trans-1,4-Dichloro-2-butene	88		86		70-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	105		108		70-130
Toluene-d8	99		100		70-130
4-Bromofluorobenzene	89		88		70-130
Dibromofluoromethane	108		102		70-130

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 18-46 DECATUR STREET

**Lab Number:** L1954437

**Project Number:** 18-46 DECATUR STREET

**Report Date:** 11/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1250654-3 WG1250654-4								
Methylene chloride	92		92		70-130	0		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	97		94		63-132	3		20
1,2-Dichloropropane	110		110		70-130	0		20
Dibromochloromethane	88		89		63-130	1		20
1,1,2-Trichloroethane	100		110		70-130	10		20
Tetrachloroethene	92		89		70-130	3		20
Chlorobenzene	100		97		75-130	3		20
Trichlorofluoromethane	93		88		62-150	6		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	100		97		67-130	3		20
Bromodichloromethane	99		100		67-130	1		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
1,1-Dichloropropene	100		100		70-130	0		20
Bromoform	81		86		54-136	6		20
1,1,2,2-Tetrachloroethane	110		110		67-130	0		20
Benzene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	110		100		70-130	10		20
Chloromethane	65		66		64-130	2		20
Bromomethane	41		35	Q	39-139	16		20

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 18-46 DECATUR STREET

**Lab Number:** L1954437

**Project Number:** 18-46 DECATUR STREET

**Report Date:** 11/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1250654-3 WG1250654-4								
Vinyl chloride	96		89		55-140	8		20
Chloroethane	110		100		55-138	10		20
1,1-Dichloroethene	90		86		61-145	5		20
trans-1,2-Dichloroethene	94		89		70-130	5		20
Trichloroethene	100		99		70-130	1		20
1,2-Dichlorobenzene	96		96		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	100		100		63-130	0		20
p/m-Xylene	105		100		70-130	5		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	97		94		70-130	3		20
Dibromomethane	92		96		70-130	4		20
1,2,3-Trichloropropane	110		120		64-130	9		20
Acrylonitrile	97		100		70-130	3		20
Styrene	95		95		70-130	0		20
Dichlorodifluoromethane	73		67		36-147	9		20
Acetone	110		110		58-148	0		20
Carbon disulfide	93		89		51-130	4		20
2-Butanone	110		120		63-138	9		20
Vinyl acetate	120		120		70-130	0		20
4-Methyl-2-pentanone	100		100		59-130	0		20
2-Hexanone	120		120		57-130	0		20

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 18-46 DECATUR STREET

**Lab Number:** L1954437

**Project Number:** 18-46 DECATUR STREET

**Report Date:** 11/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1250654-3 WG1250654-4								
Bromochloromethane	94		91		70-130	3		20
2,2-Dichloropropane	100		98		63-133	2		20
1,2-Dibromoethane	94		94		70-130	0		20
1,3-Dichloropropane	110		110		70-130	0		20
1,1,1,2-Tetrachloroethane	94		91		64-130	3		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	120		120		53-136	0		20
sec-Butylbenzene	120		110		70-130	9		20
tert-Butylbenzene	110		110		70-130	0		20
o-Chlorotoluene	120		120		70-130	0		20
p-Chlorotoluene	120		120		70-130	0		20
1,2-Dibromo-3-chloropropane	66		71		41-144	7		20
Hexachlorobutadiene	96		96		63-130	0		20
Isopropylbenzene	120		120		70-130	0		20
p-Isopropyltoluene	110		110		70-130	0		20
Naphthalene	74		81		70-130	9		20
n-Propylbenzene	130		120		69-130	8		20
1,2,3-Trichlorobenzene	73		77		70-130	5		20
1,2,4-Trichlorobenzene	82		84		70-130	2		20
1,3,5-Trimethylbenzene	120		120		64-130	0		20
1,2,4-Trimethylbenzene	110		110		70-130	0		20
1,4-Dioxane	86		76		56-162	12		20
p-Diethylbenzene	110		110		70-130	0		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 18-46 DECATUR STREET

**Lab Number:** L1954437

**Project Number:** 18-46 DECATUR STREET

**Report Date:** 11/19/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1250654-3 WG1250654-4								
p-Ethyltoluene	120		120		70-130	0		20
1,2,4,5-Tetramethylbenzene	99		97		70-130	2		20
Ethyl ether	98		97		59-134	1		20
trans-1,4-Dichloro-2-butene	100		100		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	111		113		70-130
Toluene-d8	105		104		70-130
4-Bromofluorobenzene	109		110		70-130
Dibromofluoromethane	94		93		70-130

**Matrix Spike Analysis****Batch Quality Control****Project Name:** 18-46 DECATUR STREET**Project Number:** 18-46 DECATUR STREET**Lab Number:** L1954437**Report Date:** 11/19/19

