

## Remedial Investigation (RI) Report



BCP Site # C224169  
2002-2024 Cropsey Avenue  
Brooklyn, New York

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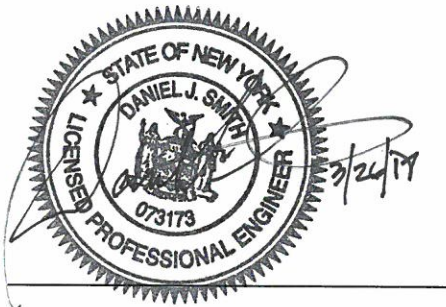
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### Certification of Remedial Investigation Report

I Daniel J. Smith, P.E. of Apex Engineering, PC, certify that I am currently a New York State registered professional engineer and that this report was prepared in accordance with applicable statutes and regulations and in substantial conformance with the Division of Environmental Remediation (DER) Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in accordance with the DER-approved work plan and any DER-approved modifications.



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# Remedial Investigation Report 2002-2024 Cropsey Avenue Site Brooklyn, New York NYSDEC BCP# C224169

## 1.0 Introduction

This Remedial Investigation (RI) Report presents data related to investigation activities completed to determine the nature and extent of contaminants of concern (COCs) in soil, groundwater and soil vapor on-site at the 2002-2024 Cropsey Avenue Site (hereinafter referred to as the Site) located at 2002-2024 Cropsey Avenue, Brooklyn, New York. The Site Location showing the general area of the Site is provided as **Figure 1**. The groundwater conditions associated with adjacent and nearby properties were also evaluated during the RI and summarized in this Remedial Investigation Report (RIR). The Site property and adjacent investigation areas are indicated in **Figure 2**. The primary objective of the RI is to provide an assessment of potential impacts of COCs on human health and the environment in soil, soil vapor and groundwater and to determine the appropriate remedial measures, if any, needed for the Site.

The application to the NYSDEC Brownfield Cleanup Program (BCP) was submitted on behalf of 2002 Cropsey Associates, LLC (the Participant) and was accepted on August 4, 2014. The Brownfield Cleanup Agreement (BCA) was executed with the NYSDEC on September 30, 2014. The RI was completed in general accordance with the Remedial Investigation Work Plan (RIWP) approved by the New York State Department of Environmental Conservation (NYSDEC).

Environmental Site Characterization (ESC) investigations were completed at the Site by multiple parties between 2004 and 2013. Based on the findings of the ESCs and a June 2, 2014, meeting between the NYSDEC, the Participant and Apex, RI activities were conducted on the following three parcels:

- **2002 – 2024 Cropsey Avenue (Block 6467, Lot 1).** This property is the Site which is currently occupied by a small strip mall / shopping center fronting Cropsey Avenue. The shopping center includes a former and current dry-cleaning establishment with partial basement and several small exterior access ways for shop owners at the rear of the site.
- **8831 and 8841 20th Avenue (Block 6467, Lot 12).** This property includes residential buildings located to the southwest of the Site. The Block 6467, Lot 12 property is separated from the shopping center structure by a small grassy area between the strip mall building structure and the residential building towers. The residential towers contain sub-grade parking facilities.
- **2036 Cropsey Avenue (Block 6469, Lot 1).** This property contains residential buildings to the southeast of the Site across Bay 25<sup>th</sup> Street. The general construction is similar to the Block 6467, Lot 12 properties with a subgrade parking garage and overlying residential towers.

The general areas investigated were located along Cropsey Avenue, 20th Avenue and Bay 25th Street (see **Figure 2**).

The results of the ESCs and the initial remedial investigations identified the presence of volatile organic compounds (VOCs) in soil vapor underlying the strip mall building at the Site that exceeded the New York State Department of Health (NYSDOH) Matrix 1 and Matrix 2 thresholds for Sub-Slab Vapor Intrusion Mitigation as required by the NYSDOH



*“Guidance for Evaluating Soil Vapor Intrusion in the State of New York”, October 2006 (as amended) (herein referred to as the NYSDOH Guidance Document).*

Several mitigation measures were implemented (and are being implemented) to control soil vapors from potentially entering the occupied spaces of the Site buildings and the residential towers on the adjacent properties. The parking garage systems underlying the Block 6467, Lot 12 and Block 6469, Lot 1 residential towers were upgraded with improved air-moving equipment / ventilation systems in July - August 2016 to mitigate potential vapor intrusion into overlying residential areas. In addition, a NYSDEC-approved Interim Remedial Measure (IRM) was proposed and approved by the NYSDEC on January 27, 2017, to install a Sub-Slab Depressurization System (SSDS) to mitigate soil vapor intrusion into the shopping center located at the Site. This shopping center IRM is to be installed in September 2017, following procurement and approvals needed to proceed.

The following sections of the RIR present data identifying the nature and extent of soil, soil vapor and groundwater impacts at the site and the immediately adjacent properties within the approved scope of work and the basis for future remedial actions.

## 1.1 Site Description

The Site is located at 2002-2024 Cropsey Avenue in the Borough of Brooklyn, New York City, New York and occupies a parcel that is identified by Tax Map Number: Block 6467, Lot 1. (see **Figures 1, 2 and 3**). The Site is currently improved with a single-story, multi-unit retail building (which has a partial basement) with an approximately 15,000 square foot (ft<sup>2</sup>) area. Concrete-paved sidewalks surround the Site building to the northwest, northeast and southeast. There is a small parking area / trash enclosure located at the southwest corner of the building. There is also a small rear access way to the dry-cleaning establishment within the shopping center at the southeast corner of the building (see **Figure 3**). The southwest exterior building wall defines the boundary of the BCP Site as indicated in **Figure 3**.

The Site is bounded by Cropsey Avenue to the northeast, 20<sup>th</sup> Avenue to the northwest, a residential building with subgrade parking to the south and southwest, and Bay 25th Street to the southeast. The elevation of the Site is approximately 20 feet above mean sea level (msl). Surface topography consists of a gentle downward slope to the southwest towards Gravesend Bay, which is approximately 1,000 feet from the Site. A narrow undeveloped strip of land extends along the entire south (rear) side of the Site building and is not part of the BCP Site. The layout of the Site and surrounding properties is presented in **Figure 2** and **Figure 3**. Local groundwater flow in the vicinity of the Site is generally to the south with localized southeast and southwest components towards Gravesend Bay. The Site-specific depth to water is variable but generally is approximately 15 and 20 feet below grade surface (bgs). Additional information regarding local soil and groundwater properties is provided in **Section 1.2**.

Currently, the Site is developed with a strip-retail shopping center. The Site, and the adjacent residential properties included in this RI, are located within an R6, Residential Zone district. Land use at the Site is commercial and land use at the adjacent properties include in this RI is residential. Existing shopping center tenants include a luncheonette and restaurant, a nail salon, convenience / drug store, distributors / traders, and a dry cleaner (not the same as the historic dry cleaner associated with contamination at the site). The current dry cleaner operation, GLY Cleaners, consists of a closed loop hydrocarbon cleaning system. GLY Cleaners also offers tailoring services. Historic dry-cleaning operations which utilized tetrachloroethene (PCE) were conducted in the existing tenant space and in the partial basement of the Site.



## 1.2 Site Subsurface Geology and Hydrogeology

This section of the RIR describes the regional / local geology and hydrogeology.

### 2.4.1 Regional Geology

The unconsolidated geologic deposits underlying Brooklyn consist of clay, silt, sand, and gravel that overlie southward-dipping consolidated bedrock. The crystalline bedrock consists mainly of Precambrian age granite, gneiss, and schist. The overlying unconsolidated sediments were deposited during the Cretaceous and form, in a descending order, the Raritan and Magothy Formations.

During the Pleistocene, several episodes of glaciation eroded the Cretaceous deposits (Smolensky, et al, 1989). The oldest Pleistocene deposit is the Jameco Gravel (Jameco aquifer), which overlies the Magothy Formation and Raritan Clay and is present only in western Long Island. The Gardiners Clay overlies the Jameco Gravel, Magothy Formation, and Raritan Clay (a confining unit). The Upper Pleistocene deposits formed when the glacial ice and glacial melt water deposited till and outwash material, forming what is presently known as the Upper Glacial aquifer. The Raritan Formation consists of the Lloyd Sand and the Raritan Clay. The Lloyd aquifer (the hydrogeologic equivalent of the Lloyd Sand) consists of fine to coarse sand, gravel, commonly with a clayey matrix, and lenses and layers of silty and solid clay. The Raritan Clay is regionally continuous and consists of silty and solid clay, and lenses and layers of sand. Because of its low permeability, the Raritan Clay serves as a confining unit for the underlying Lloyd Sand.

The Magothy Formation is a deltaic deposit consisting of fine to medium sand, clayey in part, interbedded with lenses and layers of coarse sand, silt, and sandy and solid clay. Gravel is common in the basal zone of the Magothy Formation. The Jameco aquifer (the hydrogeologic equivalent of the Jameco Gravel) is a channel filling consisting of fine to very coarse sand and gravel with few layers of clay and silt (Smolensky, et al, 1989). The Gardiners Clay is a lagoonal/shallow-bay clay consisting of clay, silt, and few layers of sand and gravel (Smolensky, et al, 1989). The Upper Glacial aquifer consists primarily of till and glacial outwash deposits. The till, composed of clay, sand, gravel, and boulders, forms the Harbor Hill and Ronkonkoma terminal moraines. These terminal moraines represent the farthest advance of late-Pleistocene glaciation on Long Island. South of the moraine deposits is a glacial outwash plain, which, in Kings County, extends from the Harbor Hill moraine to Jamaica Bay and New York Bay, and consists of fine to very coarse sand and pebble to boulder sized gravel (Smolensky, et al, 1989).

### 2.4.2 Local Geology

The Site is located south of the Harbor Hill terminal moraine and the surficial deposits consist of glacial outwash deposits (Upper Glacial aquifer) at the Site. Based on a review of the U.S. Geological Survey publication titled Hydrologic Framework of Long Island, New York, U.S. Geological Survey Hydrologic Investigations Atlas HA-709 (Smolensky, et al, 1989), bedrock beneath the Site is expected to occur approximate elevation of 650 feet below msl. The Lloyd aquifer, which overlies bedrock, has a surface elevation of approximately 500 feet below msl. The Raritan Clay has a surface elevation of approximately 400 feet below msl. The Magothy aquifer has a surface elevation of approximately 250 feet below msl. The Jameco aquifer has a surface elevation of approximately 200 feet below msl. The Gardiners Clay has a surface elevation of approximately 150 feet below msl. The Upper Glacial aquifer corresponds to the saturated upper part of the highly permeable Pleistocene deposits of sand and gravel.

Based on the soil borings installed during the ESCs and RI, fine to coarse sand deposits (glacial outwash deposits [Upper Glacial aquifer]) were encountered. Apex encountered approximately five (5) to seven (7) feet of fill in the upper portion of the soil borings. No confining layers were observed during the drilling activities



### 1.2.2 Hydrogeology

The principal aquifers underlying the Site are the Upper Glacial aquifer, Jameco aquifer, and Magothy aquifer. The Gardiners Clay hydraulically confines the Magothy and Jameco aquifers in most of Brooklyn; the Jameco aquifer and Magothy aquifer hydrogeologic units are in direct hydraulic connection with each other.

Groundwater in the Upper Glacial aquifer occurs under unconfined conditions at and near the Site. Within the project area, the average horizontal hydraulic conductivity of the Upper Glacial aquifer is approximately 270 feet per day (ft./d), with an anisotropy ratio of approximately 10:1 (horizontal to vertical, respectively) (McClymonds and Franke, 1972). The average horizontal hydraulic conductivity of the Jameco aquifer in the project area is approximately 200 to 300 ft./d, with an anisotropy ratio of approximately 10:1 (horizontal to vertical, respectively) (McClymonds and Franke, 1972). The average horizontal hydraulic conductivity of the Magothy aquifer in the project area is approximately 50 ft./d, with an anisotropy ratio of approximately 100:1 (horizontal to vertical, respectively) (McClymonds and Franke, 1972).

The Site is located approximately 1,000 feet northeast of Gravesend Bay. Based on data collected from monitoring wells installed during the RI, groundwater occurred at an average depth of 20-feet bgs and the shallow groundwater flow was to the south / southeast (see **Figure 4** for monitoring well locations and **Figure 5 (including Figures 5A, 5B, and 5C)** for potentiometric surface maps). In the intermediate zone, a more southwesterly flow component appeared to be evident based upon the data available.

## 1.3 Site History

Based on review of available historical information, the Site was vacant land prior to the construction of the current on-site structures c. 1950 and the on-site building structure has been relatively unchanged since 1950. At least four dry cleaners have operated at the Site, including the following:

- Augie's Cleaners (1991 to 1996);
- Michael's Cleaners (1996 to 2005);
- Ida Cleaners (2005 to 2007); and,
- GLY Cleaners (2007 to current).


No information is available regarding tenants at the Site prior to 1991. Based upon available records, it appears that all historic dry-cleaning operations were conducted in the same physical tenant space, hereinafter referred to as the Dry Cleaner Area.

### 1.3.1 Previous Investigations

The following sections provide a summary of the ESC activities conducted for the Site to date, including those conducted by Merritt Environmental Consulting Corp. (Merritt) circa 2012 and by Apex. Apex does not make any comment regarding the accuracy of work performed by others and is reporting historical investigation results as a basis for the work later completed by Apex on behalf of the Participant. Apex is not responsible for any inaccuracies in the reporting done by others.

#### 1.3.1.1 Executive Environmental Group Phase I Environmental Site Assessment (ESA)

Executive Environmental Group (EEG) completed an Environmental Site Assessment - Phase I of the Site on March 10, 2004. EEG identified a commercial site consisting of eight stores and a total of 14,691 square feet. This assessment



was conducted by Eliot Ely, CEI, who is an EPA certified asbestos inspector, EPA certified lead based paint supervisor and certified by the Environmental Assessment Association as an Environmental Inspector.

The scope of this Site Assessment included a visual inspection, governmental database review, Sanborn Map review, interviews and related sources. The purpose of this inspection was to review the range of common hazardous contaminants and to evaluate recognized environmental conditions at the subject site as per ASTM Practice E-1527-00. EEG's professional opinion regarding the retail space and its basement did not show any environmental concerns and concluded the following:

- **Past and Current Uses of Premises:** The Site was being exclusively used as a commercial building since 1950. Prior to this the site was a vacant piece of land. There was no historical evidence or known evidence of environmental hazards associated with the past or current tenant use of this subject site reported by EEG.
- **Asbestos Containing Materials (ACM) and Lead based Paint (LBP):** A survey for friable ACM and LBP was conducted at the site in conjunction with the Phase I survey. There are no ACM or LBP concerns noted at the subject site by EEG.
- **Storage Tanks:** There were no aboveground storage tanks (ASTs) or underground storage tanks (USTs) noted at the time of EEG's site visit and Phase I ESA.
- **Hazardous Materials Use:** EEG identified an operating dry cleaner in 2004 (Michael's Drycleaners, USEPA ID No. NYD093768539). EEG indicated there were no violations associated with this operation on the database sources it reviewed. Manifests showing proper disposal of chemicals generated via Safety Kleen were noted by EEG. No evidence of spills or staining were noted by EEG at the time of their site visit.
- **General EEG Conclusion:** "There were no environmental concerns found at the site."

#### *1.3.1.1 Merritt Limited Subsurface Investigation*

Merritt conducted a limited Subsurface Investigation in February 2012 to evaluate groundwater quality conditions downgradient of the Dry Cleaner Area (see **Appendix A** by reference under separate cover). The Merritt report indicated that the groundwater flow direction in the vicinity of the Site was not determined during their investigation, but was believed to be "from roughly north to south towards Gravesend Bay" which would place the current GLY Cleaners facility (and location of former dry cleaning operations that were the suspected source of environmental impact) hydraulically upgradient of the adjacent residential properties to the south (i.e., 8831 and 8841 20<sup>th</sup> Avenue property and 2036 Cropsey Avenue site). It appears that two of the three temporary monitoring points installed by Merritt (i.e., B2 (Merritt) and B3 (Merritt)) were completed at the side yard of the 8831 and 8841 20<sup>th</sup> Avenue property in what was believed by Merritt to be hydraulically downgradient of the Dry Cleaner Area.

The soil samples collected as part of well installation were field screened by visual / olfactory inspections and for the presence of total VOCs utilizing a photo-ionization detector (PID). Merritt indicated that none of the soil samples exhibited field-screening evidence of VOC-related impacts; however, none of the soil samples were submitted for laboratory analyses. Tetrachloroethylene (PCE) was detected in all three groundwater samples with the highest concentrations in the groundwater samples collected from B2 (Merritt) and B3 (Merritt) at 720 micrograms per liter (µg/L) and 63,000 µg/L, respectively. The B3 (Merritt) groundwater sample was collected from the rear of the TSOC in an estimated downgradient location. The NYSDEC Class GA Groundwater Quality Standard (GWQS) for PCE is 5 µg/L. Sample results from the Merritt investigation are summarized in **Figure 6**.

Following review of data generated by Merritt, which indicated elevated concentrations of COCs in the groundwater samples, the NYSDEC was notified and Spill No. 11-13648 was assigned to the Site.



### 1.3.1.2 Apex Limited Phase II ESA

As part of a Limited Phase II ESA to better define the investigation results reported by Merritt, Apex completed soil vapor intrusion (SVI), soil and groundwater investigations on the Site and portions of the immediately adjacent property in July 2012. Apex installed and sampled three interior soil borings, six exterior soil borings, three groundwater monitoring wells and five sub-slab soil vapor probes. The Apex Limited Phase II ESA Report is included under separate cover by reference as **Appendix B** and is summarized below.

#### SVI Investigation

Sub-slab soil vapor (SV) and indoor air quality (IAQ) samples were collected from five co-located locations within the Dry Cleaner Area (current GLY Cleaners and same location as former dry-cleaning operations) and at the residential parking garage located closest to the TSO (8841 20<sup>th</sup> Avenue Site) to the south-southwest (downgradient) of the Site. The nearby building on the 8841 20<sup>th</sup> Avenue Site was a multi-level residential apartment building with a subterranean, basement parking garage. No residential units were observed in the basement area which is utilized for parking and tenant-storage purposes.

Two sampling points were located within the Dry Cleaner Area. Per NYSDOH protocols, collocated SV and IAQ samples were collected at each location. As shown on **Figure 7**, IAQ-1 / SV-1 and IAQ / SV-2 were collected from within the basement of the Dry Cleaner Area on the Site. Similarly, three sets of samples (IAQ and SV) were collected at the adjacent residential parking garage (i.e., IAQ-3/SV-3, IAQ-4/SV-4 and IAQ-5/SV-5). **Figure 7** presents the locations of all the sampling points.

The SV / IAQ samples were collected in six-liter Summa canisters over an eight-hour period and analyzed by a NYSDOH Environmental Laboratory Accreditation Program (ELAP)-certified laboratory for NYSDEC Target Compound List (TCL) VOCs by EPA Method 8260. The samples were analyzed in accordance with Level A Analytical Services Protocols (ASP).

The SVI sampling results indicated the presence of elevated PCE and trichloroethene (TCE) concentrations in the soil vapor underlying the Dry Cleaner Area and the parking garage. The highest SV concentrations of PCE and TCE detected were 420,000 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) and 6,600  $\mu\text{g}/\text{m}^3$ , respectively in the SV-2 sampling location located in the basement of the Dry Cleaner Area. The highest sub-slab, soil vapor concentrations of PCE (210,000  $\mu\text{g}/\text{m}^3$ ) and TCE (790  $\mu\text{g}/\text{m}^3$ ) in the parking garage area were detected in the samples collected from SV-4 located within the basement of the 8841 20<sup>th</sup> Avenue Site.


The highest concentrations of COCs in the indoor air samples were from Sample IAQ-2 in the basement of the Dry Cleaner Area (PCE was detected at 100  $\mu\text{g}/\text{m}^3$  and TCE was detected 18  $\mu\text{g}/\text{m}^3$ ). The IAQ samples collected within the parking garage at the 8841 20<sup>th</sup> Avenue Site did not exhibit elevated concentrations of PCE or TCE. The maximum concentrations of the parking garage IAQ samples were 4.3  $\mu\text{g}/\text{m}^3$  of PCE and 1.1  $\mu\text{g}/\text{m}^3$  of TCE. (see **Figure 7** and **Appendix A**).

Based on the concentrations of COCs detected in the sub-slab soil vapor samples, further delineation in both soil vapor and groundwater matrices to the south and east was recommended. The additional delineation of the extent of elevated soil vapors of PCE and TCE is discussed later in this RIR.

#### Soil Sampling

Twelve borings, with associated soil sampling and analyses, were advanced between July 11 and July 13, 2012, (see





**Figure 8).** As indicated in **Figure 8**, three soil borings were conducted within the basement of the Dry Cleaner Area and the remaining borings were conducted in the soil / grass -covered area just to the southwest of the Site on the adjacent 8841 20<sup>th</sup> Avenue Site. Based upon field-screening results, one sample per boring was submitted to the laboratory and analyzed for TCL VOCs by EPA Method 8260. For the purposes of this ESC, the soil analytical data were compared to the NYSDEC Unrestricted Use Soil Cleanup Objectives (SCOs) included in Part 375-5-6.8 - NYSDEC Remedial Program Soil Cleanup Objectives.

In general, only low concentrations of PCE and TCE were detected in the associated soil samples, with the exception of the S-1 S (i.e., “shallow”) sampling located in the basement of the Dry Cleaner Area. PCE was detected at 14,000 micrograms per kilogram (µg/kg) at a depth of 3.0 to 4.0 feet bgs in the S-1 S sample, which exceeded the NYSDEC Unrestricted Use SCO for PCE of 1,300 µg/kg. All other TCL VOCs in the remaining 11 soil sample locations were either: not detected at concentrations above their respective laboratory method detection limits (MDLs); detected at concentrations below their respective NYSDEC Unrestricted Use SCOs; or, detected at low concentrations in laboratory blank samples as well as the characterization samples indicating that they were laboratory artifacts.

### Groundwater Sampling

Apex collected nine samples on July 13, 2012 to assess groundwater quality conditions; three from the newly installed monitoring wells (MW-1, MW-2 and MW-3) and six from temporary wells that originated as soil borings. All wells during this sampling event were screened in the shallow groundwater zone, within approximately 5 to 10 feet of the top of the water table. The groundwater samples were submitted to the NYSDOH ELAP-certified laboratory for NYSDEC and analyzed for TCL VOCs by EPA Method 8260 and TCL semi-volatile organic carbons (SVOCs) by EPA Method 8270 in accordance with Level A ASP.

For the purposes of this ESC, the groundwater analytical data were compared to the NYSDEC Class GA Groundwater Quality Standards (GWQS) and Guidance Values set forth in the NYSDEC Division of Water Technical and Operational Guidance (TOGS) Series 1.1.1 Ambient Water Quality Standards (AWQS) and Guidance Values and Groundwater Effluent Limitations – Reissued June 1998 and April 2000 Addendum.

As summarized in **Figure 9**, PCE was detected in all groundwater samples at concentrations exceeding its Class GA GWQS of 5 micrograms per liter (µg/L). The highest concentrations of PCE were detected in the groundwater samples collected from monitoring wells MW-1 (2,500 µg/L) and MW-2 (1,400 µg/L), which are both located directly downgradient of the Dry Cleaner Area. TCE and cis-1,2-dichloroethene (a PCE degradation product) were also both detected at concentrations above their respective Class GA GWQSs in the two aforementioned groundwater samples.

A PCE isoconcentration map was prepared (**Figure 10**) to illustrate that the highest concentration of TCL VOCs was detected in the groundwater samples collected from hydraulically downgradient of the Dry Cleaner Area on the bordering 8841 20<sup>th</sup> Avenue Site. PCE (concentrations exceeded 1,000 µg/L) and cis-1,2-DCE concentrations at 1,300 µg/L) were both detected in the groundwater sampling locations located along the southeast property line indicating the probable off-site migration of a COC groundwater plume to the south and east of the Dry Cleaner Area, consistent with the inferred groundwater flow direction.