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>Qual</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>Qual</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1250654-8 WG1250654-9 QC Sample: L1954437-01 Client ID: MW-3												
Methylene chloride	ND	10	10	100		10	100		70-130	0		20
1,1-Dichloroethane	ND	10	12	120		12	120		70-130	0		20
Chloroform	0.94J	10	12	120		13	130		70-130	8		20
Carbon tetrachloride	ND	10	11	110		12	120		63-132	9		20
1,2-Dichloropropane	ND	10	12	120		12	120		70-130	0		20
Dibromochloromethane	ND	10	8.9	89		9.4	94		63-130	5		20
1,1,2-Trichloroethane	ND	10	11	110		11	110		70-130	0		20
Tetrachloroethene	5.5	10	16	105		16	105		70-130	0		20
Chlorobenzene	ND	10	11	110		11	110		75-130	0		20
Trichlorofluoromethane	ND	10	11	110		11	110		62-150	0		20
1,2-Dichloroethane	ND	10	12	120		12	120		70-130	0		20
1,1,1-Trichloroethane	ND	10	12	120		12	120		67-130	0		20
Bromodichloromethane	ND	10	11	110		11	110		67-130	0		20
trans-1,3-Dichloropropene	ND	10	ND	0	Q	ND	0	Q	70-130	NC		20
cis-1,3-Dichloropropene	ND	10	ND	0	Q	ND	0	Q	70-130	NC		20
1,1-Dichloropropene	ND	10	ND	0	Q	ND	0	Q	70-130	NC		20
Bromoform	5.9	10	13	71		14	81		54-136	7		20
1,1,2,2-Tetrachloroethane	ND	10	11	110		12	120		67-130	9		20
Benzene	ND	10	12	120		12	120		70-130	0		20
Toluene	ND	10	11	110		11	110		70-130	0		20
Ethylbenzene	ND	10	11	110		11	110		70-130	0		20
Chloromethane	ND	10	8.9	89		9.1	91		64-130	2		20
Bromomethane	ND	10	1.9J	19	Q	2.0J	20	Q	39-139	5		20
Vinyl chloride	ND	10	ND	0	Q	ND	0	Q	55-140	NC		20

**Matrix Spike Analysis****Batch Quality Control****Project Name:** 18-46 DECATUR STREET**Project Number:** 18-46 DECATUR STREET**Lab Number:** L1954437**Report Date:** 11/19/19

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>Qual</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>Qual</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1250654-8 WG1250654-9 QC Sample: L1954437-01 Client ID: MW-3												
Chloroethane	ND	10	12	120		12	120		55-138	0		20
1,1-Dichloroethene	ND	10	ND	0	Q	ND	0	Q	61-145	NC		20
trans-1,2-Dichloroethene	ND	10	ND	0	Q	ND	0	Q	70-130	NC		20
Trichloroethene	ND	10	1.4	14	Q	1.1	11	Q	70-130	24	Q	20
1,2-Dichlorobenzene	ND	10	10	100		10	100		70-130	0		20
1,3-Dichlorobenzene	ND	10	10	100		10	100		70-130	0		20
1,4-Dichlorobenzene	ND	10	10	100		10	100		70-130	0		20
Methyl tert butyl ether	ND	10	10	100		11	110		63-130	10		20
p/m-Xylene	ND	20	8.9	44	Q	9.2	46	Q	70-130	3		20
o-Xylene	ND	20	16	80		16	80		70-130	0		20
cis-1,2-Dichloroethene	ND	10	ND	0	Q	ND	0	Q	70-130	NC		20
Dibromomethane	ND	10	10	100		10	100		70-130	0		20
1,2,3-Trichloropropane	ND	10	9.8	98		11	110		64-130	12		20
Acrylonitrile	ND	10	ND	0	Q	ND	0	Q	70-130	NC		20
Styrene	ND	20	ND	0	Q	ND	0	Q	70-130	NC		20
Dichlorodifluoromethane	ND	10	7.6	76		7.6	76		36-147	0		20
Acetone	4.6J	10	14	140		15	150	Q	58-148	7		20
Carbon disulfide	ND	10	10	100		10	100		51-130	0		20
2-Butanone	ND	10	12	120		13	130		63-138	8		20
Vinyl acetate	ND	10	2.4J	24	Q	2.4J	24	Q	70-130	0		20
4-Methyl-2-pentanone	ND	10	10	100		11	110		59-130	10		20
2-Hexanone	ND	10	12	120		13	130		57-130	8		20
Bromochloromethane	ND	10	9.6	96		10	100		70-130	4		20
2,2-Dichloropropane	ND	10	10	100		10	100		63-133	0		20

**Matrix Spike Analysis****Batch Quality Control****Project Name:** 18-46 DECATUR STREET**Project Number:** 18-46 DECATUR STREET**Lab Number:** L1954437**Report Date:** 11/19/19

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>Qual</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>Qual</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1250654-8 WG1250654-9 QC Sample: L1954437-01 Client ID: MW-3												
1,2-Dibromoethane	ND	10	9.6	96		10	100		70-130	4		20
1,3-Dichloropropane	ND	10	11	110		12	120		70-130	9		20
1,1,1,2-Tetrachloroethane	ND	10	9.8	98		10	100		64-130	2		20
Bromobenzene	ND	10	10	100		11	110		70-130	10		20
n-Butylbenzene	ND	10	11	110		11	110		53-136	0		20
sec-Butylbenzene	ND	10	11	110		11	110		70-130	0		20
tert-Butylbenzene	ND	10	12	120		12	120		70-130	0		20
o-Chlorotoluene	ND	10	11	110		12	120		70-130	9		20
p-Chlorotoluene	ND	10	12	120		12	120		70-130	0		20
1,2-Dibromo-3-chloropropane	ND	10	7.1	71		7.5	75		41-144	5		20
Hexachlorobutadiene	ND	10	7.5	75		8.2	82		63-130	9		20
Isopropylbenzene	ND	10	12	120		12	120		70-130	0		20
p-Isopropyltoluene	ND	10	9.3	93		9.4	94		70-130	1		20
Naphthalene	ND	10	4.0	40	Q	1.1J	11	Q	70-130	114	Q	20
n-Propylbenzene	ND	10	13	130		13	130		69-130	0		20
1,2,3-Trichlorobenzene	ND	10	7.2	72		8.0	80		70-130	11		20
1,2,4-Trichlorobenzene	ND	10	8.0	80		8.5	85		70-130	6		20
1,3,5-Trimethylbenzene	ND	10	ND	0	Q	ND	0	Q	64-130	NC		20
1,2,4-Trimethylbenzene	ND	10	ND	0	Q	ND	0	Q	70-130	NC		20
1,4-Dioxane	ND	500	280	56		400	80		56-162	35	Q	20
p-Diethylbenzene	ND	10	8.7	87		8.9	89		70-130	2		20
p-Ethyltoluene	ND	10	9.3	93		9.4	94		70-130	1		20
1,2,4,5-Tetramethylbenzene	ND	10	ND	0	Q	ND	0	Q	70-130	NC		20
Ethyl ether	ND	10	10	100		10	100		59-134	0		20