The groundwater sample collected from the upgradient monitoring well MW-3 contained PCE at a concentration of 14 µg/L indicating the presence of a minor source of contaminants upgradient of the Site. That is likely contributing to the overall distribution of PCE and its degradation products in the investigation area. All TCL SVOCs were detected at concentrations below their respective laboratory MDLs or below their respective Class GA GWQ standards or guidance values.





## 2.0 Remedial Investigation Objectives and Scope

As summarized above, the ESCs completed for the Site indicated the presence of COCs in exceedance of NYSDEC applicable standards, criteria and / or guidelines in soil, groundwater, soil vapor and indoor air. Therefore, per NYSDEC Department of Environmental Remediation (DER) protocols, the conduct of an RI was required to evaluate the nature and extent contamination in the soil, soil vapor and groundwater matrices both on- and off- Site. The subsequent RI was completed at this Site in accordance with the July 2015 RIWP approved by the NYSDEC.

The objectives of this RI were to:

- Determine the nature and extent of COCs in soil, groundwater and soil vapor on Site, as well as on nearby properties hydrogeologically downgradient of the Site where preliminary data indicated off-site impacts may be present and related to the Site impacts previously identified;
- Develop a further understanding of the local groundwater conditions including potential fate and transport of COCs emanating from the Dry Cleaner Area;
- Assess potential impacts to human health (qualitatively) and the environment (qualitatively and quantitatively) as a result of the release of COCs at the Site; and,
- Collect and process data sufficient to support making decisions regarding remediation of the Site and to serve as a design basis for future evaluation of potential remedial actions.

### 2.1 Remedial Action Objectives

Remedial Action Objectives (RAOs) were established prior to commencing the RI and were presented in the July 2015 RIWP to ensure that data obtained during the RI were directly related to the defining future remediation needs at the Site, if necessary. In accordance with the NYSDEC DER-10, RAOs considered the following:

- Applicable Standards, Criteria and Guidance (SCGs) which considered the current, intended and reasonably anticipated future use of the Site and its surroundings;
- All contaminants which were detected at concentrations exceeding applicable SCGs;
- The types of environmental media impacted by such contaminants;
- The extent of the impact to the environmental media;
- Actual or potential human exposures and / or environmental impacts resulting from the contaminants in environmental media identified above; and,
- Any site-specific cleanup levels which were developed.

The RAOs identified in **Section 2.1.1** through **Section 2.1.3** are applicable at the Site and are incorporated into the RIR.

#### 2.1.1 Groundwater RAOs

The following RAOs shall apply to groundwater:

- RAO for Public Health Protection: (1) Prevent / mitigate contact with, or inhalation of, volatiles from contaminated groundwater; and,
- RAO for Environmental Protection: (1) Restore the groundwater aquifer to predisposal / pre-release conditions or applicable regulatory criteria to the extent practicable; and, (2) Remove the source of ground impacts to the extent practicable.



### 2.1.2 *Soil RAOs*

The following RAOs shall apply to soil:

- RAO for Public Health Protection: (1) Prevent / mitigate ingestion and / or direct contact with impacted soil; and, (2) Prevent / mitigate inhalation of, or exposure from, COCs volatilizing from contaminants in soil.
- RAO for Environmental Protection: (1) Prevent migration of COCs that would result in groundwater or surface water contamination.

### 2.1.3 *Soil Vapor / Indoor Air Quality (IAQ) RAOs*

The following RAOs shall apply to soil vapor:

- *RAO for Public Health Protection:* (1) Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into the building(s) at the site and adjacent properties.



## 3.0 Remedial Investigation Activities & Results

Based on the detection of COCs in the sub-slab soil vapor, indoor air, soil and groundwater samples collected during the ESCs, further investigation was required to evaluate the nature and extent of the environmental impacts. The RI activities discussed in this RIR were completed per the RIWP and/or communications with the NYSDEC and in general accordance with the Field Sampling Plan (FSP), Quality Assurance Project Plan (QAPP) and Health and Safety Plan (HASP) that were incorporated within the NYSDEC-approved RIWP.

### 3.1 Standards, Criteria, and Guidance (SCGs)

SCGs are defined as “mean standards and criteria that are generally applicable, consistently applied, and officially promulgated, that are either directly applicable, or that are not directly applicable but are relevant and appropriate, unless good cause exists why conformity should be dispensed with, and with consideration being given to guidance determined, after the exercise of scientific and engineering judgment, to be applicable.”

The most common SCGs applicable in New York State, as promulgated by the NYSDEC and / or NYSDOH and at the Site include the following:

- **Soil:** SCOs and supplemental SCOs identified in 6 NYCRR 375-6.8 and the Commissioner’s Policy on Soil Cleanup Guidance (CP- 51);
- **Groundwater:** Class GA Groundwater Quality Standards and Guidance Values set forth in the NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations – Reissued June 1998; and,
- **Soil Vapor / Indoor Air Quality:** NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006, as amended including updates in September of 2013 and August of 2015.

In addition to the regulatory SCGs identified above, the follow regulations also apply to the remedy selection and implementation process:

- New York Codes, Rules and Regulations (NYCRR) Part 175 -Special Licenses and Permits --Definitions and Uniform Procedures;
- NYCRR Part 371 -Identification and Listing of Hazardous Wastes;
- NYCRR Part 372 - Hazardous Waste Manifest System and Related Standards for Generators, Transporters and Facilities (November 1998);
- NYCRR Subpart 374-1 - Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities;
- NYCRR Part 375 - Environmental Remediation Programs;
- NYCRR Part 376 - Land Disposal Restrictions;
- NYCRR Part 608 - Use and Protection of Waters;
- NYCRR Parts 700-706 - Water Quality Standards;
- NYCRR Part 750 through 758 - Implementation of NPDES Program in NYS (SPDES Regulations);
- Code of Federal Regulations (CFR) Part 1910.120 - Hazardous Waste Operations and Emergency Response; and CFR Part 144 - Underground Injection Control Program;



Formal regulations are not the only SCGs that may be applicable. The following regulatory guidance documents may be applicable and will be considered in the final remedy design and implementation:

- United States Environmental Protection Agency (USEPA) Office of Solid Waste and Emergency Response (OSWER) Directive 9355.047FS Presumptive Remedies: Policy and Procedures;
- USEPA OSWER Directive 9355.048FS Presumptive Remedies: Site Characterization
- and Technology Selection for CERCLA sites with Volatile Organic Compounds in Soils;
- DER -10 - Technical Guidance for Site Investigation and Remediation;
- DER-15 - Presumptive/Proven Remedial Technologies;
- Technical and Administrative Guidance Memorandum (TAGM) 4013 - Emergency Hazardous Waste Drum Removal/ Surficial Cleanup Procedures;
- TAGM 4059 - Making Changes to Selected Remedies;
- TAGM 3028 - "Contained In" Criteria for Environmental Media: Soil Action Levels;
- TOGS 1.1.1 - Ambient Water Quality Standards & Guidance Values and Groundwater Effluent Limitations;
- TOGS 1.3.8 - New Discharges to Publicly Owned Treatment Works;
- TOGS 2.1.2 - Underground Injection/Recirculation (UIR) at Groundwater Remediation Sites;
- Commissioners Policy (CP) - 43 - Groundwater Monitoring Well Decommissioning Procedures;
- CP-51 - Soil Cleanup Guidance;
- Air Guide 1 - Guidelines for the Control of Toxic Ambient Air Contaminants;
- Citizen Participation in New York's Hazardous Waste Site Remediation Program: A Guidebook;
- OSWER Directive 9200.4-17 - Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites; and,
- NYSDOH Environmental Health Manual CSFP-530 - "Individual Water Supplies - Activated Carbon Treatment Systems."
- NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York (as amended)

It should be noted that these SCGs are only potentially applicable at this stage of the RI program and a more detailed applicability review will be completed as part of the future Remedial Design / Remedial Action (RD/RA) process.


### 3.2 Quality Assurance /Quality Control

A QAPP was prepared and submitted with the RIWP and was approved by the NYSDEC. The QAPP was prepared in accordance with the USEPA guidance entitled Guidance for Quality Assurance Project Plans EPA QA/G-5 (USEPA, 2002), the NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation (NYSDEC, 2010), and considering requirements of the NYSDEC BCP program.

The objective of the QAPP was to ensure that the data produced as a result of the various sampling and monitoring activities, including soil, groundwater, soil vapor, and ambient (indoor and outdoor) air matrices was of the highest quality and usable for the intended purpose of making decisions related to the Site.

### 3.3 Geophysical Survey & Utility Markouts

Prior to commencing any subsurface remedial investigation activities, a Site and utility inspection was completed;



and the proposed sampling and/or monitoring well locations were marked accordingly in the field. After the locations were pre-selected, New York's Dig Net of New York City & Long Island was contacted to mark underground utilities and a subcontractor was retained to conduct a private utility mark-out and clear each subsurface location for the presence of sub-grade utilities. Site property owners and adjacent property owners were contacted; as-builts drawings were reviewed and personnel with knowledge of subsurface utilities and structures were contacted. The borehole locations were also assessed using ground penetrating radar (GPR) to ensure each location was clear of utilities or subsurface structures. Utility mark-outs were completed on September 23, 2015, March 7, 2016 and June 22, 2016. There were no utility contacts or issues related to health and safety during performance of the RI.

The following sections provides a detailed discussion of the investigation work-flow components conducted as part of the RI. Summaries of the resultant analytical data are also presents; however, more detailed discussions of the natural and extent of contamination (i.e., interpretation of factual data) are presented in **Section 4**.

### 3.4 Membrane Interface Probe Investigation

As discussed in the NYSDEC approved RIWP, a Membrane Interface Probe (MIP) investigation was conducted on October 27 and 28, 2015 to assess the distribution of chlorinated volatile organic carbons (CVOCs) in the subsurface unsaturated and saturated soils. The MIP data were to be utilized to confirm the final monitoring well screened interval depths. The MIP locations are detailed on **Figure 11**.

The MIP system included a PID and flame ionization detector (FID) for the detection of VOCs and a halogen-specific electron detector (XSD) for the detection of CVOCs. As the probe was advanced into the subsurface, it continuously measured soil conductivity using the XSD and VOCs using the PID and FID. The probes were advanced to nominal depths of approximately 40 feet bgs. The data from the October 2015 MIP investigation is presented in **Appendix C**.


As reported in the December 3, 2015 correspondence with the NYSDEC, the results of the MIP investigation did not indicate elevated concentrations of CVOCs in the areas assessed, even near the MW-1 location, where elevated concentrations of CVOCs were previously detected in groundwater samples. Therefore, a modified monitoring well installation plan was approved by the NYSDEC in a December 18, 2015 telephone conversation with Apex. Using a phased in approach, two intermediate depth groundwater monitoring wells were installed at the previously-identified source area located near monitoring well MW-1 and upgradient of the source area located near MW-4. A full round of synoptic groundwater elevation data and COC analytical data was then used to determine the final delineation locations (see **Figure 5**) for the site-specific potentiometric surface maps prepared as part of this task.

Groundwater delineation activities are discussed further in **Section 3.6** below.

### 3.5 Soil Vapor / Indoor Air Quality (IAQ) Investigation

As noted above, previous ESCs reported the presence of PCE and TCE at elevated concentrations in both sub-slab SV samples and IAQ samples at the Dry Cleaner Area, the Site and the adjacent parking garage. Therefore, based on the results of the 2012 ESCs, further characterization and delineation of the soil vapor and indoor air for both the Site and the adjacent and nearby properties were conducted, as discussed below.

**Figure 12** summarizes the sub-slab SV and IAQ investigations completed between 2012 (ESC data) and 2017 (RI data). RI soil vapor points SV-9 through SV-11 were installed on October 26, 2015, and samples were collected on October 29, 2015. Sub-slab and soil vapor points SV-6 through SV-8 were installed on October 29 and samples were collected on October 30, 2015. In addition, soil vapor locations SV-3, SV-4, and SV-5 were re-sampled as part of the RI on April



14, 2017, to assist in evaluating effectiveness of the upgraded residential parking garage ventilation fan systems. The soil vapor probes were installed as summarized below. Results of sampling events are provided in **Table 3-1** and **Figure 12**.

#### Shopping Center Vapor Probes:

- SV-1, SV-2, and SV-6 (interior sub-slab probes with collocated indoor air samples [IAQ-#] at SV-1 and SV-2);
- SV-7, SV-8, and SV-12 (exterior probes on the northwest, north, and northeast sides of the building). SV-12 also serves as an upgradient probe relative to the Dry Cleaner Area.

#### 8831 and 8841 20th Avenue Vapor Probes: \*

- SV-3, SV-4, SV-5, SV-9, and SV-10 (interior sub-slab probes with collocated indoor air samples);

#### 2036 Cropsey Avenue Vapor Probes: \*

- SV-11 (interior sub-slab probe with collocated indoor air sample);

#### Off-site, Upgradient Background Vapor Probes:

- SV-13 and SV-14 (exterior sub-slab probes).

*\* It should be noted that the ventilation fan upgrades in the residential parking garage were completed on or before October 8, 2015. All vapor samples prior to that date were collected without the residential parking garage fans running and all samples collected after that date were collected with the residential parking garage fans running under normal operating conditions.*

In accordance with the NYSDEC-approved QAPP, the soil vapor, indoor air and ambient air samples, and associated QA/QC samples were collected in six-liter Summa canisters over an eight-hour period and submitted to SGS Accutest Laboratories (SGS), a NYSDOH ELAP-certified laboratory for CVOC analyses by EPA Method TO-15. The original laboratory data sheets are included in **Appendix C<sup>1</sup>**.


For the purposes of this RIR, the sub-slab soil vapor data, indoor air quality data and ambient air data are compared to the thresholds included in Matrices 1 and 2 included in the NYSDOH Guidance Document (as amended and applicable). The indoor air concentrations are also compared to the NYSDEC Air Guideline Values for PCE of 30 µg/m<sup>3</sup> and TCE of 2 µg /m<sup>3</sup>. Results of the soil vapor and indoor air sample analysis, as well as the appropriate SCGs, are summarized on **Table 3-1** and **Figure 12**. Additional information regarding sample results, including the most recent April 2017 data, is provided in **Section 4.3**.

#### 3.5.1 Upgradient Soil Vapor Points

Apex installed soil vapor points SV-12 through SV-14 in March 2016 to assess soil vapor conditions outside of building footprints in locations hydrogeologically upgradient of the Site. The three upgradient soil vapor points were installed to depths of 5.0 feet below grade surface (bgs) with six-inch screens. The annular spaces surrounding the wells

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<sup>1</sup> Lab analytical summary reports only are included in the Appendices for all media. Complete analytical packages for all media sampled are provided electronically and are discussed further in the Data Usability Summary Report.



screens were backfilled with clean filter-pack sand, followed by a bentonite seal and cement grout (see well-construction diagrams in **Appendix D**. Soil vapor and associated QA / QC samples were collected on March 17, 2016, per the NYSDEC-approved QAPP. As summarized in **Table 3-1** the following conditions were noted upgradient of the Site.:

- The SV-12 soil vapor sample contained vinyl chloride (VC) at a concentration of 854  $\mu\text{g}/\text{m}^3$ ;
- The SV-13 soil vapor sample contained only low-level concentrations of the chlorinated VOCs of concern (14  $\mu\text{g}/\text{m}^3$  PCE and non-detectable levels of TCE, DCE and vinyl chloride); and,
- The SV-14 soil vapor sample exhibited PCE at concentrations at 258  $\mu\text{g}/\text{m}^3$ .

### 3.5.2 Ambient Air Sampling

Ambient, background air samples were collected on March 9, 2016, and March 17, 2016, and analyzed for VOCs by EPA Method TO-15. Six-liter summa canisters collected air over an eight-hour period. One sample was collected from a hydraulically downgradient of the Dry Cleaner Area near monitoring well MW-11 on March 9, 2016. The March 17<sup>th</sup> sample was collected from a hydraulically upgradient location in the vicinity SV-14. Very low concentrations of COCs were detected in the March 9<sup>th</sup> sample (all chlorinated VOCs were non-detectable except PCE which was detected at 0.95  $\mu\text{g}/\text{m}^3$ ) and no chlorinated VOCs were detected in the March 17<sup>th</sup> sample. The ambient air data are summarized on **Table 3-1** and **Figure 12**.

## 3.6 Soil Investigation

The soil investigation during the RI was completed in several phases in conjunction with the monitoring well installation program to assess the extent of groundwater impacts. Each phase of soil investigation during the RI is summarized below.

### 3.6.1 Dry Cleaner Area Soil Investigation

Soil borings were advanced in the basement of the Dry Cleaner (SB-1, SB-2 and SB-3) in October 2015 to further characterize the nature and extent of contaminants in subsurface soils at the Site. Per the NYSDEC approved RIWP, soil borings SB-1 through SB-3 were advanced to 5.0 feet below the basement slab. Soil sample locations are detailed on **Figure 13** and analytical results are summarized in **Table 3-2** through **Table 3-5**. Analytical report summaries for all soil sampling events are provided in **Appendix E**.

Soil samples were collected from each boring location at the 1.0- and 5.0- foot bgs intervals (i.e., two samples per boring location, total of six samples) and submitted to SGS for analysis of Target Compound List (TCL) VOCs by EPA Method 8260C, TCL SVOCs by EPA Method 8270D, TCL pesticides by EPA Method 8081B, polychlorinated biphenyls (PCBs) by EPA Method 8082A, herbicides by EPA Method 8151 and Target Analyte List (TAL) metals by EPA Methods 6010C and 7471B.

For the purposes of this RIR, the soil analytical data are compared to the NYSDEC SCOs included in Part 375-5-6.8 - NYSDEC Remedial Program Soil Cleanup Objectives. As summarized in **Table 3-2**:

- PCE was detected in all six of the soil samples (both depths at all three boring locations) at concentrations ranging from 0.0183 to 0.0448 milligrams per kilogram (mg/kg), which are well below the NYSDEC Unrestricted Use SCO of 1.3 mg/kg for PCE.
- TCE was also detected in most of these soil samples at concentrations ranging from 0.004J to 0.0088J mg/kg. The NYSDEC Unrestricted Use SCO for TCE is 0.47 mg/kg.

- The only other TCL VOC detected was acetone at concentrations ranging from 0.003 to 0.0751 mg/kg (in the shallow soil sample collected from SB-2). The deeper sample analyzed from SB-2 contained acetone at a concentration of 0.0196 mg/kg. Acetone, which is a common laboratory artifact, has a NYSDEC Unrestricted Use SCO of 0.05 mg/kg and a Residential SCO of 100 mg/kg.

The results for SVOCs, pesticides, herbicides, PCBs, and inorganics (**Table 3-3** through **Table 3-5**) are summarized below:

- The only TCL SVOC detected in any of the six samples was bis(2-ethylhexyl)phthalate at concentrations ranging from 0.223 to 1.66 mg/kg. The NYSDEC has not assigned a SCO to this TCL SVOC.
- The only TCL pesticides detected in the samples were 4,4'-DDD at 0.0072 mg/kg and 4,4'-DDT at 0.0019 mg/kg. The NYSDEC Unrestricted Use SCOs for these TCL pesticides are 0.0033 mg/kg. No TCL PCBs or herbicides were detected in any of the six soil samples.
- The only TAL metals detected at concentrations exceeding their respective NYSDEC Unrestricted Use SCOs were iron at concentrations ranging from 9,740 mg/kg to 12,700 mg/kg (Supplemental Residential SCO of 2,000 mg/kg), cobalt in one sample at 32.2 mg/kg (NYSDEC Supplemental Residential SCO of 30mg/kg) and nickel ranging from 376.0 to 50.7 mg/kg (NYSDEC Unrestricted Use SCO of 30 mg/kg and Residential SCO of 140 mg/kg).
- Iron was detected in all soil samples collected from the basement subsurface at concentrations above the NYS residential SCO of 2,000 mg/kg which is not uncommon in urban areas of New York City. There are no commercial or groundwater protection standards for iron. Cobalt was detected in soil sample SB-2 at 1.0 feet below the basement slab at a concentration 32.3 mg/kg, just above the NYS residential SCO. Based on the Site history, it is unlikely that the cobalt and iron detected in the soil beneath the basement slab of the Dry Cleaner Area are related to historical Site uses. Additionally, based on the depth of these soil samples, a minimum of 9.0 feet bgs, the detections of cobalt and iron are most likely related to natural conditions in the subsurface.

### 3.6.2 Soil Investigation During Monitoring Well Installations


In January 2016, March 2016, and June 2016, soil samples were collected from the monitoring well boreholes during monitoring well installations to further define the nature and extent of groundwater impacts previously identified in the vicinity of the Dry Cleaner Area. Monitoring wells MW-11 and MW-4S were installed in January 2016. Monitoring wells MW-5, MW-6, and MW-7 were installed in March 2016. Monitoring wells MW-8, MW-9, and MW-10 were installed in June 2016. Monitoring well locations for all phases of investigation are indicated in **Figure 4**.

Soil samples were collected at the smear zone and below the water table during these installations to aid in evaluation of off-site impacts and contaminant mass distribution. The following soil samples were collected during well installation activities:

- Soil boring MW-11 was advanced to 50 feet bgs and soil samples we collected at 20 feet bgs, 45 feet bgs and 50 feet bgs.
- Soil boring MW-4S was advanced to a 40 feet bgs and soil samples were collected at 30 and 40 feet bgs.
- Soil boring MW-5 was advanced to 35 feet bgs and soil samples were collected at 22.5 feet and 35 feet bgs.
- Soil boring MW-6 was advanced to 30 feet bgs and soil samples were collected at 23 and 30 feet bgs.
- Soil boring MW-7 was advanced to 34 feet bgs and soil samples were collected at 23 and 34 feet bgs.

All soil samples during this phase of investigation were analyzed for VOCs via method SW846 8260C. Acetone was detected in the soil collected from soil boring MW-4S at 30 feet bgs at a concentration of 0.058 mg/kg and from soil





collected from soil boring MW-6 at 23 and 30 feet bgs at concentrations of .203 and .283 respectively. All acetone concentrations were detected above the NYS groundwater protection SCO; however, groundwater is a known laboratory contaminant and data should be interpreted cautiously. Groundwater in these two sample locations was encountered at 8.5 feet bgs in soil boring MW-4S and at approximately 20 feet bgs in soil boring MW-6 therefore, these concentrations of acetone detected in the soil above the NYS groundwater protection SCO are saturated and will continue to be monitored via groundwater sampling. No further soil delineation in relation to acetone is warranted.

To complete the delineation of PCE in groundwater, four additional monitoring wells were installed in June 2016. Soil samples were collected in these boreholes for further characterization of the subsurface soils in the area and the distribution of COC mass in area soils. Soil borings MW-8, MW-9 and MW-10 were advanced to 30 feet bgs and soil samples were collected at 19.5 and 30 feet bgs in soil borings MW-8 and MW-10 and at 19.4 and 30 feet bgs in soil boring MW-9. Soil boring MW-5I was advanced to 50 feet bgs and soil samples were collected at 20, 23, 31 and 50 feet bgs. The soil samples were submitted to a NYSDEC certified laboratory for analysis of TCL VOCs via method SW846 8260C. The analytical results reported that no COCs exceeded any of the NYS SCO from the soil borings MW-8, MW-9, MW-10 and MW-5I.

Based upon the data at and immediately adjacent to the Dry Cleaner Area and the additional delineation further downgradient in conjunction with groundwater investigation, soil impacts have been delineated sufficiently to determine remediation needs, if any, for the Site.

### 3.7 Groundwater Investigation

The groundwater investigation at the Site was completed in phases with concurrence of NYSDEC so that data initially obtained could be used to optimize placement of future wells and sample locations and depths. This iterative process resulted in efficient definition of the chlorinated VOC plume both on-Site and at the adjacent off-site properties. The investigation approach and results are summarized in the following sections.