**Matrix Spike Analysis***Batch Quality Control***Project Name:** 18-46 DECATUR STREET**Lab Number:** L1954437**Project Number:** 18-46 DECATUR STREET**Report Date:** 11/19/19

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>Qual</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>Qual</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1250654-8 WG1250654-9 QC Sample: L1954437-01 Client ID: MW-3												
trans-1,4-Dichloro-2-butene	ND	10	ND	0	Q	ND	0	Q	70-130	NC		20

<b>Surrogate</b>	<b>MS % Recovery</b>	<b>Qualifier</b>	<b>MSD % Recovery</b>	<b>Qualifier</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	113		116		70-130
4-Bromofluorobenzene	110		110		70-130
Dibromofluoromethane	93		92		70-130
Toluene-d8	103		103		70-130

**Project Name:** 18-46 DECATUR STREET  
**Project Number:** 18-46 DECATUR STREET

**Lab Number:** L1954437  
**Report Date:** 11/19/19

## 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:** 18-46 DECATUR STREET  
**Project Number:** 18-46 DECATUR STREET

**Lab Number:** L1954437  
**Report Date:** 11/19/19

- 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.

**Difference:** With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

**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 Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- 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:** 18-46 DECATUR STREET  
**Project Number:** 18-46 DECATUR STREET

**Lab Number:** L1954437  
**Report Date:** 11/19/19

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

## 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 15

Published Date: 8/15/2019 9:53:42 AM

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**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), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**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, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-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.

 <b>NEW YORK CHAIN OF CUSTODY</b> Westborough, MA 01581 8 Walkup Dr. TEL: 508-896-9220 FAX: 508-896-9193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		<b>Service Centers</b> 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>    </u>		Date Rec'd In Lab <u>6/14/19</u>		ALPHA Lab # <div style="border: 2px solid red; padding: 2px; display: inline-block;">L1954437</div>																																																																																																																																																																																																				
		<b>Project Information</b> Project Name: <u>19-40 DECATUR STREET</u> Project Location: <u>QUEENS, NY</u> Project # _____ (Use Project name as Project #) <input checked="" type="checkbox"/>		<b>Deliverables</b> <input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other		<b>Billing Information</b> <input type="checkbox"/> Same as Client Info PO # _____																																																																																																																																																																																																						
<b>Client Information</b> Client: <u>TANEN ENVIRONMENTAL</u> Address: <u>121 W 27th STREET</u> <u>NY, NY 10001</u> Phone: <u>212-696-2332</u> Fax: _____ Email: <u>MAMMEDTANEN-ENV</u>		<b>Project Manager:</b> <u>MAMMED AHMED</u> <b>ALPHAQuote #:</b> _____ <b>Turn-Around Time</b> Standard <input checked="" type="checkbox"/> Rush (only if pre approved) <input type="checkbox"/> Due Date: _____ # of Days: _____		<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other: _____																																																																																																																																																																																																						
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: _____ _____ Please specify Metals or TAL. _____ _____						<b>ANALYSIS</b> <div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">VOLs</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">PFAAs</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">1A-Discharge</div> </div>		<b>Sample Filtration</b> <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <b>Preservation</b> <input type="checkbox"/> Lab to do (Please Specify below) _____ <b>Sample Specific Comments</b>		Total Bottles																																																																																																																																																																																																		
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">ALPHA Lab ID (Lab Use Only)</th> <th rowspan="2">Sample ID</th> <th colspan="2">Collection</th> <th rowspan="2">Sample Matrix</th> <th rowspan="2">Sampler's Initials</th> <th colspan="3"></th> <th colspan="3"></th> <th colspan="3"></th> <th colspan="3"></th> </tr> <tr> <th>Date</th> <th>Time</th> <th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th> </tr> </thead> <tbody> <tr> <td>25567-01</td> <td>MW-1</td> <td>6/13/19</td> <td>11:10</td> <td>W</td> <td>KM</td> <td>X</td><td>X</td><td>X</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>01</td> <td>MW-1 MS</td> <td>6/13/19</td> <td>11:15</td> <td>W</td> <td>KM</td> <td>X</td><td></td><td></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>* VOLs only</td> </tr> <tr> <td>01</td> <td>MW-1 MSD</td> <td></td> <td>11:20</td> <td>W</td> <td>KM</td> <td>X</td><td></td><td></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>* VOLs only</td> </tr> <tr> <td>02</td> <td>MW-2</td> <td></td> <td>12:30</td> <td>W</td> <td>KM</td> <td>X</td><td>X</td><td>X</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>03</td> <td>MW-2 DUP</td> <td></td> <td>12:40</td> <td>W</td> <td>KM</td> <td>X</td><td></td><td></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>* VOLs only</td> </tr> <tr> <td>04</td> <td>MW-3</td> <td></td> <td>13:45</td> <td>W</td> <td>KM</td> <td>X</td><td>X</td><td>X</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>05</td> <td>Field blank</td> <td></td> <td>13:45</td> <td>W</td> <td>KM</td> <td></td><td>X</td><td></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>* PFAAs only</td> </tr> <tr> <td>06</td> <td>TRIP BLANK</td> <td></td> <td></td> <td>W</td> <td></td> <td>X</td><td></td><td></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td><td></td><td></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table>		ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials													Date	Time											25567-01	MW-1	6/13/19	11:10	W	KM	X	X	X										01	MW-1 MS	6/13/19	11:15	W	KM	X											* VOLs only	01	MW-1 MSD		11:20	W	KM	X											* VOLs only	02	MW-2		12:30	W	KM	X	X	X										03	MW-2 DUP		12:40	W	KM	X											* VOLs only	04	MW-3		13:45	W	KM	X	X	X										05	Field blank		13:45	W	KM		X										* PFAAs only	06	TRIP BLANK			W		X																														Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 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.)		
ALPHA Lab ID (Lab Use Only)	Sample ID			Collection				Sample Matrix	Sampler's Initials																																																																																																																																																																																																			
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Relinquished By: <u>[Signature]</u> <u>6/14/19 09:05</u>		Date/Time: <u>6/13/19 15:00</u> <u>6/13/19 18:30</u> <u>6/14/19 09:05</u>		Received By: <u>PS. [Signature]</u> <u>[Signature]</u> <u>[Signature]</u>		Date/Time: <u>6/13/19 15:20</u> <u>6/12/20:02</u> <u>6/14/19 09:05</u>																																																																																																																																																																																																						