#### 3.7.1 Initial Phase II Groundwater Investigation

In July 2012, three monitoring wells were installed onsite as part of a Phase II environmental site assessment (ESA). Monitoring wells MW-1 through MW-3 were installed to approximately 28 feet bgs. On July 27, 2012, the monitoring wells were surveyed to characterize groundwater flow. Groundwater was detected at an average of 20 feet bgs within the monitoring wells and groundwater elevation data collected from these three monitoring wells suggested groundwater flow was consistent with the regional flow direction which was to the south / southeast and south / southwest. Groundwater from the initial three monitoring wells was sampled on July 13, 2012. In addition to sampling the three permanent monitoring wells, groundwater samples were also collected from six temporary points B-1 through B-6 at this time. The groundwater samples were analyzed for VOCs and SVOCs. Analytical results were compared to the NYSDEC Class GA GWQS. PCE concentrations were detected in all nine groundwater samples above the applicable standards. TCE and *cis*-1,2 dichloroethene concentrations were detected in the groundwater samples, above their respective NYSDEC GA GWQS in the groundwater collected from monitoring wells, MW-1, MW-2 and temporary point B-1. No SVOCs were detected above the NYSDEC Class GA GWQS in any samples during this initial phase of investigation. See **Appendix A** for additional information regarding historic groundwater sampling events and results.

Based on the detections of chlorinated volatile organic carbons (CVOCs) above the NYSDEC Class GQ GWQS in the Site groundwater and the proximity to residential properties, further investigation to characterize and delineate the



COCs in groundwater was required. The additional investigations performed during the RI are summarized in the subsequent sections.

### 3.7.2 Delineation of Groundwater Impacts

The RIWP proposed to complete a MIP investigation to characterize and delineate the extent of the CVOC impacts in the surrounding soils. The MIP data was collected with the intent of confirming the final locations of the proposed monitoring wells. However, as discussed previously in **Section 3.4**, the MIP investigation did not indicate a high level of CVOCs in the areas assessed, even near monitoring well MW-1, a known location of CVOC impacts based upon initial sampling from “permanent” monitoring well located immediately downgradient of the suspected source area at the Dry-Cleaning Area. For this reason, a modified monitoring well installation plan was approved by the NYSDEC in a December 18, 2015, telephone conversation. Using a phased in approach, two intermediate groundwater monitoring wells were installed at the source near monitoring well MW-1 (new wells MW-1I and upgradient of the source near monitoring well MW-4<sup>2</sup>). A full round of synoptic groundwater elevation data and COC analytical data was then used to determine the final delineation locations. The final monitoring well network is indicated in **Figure 4**. Monitoring well construction details for these three wells are summarized below and in **Appendix F**:

- Monitoring well MW-1I was installed on January 18 to 50 feet bgs. The monitoring well was constructed using two-inch diameter PVC with a 10-foot section of 0.010 slotted PVC screen set from 40 to 50 feet bgs.
- Monitoring well MW-4S and MW-4I were installed on January 19, 2016, in proximity to each other. Monitoring well MW-4S was installed west of the suspected source area to a total depth of approximately 27.5 bgs with 10-feet of two-inch diameter, 0.010 slotted PVC screen from 17.5- to 27.5-feet bgs. Monitoring well MW-4I was installed to 40 feet bgs with a 10-foot, two-inch diameter section of 0.010 slotted PVC screen set from 30- to 40-feet bgs.

The groundwater was sampled on February 10, 2016, following the installation of these monitoring wells using the low flow purge method. The sampling sheets and field parameters collected during this monitoring and sampling event are included in **Appendix F**. The groundwater samples were analyzed for VOCs via USEPA method 624 and the groundwater samples collected from monitoring well MW-2 were also analyzed for SVOCs USEPA method 625, pesticides USEPA method 608, herbicides SW846 8151, and priority pollutant metals via PM 13. Sample results for groundwater sampling are summarized in **Tables 3-6** (VOCs), **Table 3-7** (SVOCs), **Table 3-8** (Pesticides and Herbicides), **Table 3-9** (Inorganics) and **Figure 14**. Laboratory analytical summary reports for groundwater samples are provided in **Appendix G**.

PCE, cis-1,2-dichloroethene, and TCE were detected in the groundwater samples above the NYSDEC Class GA GWQS in MW-1S (PCE at 740 µg/l, TCE at 9.7 µg/l, and DCE at 6.7 µg/l). PCE was also detected above the NYSDEC Class GA GWQS in the groundwater samples collected from monitoring well MW-2 (249 µg/l) and MW-3 (11.9 µg/l). No SVOCs, pesticides, herbicides, or metals were detected in monitoring well MW-2.

Based on the data from the February 10, 2016, groundwater monitoring and sampling event, Apex, as discussed with the NYSDEC, installed three additional monitoring wells to further delineate the COCs in groundwater. On March 9,

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<sup>2</sup>Originally proposed MW-4 was renumbered MW-4S after installation of the intermediate well MW-4I to avoid confusion. Therefore, only wells MW-4S and MW-4I are indicated on figures for consistency. MW-4 and MW-4S are the same well.



2016, monitoring wells MW-5 through MW-7 were installed as indicated below:

- Monitoring wells MW-5 (later renamed MW-5S) and MW-6 were installed to 27 feet bgs with 10-feet of two-inch diameter, 0.010 slotted PVC screen from 17 to 27 feet bgs.
- Monitoring well MW-7 was installed to 30 feet bgs with 10-feet of two-inch, diameter, 0.010 slotted PVC screen from 20 to 30 feet bgs.

Groundwater was sampled from these monitoring wells on March 18, 2016 (see **Table 3-6** through **Table 3-9** and **Figure 14**). The groundwater samples were analyzed for VOCs via USEPA method 624 and the groundwater samples collected from monitoring well MW-5 were also analyzed for SVOCs USEPA method 625, pesticides USEPA method 608, herbicides SW846 8151, and priority pollutant metals via PM 13 per a NYSDEC request. Concentrations of cis-1,2-dichloroethene, trans-1,2-dichloroethene, PCE and TCE were detected above the NYSDEC Class GA GWQS in the groundwater sample collected from monitoring well MW-5/5S (PCE at 3,490 µg/l, TCE at 106 µg/l, and DCE at 687 µg/l). All VOCs were either below their applicable standard or non-detect in monitoring wells MW-6 and MW-7. No SVOCs, pesticides, herbicides, or metals were detected in monitoring well MW-5/5S.

Because COCs were detected in monitoring well MW-5, the most downgradient well during the March 2016 sampling event, four additional monitoring wells were installed in June 2016. In addition to horizontal plume delineation, Apex installed monitoring well MW-5I to characterize and delineate the COCs vertically at the MW-5 location where elevated COCs were detected in the shallow groundwater zone. On June 23, 2016 through June 24, 2017, the four monitoring wells (MW-5I, MW-9, MW-10, and MW-11) were installed as follows:

- Monitoring well MW-5I was installed to 50 feet bgs with 10-feet of two-inch diameter, 0.010 slotted PVC screen from 40 to 50 feet bgs.
- Monitoring well MW-9 was installed to 27 feet bgs with 10-feet of two-inch diameter, 0.010 slotted PVC screen from 17 to 27 feet bgs.
- Monitoring wells MW-8 and MW-10 were installed to 27 feet bgs with 10-feet of two-inch diameter, 0.010 slotted PVC screen from 17 to 27 feet bgs.


These wells completed the installation of groundwater monitoring points.

Groundwater was collected for sampling from these monitoring wells on July 8, 2016. The groundwater samples were submitted to a NYSDEC certified laboratory and analyzed for VOCs via USEPA method 624 (see **Table 3-6**, **Figure 14**, and **Appendix G**). PCE was detected in the groundwater from monitoring wells MW-5I at 18.7 µg/L, MW-9 at 7.5 µg/L and MW-10 at 17.6 µg/L. No other COCs were detected above the NYSDEC Class GA GWQS.

Based on the results from the phased approach to groundwater characterizations and delineation, the CVOCs in the groundwater are delineated. As can be seen on **Figure 14**, there is a decreasing concentration gradient as groundwater moves away from the Site. Concentrations to the east and south of the Site are below the NYSDEC Class GA GWQS and monitoring well MW-8 to the southwest had no detections of CVOCs. Additionally, TCE and cis-1,2 DEC are degradation byproducts of PCE and these COCs were detected in groundwater samples collected at this Site indicating that natural biodegradation is taking place.

### 3.8 Summary of Data Usability

This section provides a summary of RI data quality based on usability toward meeting data quality objectives (DQOs) for the Site. The full Data Usability Summary Reports (DUSRs) is provided in **Appendix H** (under separate cover). The Data Usability Report was completed by Kelsi Evans, a chemist out of Apex's Portland, Oregon office. Ms. Evans'



resume and qualification are included in **Appendix H**. Ms. Evans was not involved in any aspect of the RI project other than the independent data validation.

Based on the data validation, the data met DQOs and are of sufficient quality to meet the objectives of the RI.

### 3.9 Investigation-Derived Waste Disposal

Investigation derived waste (IDW) was managed as proposed in the NYSDEC approved RIWP. IDW was containerized in 55-gallon steel drums and staged onsite for appropriate characterization and disposal following the procedures for IDW management outlined in the Field Sampling Plan. Personal Protective Equipment (PPE) and spent disposable sampling materials were segregated and placed in NYS Department of Transportation (DOT)-approved 55-gallon steel drums. Decontamination water and monitoring well purge water was stored in DOT approved 55-gallon steel drums. Waste storage containers were appropriately labeled with the contents, generator, location, and date and properly secured at the site for subsequent off-site transportation and disposal by the contractor.

One representative sample was collected from the solid IDW (i.e., drill cuttings) and one representative sample was collected from the liquid IDW (i.e., development water/monitoring well purge water) generated by the field activities. The samples were submitted to the laboratory for analysis of the parameters required by the off-site disposal facility. Apex used the analytical results from the waste characterization samples to profile the IDW for proper disposal.



## 4.0 Nature and Extent of COCs and Conceptual Site Model

This section discusses the analytical data for samples of soil, groundwater, and exterior soil vapor collected at the Site from the perspective of delineation and potential for migration.

### 4.1 Nature and Extent of COCs in Soil

This section provides an evaluation of the nature and extent of COCs in soil. The data obtained from soil sampling met the RI goal of determining the extent of COCs and was sufficient for determining the nature and extent of COCs in soil at the Site.

Based upon the discussion of **Section 3.6**, the analytical results indicate that a few VOCs were detected in soil above SCGs. The primary VOCs that were detected in soil above SCGs include acetone, PCE, TCE and cis-1,2 dichloroethene. These COCs exceeded the NYSDEC SCO for protection of groundwater (as is discussed in **Section 4.2**). Acetone was detected in soil sample SB-2 at 1.0 feet bgs, MW-4S at 30 feet bgs, and MW-6 at 23 and 30 feet bgs. However, acetone is a common laboratory artifact and is not considered a COC with respect to an on-site source. PCE and cis-1,2 DCE were detected above the groundwater protection SCO in soil samples MW-5 at 30 and 35 feet bgs which is below the water table and likely related to groundwater impacts in that area. TCE was detected above the groundwater protection SCO in soil sampled during MW-5 installation at 35 feet bgs and similar to PCE and cis-1,2 DCE detected at that location and depth, is likely present due to elevated groundwater concentrations in that area.

The soil data collected during the RI indicated that soil impacts have been delineated and additional soil investigation activities are not warranted.

### 4.2 Nature and Extent of COCs in Groundwater

This section provides an evaluation of the nature and extent of COCs in groundwater. The data obtained from sampling groundwater collected from the monitoring wells that were installed for the RI met the RI goal of determining the nature and extent of COCs in groundwater. An analysis of the COCs in groundwater is presented below.

The analytical results indicate that several VOCs (PCE and its degradation products TCE and cis-1,2 DCE primarily) were detected in groundwater above their respective SCGs. The following is a summary of the chlorinated VOC distribution in groundwater based upon the most recent groundwater sampling events in 2016:

- PCE was detected in all shallow groundwater monitoring wells except for MW-8. The highest PCE concentration in the shallow zone was identified off-site at MW- 5S (3,490 µg/l PCE) which is located approximately 100 feet downgradient of the on-site dry-cleaner area. Other than wells MW-1S (740 µg/l PCE), MW-2S (249 µg/l PCE), and MW-5S (3,490 µg/l PCE) which are located immediately near and downgradient of the dry-cleaner area, PCE concentrations in all remaining shallow groundwater monitoring wells in the study area ranged from non-detectable at MW-8 to 17.6 µg/l at MW-10 (approximately 300 feet downgradient of the dry-cleaner area). These data support that elevated PCE concentrations in the shallow zone are relatively local to the apparent source area. This conclusion is further supported by the fact that upgradient PCE concentrations in the shallow zone at MW-3 were 11.9 µg/l which is similar to most PCE concentrations outside of the apparent source area and immediately downgradient.
- PCE concentrations as the depth increased from grade were also evaluated during the RI based upon MIP data screening. The highest PCE concentration in the intermediate zone was 18.7 at MW-5I (located in the



same location as MW-5S). There was a two order of magnitude decline in PCE concentrations from the shallow zone to the intermediate zone at MW-5S/MW-5I.

- TCE and 1DCE concentrations were also the highest at MW-5S (106 µg/l TCE and 687 µg/l DCE). The concentrations of TCE and DCE in all other wells (both shallow and intermediate) was under 10 µg/l for both parameters with most locations under 5 µg/l.

As discussed in **Section 3.5** and indicated in **Figure 14**, the distribution of CVOC concentrations in groundwater has been delineated horizontally and vertically. There appears to be a relatively narrow band of COC impacts in shallow groundwater originating at the Dry Cleaner Area (near MW-1S) and extending along the western side of Bay 25<sup>th</sup> Street to the MW-5S area before declining rapidly in concentration toward MW-9 and MW-10. Only minimal impacts were noted both east and west of this narrow band of shallow groundwater impacts. Intermediate depth groundwater impacts at MW-1I were non-detectable indicating minimal to no significant vertical migration from MW-1S impacts. Similarly, the PCE concentration at MW-5I is several orders of magnitude lower than the MW-5S concentrations indicating that vertical migration is defined.

The data obtained during the RI have defined the nature and extent of groundwater warranting remediation and / or further monitoring.

### 4.3 Nature and Extent of COCs in Soil Vapor and Ambient Air


This section provides an evaluation of the nature and extent of COCs in sub slab soil vapor and indoor air quality at the Site (Block 6467, Lot 1), at the adjacent property, 8831 and 8841 20th Avenue (Block 6467, Lot 12) and the residential property to the southeast of the Site, 2036 Cropsey Avenue (Block 6469, Lot 1). The data obtained from soil vapor sampling met the RI goal of determining the nature and extent of CVOC-related COCs in soil vapor at the Site. An analysis of COCs in soil vapor is presented below.

#### On-Site Vapor and Indoor Air:

- The highest concentrations of chlorinated VOCs in soil vapor were detected on-site during the July 2012 soil vapor screening event with 420,000 µg/m<sup>3</sup> of PCE and 6,600 µg/m<sup>3</sup> of TCE detected in SV-1 underlying the dry-cleaning establishment. On-site soil vapor concentrations west of the dry-cleaning area and further to the west off-site were less than 76 µg/m<sup>3</sup> PCE and less than 1.5 µg/m<sup>3</sup> TCE. Indicating localized, maximum concentrations (see **Figure 12** and **Table 3-1**).
- The highest indoor air concentrations of PCE were detected at SV-2 (in the dry-cleaning establishment) in the July 2012 sampling event (100 µg/m<sup>3</sup> PCE). The highest indoor air concentrations for TCE were detected in this same location in the July 2012 sampling event (18 µg/m<sup>3</sup> TCE).

#### Off-Site Vapor and Indoor Air:

- The highest off-site soil vapor impacts were noted in SV-3 through SV-5 underlying the off-site parking garage located approximately 50 feet to the south-southwest (downgradient) of the apparent dry-cleaner source area. The maximum off-site concentrations of PCE ranged from 140,000 to 210,000 µg/m<sup>3</sup> in SV-3 through SV-5 in July 2012. Maximum TCE concentrations in this area during the July 2012 sampling event ranged from 580 to 790 µg/m<sup>3</sup>.
- In the most recent soil vapor and indoor air quality sampling event in April 2017, sub-slab vapor concentrations of PCE at SV-3, SV-4, and SV-5 were 82,700 µg/m<sup>3</sup>, 8,070 µg/m<sup>3</sup>, and 6,520 µg/m<sup>3</sup>, respectively). These concentrations were one to two orders of magnitude lower than the 2012 sampling results at these same locations. TCE sub-slab concentrations at SV-3 and SV-4 were the same order of



magnitude as the past 2012 sampling event and the concentrations of TCE in sub-slab vapor at SV-5 dropped to non-detectable levels.

- Indoor air sample concentrations at SV-3, SV-4, and SV-5 for PCE were on the same order of magnitude in the 2017 sampling event as in the past 2012 sampling event with slight increases noted at all three locations (minimum of 1.9 µg/m<sup>3</sup> and maximum of 9.5 µg/m<sup>3</sup> for PCE over both events). TCE concentrations in indoor air samples at SV-3, SV-4 and SV-5 were all an order of magnitude lower in the 2017 sampling event as compared to the 2012 sampling event with a maximum concentration of 1.1 µg/m<sup>3</sup> TCE detected during the July 2012 event and a maximum of 0.39 µg/m<sup>3</sup> TCE detected during the 2017 sampling event.
- Off-site soil vapor and indoor air concentrations for COCs, including the upgradient locations north and northeast of the site, decreased sharply with distance from the maximum concentration locations identified above indicating a relatively focused area of maximum concentrations that is generally consistent with the groundwater plume maximum concentration area. Although the concentrations of upgradient locations north and northeast of the site declined rapidly, PCE and TCE soil vapor detections are present upgradient of the site.

To address the concentrations of chlorinated VOCs discussed above for the dry-cleaner / shopping center area and the adjacent residential parking garage areas, two mitigation systems were employed. An IRM was proposed and installed for a SSDS at the dry cleaner facility / retail shopping center where the highest concentrations of PCE and TCE were detected in both sub-slab concentrations and in indoor air samples. In addition, below grade parking garage fan upgrades were also been installed at the adjacent residential building parking garages to prevent vapors from entering the occupied spaces of the facility at levels above the parking garages.


Both the parking garage fan systems and the SSDS underlying the shopping center are designed to run 24 hours a day / 7 day a week. The parking garage system details are provided in **Appendix I**. The shopping center SSDS system details are provided separately in the Interim Remedial Measures (IRM) Installation and Start-up Report (Apex, January 2018). Both systems operate to create a pressure differential between occupied areas and unoccupied areas / the subsurface. For the parking garage fan systems, a draft / vacuum is induced in the sub-grade parking garage so that the pressure in overlying, occupied structures is higher than in the garage area. This pressure differential will prevent contaminant vapors underlying the building from entering occupied spaces above the subsurface parking garage. The SSDS at the shopping center works on the same principle with the below grade vapor extraction points creating a subsurface vacuum relative to the overlying, occupied areas of the shopping center.

Additional monitoring for both mitigation systems will be ongoing and coordinated with NYSDEC.

#### 4.4 Conceptual Site Model

This section develops and discusses the CSM for the Site. Previous sections summarized relevant Site conditions, including the Site history and usage, geology and hydrogeology, and distribution of COCs in the environment (i.e., quality of soil, groundwater, soil vapor and indoor). This CSM relates current conditions to the historical dry cleaner operations at the Site. The purpose of the CSM is to more specifically explain the source of the COCs and the movement of the COCs through the subsurface. The data collected during the RI was used to draw conclusions as to the nature and extent of the COCs. The goal of the CSM is to understand, to the extent it can be, how and why COCs entered the soil, groundwater, and soil vapor and where COCs will migrate if not remediated. The following is a summary of the CSM based upon the available data. The CSM will be continually re-evaluated as additional data are available to ensure protection of human health and the environment.

- PCE was found to be the primary COC in soil vapor, soil and groundwater at the Site. The likely source of the PCE is the operations of a former dry-cleaning tenant at the location currently occupied by GLY Cleaners, an



unrelated dry-cleaning operation. Dry cleaner operations reportedly have not used PCE since 2003; however, based on file reviews, PCE was used at the facility prior to 2003. The current dry cleaner tenant began operation in 2007 and has not reportedly used PCE. It also should be noted that PCE (and its degradation products) has been detected upgradient as well so there is likely some comingling of PCE from an independent upgradient source.

- The specific release(s) that occurred at this Site are unknown. Based on the historic Site use as a dry cleaner and the concentrations of CVOCs in the subsurface under the basement slab and directly downgradient of the Site, it is likely that dry cleaning solvents historically spilled and entered the subsurface either directly through the basement floor (i.e., via cracks or floor deterioration or historical drains that may have been present). Given impacts in the rear “yard” behind the dry cleaner space, surface releases also may have been possible. These localized impacts are the likely source of soil vapors that are present at the Site.
- As discussed in **Section 4.2**, COCs entering the soil likely migrated primarily vertically into the groundwater underlying the Dry Cleaner Area and then were transported primarily horizontally with shallow groundwater flow to the south-southeast (off-site). Vertical migration appears to have been minimal once COCs entered the water table based upon the available data. There may be a southwesterly flow component for the relatively low concentrations of COCs detected in the intermediate groundwater zone.
- Groundwater migration appears to be occurring in a very narrow band from the Site along the western side of Bay 25<sup>th</sup> Street toward MW-5/5S and ultimately toward MW-9 and MW-10. There is a decrease in concentration of COCs by several orders of magnitude at MW-9 and MW-10 in comparison to the source area wells at MW-1 and the MW-5 wells indicating that the plume area is localized.
- Soil vapor data is generally consistent with the groundwater plume (i.e., highest concentrations underlying the apparent source area at the dry-cleaning location and immediately downgradient) that has been defined and will likely require management until groundwater impacts are remedied. The IRMs implemented to date and to be implemented can effectively manage soil vapor concerns.





## 5.0 Soil Vapor Mitigation Measures and IRMs

Per the NYSDEC-approved IRM work plan, the following work components were conducted as part of soil vapor mitigation IRMs.

### 5.1 Shopping Center SSDS IRM

A Sub-Slab Depressurization System (SSDS) pilot test was completed in March 2016 to confirm the applicability of SSDS to mitigate sub-slab soil vapors migration into occupied spaces above grade. On March 30 and 31, 2016, three vacuum points and five vacuum monitoring points were installed in preparation for the SSDS tests (see **Figure 15**). Three tests were completed to assess the radius of influence (ROI) of vacuum applied to the vacuum points. The results of the pilot tests indicated that the lateral extent of the vacuum field was extended to underlie the entire Site, including each existing tenant space and between tenant spaces with a maximum ROI of 78 feet from the vacuum source (**Figure 16**). The NYSDEC accepted pilot test data and approved the IRM Work Plan for system installation based on successful pilot testing and system installation is scheduled for September 2017. Additional information is available in the NYSDEC-approved IRM Work Plan under separate cover.

Following successful pilot testing the SSDS IRM was installed. The system is currently operational. Additional information regarding the SSDS IRM including construction as-built drawings and start-up data are provided in the SSDS IRM Installation Completion and Start-up Report (Apex - March, 19, 2018).

### 5.2 Residential Building Garage Ventilation System Upgrades

Due to the presence of elevated concentrations of the COCs in soil vapors underlying the site and the adjacent residential buildings, a mitigation measure consisting of parking garage ventilation system upgrades was implemented. The garage ventilation system IRM details are included in **Appendix I**.

## 6.0 Human Health Exposure Assessment

In accordance with the NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation (NYSDEC, 2010), a qualitative exposure assessment was performed and a Human Health Exposure Assessment (HHEA) was completed. The HHEA identified COCs, identified potentially complete exposure pathways, and evaluated the potential for exposure of human receptors to Site-related COCs assuming no further remedial actions were conducted.

Soil, groundwater, and ambient air associated with the Site do not present potentially complete exposure pathways for commercial workers, consumers, or residents based on current land use and are not anticipated to represent complete future exposure pathways for these receptors unless there is construction or maintenance activities that would break the existing slab at the Site or the surface coverings that currently overlie the groundwater COC plume. Future construction worker scenarios will be addressed in a future Site Management Plan (SMP).

Soil vapor beneath the Site and the adjacent property to the south presents a potential for a completed pathway to indoor air and as stated within this report, health and safety measures; a sub-slab depressurization system and ventilation system upgrades are being implemented to mitigate the potential risk.

Per the NYSDEC requirements, the following summary of current and potential exposure table is included.