## ANALYTICAL REPORT

Lab Number:	L1944820
Client:	Tenen Environmental, LLC 121 West 27th Street Suite 702 New York City, NY 10001
ATTN:	Mohamed Ahmed
Phone:	(646) 606-2332
Project Name:	18-46 DECATUR
Project Number:	18-46 DECATUR
Report Date:	10/07/19

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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).

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



**Project Name:** 18-46 DECATUR  
**Project Number:** 18-46 DECATUR

**Lab Number:** L1944820  
**Report Date:** 10/07/19

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1944820-01	MW-1	WATER	18-46 DECATUR, QUEENS	09/26/19 13:45	09/27/19
L1944820-02	MW-2	WATER	18-46 DECATUR, QUEENS	09/26/19 11:45	09/27/19
L1944820-03	MW-2 DUP	WATER	18-46 DECATUR, QUEENS	09/26/19 11:47	09/27/19
L1944820-04	MW-3	WATER	18-46 DECATUR, QUEENS	09/26/19 10:25	09/27/19
L1944820-05	FIELD BLANK	WATER	18-46 DECATUR, QUEENS	09/26/19 13:25	09/27/19
L1944820-06	TRIP BLANK	WATER	18-46 DECATUR, QUEENS	09/26/19 00:00	09/27/19

**Project Name:** 18-46 DECATUR  
**Project Number:** 18-46 DECATUR

**Lab Number:** L1944820  
**Report Date:** 10/07/19

### 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.

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**Project Name:** 18-46 DECATUR  
**Project Number:** 18-46 DECATUR

**Lab Number:** L1944820  
**Report Date:** 10/07/19

**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.

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: 10/07/19

# ORGANICS

# VOLATILES

**Project Name:** 18-46 DECATUR**Lab Number:** L1944820**Project Number:** 18-46 DECATUR**Report Date:** 10/07/19**SAMPLE RESULTS**

Lab ID: L1944820-01  
 Client ID: MW-1  
 Sample Location: 18-46 DECATUR, QUEENS

Date Collected: 09/26/19 13:45  
 Date Received: 09/27/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 10/04/19 09:59  
 Analyst: AD

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	ND		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	6.0		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
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	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

Project Name: 18-46 DECATUR

Lab Number: L1944820

Project Number: 18-46 DECATUR

Report Date: 10/07/19

## SAMPLE RESULTS

Lab ID: L1944820-01

Date Collected: 09/26/19 13:45

Client ID: MW-1

Date Received: 09/27/19

Sample Location: 18-46 DECATUR, QUEENS

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		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
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.3	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	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
1,2-Dibromoethane	ND		ug/l	2.0	0.65	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
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	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
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** 18-46 DECATUR**Lab Number:** L1944820**Project Number:** 18-46 DECATUR**Report Date:** 10/07/19**SAMPLE RESULTS****Lab ID:** L1944820-01**Date Collected:** 09/26/19 13:45**Client ID:** MW-1**Date Received:** 09/27/19**Sample Location:** 18-46 DECATUR, QUEENS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	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	99		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	97		70-130

**Project Name:** 18-46 DECATUR**Lab Number:** L1944820**Project Number:** 18-46 DECATUR**Report Date:** 10/07/19**SAMPLE RESULTS**

Lab ID: L1944820-02  
 Client ID: MW-2  
 Sample Location: 18-46 DECATUR, QUEENS

Date Collected: 09/26/19 11:45  
 Date Received: 09/27/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 10/04/19 10:21  
 Analyst: AD

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	ND		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	22		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
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	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

Project Name: 18-46 DECATUR

Lab Number: L1944820

Project Number: 18-46 DECATUR

Report Date: 10/07/19

## SAMPLE RESULTS

Lab ID: L1944820-02

Date Collected: 09/26/19 11:45

Client ID: MW-2

Date Received: 09/27/19

Sample Location: 18-46 DECATUR, QUEENS

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		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
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	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
1,2-Dibromoethane	ND		ug/l	2.0	0.65	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
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	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
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** 18-46 DECATUR**Lab Number:** L1944820**Project Number:** 18-46 DECATUR**Report Date:** 10/07/19**SAMPLE RESULTS****Lab ID:** L1944820-02**Date Collected:** 09/26/19 11:45**Client ID:** MW-2**Date Received:** 09/27/19**Sample Location:** 18-46 DECATUR, QUEENS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	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	101		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	101		70-130

**Project Name:** 18-46 DECATUR**Lab Number:** L1944820**Project Number:** 18-46 DECATUR**Report Date:** 10/07/19**SAMPLE RESULTS**

Lab ID: L1944820-03  
 Client ID: MW-2 DUP  
 Sample Location: 18-46 DECATUR, QUEENS

Date Collected: 09/26/19 11:47  
 Date Received: 09/27/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 10/04/19 10:43  
 Analyst: AD

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	ND		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	23		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
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	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

Project Name: 18-46 DECATUR

Lab Number: L1944820

Project Number: 18-46 DECATUR

Report Date: 10/07/19

## SAMPLE RESULTS

Lab ID: L1944820-03

Date Collected: 09/26/19 11:47

Client ID: MW-2 DUP

Date Received: 09/27/19

Sample Location: 18-46 DECATUR, QUEENS

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.19	J	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
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	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
1,2-Dibromoethane	ND		ug/l	2.0	0.65	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
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	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
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** 18-46 DECATUR**Lab Number:** L1944820**Project Number:** 18-46 DECATUR**Report Date:** 10/07/19**SAMPLE RESULTS****Lab ID:** L1944820-03**Date Collected:** 09/26/19 11:47**Client ID:** MW-2 DUP**Date Received:** 09/27/19**Sample Location:** 18-46 DECATUR, QUEENS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	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	105		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	102		70-130

**Project Name:** 18-46 DECATUR**Lab Number:** L1944820**Project Number:** 18-46 DECATUR**Report Date:** 10/07/19**SAMPLE RESULTS**

Lab ID: L1944820-04  
 Client ID: MW-3  
 Sample Location: 18-46 DECATUR, QUEENS

Date Collected: 09/26/19 10:25  
 Date Received: 09/27/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 10/04/19 11:05  
 Analyst: AD

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	ND		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	11		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
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	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

**Project Name:** 18-46 DECATUR**Lab Number:** L1944820**Project Number:** 18-46 DECATUR**Report Date:** 10/07/19**SAMPLE RESULTS****Lab ID:** L1944820-04**Date Collected:** 09/26/19 10:25**Client ID:** MW-3**Date Received:** 09/27/19**Sample Location:** 18-46 DECATUR, QUEENS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		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
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	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
1,2-Dibromoethane	ND		ug/l	2.0	0.65	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
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	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
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 18-46 DECATUR

Lab Number: L1944820

Project Number: 18-46 DECATUR

Report Date: 10/07/19

## SAMPLE RESULTS

Lab ID: L1944820-04

Date Collected: 09/26/19 10:25

Client ID: MW-3

Date Received: 09/27/19

Sample Location: 18-46 DECATUR, QUEENS

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	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	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	100		70-130

**Project Name:** 18-46 DECATUR**Lab Number:** L1944820**Project Number:** 18-46 DECATUR**Report Date:** 10/07/19**SAMPLE RESULTS**

Lab ID: L1944820-05  
 Client ID: FIELD BLANK  
 Sample Location: 18-46 DECATUR, QUEENS

Date Collected: 09/26/19 13:25  
 Date Received: 09/27/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 10/04/19 11:27  
 Analyst: AD

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	ND		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	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	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
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	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

**Project Name:** 18-46 DECATUR**Lab Number:** L1944820**Project Number:** 18-46 DECATUR**Report Date:** 10/07/19**SAMPLE RESULTS****Lab ID:** L1944820-05**Date Collected:** 09/26/19 13:25**Client ID:** FIELD BLANK**Date Received:** 09/27/19**Sample Location:** 18-46 DECATUR, QUEENS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		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
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	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
1,2-Dibromoethane	ND		ug/l	2.0	0.65	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
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	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
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 18-46 DECATUR

Lab Number: L1944820

Project Number: 18-46 DECATUR

Report Date: 10/07/19

## SAMPLE RESULTS

Lab ID: L1944820-05

Date Collected: 09/26/19 13:25

Client ID: FIELD BLANK

Date Received: 09/27/19

Sample Location: 18-46 DECATUR, QUEENS

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	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	97		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	99		70-130

**Project Name:** 18-46 DECATUR**Lab Number:** L1944820**Project Number:** 18-46 DECATUR**Report Date:** 10/07/19**SAMPLE RESULTS**

Lab ID: L1944820-06  
 Client ID: TRIP BLANK  
 Sample Location: 18-46 DECATUR, QUEENS