Environmental Media & Exposure Route	Human Exposure Assessment (examples)
Direct contact with surface soils (and incidental ingestion)	<ul style="list-style-type: none"><li>There are no surface soil impacts at this Site. There is only one limited area of soil impacts underlying the basement slab of the Dry-Cleaning Area. Under current operating conditions, there is no completed exposure pathway. If current site conditions change or if construction activities require demolition of the basement floor slab, additional measures may be required to ensure worker protection.</li><li>Contingent protection measures for future site use scenarios can be addressed in a Site Management Plan to be developed.</li></ul>
Direct contact with subsurface soils (and incidental ingestion)	<ul style="list-style-type: none"><li>The soil impacts at this Site are limited to exceedances of the groundwater protection standard not the direct contact standard. However, there is one soil sample location impacted above the respective health based NYSDEC SCO. People are not coming into contact because soil impact is below the basement slab of the drycleaner. People are not coming into contact with the other Site soil impacts because they are &gt; 23 feet bgs and are under pavement or landscaping</li><li>Contingent protection measures for future site use scenarios can be addressed in a Site Management Plan to be developed.</li></ul>
Ingestion of groundwater	<ul style="list-style-type: none"><li>Contaminated groundwater is not being used for drinking water, as the area is served by the public water supply. There are no known domestic water supply wells in the area.</li><li>People can ingest GW if private wells are installed on the property or under possible dewatering scenarios. These potential future impacts would be addressed in an SMP to be developed.</li></ul>



Direct contact with groundwater	<ul style="list-style-type: none"><li>• People can come into contact with groundwater if they complete ground- intrusive work at the Site or the adjacent underground parking garage facilities. However, the average depth to groundwater is 20 feet bgs so it is unlikely at shallow depths.</li><li>• Contingent protection measures for future site use scenarios can be addressed in a Site Management Plan to be developed.</li></ul>
Inhalation of air (exposures related to soil vapor intrusion)	<ul style="list-style-type: none"><li>• A ventilation system fan upgrade has been installed in the parking garages of the offsite buildings to prevent the indoor air quality from being affected by the sub-slab vapor impacts.</li><li>• A sub-slab depressurization system is being installed in the on-site shopping center to prevent the indoor air quality from being affected by the sub-slab impacts.</li><li>• Post-installation indoor air samples will be collected from the on-site building to verify that additional actions are not needed to address exposures related to soil vapor intrusion.</li><li>• The SMP to be developed will address these issues further.</li></ul>




## 7.0 Findings and Conclusions

The soil, soil vapor, and groundwater data evaluated during this RI have resulted in delineation of the nature and extent of COC impacts. There is sufficient data to evaluate potentially applicable remedial measures to address the impacts to media described within this RI. The following is a summary of the RI conclusions:

- The primary COCs in soil vapor are chlorinated organic compounds, notably PCE and its degradation compound TCE. The likely, but unconfirmed, source of soil vapor impacts are the historic dry cleaner operations within the 2002-20024 shopping center. As indicated in the CSM, releases of dry cleaning solvents likely entered the subsurface at the Dry-Cleaning Area and migrated vertically into groundwater underlying the Site. Once COCs were in groundwater, they migrated to the south-southeast (off-site) with groundwater flow resulting in soil vapor impacts in overlying areas. Migration of soil vapor impacts are generally consistent with groundwater impacts; however, there appears to be more lateral vapor spread outward from the centerline of the groundwater plume impacts. COCs are present underlying the shopping center as well as the adjacent, off-site parking garages. The most significant soil vapor impacts emanate from the Site along the west side of Bay 25<sup>th</sup> Street and extending off-site to the vicinity of MW-5/5S. COC concentrations decrease several orders of magnitude beyond MW-5/5S and also to the east and west beyond approximately 100 feet laterally from the areas exhibiting the most significant groundwater impacts.
- The primary VOCs that were detected in soil above SCGs include acetone, PCE, TCE and cis-1,2 dichloroethene. These COCs exceeded the NYSDEC SCO for protection of groundwater. Unsaturated zone impacts are very localized immediately underlying the Dry Cleaner Area. Acetone was detected in soil sample SB-2 at 1.0 feet bgs, MW-4S at 30 feet bgs, and MW-6 at 23 and 30 feet bgs. However, acetone is a common laboratory artifact and is not considered a COC with respect to an on-site source. PCE and cis-1,2 DCE were detected above the groundwater protection SCOs in soil samples MW-5 (off-site) at 30 and 35 feet bgs which is below the water table and likely related to groundwater impacts in that area. TCE was detected above the groundwater protection SCO in soil sampled during MW-5 installation at 35 feet bgs and similar to PCE and cis-1,2 DCE detected at that location and depth, is likely present due to elevated groundwater concentrations in that area. Soil impacts are delineated.
- Groundwater impacts are present. Analytical results indicate that several VOCs (PCE and its degradation products TCE and cis-1,2 DCE primarily) were detected in on-site and off-site groundwater above their respective SCGs. The distribution of CVOC concentrations in groundwater has been delineated horizontally and vertically. There appears to be a relatively narrow band of COC impacts in shallow groundwater originating at the Dry Cleaner Area (near MW-1S) and extending along the western side of Bay 25<sup>th</sup> Street to the MW-5S area before declining rapidly in concentration toward MW-9 and MW-10. Only minimal impacts were noted both east and west of this narrow band of shallow groundwater impacts. Intermediate depth groundwater impacts at MW-1I were non-detectable indicating minimal to no significant vertical migration from MW-1S impacts. Similarly, the PCE concentration at MW-5I is several orders of magnitude lower than the MW-5S concentrations indicating that vertical migration is defined.

In summary, the RI for this Site is complete and of sufficient scope and detail to allow evaluation of potential remedial alternatives to address environmental impacts. The following general path forward is recommended for the site:

- Develop a Remedial Action Plan (RAP) for the Site which will include a Feasibility Study / Alternatives Evaluation to screen potentially applicable remedial technologies and select the most appropriate remedial approach for the Site.
- As part of the RAP development, a Pre-Design Investigation (PDI) will be implemented. The main intent of the PDI will be to update the baseline conditions of the site in advance of remedial design and to obtain data necessary to support final remedy selection. Due to the phased nature of the RI, it is important to complete a comprehensive groundwater sampling event(s) which includes all final wells installed to serve as the basis for engineering evaluations.

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- Depending upon the remedies considered for implementation, bench-scale treatability studies and / or pilot tests may be required before final design. These studies would be coordinated with the RAP development and detailed Remedial Design (RD) schedule with NYSDEC.
  - Following the detailed remedial design, the selected remedial approach would be implemented and the appropriate engineering and institutional controls, Site Management Plan (SMP), etc. would be developed and completed.



## Tables

Table 3-1  
Soil Vapor and Indoor Air Sampling Results Summary

Analyte Method TO-15 (ug/m <sup>3</sup> )	Historical NYSDOH Regulations		2013 and 2015 NYSDOH Revised Standards	Initial screening sampling (sub-slab only)			March 2016 sampling event including sub-slab and IAQ samples												April 2017 sampling event including sub-slab and IAQ samples															
	Matrix 1 & 2 Sub-Slab Vapor	Matrix 1 & 2 Indoor Air		Air	SV-6 10/30/15	SV-7 10/30/15	SV-8 10/30/15	SV-9* 3/4/16	IAQ-9* 3/4/16	SV-10 3/9/16	IAQ-10 3/9/16	SV-11 3/4/16	IAQ-11 3/4/16	Ambient 3/9/16	SV-12 3/17/16	SV-13 3/17/16	SV-14 3/17/16	Ambient 3/17/16	IAQ-3 4/14/17	SV-4 4/14/17	IAQ-4 4/14/17	SV-5 4/14/17	IAQ-5 4/14/17	Ambient 4/14/17										
Acetone	NA	NA		634	1220	632	363	41.1	527	16	2.2	U	9.7	13	10	U	447	1310	2	0.086	U	52	15	822	21	5.2								
1,3-Butadiene	NA	NA		0.27	U	0.27	U	0.27	U	0.062	U	1.7	J	0.24	U	0.062	U	7.3	U	0.24	U	0.062	U	2.4	U	5.8	0.062	U						
Benzene	NA	NA		4.8	5.4	6.1	0.64	6.4	3.5	2.6	89.1	8	1.1	33.9	J	15	16	0.099	U	30	4.2	U	26	4.2	U	30	0.93							
Bromodichloromethane	NA	NA		0.87	U	0.87	U	0.87	U	0.26	U	1	U	1	U	0.26	U	6.6	U	0.26	U	0.26	U	10	U	0.26	U	0.26	U					
Bromoform	NA	NA		0.85	U	0.85	U	0.85	U	0.17	U	0.65	U	0.65	U	0.17	U	4.1	U	0.17	U	0.17	U	6.5	U	0.17	U	0.17	U					
Bromomethane	NA	NA		0.34	U	0.34	U	0.34	U	0.07	U	0.29	U	0.29	U	0.07	U	1.8	U	0.07	U	0.07	U	2.9	U	0.07	U	0.07	U					
Bromoethene	NA	NA		0.35	U	0.35	U	0.35	U	0.079	U	0.32	U	0.32	U	0.079	U	2.1	U	0.079	U	0.079	U	9.6	U	0.32	U	0.32	U					
Benzyl Chloride	NA	NA		0.52	U	0.52	U	0.52	U	0.14	U	0.57	U	0.57	U	0.14	U	3.6	U	0.14	U	0.14	U	16	U	0.57	U	0.57	U					
Carbon disulfide	NA	NA		0.34	U	0.34	U	0.34	U	2.2	0.4	U	0.4	U	0.097	U	7.8	J	0.097	U	0.097	U	12	U	6.2	5.9	0.097	U	0.31	J				
Chlorobenzene	NA	NA		0.6	U	0.6	U	0.6	U	0.26	U	1	U	1	U	0.26	U	6.4	U	0.26	U	0.26	U	30	U	1	U	1	U	0.26	U			
Chloroethane	NA	NA		0.23	U	0.23	U	0.23	U	0.095	U	0.37	U	0.37	U	0.095	U	14	0.095	U	0.095	U	11	U	0.37	U	0.37	U	0.095	U				
Chloroform	NA	NA		40	0.59	U	12	1.1	0.32	U	0.32	U	0.083	U	2.1	U	0.083	U	0.083	U	9.8	U	57.6	17	0.083	U	0.083	U	3.2	U				
Chloromethane	NA	NA		0.25	U	0.25	U	0.25	U	0.11	U	1.4	J	0.43	U	1.8	2.7	U	1.3	1.8	13	U	0.43	U	0.43	U	0.39	J	1.2	4.3	U			
3-Chloropropene	NA	NA		0.34	U	0.34	U	0.34	U	0.085	U	0.34	U	0.34	U	0.085	U	2.1	U	0.085	U	0.085	U	9.7	U	0.34	U	0.34	U	0.085	U			
2-Chlorotoluene	NA	NA		0.67	U	0.67	U	0.67	U	0.088	U	0.35	U	0.35	U	0.088	U	2.2	U	0.088	U	0.088	U	10	U	0.35	U	0.35	U	0.088	U			
Carbon tetrachloride	>250 Mitigate	>5 Mitigate		0.62	U	0.62	U	0.62	U	0.2	U	0.75	U	0.75	U	0.2	U	5	U	0.2	U	0.6	J	23	U	0.75	U	0.75	U	0.2	U			
Cyclohexane	NA	NA		2.1	J	2.6	J	2.4	J	0.96	0.22	U	0.22	U	0.055	U	2170	1	0.055	U	396	10	7.9	0.055	U	4.1	2.2	U	3.8	2.2	U			
1,1-Dichloroethane	NA	NA		0.49	U	0.49	U	0.49	U	0.061	U	0.25	U	0.25	U	0.061	U	1.6	U	0.061	U	0.061	U	7.3	U	0.25	U	0.25	U	0.061	U			
1,1-Dichloroethylene	NA	NA		0.44	U	0.44	U	0.44	U	0.083	U	0.33	U	0.33	U	0.083	U	2.1	U	0.083	U	0.083	U	9.9	U	0.33	U	0.33	U	0.083	U			
1,2-Dibromoethane	NA	NA		1.1	U	1.1	U	1.1	U	0.32	U	1.3	U	1.3	U	0.32	U	8.5	U	0.32	U	0.32	U	38	U	1.3	U	1.3	U	0.32	U			
1,2-Dichloroethane	NA	NA		0.4	U	0.4	U	0.4	U	0.073	U	0.28	U	0.28	U	0.073	U	1.8	U	0.073	U	0.073	U	8.5	U	0.28	U	0.28	U	0.073	U			
1,2-Dichloropropane	NA	NA		0.92	U	0.92	U	0.92	U	0.1	U	0.41	U	0.41	U	0.1	U	2.6	U	0.1	U	0.1	U	12	U	0.41	U	0.41	U	0.1	U			
1,4-Dioxane	NA	NA		0.9	U	0.9	U	0.9	U	0.16	U	0.65	U	0.65	U	0.16	U	4.3	U	0.16	U	0.16	U	19	U	0.65	U	0.65	U	0.16	U			
Dichlorodifluoromethane	NA	NA		2.8	J	2.6	J	3	J	2.7	2.4	J	2.8	J	3.2	2.4	U	2.8	3.4	11	U	2.9	J	2.9	J	0.69	J	2	3.8	U	2	3.8	U	
Dibromochloromethane	NA	NA		1.4	U	1.4	U	1.4	U	0.45	U	1.8	U	1.8	U	0.45	U	11	U	0.45	U	0.45	U	53	U	1.8	U	1.8	U	0.45	U			
trans-1,2-Dichloroethylene	NA	NA		0.32	U	0.32	U	6.3	0.11	U	0.44	U	0.44	U	0.11	U	18	J	0.11	U	0.11	U	13	U	0.44	U	0.44	U	0.11	U	0.39	J		
cis-1,2-Dichloroethylene	>1000 Mitigate	>100 Mitigate		0.39	U	0.39	U	6.3	0.083	U	0.33	U	0.33	U	0.083	U	2.1	U	0.083	U	0.083	U	120	0.33	U	0.33	U	0.083	U	0.083	U	128	0.083	U
cis-1,3-Dichloropropene	NA	NA		0.64	U	0.64	U	0.64	U	0.068	U	0.28	U	0.28	U	0.068	U	1.8	U	0.068	U	0.068	U	8.2	U	0.28	U	0.28	U	0.068	U			
m-Dichlorobenzene	NA	NA		0.66	U	0.66	U	0.66	U	0.12	U	0.47	U	0.47	U	0.12	U	3	U	0.12	U	0.12	U	14	U	0.47	U	0.47	U	0.12	U			
o-Dichlorobenzene	NA	NA		0.72	U	0.72	U	0.72	U	0.096	U	0.38	U	0.38	U	0.096	U	2.5	U	0.096	U	0.096	U	11	U	0.38	U	0.38	U	0.096	U			
p-Dichlorobenzene	NA	NA		0.46	U	0.46	U	0.46	U	0.16	U	0.66	U	0.66	U	0.16	U	4.1	U	0.16	U	0.16	U	19	U	0.66	U	0.66	U	0.16	U			
trans-1,3-Dichloropropene	NA	NA		0.37	U	0.37	U	0.37	U	0.082	U	0.33	U	0.33	U	0.082	U	2.1	U	0.082	U	0.082	U	10	U	0.33	U	0.33	U	0.082	U			
Ethanol	NA	NA		15	16	16	29.2	23.9	88.4	35	41.8	30	21.7	17	U	33.7	37.1	4.7	85	34.3	J	81.4	E	48.6	93.5	19.2	19.2							
Ethylbenzene	NA	NA		20	19	15	0.48	J	0.74	U	0.74	U	0.56	J	4.8	U	1.4	0.18	U	50.4	J	79.5	73.4	0.18	U	12	7.4	U	10	7.4	U			
Ethyl Acetate	NA	NA		0.9	U	10	0.9	U	7.2	5.4	12	6.8	6.8	U	4.3	9.4	32	U	1.1	U	1.1	U	0.76	5.4	709	5	30	4	7.9					
4-Ethyltoluene	NA	NA		9.3	6.9	5.9	0.084	U	0.33	U	0.33	U	0.084	U	2.1	U	0.084	U	0.084	U	9.8	U	23	19	0.66	U	0.66	U	0.16	U	0.16	U		
Freon 113	NA	NA		0.84	U	0.84	U	0.84	U	0.16	U	0.66	U	0.66	U	0.16	U	4.2	U	0.16	U	0.76	J	19	U	0.66	U	0.66	U	0.16	U			
Freon 114	NA	NA		0.7	U	0.7	U	0.7	U	0.22	U	0.91	U	0.91	U	0.22	U	5.6	U	0.22	U	0.22	U	26	U	0.91	U	0.91	U	0.22	U			
Heptane	NA	NA		19	19	15	0.49	J	0.33	U	0.33	U	0.78	J	1480	1.4	0.41	J	101	63.9	61.9	0.082	U	9.8	3.3	U	8.6	27	J	9.8	0.082	U		
Hexachlorobutadiene	NA	NA		1.4	U	1.4	U	1.4	U	0.21	U	0.86	U	0.86	U	0.21	U	5.5	U	0.21	U	0.21	U	26	U	0.86	U	0.86	U	0.21	U			



Table 3-1  
Soil Vapor and Indoor Air Sampling Results Summary

Analyte Method TO-15 (ug/m <sup>3</sup> )	Historical NYSDOH Regulations		2013 and 2015 NYSDOH Revised Standards	Initial screening sampling (sub-slab only)			March 2016 sampling event including sub-slab and IAQ samples											April 2017 sampling event including sub-slab and IAQ samples					
	Matrix 1 & 2	Matrix 1 & 2		SV-6	SV-7	SV-8	SV-9*	IAQ-9*	SV-10	IAQ-10	SV-11	IAQ-11	Ambient	SV-12	SV-13	SV-14	Ambient						
	Sub-Slab Vapor	Indoor Air		10/30/15	10/30/15	10/30/15	3/4/16	3/4/16	3/9/16	3/9/16	3/4/16	3/4/16	3/9/16	3/17/16	3/17/16	3/17/16	3/17/16	4/14/17	4/14/17	4/14/17	4/14/17	4/14/17	4/14/17
Hexane	NA	NA		5.6	7.4	6.7	0.92	3	2 J	2.4	5780	2.9	1.1	1720	20	22	0.67 J	13	3.2 U	12	16 J	13	0.6 J
2-Hexanone	NA	NA		27	20	14	2.5	0.74 U	0.74 U	0.18 U	4.5 U	0.18 U	0.18 U	22 U	2.5 J	9	0.18 U	0.18 U	7.4 U	0.18 U	7.4 U	11	0.18 U
Isopropyl Alcohol	NA	NA		1.2 U	1.2 U	3.9	20	34.2	62.2	4.4	9.8 U	18	4.9	44 U	5.2	9.3	0.81	18	76	17	83.3	21	1.9
Methylene chloride	NA	NA		1.9 U	1.9 U	1.9 U	0.63 J	0.35 U	1.5 J	5.6	2.2 U	0.76	1.7	10 U	0.35 U	0.35 U	1.4	2.6	3.5 U	2.7	3.5 U	2.2	0.76
Methyl ethyl ketone	NA	NA		56.9	64	36.9	392	0.56 U	776	2.2	1010	0.77	1.3	17 U	23	36.3	0.14 U	1.2	5.6 U	1.2	47.8	3.2	0.56 J
Methyl Isobutyl Ketone	NA	NA		0.45 U	0.45 U	0.45 U	4.9	0.9 U	4.9	0.23 U	5.7 U	0.23 U	0.23 U	27 U	8.6	4.9	0.23 U	0.23 U	9 U	0.23 U	9 U	7.8	0.23 U
Methyl Tert Butyl Ether	NA	NA		0.36 U	0.36 U	0.36 U	0.072 U	0.28 U	0.28 U	0.072 U	1.8 U	0.072 U	0.072 U	8.3 U	0.28 U	0.28 U	0.072 U	0.072 U	2.8 U	0.072 U	2.8 U	0.072 U	0.072 U
Methylmethacrylate	NA	NA		0.49 U	0.49 U	0.49 U	0.16 U	0.66 U	0.66 U	0.16 U	4.1 U	0.16 U	0.16 U	19 U	0.66 U	0.66 U	0.16 U	0.16 U	6.6 U	0.16 U	6.6 U	1	0.16 U
Propylene	NA	NA		0.55 U	4	22.2	2.6	7.9	4.5	5.5	1.4 U	0.055 U	0.055 U	6.5 U	5.5	12	0.055 U	36.8	2.2 U	33.3	23 J	39	1.1
Styrene	NA	NA		0.43 U	0.43 U	0.43 U	0.064 U	0.26 U	0.26 U	0.064 U	1.7 U	0.064 U	0.064 U	7.7 U	0.26 U	0.26 U	0.064 U	2	2.6 U	1.7	2.6 U	2.9	0.064 U
1,1,1-Trichloroethane	NA	NA		0.71 U	0.71 U	0.71 U	0.13 U	0.51 U	0.51 U	0.13 U	3.3 U	0.13 U	0.13 U	15 U	0.51 U	0.51 U	0.13 U	0.13 U	5.1 U	0.13 U	5.1 U	0.13 U	0.13 U
1,1,2,2-Tetrachloroethane	NA	NA		0.82 U	0.82 U	0.82 U	0.11 U	0.44 U	0.44 U	0.11 U	2.8 U	0.11 U	0.11 U	13 U	0.44 U	0.44 U	0.11 U	0.11 U	4.4 U	0.11 U	4.4 U	0.96 J	0.11 U
1,1,2-Trichloroethane	NA	NA		0.76 U	0.76 U	0.76 U	0.21 U	0.87 U	0.87 U	0.21 U	5.4 U	0.21 U	0.21 U	25 U	0.87 U	0.87 U	0.21 U	0.21 U	8.7 U	0.21 U	8.7 U	0.21 U	0.21 U
1,2,4-Trichlorobenzene	NA	NA		1.3 U	1.3 U	1.3 U	0.42 U	1.6 U	1.6 U	0.42 U	10 U	0.42 U	0.42 U	49 U	1.6 U	1.6 U	0.42 U	0.42 U	16 U	0.42 U	16 U	2.2	0.42 U
1,2,4-Trimethylbenzene	NA	NA		29	21	17	1.6	0.3 U	0.3 U	0.074 U	1.9 U	1.6	0.074 U	8.8 U	80.1	62.9	0.074 U	13	3 U	11	3 U	12	0.074 U
1,3,5-Trimethylbenzene	NA	NA		9.3	6.9	5.9	0.48 J	0.88 U	0.88 U	0.22 U	5.4 U	0.54 J	0.22 U	26 U	24	19	0.22 U	4	8.8 U	3.4	8.8 U	4.3	0.22 U
2,2,4-Trimethylpentane	NA	NA		2.7 J	2.6 J	3.1 J	0.11 U	2.2 J	0.43 U	2.3	2.7 U	5.1	0.84 J	13 U	13	11	0.11 U	23	4.3 U	20	4.3 U	23	0.51 J
Tertiary Butyl Alcohol	NA	NA		22	29	25	20	0.64 U	21	0.16 U	56.4	0.16 U	0.16 U	19 U	3.6	7.6	0.16 U	0.16 U	6.4 U	0.16 U	6.4 U	1.4	0.16 U
Tetrachloroethylene	>1000 Mitigate	>100 Mitigate	30	753	16	2620	1460	1.1	1500	0.75	7.5	0.49	0.95	18 U	14	258	0.16 U	9.5	8070	8.8	6520	8.1	1.2
Tetrahydrofuran	NA	NA		0.5 U	0.5 U	0.5 U	1170	0.53 U	1050	1.5	2450	0.13 U	0.13 U	16 U	0.53 U	0.53 U	0.13 U	0.13 U	5.3 U	0.13 U	5.3 U	0.86	0.13 U
Toluene	NA	NA		69.3	67.5	58.4	3.4	7.9	6	4.9	1.2 U	12	2.8	199	357	344	0.49 J	63.3	1.9 U	53.9	15 J	62.9	1.6
Trichloroethylene	>250 Mitigate	>5 Mitigate	2	1.3	0.54 U	157	1	0.4 U	4.3	0.1 U	10	0.1 U	0.1 U	12 U	0.4 U	7.5	0.1 U	0.1 U	107	0.13 J	4 U	0.39	0.1 U
Trichlorofluoromethane	NA	NA		1.8 J	0.46 U	0.46 U	1.5	0.49 U	0.49 U	1.9	3.1 U	1.4	2.1	15 U	0.49 U	0.49 U	0.12 U	1.3	4.9 U	1.3	4.9 U	1.3	1.3
Vinyl chloride	>250 Mitigate	>5 Mitigate		0.33 U	0.33 U	0.33 U	0.054 U	0.21 U	0.21 U	0.054 U	23	0.054 U	0.054 U	854	0.21 U	0.21 U	0.054 U	0.054 U	2.1 U	0.054 U	2.1 U	0.054 U	0.054 U
Vinyl Acetate	NA	NA		0.77 U	0.77 U	0.77 U	0.19 U	0.77 U	0.77 U	0.19 U	4.9 U	0.19 U	0.19 U	23 U	0.77 U	0.77 U	0.19 U	0.19 U	7.7 U	0.19 U	7.7 U	0.19 U	0.19 U
m,p-Xylene	NA	NA		80.8	69.1	57.8	2	3.5	1.9 J	1.7	7.4 U	6.1	0.96	182	297	264	0.3 U	41	12 U	35	12 U	42	0.96
o-Xylene	NA	NA		27	24	20	1.3	0.87 U	0.87 U	0.65 J	5.6 U	2.1	0.22 U	54.3 J	87.3	76.4	0.22 U	15	8.7 U	13	8.7 U	16	0.22 U
Xylenes (total)	NA	NA		108	93.4	77.7	3.2	3.5	1.9 J	2.3	5.6 U	8.3	0.96	236	384	340	0.22 U	56	8.7 U	47.8	8.7 U	58.2	0.96

**Notes**  
\* - Sub-slab and IAQ results transposed in lab; values tabulated correspond to what is believed to be the correct values  
Sample locations identified in light gray shaded headings are sub-slab soil vapor sample locations.  
Sample locations identified in dark gray shaded headings are indoor air quality or ambient air sample locations.  
In accordance with NYSDOH letter dated 9/12/2017, highlights of data for sub-slab vapors exceeding historic mitigation guidance levels have been removed.  
All results recorded in ug/m<sup>3</sup>





**Table 3-2**  
**Soil Analytical Results Summary**

Analyte  VOCs	NY SCO - Residential w/CP-51 (10/10)  (6 NYCRR 375-6 12/06)	NY SCO - Commercial w/CP-51 (10/10)  (6 NYCRR 375-6 12/06)	NY SCO - Protection of Groundwater  w/CP-51 (10/10) (6 NYCRR 375-6 12/06)	Initial Site Screening Data (October 2015)						January 2016 Investigation					
				SB-1 1 ft	SB-1 5 ft	SB-2 1 ft	SB-2 5 ft	SB-3 1 ft	SB-3 5 ft	MW-1I 20 ft	MW-1I 45 ft	MW-1I 50 ft	MW-4S 23.5 ft	MW-4S 30 ft	MW-4S 40 ft
				10/29/2015	10/29/2015	10/29/2015	10/29/2015	10/29/2015	10/29/2015	1/18/2016	1/18/2016	1/18/2016	1/19/2016	1/19/2016	1/19/2016
Acetone	100	500	0.05	0.0362	0.0025 U	<b>0.0751</b>	0.0196	0.014	0.0116	0.003 U	0.0027 U	0.0057 J	0.023	<b>0.0581</b>	0.0057 J
Benzene	2.9	44	0.06	0.00014 U	0.00015 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00018 U	0.00016 U	0.00021 U	0.00018 U	0.00022 U	0.00013 U
Bromochloromethane	-	-	-	0.00032 U	0.00035 U	0.00033 U	0.00033 U	0.00033 U	0.00032 U	0.00042 U	0.00037 U	0.00049 U	0.00042 U	0.0005 U	0.00029 U
Bromodichloromethane	-	-	-	0.00016 U	0.00018 U	0.00016 U	0.00016 U	0.00017 U	0.00016 U	0.00021 U	0.00019 U	0.00025 U	0.00021 U	0.00025 U	0.00015 U
Bromoform	-	-	-	0.00025 U	0.00027 U	0.00025 U	0.00025 U	0.00025 U	0.00024 U	0.00032 U	0.00028 U	0.00038 U	0.00032 U	0.00038 U	0.00022 U
Bromomethane	-	-	-	0.00038 U	0.00041 U	0.00038 U	0.00038 U	0.00039 U	0.00037 U	0.00049 U	0.00043 U	0.00058 U	0.00049 U	0.00059 U	0.00035 U
2-Butanone (MEK)	100	500	0.3	0.002 U	0.0022 U	0.002 U	0.002 U	0.0021 U	0.002 U	0.0026 U	0.0023 U	0.003 U	0.0026 U	0.0031 U	0.0018 U
Carbon disulfide	100		2.7	0.00024 U	0.00026 U	0.00024 U	0.00024 U	0.00024 U	0.00023 U	0.00031 U	0.00027 U	0.00036 U	0.00031 U	0.00037 U	0.00022 U
Carbon tetrachloride	1.4	22	0.76	0.00024 U	0.00026 U	0.00024 U	0.00024 U	0.00025 U	0.00024 U	0.00031 U	0.00027 U	0.00037 U	0.00031 U	0.00037 U	0.00022 U
Chlorobenzene	100	500	1.1	0.00016 U	0.00018 U	0.00016 U	0.00016 U	0.00017 U	0.00016 U	0.00021 U	0.00018 U	0.00025 U	0.00021 U	0.00025 U	0.00015 U
Chloroethane			1.9	0.0005 U	0.00054 U	0.00051 U	0.00051 U	0.00052 U	0.00049 U	0.00065 U	0.00057 U	0.00077 U	0.00065 U	0.00078 U	0.00046 U
Chloroform	10	350	0.37	0.00016 U	0.00017 U	0.00016 U	0.00016 U	0.00016 U	0.00015 U	0.0002 U	0.00018 U	0.00024 U	0.0002 U	0.00024 U	0.00014 U
Chloromethane	-	-	-	0.00027 U	0.0003 U	0.00028 U	0.00028 U	0.00028 U	0.00027 U	0.00035 U	0.00031 U	0.00042 U	0.00035 U	0.00043 U	0.00025 U
Cyclohexane	-	-	-	0.00033 U	0.00036 U	0.00033 U	0.00033 U	0.00034 U	0.00032 U	0.00043 U	0.00038 U	0.0005 U	0.00043 U	0.00051 U	0.0003 U
1,2-Dibromo-3-chloropropane	-	-	-	0.00057 U	0.00062 U	0.00058 U	0.00057 U	0.00058 U	0.00056 U	0.00073 U	0.00065 U	0.00087 U	0.00074 U	0.00089 U	0.00052 U
Dibromochloromethane				0.00021 U	0.00023 U	0.00022 U	0.00022 U	0.00022 U	0.00021 U	0.00028 U	0.00024 U	0.00033 U	0.00028 U	0.00033 U	0.00019 U
1,2-Dibromoethane	-	-	-	0.00014 U	0.00015 U	0.00014 U	0.00014 U	0.00014 U	0.00013 U	0.00018 U	0.00016 U	0.00021 U	0.00018 U	0.00021 U	0.00012 U
1,2-Dichlorobenzene	100	500	1.1	0.00013 U	0.00014 U	0.00013 U	0.00013 U	0.00013 U	0.00013 U	0.00016 U	0.00015 U	0.00019 U	0.00016 U	0.0002 U	0.00012 U
1,3-Dichlorobenzene	17	280	2.4	0.00016 U	0.00018 U	0.00017 U	0.00017 U	0.00017 U	0.00016 U	0.00021 U	0.00019 U	0.00025 U	0.00021 U	0.00026 U	0.00015 U
1,4-Dichlorobenzene	9.8	130	1.8	0.00024 U	0.00025 U	0.00024 U	0.00024 U	0.00024 U	0.00023 U	0.0003 U	0.00027 U	0.00036 U	0.0003 U	0.00037 U	0.00021 U
Dichlorodifluoromethane	-	-	-	0.00038 U	0.00041 U	0.00038 U	0.00038 U	0.00039 U	0.00037 U	0.00049 U	0.00043 U	0.00058 U	0.00049 U	0.00059 U	0.00034 U
1,1-Dichloroethane	19	240	0.27	0.00015 U	0.00016 U	0.00015 U	0.00015 U	0.00015 U	0.00014 U	0.00019 U	0.00017 U	0.00023 U	0.00019 U	0.00023 U	0.00013 U
1,2-Dichloroethane	2.3	30	0.02	0.00014 U	0.00015 U	0.00014 U	0.00014 U	0.00014 U	0.00014 U	0.00018 U	0.00016 U	0.00021 U	0.00018 U	0.00022 U	0.00013 U
1,1-Dichloroethene	100	500	0.33	0.00062 U	0.00067 U	0.00063 U	0.00063 U	0.00064 U	0.00061 U	0.0008 U	0.0007 U	0.00095 U	0.0008 U	0.00096 U	0.00056 U
cis-1,2-Dichloroethene	59	500	0.25	0.00082 U	0.00088 U	0.00082 U	0.00082 U	0.00084 U	0.0008 U	0.0011 U	0.00093 U	0.0012 U	0.0011 U	0.0013 U	0.00074 U
trans-1,2-Dichloroethene	100	500	0.19	0.00062 U	0.00067 U	0.00063 U	0.00063 U	0.00064 U	0.00061 U	0.0008 U	0.00071 U	0.00095 U	0.0008 U	0.00097 U	0.00056 U
1,2-Dichloropropane				0.00025 U	0.00027 U	0.00025 U	0.00025 U	0.00026 U	0.00024 U	0.00032 U	0.00028 U	0.00038 U	0.00032 U	0.00039 U	0.00023 U
cis-1,3-Dichloropropene	-	-	-	0.00012 U	0.00013 U	0.00012 U	0.00012 U	0.00013 U	0.00012 U	0.00016 U	0.00014 U	0.00019 U	0.00016 U	0.00019 U	0.00011 U
trans-1,3-Dichloropropene	-	-	-	0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.00019 U	0.00018 U	0.00024 U	0.00021 U	0.00028 U	0.00024 U	0.00029 U	0.00017 U
Ethylbenzene	30	390	1	0.00017 U	0.00018 U	0.00017 U	0.00017 U	0.00018 U	0.00017 U	0.00022 U	0.00019 U	0.00026 U	0.00022 U	0.00027 U	0.00015 U
Freon 113	100		6	0.00047 U	0.00051 U	0.00047 U	0.00047 U	0.00048 U	0.00046 U	0.0006 U	0.00053 U	0.00072 U	0.00061 U	0.00073 U	0.00042 U
2-Hexanone	-	-	-	0.0014 U	0.0015 U	0.0014 U	0.0014 U	0.0014 U	0.0014 U	0.0018 U	0.0016 U	0.0021 U	0.0018 U	0.0022 U	0.0013 U
Isopropylbenzene	100		2.3	0.00011 U	0.00012 U	0.00011 U	0.00011 U	0.00011 U	0.00011 U	0.00014 U	0.00013 U	0.00017 U	0.00014 U	0.00017 U	0.0001 U
Methyl Acetate	-	-	-	0.0009 U	0.00097 U	0.00091 U	0.00091 U	0.00092 U	0.00088 U	0.0012 U	0.001 U	0.0014 U	0.0012 U	0.0014 U	0.00082 U
Methylcyclohexane	-	-	-	0.00024 U	0.00026 U	0.00024 U	0.00024 U	0.00024 U	0.00023 U	0.00031 U	0.00027 U	0.00036 U	0.00031 U	0.00037 U	0.00022 U
Methyl Tert Butyl Ether	62	500	0.93	0.00016 U	0.00017 U	0.00016 U	0.00016 U	0.00016 U	0.00016 U	0.00021 U	0.00018 U	0.00024 U	0.00021 U	0.00025 U	0.00015 U
4-Methyl-2-pentanone(MIBK)			1	0.00048 U	0.00052 U	0.00049 U	0.00048 U	0.00049 U	0.00047 U	0.00062 U	0.00055 U	0.00073 U	0.00062 U	0.00075 U	0.00044 U
Methylene chloride	51	500	0.05	0.001 U	0.0011 U	0.001 U	0.001 U	0.0011 U	0.001 U	0.0013 U	0.0012 U	0.0016 U	0.0013 U	0.0016 U	0.00093 U
Styrene				0.00019 U	0.0002 U	0.00019 U	0.00019 U	0.00019 U	0.00018 U	0.00024 U	0.00021 U	0.00028 U	0.00024 U	0.00029 U	0.00017 U
1,1,2,2-Tetrachloroethane	35		0.6	0.00018 U	0.0002 U	0.00018 U	0.00018 U	0.00019 U	0.00018 U	0.00024 U	0.00021 U	0.00028 U	0.00024 U	0.00029 U	0.00017 U
Tetrachloroethene	5.5	150	1.3	0.0183	0.0196	0.0347	0.0448	0.0233	0.0238	0.0139	0.0043	0.00048 U	0.00041 U	0.00049 U	0.00029 U
Toluene	100	500	0.7	0.00022 U	0.00024 U	0.00022 U	0.00022 U	0.00022 U	0.00021 U	0.00028 U	0.00025 U	0.00033 U	0.00028 U	0.00034 U	0.0002 U
1,2,3-Trichlorobenzene				0.00018 U	0.0002 U	0.00019 U	0.00019 U	0.00019 U	0.00018 U	0.00024 U	0.00021 U	0.00028 U	0.00024 U	0.00029 U	0.00017 U
1,2,4-Trichlorobenzene			3.4	0.00018 U	0.00019 U	0.00018 U	0.00018 U	0.00018 U	0.00017 U	0.00023 U	0.0002 U	0.00027 U	0.00023 U	0.00028 U	0.00016 U
1,1,1-Trichloroethane	100	500	0.68	0.00016 U	0.00017 U	0.00016 U	0.00016 U	0.00016 U	0.00015 U	0.0002 U	0.00018 U	0.00024 U	0.0002 U	0.00024 U	0.00014 U
1,1,2-Trichloroethane	-	-	-	0.00015 U	0.00017 U	0.00016 U	0.00016 U	0.00016 U	0.00015 U	0.0002 U	0.00017 U	0.00023 U	0.0002 U	0.00024 U	0.00014 U
Trichloroethene	10	200	0.47	0.00015 U	0.0004 J	0.0007 J	0.00088 J	0.00016 U	0.00039 J	0.00074 J	0.00026 J	0.00023 U	0.0002 U	0.00024 U	0.00014 U
Trichlorofluoromethane	-	-	-	0.00026 U	0.00028 U	0.00026 U	0.00026 U	0.00027 U	0.00026 U	0.00034 U	0.0003 U	0.0004 U	0.00034 U	0.00041 U	0.00024 U
Vinyl chloride	0.21	13	0.02	0.00021 U	0.00022 U	0.00021 U	0.00021 U	0.00021 U	0.0002 U	0.00027 U	0.00023 U	0.00031 U	0.00027 U	0.00032 U	0.00019 U
Xylene (total)	100	500	1.6	0.00029 U	0.00031 U	0.00029 U	0.00029 U	0.00029 U	0.00028 U	0.00037 U	0.00033 U	0.00044 U	0.00037 U	0.00045 U	0.00026 U

**NOTE:**

All values recorded in units of mg/kg

U - Value reported under the detection limit

J - Approximated value

Cells highlighted in green and italics indicate an exceedance of the parameter's Protection of Groundwater SCO, but not the Residential or Commercial SCO.

Cells highlighted in yellow and bold indicate exceedance of the parameter's Protection of Groundwater SCO and the Residential SCO, but not the Commercial SCO.

Cells highlighted in light red and bold italics indicate an exceedance of the parameter's Protection of Groundwater SCO, Residential SCO, and Commercial SCO.

***Table 3-2***  
***Soil Analytical Results Summary***

Analyte  VOCs	NY SCO - Residential w/CP-51 (10/10)  (6 NYCRR 375-6 12/06)	NY SCO - Commercial w/CP-51 (10/10)  (6 NYCRR 375-6 12/06)	NY SCO - Protection of Groundwater  w/CP-51 (10/10) (6 NYCRR 375-6 12/06)	March 2016 Investigation							
				MW-5 22.5 ft 3/8/2016	MW-5 30 ft 3/8/2016	MW-5 35 ft 3/8/2016	MW-6 23 ft 3/8/2016	MW-6 30 ft 3/8/2016	MW-7 23 ft 3/8/2016	MW-7 34 ft 3/8/2016	
Acetone	100	500	0.05	0.0129 J	0.0029 U	0.0029 U	0.203	0.283	0.029 U	0.033 U	
Benzene	2.9	44	0.06	0.00017 U	0.00017 U	0.00017 U	0.0022 U	0.003 U	0.0017 U	0.002 U	
Bromochloromethane	-	-	-	0.0004 U	0.0004 U	0.0004 U	0.0052 U	0.0069 U	0.004 U	0.0045 U	
Bromodichloromethane	-	-	-	0.0002 U	0.0002 U	0.0002 U	0.0026 U	0.0035 U	0.002 U	0.0023 U	
Bromoform	-	-	-	0.00031 U	0.00031 U	0.00031 U	0.004 U	0.0053 U	0.003 U	0.0035 U	
Bromomethane	-	-	-	0.00048 U	0.00048 U	0.00048 U	0.0061 U	0.0082 U	0.0047 U	0.0053 U	
2-Butanone (MEK)	100	500	0.3	0.0025 U	0.0025 U	0.0025 U	0.032 U	0.043 U	0.024 U	0.028 U	
Carbon disulfide	100		2.7	0.0003 U	0.0003 U	0.0003 U	0.0038 U	0.0051 U	0.0029 U	0.0034 U	
Carbon tetrachloride	1.4	22	0.76	0.0003 U	0.0003 U	0.0003 U	0.0039 U	0.0052 U	0.0029 U	0.0034 U	
Chlorobenzene	100	500	1.1	0.0002 U	0.0002 U	0.0002 U	0.0026 U	0.0035 U	0.002 U	0.0023 U	
Chloroethane			1.9	0.00063 U	0.00063 U	0.00063 U	0.0081 U	0.011 U	0.0062 U	0.0071 U	
Chloroform	10	350	0.37	0.00019 U	0.00019 U	0.00019 U	0.0025 U	0.0033 U	0.0019 U	0.0022 U	
Chloromethane	-	-	-	0.00034 U	0.00034 U	0.00034 U	0.0044 U	0.0059 U	0.0034 U	0.0039 U	
Cyclohexane	-	-	-	0.00041 U	0.00041 U	0.00041 U	0.0053 U	0.0071 U	0.004 U	0.0046 U	
1,2-Dibromo-3-chloropropane	-	-	-	0.00071 U	0.00071 U	0.00071 U	0.0091 U	0.012 U	0.007 U	0.008 U	
Dibromochloromethane				0.00027 U	0.00027 U	0.00027 U	0.0034 U	0.0046 U	0.0026 U	0.003 U	
1,2-Dibromoethane	-	-	-	0.00017 U	0.00017 U	0.00017 U	0.0022 U	0.0029 U	0.0017 U	0.0019 U	
1,2-Dichlorobenzene	100	500	1.1	0.00016 U	0.00016 U	0.00031 J	0.002 U	0.0027 U	0.0016 U	0.0018 U	
1,3-Dichlorobenzene	17	280	2.4	0.00021 U	0.00021 U	0.00021 U	0.0026 U	0.0035 U	0.002 U	0.0023 U	
1,4-Dichlorobenzene	9.8	130	1.8	0.00029 U	0.00029 U	0.00029 U	0.0038 U	0.005 U	0.0029 U	0.0033 U	
Dichlorodifluoromethane	-	-	-	0.00047 U	0.00047 U	0.00047 U	0.0061 U	0.0081 U	0.0046 U	0.0053 U	
1,1-Dichloroethane	19	240	0.27	0.00018 U	0.00018 U	0.00018 U	0.0024 U	0.0032 U	0.0018 U	0.0021 U	
1,2-Dichloroethane	2.3	30	0.02	0.00018 U	0.00018 U	0.00018 U	0.0023 U	0.003 U	0.0017 U	0.002 U	
1,1-Dichloroethene	100	500	0.33	0.00077 U	0.00077 U	0.0025	0.0099 U	0.013 U	0.0076 U	0.0087 U	
cis-1,2-Dichloroethene	59	500	0.25	0.001 U	2.44	3.67	0.013 U	0.017 U	0.01 U	0.011 U	
trans-1,2-Dichloroethene	100	500	0.19	0.00078 U	0.00078 U	0.0044	0.01 U	0.013 U	0.0076 U	0.0087 U	
1,2-Dichloropropane				0.00031 U	0.00031 U	0.00031 U	0.004 U	0.0053 U	0.003 U	0.0035 U	
cis-1,3-Dichloropropene	-	-	-	0.00015 U	0.00015 U	0.00015 U	0.002 U	0.0026 U	0.0015 U	0.0017 U	
trans-1,3-Dichloropropene	-	-	-	0.00023 U	0.00023 U	0.00023 U	0.003 U	0.004 U	0.0023 U	0.0026 U	
Ethylbenzene	30	390	1	0.0053	0.00021 U	0.00021 U	0.01 J	0.0088 J	0.0021 U	0.0024 U	
Freon 113	100		6	0.00059 U	0.00059 U	0.00059 U	0.0075 U	0.01 U	0.0057 U	0.0066 U	
2-Hexanone	-	-	-	0.0018 U	0.0018 U	0.0018 U	0.023 U	0.03 U	0.017 U	0.02 U	
Isopropylbenzene	100		2.3	0.00014 U	0.00014 U	0.00015 J	0.0018 U	0.0024 U	0.0014 U	0.0016 U	
Methyl Acetate	-	-	-	0.0011 U	0.0011 U	0.0011 U	0.014 U	0.019 U	0.011 U	0.013 U	
Methylcyclohexane	-	-	-	0.0003 U	0.0003 U	0.0003 U	0.0038 U	0.0051 U	0.0029 U	0.0033 U	
Methyl Tert Butyl Ether	62	500	0.93	0.0002 U	0.0002 U	0.0002 U	0.0026 U	0.0034 U	0.002 U	0.0022 U	
4-Methyl-2-pentanone(MIBK)			1	0.0006 U	0.0006 U	0.0006 U	0.0077 U	0.01 U	0.0059 U	0.0067 U	
Methylene chloride	51	500	0.05	0.0013 U	0.0013 U	0.0013 U	0.016 U	0.022 U	0.013 U	0.014 U	
Styrene				0.00023 U	0.00023 U	0.00023 U	0.003 U	0.004 U	0.0023 U	0.0026 U	
1,1,2,2-Tetrachloroethane	35		0.6	0.00023 U	0.00023 U	0.00023 U	0.0029 U	0.0039 U	0.0022 U	0.0026 U	
Tetrachloroethene	5.5	150	1.3	0.0114	2.74	3.35	0.0051 U	0.0067 U	0.0039 U	0.0076 J	
Toluene	100	500	0.7	0.117	0.00027 U	0.00027 U	0.143	0.124	0.0027 U	0.0031 U	
1,2,3-Trichlorobenzene				0.00023 U	0.00023 U	0.00023 U	0.003 U	0.0039 U	0.0023 U	0.0026 U	
1,2,4-Trichlorobenzene			3.4	0.00022 U	0.00022 U	0.00022 U	0.0028 U	0.0038 U	0.0022 U	0.0025 U	
1,1,1-Trichloroethane	100	500	0.68	0.00019 U	0.00019 U	0.00019 U	0.0025 U	0.0033 U	0.0019 U	0.0022 U	
1,1,2-Trichloroethane	-	-	-	0.00019 U	0.00019 U	0.00019 U	0.0025 U	0.0033 U	0.0019 U	0.0022 U	
Trichloroethene	10	200	0.47	0.00019 U	0.101	0.636	0.0025 U	0.0033 U	0.0019 U	0.0022 U	
Trichlorofluoromethane	-	-	-	0.00033 U	0.00033 U	0.00033 U	0.0042 U	0.0056 U	0.0032 U	0.0037 U	
Vinyl chloride	0.21	13	0.02	0.00026 U	0.00026 U	0.00026 U	0.0033 U	0.0044 U	0.0025 U	0.0029 U	
Xylene (total)	100	500	1.6	0.0265	0.00036 U	0.00036 U	0.0564	0.0436	0.0035 U	0.004 U	