Date Collected: 09/26/19 00:00  
 Date Received: 09/27/19  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 10/04/19 11:49  
 Analyst: AD

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	ND		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	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	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
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	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

**Project Name:** 18-46 DECATUR**Lab Number:** L1944820**Project Number:** 18-46 DECATUR**Report Date:** 10/07/19**SAMPLE RESULTS****Lab ID:** L1944820-06**Date Collected:** 09/26/19 00:00**Client ID:** TRIP BLANK**Date Received:** 09/27/19**Sample Location:** 18-46 DECATUR, QUEENS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		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
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	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
1,2-Dibromoethane	ND		ug/l	2.0	0.65	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
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	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
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

**Project Name:** 18-46 DECATUR**Lab Number:** L1944820**Project Number:** 18-46 DECATUR**Report Date:** 10/07/19**SAMPLE RESULTS****Lab ID:** L1944820-06**Date Collected:** 09/26/19 00:00**Client ID:** TRIP BLANK**Date Received:** 09/27/19**Sample Location:** 18-46 DECATUR, QUEENS**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	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	99		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	99		70-130

**Project Name:** 18-46 DECATUR  
**Project Number:** 18-46 DECATUR

**Lab Number:** L1944820  
**Report Date:** 10/07/19

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 10/04/19 08:22  
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1292323-5					
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
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	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

**Project Name:** 18-46 DECATUR  
**Project Number:** 18-46 DECATUR

**Lab Number:** L1944820  
**Report Date:** 10/07/19

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 10/04/19 08:22  
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1292323-5					
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
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	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
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	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
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

**Project Name:** 18-46 DECATUR  
**Project Number:** 18-46 DECATUR

**Lab Number:** L1944820  
**Report Date:** 10/07/19

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 10/04/19 08:22  
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1292323-5					
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
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	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
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	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	97		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	97		70-130

# **Lab Control Sample Analysis** Batch Quality Control

Project Name: 18-46 DECATUR

Lab Number: L1944820

Project Number: 18-46 DECATUR

Report Date: 10/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1292323-3 WG1292323-4								
Methylene chloride	94		89		70-130	5		20
1,1-Dichloroethane	110		99		70-130	11		20
Chloroform	89		80		70-130	11		20
Carbon tetrachloride	84		77		63-132	9		20
1,2-Dichloropropane	110		99		70-130	11		20
Dibromochloromethane	91		86		63-130	6		20
1,1,2-Trichloroethane	100		94		70-130	6		20
Tetrachloroethene	98		88		70-130	11		20
Chlorobenzene	94		88		75-130	7		20
Trichlorofluoromethane	80		76		62-150	5		20
1,2-Dichloroethane	88		84		70-130	5		20
1,1,1-Trichloroethane	78		74		67-130	5		20
Bromodichloromethane	87		82		67-130	6		20
trans-1,3-Dichloropropene	84		79		70-130	6		20
cis-1,3-Dichloropropene	87		82		70-130	6		20
1,1-Dichloropropene	94		89		70-130	5		20
Bromoform	89		86		54-136	3		20
1,1,2,2-Tetrachloroethane	96		92		67-130	4		20
Benzene	96		89		70-130	8		20
Toluene	100		92		70-130	8		20
Ethylbenzene	100		89		70-130	12		20
Chloromethane	120		110		64-130	9		20
Bromomethane	82		74		39-139	10		20

# **Lab Control Sample Analysis** Batch Quality Control

Project Name: 18-46 DECATUR

Lab Number: L1944820

Project Number: 18-46 DECATUR

Report Date: 10/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1292323-3 WG1292323-4								
Vinyl chloride	100		94		55-140	6		20
Chloroethane	92		80		55-138	14		20
1,1-Dichloroethene	94		89		61-145	5		20
trans-1,2-Dichloroethene	98		90		70-130	9		20
Trichloroethene	91		85		70-130	7		20
1,2-Dichlorobenzene	100		94		70-130	6		20
1,3-Dichlorobenzene	100		91		70-130	9		20
1,4-Dichlorobenzene	98		90		70-130	9		20
Methyl tert butyl ether	76		71		63-130	7		20
p/m-Xylene	95		90		70-130	5		20
o-Xylene	95		90		70-130	5		20
cis-1,2-Dichloroethene	91		94		70-130	3		20
Dibromomethane	89		84		70-130	6		20
1,2,3-Trichloropropane	99		99		64-130	0		20
Acrylonitrile	120		120		70-130	0		20
Styrene	95		90		70-130	5		20
Dichlorodifluoromethane	76		72		36-147	5		20
Acetone	100		100		58-148	0		20
Carbon disulfide	94		90		51-130	4		20
2-Butanone	100		94		63-138	6		20
Vinyl acetate	110		110		70-130	0		20
4-Methyl-2-pentanone	90		91		59-130	1		20
2-Hexanone	88		91		57-130	3		20