**NOTE:**

All values recorded in units of mg/kg

U - Value reported under the detection limit

J - Approximated value

*Cells highlighted in green and italics indicate an exceedance of the parameter's Protection of Groundwater SC*

**Cells highlighted in yellow and bold indicate exceedance of the parameter's Protection of Groundwater SC**

***Cells highlighted in light red and bold italics indicate an exceedance of the parameter's Protection of Groun***

**Table 3-2**  
**Soil Analytical Results Summary**

Analyte  VOCs	NY SCO - Residential w/CP-51 (10/10)  (6 NYCRR 375-6 12/06)	NY SCO - Commercial w/CP-51 (10/10)  (6 NYCRR 375-6 12/06)	NY SCO - Protection of Groundwater  w/CP-51 (10/10) (6 NYCRR 375-6 12/06)	June 2016 Investigation											
				MW-5I 20 ft 6/22/2016	MW-5I 23 ft 6/22/2016	MW-5I ft 6/22/2016	MW-5I 50 ft 6/22/2016	MW-8 19.5 ft 6/22/2016	MW-8 30 ft 6/22/2016	MW-9 19.4 ft 6/22/2016	MW-9 30 ft 6/22/2016	MW-10 19.5 ft 6/22/2016	MW-10 30 ft 6/22/2016		
Acetone	100	500	0.05	0.0022 U	0.0022 U	0.0024 U	0.0026 U	0.0023 U	0.0296	0.0077 J	0.002 U	0.0027 U	0.0025 U		
Benzene	2.9	44	0.06	0.00014 U	0.00014 U	0.00016 U	0.00017 U	0.00015 U	0.00013 U	0.00015 U	0.00013 U	0.00017 U	0.00016 U		
Bromochloromethane	-	-	-	0.00038 U	0.00038 U	0.00041 U	0.00044 U	0.0004 U	0.00036 U	0.0004 U	0.00035 U	0.00046 U	0.00042 U		
Bromodichloromethane	-	-	-	0.00018 U	0.00018 U	0.0002 U	0.00021 U	0.00019 U	0.00017 U	0.00019 U	0.00017 U	0.00022 U	0.0002 U		
Bromoform	-	-	-	0.00032 U	0.00032 U	0.00034 U	0.00037 U	0.00033 U	0.0003 U	0.00033 U	0.00029 U	0.00039 U	0.00035 U		
Bromomethane	-	-	-	0.00058 U	0.00058 U	0.00063 U	0.00067 U	0.00061 U	0.00054 U	0.0006 U	0.00053 U	0.00071 U	0.00064 U		
2-Butanone (MEK)	100	500	0.3	0.0021 U	0.0021 U	0.0023 U	0.0024 U	0.0022 U	0.002 U	0.0022 U	0.0019 U	0.0026 U	0.0023 U		
Carbon disulfide	100		2.7	0.0002 U	0.0002 U	0.00022 U	0.00023 U	0.00021 U	0.00019 U	0.00021 U	0.00018 U	0.00025 U	0.00022 U		
Carbon tetrachloride	1.4	22	0.76	0.0002 U	0.0002 U	0.00022 U	0.00023 U	0.00021 U	0.00019 U	0.00021 U	0.00018 U	0.00024 U	0.00022 U		
Chlorobenzene	100	500	1.1	0.00019 U	0.00019 U	0.00021 U	0.00022 U	0.0002 U	0.00018 U	0.0002 U	0.00018 U	0.00024 U	0.00021 U		
Chloroethane			1.9	0.00051 U	0.00051 U	0.00056 U	0.00059 U	0.00054 U	0.00048 U	0.00053 U	0.00047 U	0.00063 U	0.00056 U		
Chloroform	10	350	0.37	0.00028 U	0.00028 U	0.00031 U	0.00033 U	0.0003 U	0.00027 U	0.0003 U	0.00026 U	0.00035 U	0.00031 U		
Chloromethane	-	-	-	0.00025 U	0.00025 U	0.00027 U	0.00029 U	0.00026 U	0.00024 U	0.00026 U	0.00023 U	0.00031 U	0.00028 U		
Cyclohexane	-	-	-	0.00065 U	0.00065 U	0.00071 U	0.00075 U	0.00068 U	0.00061 U	0.00068 U	0.00059 U	0.0008 U	0.00072 U		
1,2-Dibromo-3-chloropropane	-	-	-	0.00058 U	0.00057 U	0.00063 U	0.00067 U	0.00061 U	0.00054 U	0.0006 U	0.00053 U	0.00071 U	0.00064 U		
Dibromochloromethane				0.00018 U	0.00018 U	0.00019 U	0.00021 U	0.00019 U	0.00017 U	0.00019 U	0.00016 U	0.00022 U	0.0002 U		
1,2-Dibromoethane	-	-	-	0.00029 U	0.00029 U	0.00031 U	0.00033 U	0.0003 U	0.00027 U	0.0003 U	0.00026 U	0.00035 U	0.00032 U		
1,2-Dichlorobenzene	100	500	1.1	0.0002 U	0.0002 U	0.00022 U	0.00024 U	0.00021 U	0.00019 U	0.00021 U	0.00019 U	0.00025 U	0.00022 U		
1,3-Dichlorobenzene	17	280	2.4	0.00016 U	0.00016 U	0.00018 U	0.00019 U	0.00017 U	0.00015 U	0.00017 U	0.00015 U	0.0002 U	0.00018 U		
1,4-Dichlorobenzene	9.8	130	1.8	0.00018 U	0.00018 U	0.0002 U	0.00021 U	0.00019 U	0.00017 U	0.00019 U	0.00017 U	0.00022 U	0.0002 U		
Dichlorodifluoromethane	-	-	-	0.00065 U	0.00065 U	0.00071 U	0.00075 U	0.00068 U	0.00061 U	0.00068 U	0.00059 U	0.00079 U	0.00072 U		
1,1-Dichloroethane	19	240	0.27	0.00022 U	0.00022 U	0.00024 U	0.00026 U	0.00023 U	0.00021 U	0.00023 U	0.0002 U	0.00027 U	0.00025 U		
1,2-Dichloroethane	2.3	30	0.02	0.0002 U	0.0002 U	0.00022 U	0.00024 U	0.00021 U	0.00019 U	0.00021 U	0.00019 U	0.00025 U	0.00022 U		
1,1-Dichloroethene	100	500	0.33	0.00018 U	0.00018 U	0.0002 U	0.00021 U	0.00019 U	0.00017 U	0.00019 U	0.00017 U	0.00022 U	0.0002 U		
cis-1,2-Dichloroethene	59	500	0.25	0.0308	0.00052 U	0.00057 U	0.0006 U	0.00055 U	0.00049 U	0.00054 U	0.00082 J	0.00064 U	0.00058 U		
trans-1,2-Dichloroethene	100	500	0.19	0.00019 U	0.00019 U	0.0002 U	0.00022 U	0.0002 U	0.00018 U	0.0002 U	0.00017 U	0.00023 U	0.00021 U		
1,2-Dichloropropane				0.00037 U	0.00037 U	0.0004 U	0.00043 U	0.00039 U	0.00035 U	0.00038 U	0.00034 U	0.00045 U	0.00041 U		
cis-1,3-Dichloropropene	-	-	-	0.00023 U	0.00023 U	0.00025 U	0.00027 U	0.00025 U	0.00022 U	0.00024 U	0.00021 U	0.00029 U	0.00026 U		
trans-1,3-Dichloropropene	-	-	-	0.00026 U	0.00026 U	0.00029 U	0.0003 U	0.00028 U	0.00025 U	0.00027 U	0.00024 U	0.00032 U	0.00029 U		
Ethylbenzene	30	390	1	0.00018 U	0.00018 U	0.00019 U	0.00021 U	0.00019 U	0.00017 U	0.00018 U	0.00016 U	0.00022 U	0.0002 U		
Freon 113	100		6	0.00058 U	0.00057 U	0.00063 U	0.00067 U	0.00061 U	0.00054 U	0.0006 U	0.00053 U	0.00071 U	0.00064 U		
2-Hexanone	-	-	-	0.0017 U	0.0017 U	0.0018 U	0.0019 U	0.0017 U	0.0016 U	0.0017 U	0.0015 U	0.002 U	0.0018 U		
Isopropylbenzene	100		2.3	0.00018 U	0.00018 U	0.0002 U	0.00021 U	0.00019 U	0.00017 U	0.00019 U	0.00017 U	0.00022 U	0.0002 U		
Methyl Acetate	-	-	-	0.0024 U	0.0024 U	0.0026 U	0.0028 U	0.0025 U	0.0023 U	0.0025 U	0.0022 U	0.003 U	0.0027 U		
Methylcyclohexane	-	-	-	0.0006 U	0.0006 U	0.00065 U	0.0007 U	0.00063 U	0.00057 U	0.00063 U	0.00055 U	0.00074 U	0.00066 U		
Methyl Tert Butyl Ether	62	500	0.93	0.00032 U	0.00031 U	0.00034 U	0.00036 U	0.00033 U	0.0003 U	0.00033 U	0.00029 U	0.00039 U	0.00035 U		
4-Methyl-2-pentanone(MIBK)			1	0.001 U	0.001 U	0.0011 U	0.0012 U	0.0011 U	0.00095 U	0.0011 U	0.00092 U	0.0012 U	0.0011 U		
Methylene chloride	51	500	0.05	0.0014 J	0.0011 J	0.00098 J	0.0011 J	0.0012 J	0.00051 J	0.0015 J	0.0012 J	0.0012 J	0.0012 J		
Styrene				0.00017 U	0.00017 U	0.00019 U	0.0002 U	0.00018 U	0.00016 U	0.00018 U	0.00016 U	0.00021 U	0.00019 U		
1,1,2,2-Tetrachloroethane	35		0.6	0.00029 U	0.00028 U	0.00031 U	0.00033 U	0.0003 U	0.00027 U	0.0003 U	0.00026 U	0.00035 U	0.00031 U		
Tetrachloroethene	5.5	150	1.3	0.736	0.0036	0.0022 J	0.0026 J	0.00035 U	0.00048 J	0.00035 U	0.0028	0.00077 J	0.0011 J		
Toluene	100	500	0.7	0.00015 U	0.00015 U	0.00016 U	0.00017 U	0.00016 U	0.00014 U	0.00015 U	0.00014 U	0.00018 U	0.00016 U		
1,2,3-Trichlorobenzene				0.00027 U	0.00027 U	0.00029 U	0.00031 U	0.00028 U	0.00025 U	0.00028 U	0.00025 U	0.00033 U	0.0003 U		
1,2,4-Trichlorobenzene			3.4	0.00022 U	0.00022 U	0.00024 U	0.00025 U	0.00023 U	0.0002 U	0.00023 U	0.0002 U	0.00027 U	0.00024 U		
1,1,1-Trichloroethane	100	500	0.68	0.0002 U	0.0002 U	0.00022 U	0.00023 U	0.00021 U	0.00019 U	0.00021 U	0.00018 U	0.00024 U	0.00022 U		
1,1,2-Trichloroethane	-	-	-	0.00039 U	0.00038 U	0.00042 U	0.00044 U	0.0004 U	0.00036 U	0.0004 U	0.00035 U	0.00047 U	0.00042 U		
Trichloroethene	10	200	0.47	0.0039	0.00026 J	0.00025 U	0.00026 U	0.00024 U	0.00021 U	0.00024 U	0.00021 U	0.00028 U	0.00025 U		
Trichlorofluoromethane	-	-	-	0.00075 U	0.00075 U	0.00082 U	0.00087 U	0.00079 U	0.00071 U	0.00078 U	0.00068 U	0.00092 U	0.00083 U		
Vinyl chloride	0.21	13	0.02	0.00024 U	0.00024 U	0.00026 U	0.00028 U	0.00025 U	0.00023 U	0.00025 U	0.00022 U	0.00029 U	0.00027 U		
Xylene (total)	100	500	1.6	0.00024 U	0.00024 U	0.00026 U	0.00028 U	0.00025 U	0.00023 U	0.00025 U	0.00022 U	0.00029 U	0.00027 U		

**NOTE:**

All values recorded in units of mg/kg

U - Value reported under the detection limit

J - Approximated value

*Cells highlighted in green and italics indicate an exceedance of the parameter's Protection of Groundwater SC*

**Cells highlighted in yellow and bold indicate exceedance of the parameter's Protection of Groundwater SC**

***Cells highlighted in light red and bold italics indicate an exceedance of the parameter's Protection of Groun***

***Table 3-3***  
***Soil Sampling Results Summary (SVOCs)***

Analyte	NY SCO - Residential w/CP-51 (10/10)  (6 NYCRR 375-6 12/06)	NY SCO - Commercial w/CP-51 (10/10)  (6 NYCRR 375-6 12/06)	NY SCO - Industrial w/CP-51 (10/10)  (6 NYCRR 375-6 12/06)	SB-1 1 ft 10/29/2015	SB-1 5 ft 10/29/2015	SB-2 1 ft 10/29/2015	SB-2 5 ft 10/29/2015	SB-3 1 ft 10/29/2015	SB-3 5 ft 10/29/2015
GC/MS Semi-volatiles (SW846 8270D) (mg/kg)									
2-Chlorophenol	100			0.027 U	0.025 U	0.027 U	0.025 U	0.027 U	0.026 U
4-Chloro-3-methyl phenol	-	-	-	0.033 U	0.031 U	0.033 U	0.03 U	0.033 U	0.031 U
2,4-Dichlorophenol	100			0.029 U	0.027 U	0.029 U	0.027 U	0.029 U	0.028 U
2,4-Dimethylphenol	-	-	-	0.066 U	0.062 U	0.066 U	0.061 U	0.066 U	0.063 U
2,4-Dinitrophenol	100			0.16 U	0.15 U	0.16 U	0.15 U	0.16 U	0.15 U
4,6-Dinitro-o-cresol	-	-	-	0.069 U	0.065 U	0.069 U	0.064 U	0.069 U	0.066 U
2-Methylphenol	100	500	1000	0.052 U	0.049 U	0.052 U	0.049 U	0.052 U	0.05 U
3&4-Methylphenol	-	-	-	0.034 U	0.033 U	0.035 U	0.032 U	0.035 U	0.033 U
2-Nitrophenol				0.033 U	0.031 U	0.033 U	0.031 U	0.033 U	0.032 U
4-Nitrophenol				0.061 U	0.058 U	0.061 U	0.057 U	0.061 U	0.059 U
Pentachlorophenol	2.4	6.7	55	0.088 U	0.083 U	0.088 U	0.082 U	0.088 U	0.085 U
Phenol	100	500	1000	0.027 U	0.025 U	0.027 U	0.025 U	0.027 U	0.026 U
2,3,4,6-Tetrachlorophenol	-	-	-	0.034 U	0.032 U	0.034 U	0.032 U	0.034 U	0.033 U
2,4,5-Trichlorophenol	100			0.032 U	0.031 U	0.033 U	0.03 U	0.033 U	0.031 U
2,4,6-Trichlorophenol				0.029 U	0.027 U	0.029 U	0.027 U	0.029 U	0.028 U
Acenaphthene	100	500	1000	0.034 U	0.032 U	0.034 U	0.032 U	0.034 U	0.033 U
Acenaphthylene	100	500	1000	0.0038 U	0.0036 U	0.0038 U	0.0035 U	0.0038 U	0.0036 U
Acetophenone	-	-	-	0.0061 U	0.0058 U	0.0061 U	0.0057 U	0.0061 U	0.0059 U
Anthracene	100	500	1000	0.0031 U	0.0029 U	0.0031 U	0.0029 U	0.0031 U	0.003 U
Atrazine	-	-	-	0.015 U	0.014 U	0.015 U	0.014 U	0.015 U	0.014 U
Benzo(a)anthracene	1	5.6	11	0.007 U	0.0066 U	0.007 U	0.0065 U	0.007 U	0.0067 U
Benzo(a)pyrene	1	1	1.1	0.0077 U	0.0072 U	0.0077 U	0.0071 U	0.0077 U	0.0074 U
Benzo(b)fluoranthene	1	5.6	11	0.0074 U	0.007 U	0.0074 U	0.0069 U	0.0074 U	0.0071 U
Benzo(g,h,i)perylene	100	500	1000	0.011 U	0.01 U	0.011 U	0.01 U	0.011 U	0.01 U
Benzo(k)fluoranthene	1	56	110	0.008 U	0.0076 U	0.0081 U	0.0075 U	0.0081 U	0.0077 U
4-Bromophenyl phenyl ether	-	-	-	0.0082 U	0.0078 U	0.0082 U	0.0076 U	0.0082 U	0.0079 U
Butyl benzyl phthalate	100			0.019 U	0.018 U	0.02 U	0.018 U	0.02 U	0.019 U
1,1'-Biphenyl				0.0067 U	0.0063 U	0.0067 U	0.0062 U	0.0067 U	0.0064 U
Benzaldehyde	-	-	-	0.009 U	0.0085 U	0.009 U	0.0084 U	0.009 U	0.0087 U
2-Chloronaphthalene	-	-	-	0.0052 U	0.0049 U	0.0052 U	0.0048 U	0.0052 U	0.005 U
4-Chloroaniline	100			0.0096 U	0.009 U	0.0096 U	0.0089 U	0.0096 U	0.0092 U
Carbazole	-	-	-	0.004 U	0.0038 U	0.004 U	0.0037 U	0.004 U	0.0038 U
Caprolactam	-	-	-	0.023 U	0.022 U	0.023 U	0.022 U	0.023 U	0.022 U
Chrysene	1	56	110	0.0058 U	0.0055 U	0.0058 U	0.0054 U	0.0058 U	0.0056 U
bis(2-Chloroethoxy)methane	-	-	-	0.0082 U	0.0077 U	0.0082 U	0.0076 U	0.0082 U	0.0079 U
bis(2-Chloroethyl)ether	-	-	-	0.015 U	0.014 U	0.015 U	0.014 U	0.015 U	0.014 U
bis(2-Chloroisopropyl)ether	-	-	-	0.0083 U	0.0078 U	0.0083 U	0.0077 U	0.0083 U	0.0079 U
4-Chlorophenyl phenyl ether	-	-	-	0.0068 U	0.0064 U	0.0068 U	0.0063 U	0.0068 U	0.0065 U
2,4-Dinitrotoluene	-	-	-	0.0068 U	0.0064 U	0.0068 U	0.0063 U	0.0068 U	0.0065 U
2,6-Dinitrotoluene	1.03			0.0093 U	0.0088 U	0.0093 U	0.0086 U	0.0093 U	0.0089 U
3,3'-Dichlorobenzidine	-	-	-	0.024 U	0.022 U	0.024 U	0.022 U	0.024 U	0.023 U
1,4-Dioxane	9.8	130	250	0.024 U	0.023 U	0.024 U	0.023 U	0.024 U	0.023 U
Dibenzo(a,h)anthracene	0.33	0.56	1.1	0.013 U	0.012 U	0.013 U	0.012 U	0.013 U	0.012 U
Dibenzofuran	14	350	1000	0.005 U	0.0047 U	0.005 U	0.0047 U	0.005 U	0.0048 U
Di-n-butyl phthalate	100			0.0043 U	0.004 U	0.0043 U	0.004 U	0.0043 U	0.0041 U
Di-n-octyl phthalate	100			0.0049 U	0.0046 U	0.0049 U	0.0045 U	0.0049 U	0.0047 U
Diethyl phthalate	100			0.0046 U	0.0043 U	0.0046 U	0.0043 U	0.0046 U	0.0044 U
Dimethyl phthalate	100			0.0052 U	0.0049 U	0.0052 U	0.0048 U	0.0052 U	0.005 U
bis(2-Ethylhexyl)phthalate	50			0.223 U	0.012 U	1.68	0.012 U	0.013 U	0.012 U
Fluoranthene	100	500	1000	0.0044 U	0.0041 U	0.0044 U	0.0041 U	0.0044 U	0.0042 U
Fluorene	100	500	1000	0.0043 U	0.004 U	0.0043 U	0.004 U	0.0043 U	0.0041 U
Hexachlorobenzene	0.41	6	12	0.0071 U	0.0067 U	0.0071 U	0.0066 U	0.0071 U	0.0068 U
Hexachlorobutadiene	-	-	-	0.0096 U	0.009 U	0.0096 U	0.0089 U	0.0096 U	0.0092 U
Hexachlorocyclopentadiene				0.057 U	0.054 U	0.057 U	0.053 U	0.057 U	0.055 U
Hexachloroethane	-	-	-	0.012 U	0.011 U	0.012 U	0.011 U	0.012 U	0.011 U
Indeno(1,2,3-cd)pyrene	0.5	5.6	11	0.019 U	0.018 U	0.019 U	0.017 U	0.019 U	0.018 U
Isophorone	100			0.0067 U	0.0064 U	0.0068 U	0.0063 U	0.0068 U	0.0065 U
2-Methylnaphthalene	0.41			0.0067 U	0.0064 U	0.0068 U	0.0063 U	0.0068 U	0.0065 U
2-Nitroaniline				0.0082 U	0.0077 U	0.0082 U	0.0076 U	0.0082 U	0.0079 U
3-Nitroaniline				0.01 U	0.0097 U	0.01 U	0.0095 U	0.01 U	0.0098 U
4-Nitroaniline	-	-	-	0.012 U	0.011 U	0.012 U	0.011 U	0.012 U	0.012 U
Naphthalene	100	500	1000	0.0058 U	0.0054 U	0.0058 U	0.0054 U	0.0058 U	0.0055 U
Nitrobenzene	3.7	69	140	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
N-Nitroso-di-n-propylamine	-	-	-	0.011 U	0.01 U	0.011 U	0.0099 U	0.011 U	0.01 U
N-Nitrosodiphenylamine				0.019 U	0.018 U	0.019 U	0.018 U	0.019 U	0.018 U
Phenanthrene	100	500	1000	0.004 U	0.0038 U	0.004 U	0.0037 U	0.004 U	0.0038 U
Pyrene	100	500	1000	0.0045 U	0.0043 U	0.0045 U	0.0042 U	0.0045 U	0.0043 U
1,2,4,5-Tetrachlorobenzene	-	-	-	0.0087 U	0.0082 U	0.0087 U	0.008 U	0.0087 U	0.0083 U

**NOTE:**  
All values recorded in units of mg/kg  
U - Value reported under the detection limit  
J - Approximated value

Cells highlighted in green and italics indicate an exceedance of the parameter's Protection of Groundwater SCO, but not the Residential or Commercial SCO.

Cells highlighted in yellow and bold indicate exceedance of the parameter's Protection of Groundwater SCO and the Residential SCO, but not the Commercial SCO.

Cells highlighted in light red and bold italics indicate an exceedance of the parameter's Protection of Groundwater SCO, Residential SCO, and Commercial SCO.

**Table 3-5**  
**Soil Sampling Results Summary (Inorganics)**

Analyte	NY SCO - Residential w/CP-51 (10/10) (6 NYCRR 375-6 12/06)	NY SCO - Commercial w/CP-51 (10/10) (6 NYCRR 375-6 12/06)	NY SCO - Industrial w/CP-51 (10/10) (6 NYCRR 375-6 12/06)	SB-1 1 ft 10/29/2015	SB-1 5 ft 10/29/2015	SB-2 1 ft 10/29/2015	SB-2 5 ft 10/29/2015	SB-3 1 ft 10/29/2015	SB-3 5 ft 10/29/2015
<b>Metals Analysis (mg/kg)</b>									
Aluminum				6060	4560	4950	4200	4880	5150
Antimony				2.2 U	2 U	2.2 U	2 U	2.3 U	2.1 U
Arsenic	16	16	16	2.2	2 U	2.2 U	2 U	2.3 U	2.1 U
Barium	350	400	10000	25.2	23.7	22 U	21.6	23.5	23.8
Beryllium	14	590	2700	0.44	0.29	0.28	0.31	0.32	0.32
Cadmium	2.5	9.3	60	0.55 U	0.5 U	0.55 U	0.5 U	0.57 U	0.52 U
Calcium				1080	1020	1460	868	1000	1210
Chromium	-	-	-	18.6	12.5	13.8	13.9	15.5	15.7
Cobalt	30			9.4	5.3	32.3	5.8	8.4	6.7
Copper	270	270	10000	10.2	9.3	8.1	8.7	9.5	9.4
Iron	2000			12700	9740	10400	9930	11100	10600
Lead	400	1000	3900	5.6	4.2	4.4	3.8	5	4.9
Magnesium	-	-	-	2800	2450	2780	2090	2120	2490
Manganese	2000	10000	10000	272	244	210	239	257	265
Mercury	0.81	2.8	5.7	0.035 U	0.032 U	0.035 U	0.033 U	0.036 U	0.031 U
Nickel	140	310	10000	48.6	50.7	37	41.5	43	46.1
Potassium	-	-	-	1300	990 U	1100 U	1000 U	1100 U	1000 U
Selenium	36	1500	6800	2.2 U	2 U	2.2 U	2 U	2.3 U	2.1 U
Silver	36	1500	6800	0.64	0.5 U	1	0.5 U	0.57 U	0.52 U
Sodium	-	-	-	1100 U	990 U	1100 U	1000 U	1100 U	1000 U
Thallium				1.1 U	0.99 U	1.1 U	1 U	1.1 U	1 U
Vanadium	100			20.7	16.1	15.2	14	15.9	16.1
Zinc	2200	10000	10000	24	20.8	19.5	19.1	20.8	20.3

All values recorded in units of mg/kg

U - Value reported under the detection limit

*Cells highlighted in green and italics indicate an exceedance of the parameter's Industrial SCO, but not the Residential or Commercial SCO.*

**Cells highlighted in yellow and bold indicate exceedance of the parameter's Industrial and Commercial SCO, but not the Residential SCO.**

***Cells highlighted in light red and bold italics indicate an exceedance of the parameter's Protection of Residential SCO, Commercial SCO, and Industrial SCO.***



**Table 3-6**  
**Groundwater Sampling Results Summary (VOCs)**

Analyte  VOCs	NYSDEC Class GA Groundwater Quality Standard	February 2016 Investigation Summary						March 2016 Supplemental Data			July 2016 Supplemental Data			
		MW-1I 2/10/2016	MW-1S 2/10/2016	MW-2 2/10/2016	MW-3 2/10/2016	MW-4S 2/10/2016	MW-4I 2/10/2016	MW-5S 3/18/2016	MW-6 3/18/2016	MW-7 3/18/2016	MW-5I 7/8/2016	MW-8 7/8/2016	MW-9 7/8/2016	MW-10 7/8/2016
Acetone	-	-	-	-	-	-	-	-	-	-	3.8 U	3.8 U	3.8 U	3.8 U
Acrolein	5	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	1.6 U	16 U	1.6 U	1.6 U	-	-	-	-
Acrylonitrile	5	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U	26 U	2.6 U	2.6 U	-	-	-	-
Benzene	1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U	0.1 U	0.1 U	0.14 U	0.14 U	0.66	0.14 U
Bromochloromethane	5	-	-	-	-	-	-	-	-	-	0.46 U	0.46 U	0.46 U	0.46 U
Bromodichloromethane	-	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1 U	0.1 U	0.1 U	0.55 U	0.55 U	0.55 U	0.55 U
Bromoform	-	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	1.7 U	0.17 U	0.17 U	0.34 U	0.34 U	0.34 U	0.34 U
Bromomethane	5	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	0.57 U	5.7 U	0.57 U	0.57 U	0.46 U	0.46 U	0.46 U	0.46 U
2-Butanone (MEK)	-	-	-	-	-	-	-	-	-	-	1.9 U	1.9 U	1.9 U	1.9 U
Carbon disulfide	-	-	-	-	-	-	-	-	-	-	0.33 U	0.33 U	0.33 U	0.33 U
Carbon tetrachloride	5	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U	0.96 U	0.096 U	0.096 U	0.54 U	0.54 U	0.54 U	0.54 U
Chlorobenzene	5	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.093 U	0.93 U	0.093 U	0.093 U	0.17 U	0.17 U	0.17 U	0.17 U
Chloroethane	5	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	2.1 U	0.21 U	0.21 U	0.44 U	0.44 U	0.44 U	0.44 U
2-Chloroethyl vinyl ether	-	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	0.5 U	0.5 U	-	-	-	-
Chloroform	7	0.89 J	0.49 J	0.62 J	0.51 J	0.56 J	0.52 J	0.91 U	0.091 U	1.5	0.78 J	0.23 U	0.23 U	0.33 J
Chloromethane	5	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	1.1 U	0.11 U	0.11 U	0.96 U	0.96 U	0.96 U	0.96 U
Cyclohexane	-	-	-	-	-	-	-	-	-	-	0.73 U	0.73 U	0.73 U	0.73 U
1,2-Dibromo-3-chloropropane	0.04	-	-	-	-	-	-	-	-	-	0.69 U	0.69 U	0.69 U	0.69 U
Dibromochloromethane	-	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	1.5 U	0.15 U	0.15 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2-Dibromoethane	0.0006	-	-	-	-	-	-	-	-	-	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichlorobenzene	3	0.19 U	0.72 J	0.19 U	0.19 U	0.19 U	0.19 U	1.9 U	0.19 U	0.19 U	0.23 U	0.23 U	0.23 U	0.23 U
1,3-Dichlorobenzene	3	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	1.9 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
1,4-Dichlorobenzene	3	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	1.1 U	0.11 U	0.11 U	0.21 U	0.21 U	0.21 U	0.21 U
Dichlorodifluoromethane	5	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	2.9 U	0.29 U	0.29 U	0.7 U	0.7 U	0.7 U	0.7 U
1,1-Dichloroethane	5	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	1.2 U	0.12 U	0.12 U	0.21 U	0.21 U	0.21 U	0.21 U
1,2-Dichloroethane	0.6	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.09 U	0.9 U	0.09 U	0.09 U	0.39 U	0.39 U	0.39 U	0.39 U
1,1-Dichloroethene	5	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	1.6 U	0.16 U	0.16 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,2-Dichloroethene	5	0.12 U	6.7	1.5	0.24 J	0.12 U	0.12 U	687	2.1	0.34 J	1.3	0.31 U	1.1	2.9
trans-1,2-Dichloroethene	5	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	1.4 U	0.14 U	0.14 U	0.36 U	0.36 U	0.36 U	0.36 U
1,2-Dichloropropane	1	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	1.1 U	0.11 U	0.11 U	0.33 U	0.33 U	0.33 U	0.33 U
cis-1,3-Dichloropropene	-	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	1.2 U	0.12 U	0.12 U	0.19 U	0.19 U	0.19 U	0.19 U
trans-1,3-Dichloropropene	-	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U	1.5 U	0.15 U	0.15 U	0.26 U	0.26 U	0.26 U	0.26 U
Ethylbenzene	5	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	2.2 U	0.22 U	0.22 U	0.2 U	0.2 U	0.2 U	0.2 U
Freon 113	5	-	-	-	-	-	-	-	-	-	1.2 U	1.2 U	1.2 U	1.2 U
2-Hexanone	-	-	-	-	-	-	-	-	-	-	1.5 U	1.5 U	1.5 U	1.5 U
Isopropylbenzene	5	-	-	-	-	-	-	-	-	-	0.16 U	0.16 U	0.16 U	0.16 U
Methyl Acetate	-	-	-	-	-	-	-	-	-	-	1.5 U	1.5 U	1.5 U	1.5 U
Methylcyclohexane	-	-	-	-	-	-	-	-	-	-	0.78 U	0.78 U	0.78 U	0.78 U
Methyl Tert Butyl Ether	10	-	-	-	-	-	-	-	-	-	0.34 U	0.34 U	0.34 U	0.34 U
4-Methyl-2-pentanone(MIBK)	-	-	-	-	-	-	-	-	-	-	1.2 U	1.2 U	1.2 U	1.2 U
Methylene chloride	5	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	2.2 U	0.22 U	0.22 U	0.35 U	0.35 U	0.35 U	0.35 U
Styrene	5	-	-	-	-	-	-	-	-	-	0.27 U	0.27 U	0.27 U	0.27 U
1,1,2,2-Tetrachloroethane	5	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	1.2 U	0.12 U	0.12 U	0.39 U	0.39 U	0.39 U	0.39 U
Tetrachloroethene	5	0.72 J	740	249	11.9	0.29 J	0.26 J	3490	3.7	4	18.7	0.52 J	7.5	17.6

**Table 3-6**  
**Groundwater Sampling Results Summary (VOCs)**

Analyte  VOCs	NYSDEC Class GA Groundwater Quality Standard	February 2016 Investigation Summary						March 2016 Supplemental Data			July 2016 Supplemental Data			
		MW-1I 2/10/2016	MW-1S 2/10/2016	MW-2 2/10/2016	MW-3 2/10/2016	MW-4S 2/10/2016	MW-4I 2/10/2016	MW-5S 3/18/2016	MW-6 3/18/2016	MW-7 3/18/2016	MW-5I 7/8/2016	MW-8 7/8/2016	MW-9 7/8/2016	MW-10 7/8/2016
Toluene	5	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	2.5 U	0.25 U	0.25 U	0.23 U	0.23 U	0.23 U	0.23 U
1,2,3-Trichlorobenzene	5	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.2 U	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	5	- -	- -	- -	- -	- -	- -	- -	- -	- -	0.25 U	0.25 U	0.25 U	0.25 U
1,1,1-Trichloroethane	5	0.086 U	0.086 U	0.086 U	0.086 U	0.086 U	0.086 U	0.86 U	0.086 U	0.086 U	0.47 J	0.22 U	0.22 U	0.22 U
1,1,2-Trichloroethane	1	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	1.3 U	0.13 U	0.13 U	0.28 U	0.28 U	0.28 U	0.28 U
Trichloroethene	5	0.12 U	<b>9.7</b>	2.4	0.3 J	0.12 U	0.12 U	<b>106</b>	1.5	0.74 J	2.1	0.26 U	0.87 J	3.4
Trichlorofluoromethane	5	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	2 U	0.2 U	0.2 U	0.58 U	0.58 U	0.58 U	0.58 U
Vinyl chloride	2	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	1.3 U	0.13 U	0.13 U	0.33 U	0.33 U	0.33 U	0.33 U
Xylenes (total)	5	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U	2.2 U	0.22 U	0.22 U	0.21 U	0.21 U	0.21 U	0.21 U

**Notes:**

All values recorded in units of ug/l

<sup>a</sup> This compound outside control limits biased high in the associated BS.

U - Value reported under the detection limit

J - Approximated value

Cells highlighted in yellow / bold indicate the parameter exceeded the applicable NYSDEC Class GA Groundwater standard or guideline.

**Table 3-7**  
**Groundwater Sampling Results Summary (SVOCs)**

Analyte	NYSDEC Class GA Groundwater Quality Standard	MW-2 2/10/2016	MW-5 3/18/2016
<b>GC/MS Semi-volatiles (EPA 625)</b>			
2-Chlorophenol	-	0.97 U	0.98 U
4-Chloro-3-methyl phenol	-	1.2 U	1.2 U
2,4-Dichlorophenol	1	1.6 U	1.6 U
2,4-Dimethylphenol	1	1.7 U	1.7 U
2,4-Dinitrophenol	1	0.91 U	0.91 U
4,6-Dinitro-o-cresol	-	0.74 U	0.74 U
2-Nitrophenol	-	1.8 U	1.9 U
4-Nitrophenol	-	0.86 U	0.86 U
Pentachlorophenol	1	1.9 U	1.9 U
Phenol	1	0.51 U	0.51 U
2,4,6-Trichlorophenol	-	1.3 U	1.3 U
Acenaphthene	-	0.36 U	0.36 U
Acenaphthylene	-	0.39 U	0.39 U
Anthracene	-	0.41 U	0.41 U
Benzidine	5	0.29 U	0.29 U
Benzo(a)anthracene	-	0.36 U	0.37 U
Benzo(a)pyrene	ND	0.37 U	0.38 U
Benzo(b)fluoranthene	-	0.6 U	0.61 U
Benzo(g,h,i)perylene	-	0.43 U	0.43 U
Benzo(k)fluoranthene	-	0.43 U	0.43 U
4-Bromophenyl phenyl ether	-	0.31 U	0.31 U
Butyl benzyl phthalate	-	0.61 U	0.61 U
2-Chloronaphthalene	-	1 U	1 U
4-Chloroaniline	5	0.41 U	0.41 U
Chrysene	-	0.26 U	0.26 U
bis(2-Chloroethoxy)methane	5	0.67 U	0.67 U
bis(2-Chloroethyl)ether	1	0.54 U	0.54 U
bis(2-Chloroisopropyl)ether	5	0.75 U	0.76 U
4-Chlorophenyl phenyl ether	-	0.44 U	0.44 U
1,2-Dichlorobenzene	3	0.21 U	0.21 U
1,2-Diphenylhydrazine	ND	0.46 U	0.46 U
1,3-Dichlorobenzene	3	0.16 U	0.16 U
1,4-Dichlorobenzene	3	0.18 U	0.18 U
2,4-Dinitrotoluene	5	0.88 U	0.88 U
2,6-Dinitrotoluene	5	0.57 U	0.57 U
3,3'-Dichlorobenzidine	5	1.2 U	1.3 U
Dibenzo(a,h)anthracene	-	0.56 U	0.56 U
Di-n-butyl phthalate	50	0.6 U	0.61 U
Di-n-octyl phthalate	-	0.58 U	0.58 U
Diethyl phthalate	-	0.4 U	0.4 U
Dimethyl phthalate	-	0.33 U	0.34 U
bis(2-Ethylhexyl)phthalate	5	0.67 U	0.68 U
Fluoranthene	-	0.25 U	0.26 U
Fluorene	-	0.46 U	0.46 U
Hexachlorobenzene	0.04	0.55 U	0.55 U
Hexachlorobutadiene	0.5	0.18 U	0.18 U
Hexachlorocyclopentadiene	5	0.42 U	0.42 U
Hexachloroethane	5	0.29 U	0.29 U
Indeno(1,2,3-cd)pyrene	-	0.31 U	0.31 U
Isophorone	-	0.6 U	0.6 U
Naphthalene	-	0.33 U	0.33 U
Nitrobenzene	0.4	0.43 U	0.43 U
n-Nitrosodimethylamine	-	0.47 U	0.47 U
N-Nitroso-di-n-propylamine	-	0.48 U	0.48 U
N-Nitrosodiphenylamine	-	0.53 U	0.53 U
Phenanthrene	-	0.37 U	0.37 U
Pyrene	-	0.34 U	0.34 U
1,2,4-Trichlorobenzene	5	0.35 U	0.35 U

**Notes:**

All values recorded in units of ug/l

<sup>a</sup> This compound outside control limits biased high in the associated BS.

U - Value reported under the detection limit

J - Approximated value

**Cells highlighted in yellow / bold indicate the parameter exceeded the applicable  
NYSDEC Class GA Groundwater standard or guideline.**



**Table 3-8**  
**Groundwater Sampling Results Summary (Pesticides / Herbicides)**

Analyte	NYSDEC Class GA Groundwater Quality Standard	MW-2 2/10/2016	MW-5 3/18/2016
<b>GC Semi-volatiles (EPA 608)</b>			
Aldrin	ND	0.0017 U	0.0017 U
alpha-BHC	0.01	0.0013 U	0.0013 U
beta-BHC	0.04	0.0031 U	0.0031 U
delta-BHC	0.04	0.0016 U	0.0016 U
gamma-BHC (Lindane)	0.05	0.00086 U	0.00086 U
Chlordane	0.05	0.033 U	0.033 U
Dieldrin	0.004	0.00086 U	0.00086 U
4,4'-DDD	0.3	0.0012 U	0.0012 U
4,4'-DDE	0.2	0.00084 U	0.00084 U
4,4'-DDT	0.2	0.0025 U	0.0025 U
Endrin	ND	0.0015 U	0.0015 U
Endosulfan sulfate	-	0.0023 U	0.0023 U
Endrin aldehyde	5	0.0032 a U	0.0032 a U
Endosulfan-I	-	0.0011 U	0.0011 U
Endosulfan-II	-	0.0016 U	0.0016 U
Heptachlor	0.04	0.0013 U	0.0013 U
Heptachlor epoxide	0.03	0.00074 U	0.00074 U
Methoxychlor	35	0.0034 U	0.0034 U
Toxaphene	0.06	0.047 U	0.047 U
Aroclor 1016	0.09	0.047 U	0.048 U
Aroclor 1221	0.09	0.24 U	0.24 U
Aroclor 1232	0.09	0.2 U	0.2 U
Aroclor 1242	0.09	0.083 U	0.085 U
Aroclor 1248	0.09	0.077 U	0.079 U
Aroclor 1254	0.09	0.055 U	0.056 U
Aroclor 1260	0.09	0.059 U	0.06 U
<b>GC Semi-volatiles (SW846 8151)</b>			
2,4-D	50	0.29 U	0.3 U
2,4,5-TP (Silvex)	0.26	0.056 U	0.057 U
2,4,5-T	35	0.057 U	0.058 U

**Notes:**

All values recorded in units of ug/l

<sup>a</sup> This compound outside control limits biased high in the associated BS.

U - Value reported under the detection limit

J - Approximated value

**Cells highlighted in yellow / bold indicate the parameter exceeded the applicable  
NYSDEC Class GA Groundwater standard or guideline.**

**Table 3-9**  
**Groundwater Sampling Results Summary (Inorganics)**

Analyte	NYSDEC Class GA Groundwater Quality Standard	MW-2 2/10/2016	MW-5 3/18/2016
<b>Inorganics Analyses</b>			
Antimony	3	6 U	6 U
Arsenic	25	3 U	3 U
Beryllium	-	1 U	1 U
Cadmium	5	3 U	3 U
Chromium	50	10 U	10 U
Copper	200	10 U	10 U
Lead	25	3 U	3 U
Mercury	0.7	0.2 U	0.2 U
Nickel	100	18.5	10 U
Selenium	10	10 U	10 U
Silver	50	10 U	10 U
Thallium	-	2 U	2 U
Zinc	-	20 U	20 U

**Notes:**

All values recorded in units of ug/l

<sup>a</sup> This compound outside control limits biased high in the associated BS.

U - Value reported under the detection limit

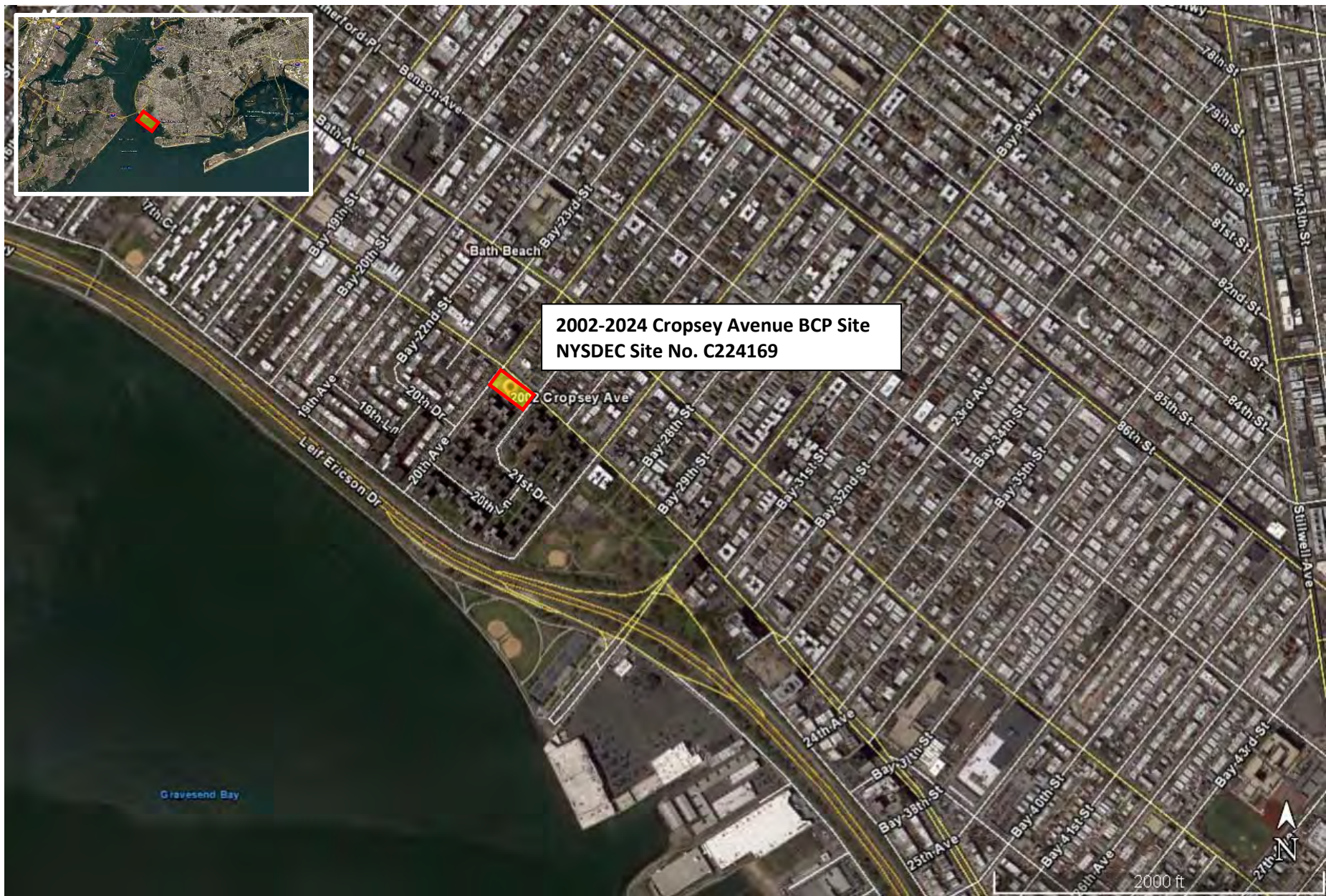
J - Approximated value

**Cells highlighted in yellow / bold indicate the parameter exceeded the applicable  
NYSDEC Class GA Groundwater standard or guideline.**



## Figures





**Figure 1**  
**Site Location Map**  
**2002-2024 Cropsey Avenue, Brooklyn, NY**

<b>Client:</b>	2002 Cropsey Associates
<b>Project No.:</b>	85265
<b>Project:</b>	2002-2024 Cropsey BCP
<b>Date:</b>	August 11, 2017









**Figure 3**  
**2002-2024 Cropsey Avenue Area Site Plan**

<b>Client:</b>	2002 Cropsey Associates
<b>Project No.:</b>	85265
<b>Project:</b>	2002-2024 Cropsey BCP
<b>Date:</b>	August 11, 2017





Shallow Zone Monitoring Well (MW-#, MW-#S)



Intermediate Zone Monitoring Well (MW-#I)



**Figure 4**  
**Monitoring Well Locations**

<b>Client:</b>	2002 Cropsey Associates
<b>Project No.:</b>	85265
<b>Project:</b>	2002-2024 Cropsey BCP
<b>Date:</b>	August 11, 2017





**Figure 5A**  
**Groundwater Potentiometric Surface Map (7/27/12)**

<b>Client:</b>	2002 Cropsey Associates
<b>Project No.:</b>	85265
<b>Project:</b>	2002-2024 Cropsey BCP
<b>Date:</b>	August 11, 2017

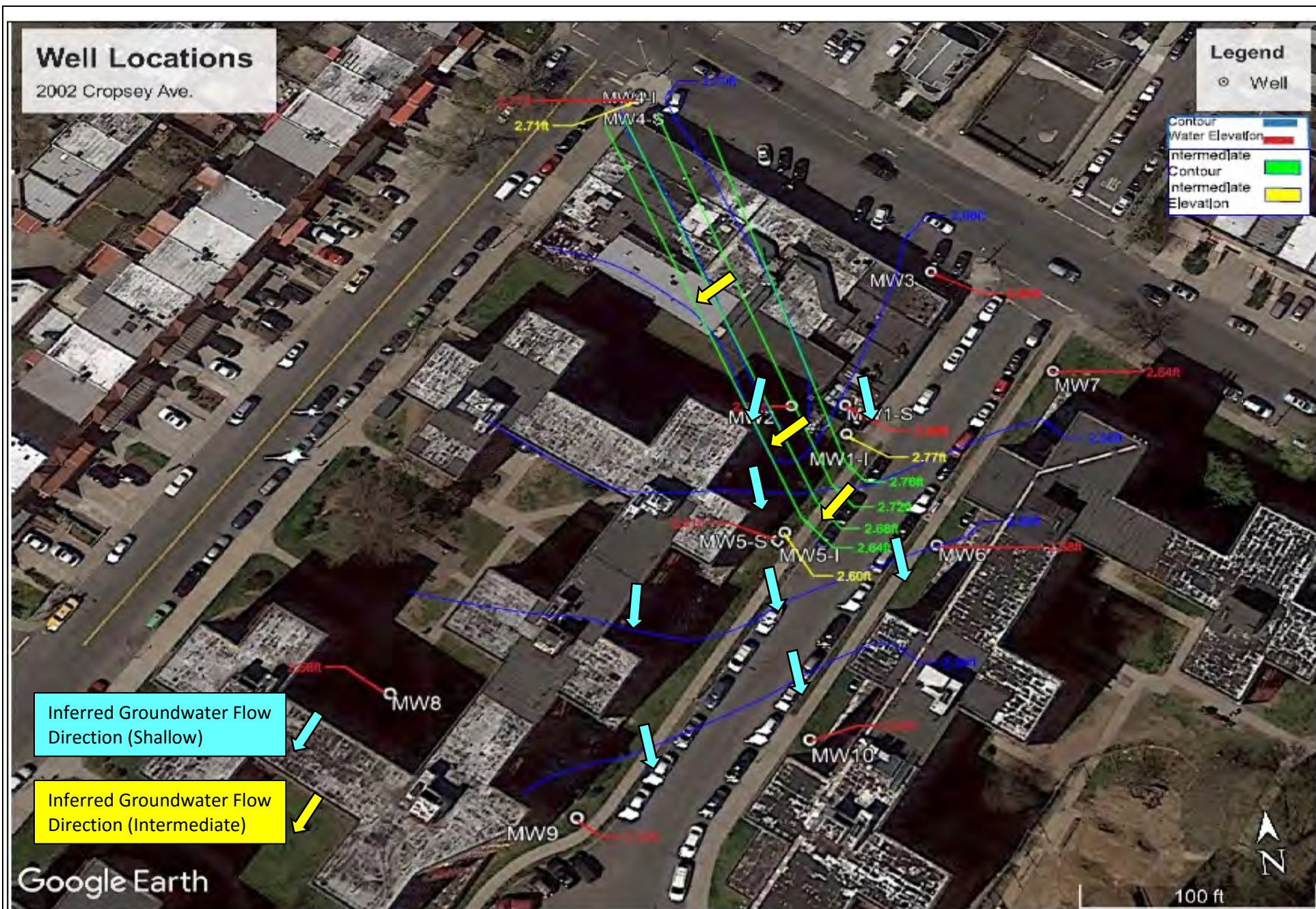




**Figure 5B**  
**Groundwater Potentiometric Surface Map (3/8/16)**

Client:	2002 Cropsey Associates
Project No.:	85265
Project:	2002-2024 Cropsey BCP
Date:	August 11, 2017

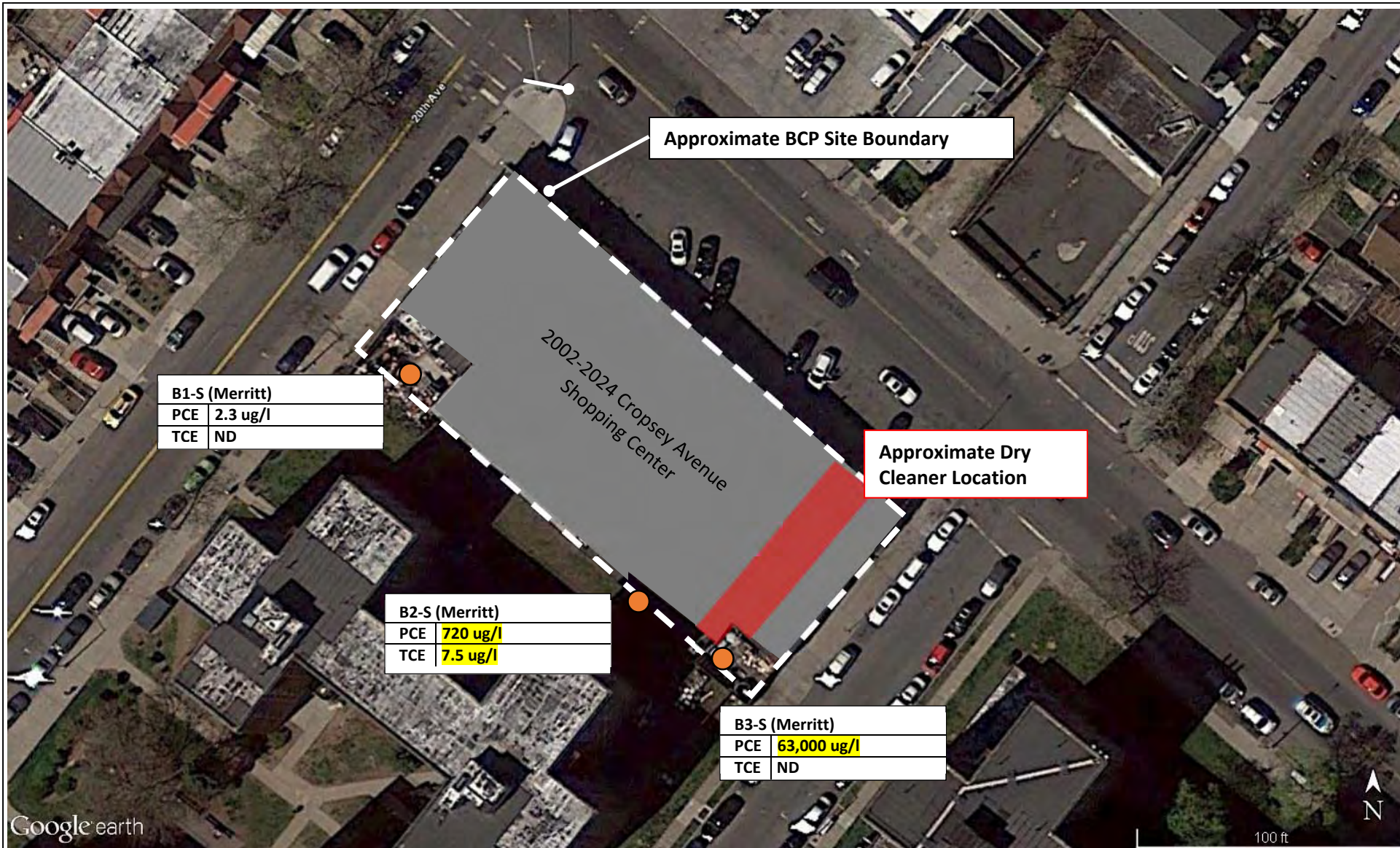




**Figure 5C**  
**Groundwater Potentiometric Surface Map (7/8/16)**

Client: 2002 Cropsey Associates  
Project No.: 85265  
Project: 2002-2024 Cropsey BCP  
Date: August 11, 2017





Sample results based upon data presented by Merritt. See Merritt report for additional information. Apex is not responsible for how any data were collected or represented by Merritt.

Results highlighted exceed the 5 ug/l NYSDC Class GA Groundwater Quality Standard for PCE or TCE



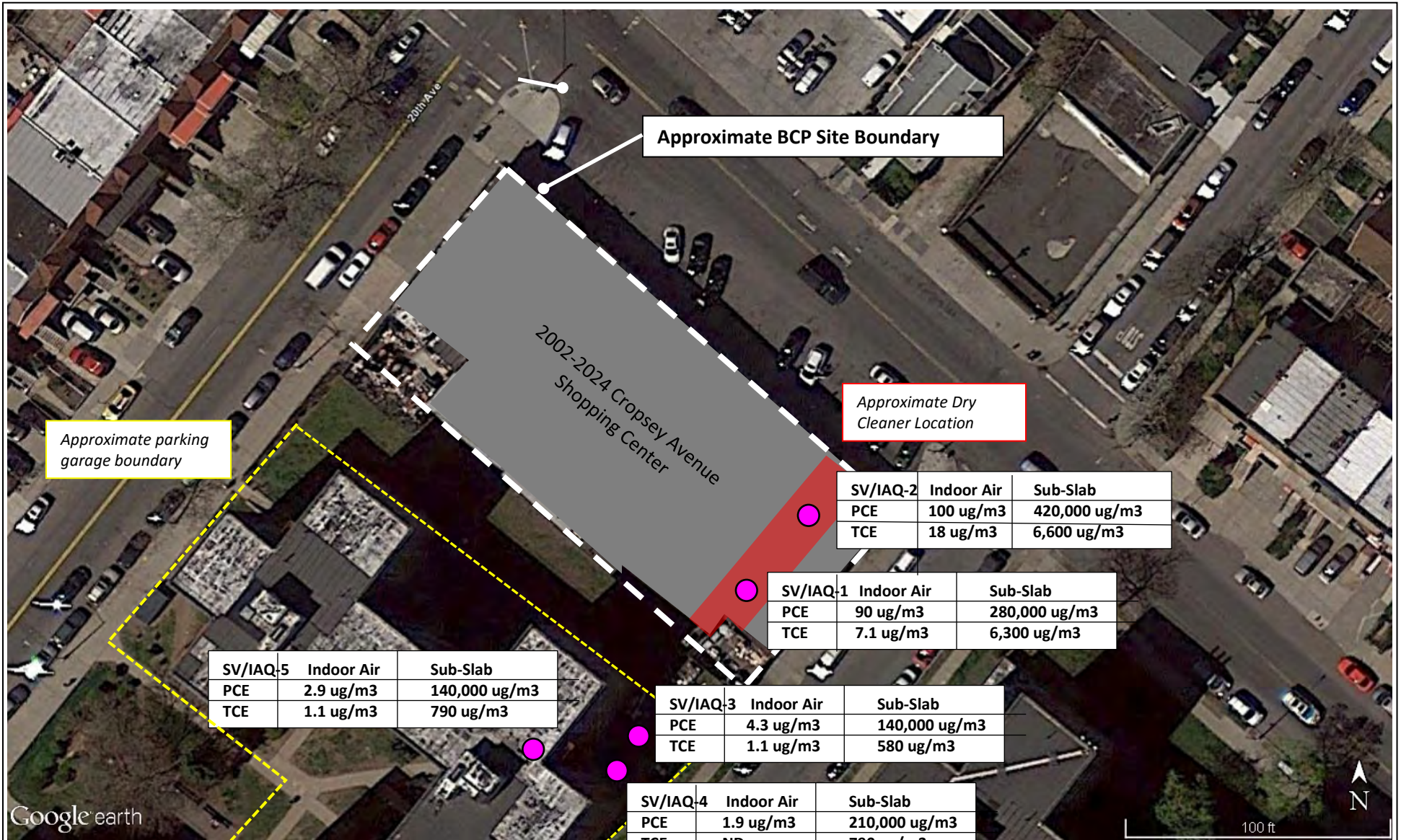
Temp Well/ Boring ID	
PCE	Sample Result
TCE	Sample Result



**Figure 6**  
**2012 Groundwater Results Summary**  
**Merritt (2/17/2012)**

**Client:** 2002 Cropsey Associates  
**Project No.:** CROPEY1701  
**Project:** 2002-2024 Cropsey BCP  
**Date:** January 4, 2018





**Notes:**

1. Samples SV-1/IAQ-1 through SV-2/IAQ-2 were located in the basement of the Dry Cleaner Area
2. Samples SV-3/IAQ-3 through SV-5/IAQ-5 were located within the parking garage area underlying the residential tower.

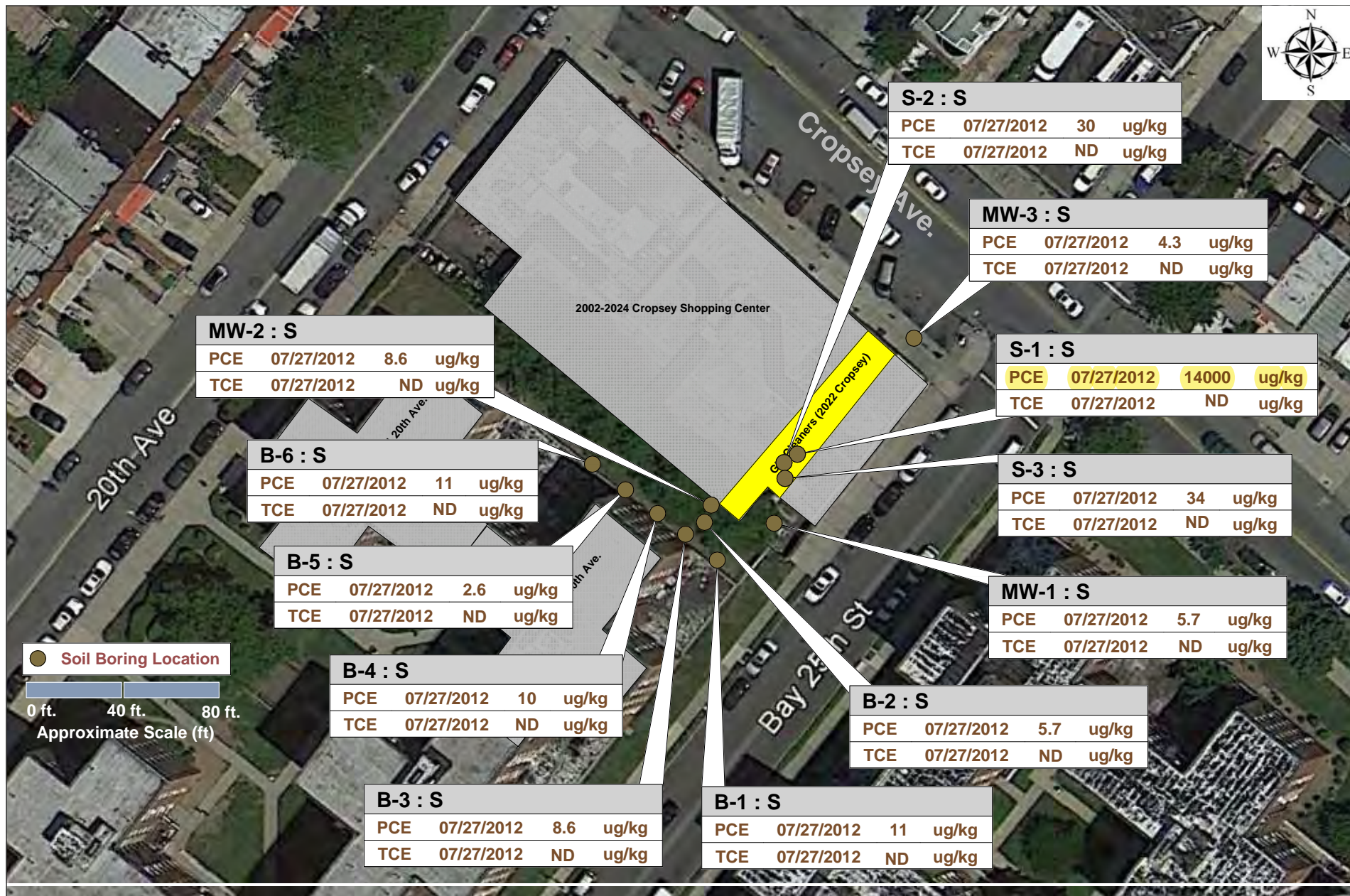
SV/IAQ Sample ID	
PCE	Sample Result
TCE	Sample Result



**Figure 7**  
**2012 Sub-Slab Vapor and IAQ Sampling Summary**  
**(July 11, 2012)**

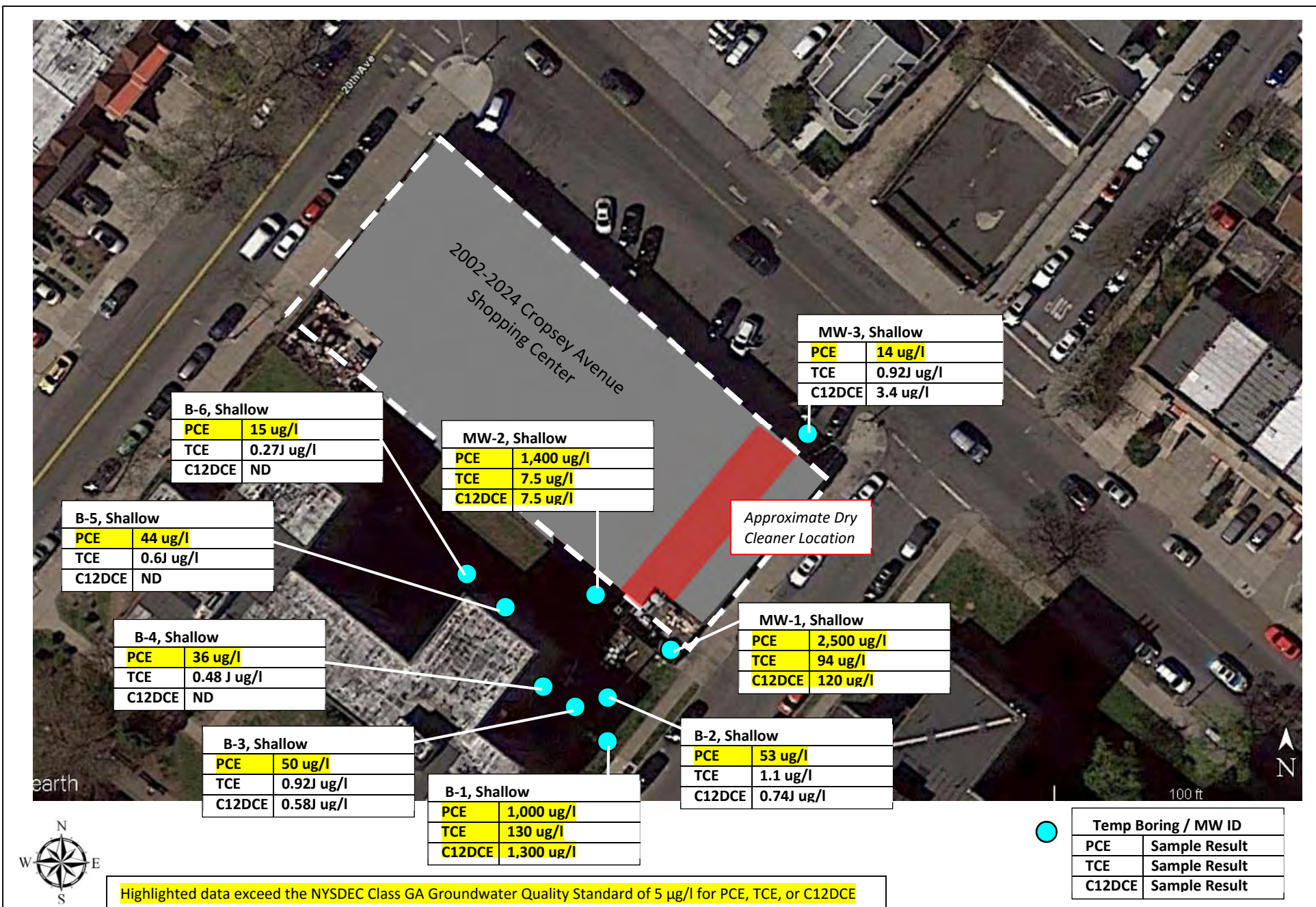
Client: 2002 Cropsey Associates  
 Project No.: 85265  
 Project: 2002-2024 Cropsey BCP  
 Date: August 11, 2017





**Figure 8**  
**Soil Sample Results Summary**  
**(July 27, 2012)**





**Figure 9**  
**2012 Groundwater Results Summary**  
**Apex (7/13/2012)**



**Client:** 2002 Cropsey Associates  
**Project No.:** CROPSEY1701  
**Project:** 2002-2024 Cropsey BCP  
**Date:** January 4, 2018





**Figure 10**  
**PCE Concentrations in Groundwater**  
**(July 27, 2012)**

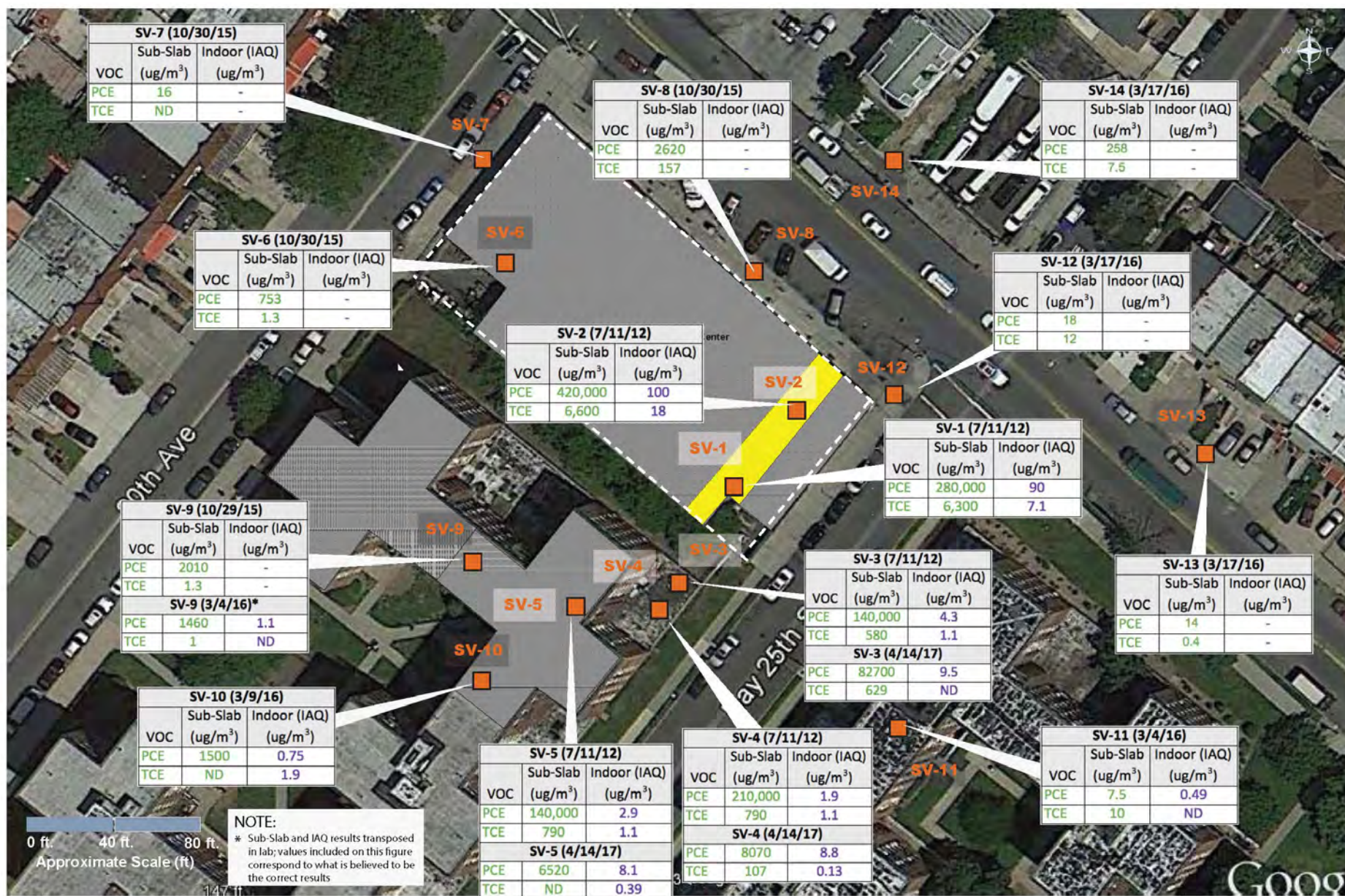




**Figure 11**  
**