# **Lab Control Sample Analysis** Batch Quality Control

Project Name: 18-46 DECATUR

Project Number: 18-46 DECATUR

Lab Number: L1944820

Report Date: 10/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1292323-3 WG1292323-4								
Bromochloromethane	96		92		70-130	4		20
2,2-Dichloropropane	81		76		63-133	6		20
1,2-Dibromoethane	90		89		70-130	1		20
1,3-Dichloropropane	96		92		70-130	4		20
1,1,1,2-Tetrachloroethane	92		86		64-130	7		20
Bromobenzene	95		86		70-130	10		20
n-Butylbenzene	100		94		53-136	6		20
sec-Butylbenzene	98		91		70-130	7		20
tert-Butylbenzene	80		76		70-130	5		20
o-Chlorotoluene	96		92		70-130	4		20
p-Chlorotoluene	97		90		70-130	7		20
1,2-Dibromo-3-chloropropane	89		86		41-144	3		20
Hexachlorobutadiene	92		87		63-130	6		20
Isopropylbenzene	94		89		70-130	5		20
p-Isopropyltoluene	94		90		70-130	4		20
Naphthalene	78		76		70-130	3		20
n-Propylbenzene	97		92		69-130	5		20
1,2,3-Trichlorobenzene	86		82		70-130	5		20
1,2,4-Trichlorobenzene	88		81		70-130	8		20
1,3,5-Trimethylbenzene	96		90		64-130	6		20
1,2,4-Trimethylbenzene	100		88		70-130	13		20
1,4-Dioxane	100		110		56-162	10		20
p-Diethylbenzene	91		86		70-130	6		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 18-46 DECATUR

Project Number: 18-46 DECATUR

Lab Number: L1944820

Report Date: 10/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1292323-3 WG1292323-4								
p-Ethyltoluene	94		90		70-130	4		20
1,2,4,5-Tetramethylbenzene	85		79		70-130	7		20
Ethyl ether	98		91		59-134	7		20
trans-1,4-Dichloro-2-butene	110		110		70-130	0		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	92		92		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	96		94		70-130
Dibromofluoromethane	97		96		70-130

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 18-46 DECATUR

**Project Number:** 18-46 DECATUR

**Lab Number:** L1944820

**Report Date:** 10/07/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1292323-6 WG1292323-7 QC Sample: L1944820-02 Client ID: MW-2												
Methylene chloride	ND	10	10	100		9.7	97		70-130	3		20
1,1-Dichloroethane	ND	10	10	100		9.8	98		70-130	2		20
Chloroform	ND	10	9.7	97		9.2	92		70-130	5		20
Carbon tetrachloride	ND	10	8.6	86		8.7	87		63-132	1		20
1,2-Dichloropropane	ND	10	11	110		10	100		70-130	10		20
Dibromochloromethane	ND	10	9.2	92		9.2	92		63-130	0		20
1,1,2-Trichloroethane	ND	10	9.9	99		9.9	99		70-130	0		20
Tetrachloroethene	22	10	28	60	Q	30	80		70-130	7		20
Chlorobenzene	ND	10	9.0	90		9.3	93		75-130	3		20
Trichlorofluoromethane	ND	10	7.6	76		8.0	80		62-150	5		20
1,2-Dichloroethane	ND	10	9.3	93		8.9	89		70-130	4		20
1,1,1-Trichloroethane	ND	10	8.4	84		8.5	85		67-130	1		20
Bromodichloromethane	ND	10	9.1	91		8.9	89		67-130	2		20
trans-1,3-Dichloropropene	ND	10	8.0	80		8.0	80		70-130	0		20
cis-1,3-Dichloropropene	ND	10	8.1	81		7.9	79		70-130	2		20
1,1-Dichloropropene	ND	10	8.9	89		9.5	95		70-130	7		20
Bromoform	ND	10	8.8	88		8.7	87		54-136	1		20
1,1,2,2-Tetrachloroethane	ND	10	9.5	95		9.5	95		67-130	0		20
Benzene	ND	10	9.7	97		9.4	94		70-130	3		20
Toluene	ND	10	9.2	92		9.7	97		70-130	5		20
Ethylbenzene	ND	10	9.0	90		9.5	95		70-130	5		20
Chloromethane	ND	10	13	130		13	130		64-130	0		20
Bromomethane	ND	10	8.0	80		7.7	77		39-139	4		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 18-46 DECATUR

**Project Number:** 18-46 DECATUR

**Lab Number:** L1944820

**Report Date:** 10/07/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1292323-6 WG1292323-7 QC Sample: L1944820-02 Client ID: MW-2												
Vinyl chloride	ND	10	11	110		11	110		55-140	0		20
Chloroethane	ND	10	9.0	90		8.2	82		55-138	9		20
1,1-Dichloroethene	ND	10	9.5	95		9.5	95		61-145	0		20
trans-1,2-Dichloroethene	ND	10	9.7	97		9.5	95		70-130	2		20
Trichloroethene	ND	10	9.2	92		9.1	91		70-130	1		20
1,2-Dichlorobenzene	ND	10	8.9	89		9.5	95		70-130	7		20
1,3-Dichlorobenzene	ND	10	8.8	88		9.4	94		70-130	7		20
1,4-Dichlorobenzene	ND	10	8.7	87		9.0	90		70-130	3		20
Methyl tert butyl ether	ND	10	7.9	79		7.5	75		63-130	5		20
p/m-Xylene	ND	20	18	90		19	95		70-130	5		20
o-Xylene	ND	20	18	90		19	95		70-130	5		20
cis-1,2-Dichloroethene	ND	10	9.8	98		9.7	97		70-130	1		20
Dibromomethane	ND	10	9.3	93		9.1	91		70-130	2		20
1,2,3-Trichloropropane	ND	10	9.9	99		9.8	98		64-130	1		20
Acrylonitrile	ND	10	13	130		12	120		70-130	8		20
Styrene	ND	20	17	85		18	90		70-130	6		20
Dichlorodifluoromethane	ND	10	6.9	69		7.5	75		36-147	8		20
Acetone	ND	10	12	120		11	110		58-148	9		20
Carbon disulfide	ND	10	9.8	98		10	100		51-130	2		20
2-Butanone	ND	10	12	120		10	100		63-138	18		20
Vinyl acetate	ND	10	9.4	94		9.6	96		70-130	2		20
4-Methyl-2-pentanone	ND	10	9.9	99		9.5	95		59-130	4		20
2-Hexanone	ND	10	9.3	93		9.1	91		57-130	2		20

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 18-46 DECATUR

**Project Number:** 18-46 DECATUR

**Lab Number:** L1944820

**Report Date:** 10/07/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1292323-6 WG1292323-7 QC Sample: L1944820-02 Client ID: MW-2												
Bromochloromethane	ND	10	9.6	96		9.4	94		70-130	2		20
2,2-Dichloropropane	ND	10	6.1	61	Q	6.2	62	Q	63-133	2		20
1,2-Dibromoethane	ND	10	9.1	91		9.0	90		70-130	1		20
1,3-Dichloropropane	ND	10	9.6	96		9.5	95		70-130	1		20
1,1,1,2-Tetrachloroethane	ND	10	8.7	87		9.0	90		64-130	3		20
Bromobenzene	ND	10	8.9	89		9.1	91		70-130	2		20
n-Butylbenzene	ND	10	8.8	88		9.5	95		53-136	8		20
sec-Butylbenzene	ND	10	8.6	86		9.6	96		70-130	11		20
tert-Butylbenzene	ND	10	7.2	72		7.8	78		70-130	8		20
o-Chlorotoluene	ND	10	8.8	88		9.4	94		70-130	7		20
p-Chlorotoluene	ND	10	8.7	87		9.1	91		70-130	4		20
1,2-Dibromo-3-chloropropane	ND	10	8.3	83		8.8	88		41-144	6		20
Hexachlorobutadiene	ND	10	8.0	80		9.0	90		63-130	12		20
Isopropylbenzene	ND	10	8.4	84		9.2	92		70-130	9		20
p-Isopropyltoluene	ND	10	8.3	83		9.2	92		70-130	10		20
Naphthalene	ND	10	7.4	74		7.5	75		70-130	1		20
n-Propylbenzene	ND	10	8.7	87		9.5	95		69-130	9		20
1,2,3-Trichlorobenzene	ND	10	8.0	80		8.3	83		70-130	4		20
1,2,4-Trichlorobenzene	ND	10	7.6	76		8.0	80		70-130	5		20
1,3,5-Trimethylbenzene	ND	10	8.5	85		9.2	92		64-130	8		20
1,2,4-Trimethylbenzene	ND	10	8.5	85		9.0	90		70-130	6		20
1,4-Dioxane	ND	500	540	108		560	112		56-162	4		20
p-Diethylbenzene	ND	10	8.2	82		8.8	88		70-130	7		20

**Matrix Spike Analysis***Batch Quality Control***Project Name:** 18-46 DECATUR**Lab Number:** L1944820**Project Number:** 18-46 DECATUR**Report Date:** 10/07/19

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>Qual</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>Qual</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1292323-6 WG1292323-7 QC Sample: L1944820-02 Client ID: MW-2												
p-Ethyltoluene	ND	10	8.5	85		9.2	92		70-130	8		20
1,2,4,5-Tetramethylbenzene	ND	10	7.2	72		7.9	79		70-130	9		20
Ethyl ether	ND	10	10	100		9.8	98		59-134	2		20
trans-1,4-Dichloro-2-butene	ND	10	8.5	85		10	100		70-130	16		20

<b>Surrogate</b>	<b>MS % Recovery</b>	<b>Qualifier</b>	<b>MSD % Recovery</b>	<b>Qualifier</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	96		94		70-130
4-Bromofluorobenzene	92		94		70-130
Dibromofluoromethane	98		96		70-130
Toluene-d8	97		99		70-130

**Project Name:** 18-46 DECATUR**Lab Number:** L1944820**Project Number:** 18-46 DECATUR**Report Date:** 10/07/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

<b>Cooler</b>	<b>Custody Seal</b>
A	Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L1944820-01A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-01B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-01C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-02A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-02A1	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-02A2	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-02B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-02B1	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-02B2	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-02C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-02C1	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-02C2	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-03A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-03B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-03C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-04A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-04B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-04C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-05A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-05B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-05C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-06A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1944820-06B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)

**Project Name:** 18-46 DECATUR  
**Project Number:** 18-46 DECATUR

Serial\_No:10071911:30  
**Lab Number:** L1944820  
**Report Date:** 10/07/19

**Container Information**

**Container ID    Container Type**

<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
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**Project Name:** 18-46 DECATUR  
**Project Number:** 18-46 DECATUR

**Lab Number:** L1944820  
**Report Date:** 10/07/19

## 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:** 18-46 DECATUR  
**Project Number:** 18-46 DECATUR

**Lab Number:** L1944820  
**Report Date:** 10/07/19

- 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.

**Difference:** With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

**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 Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- 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:** 18-46 DECATUR  
**Project Number:** 18-46 DECATUR

**Lab Number:** L1944820  
**Report Date:** 10/07/19

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

## 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 15

Department: **Quality Assurance**

Published Date: 8/15/2019 9:53:42 AM

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), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.**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, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-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.

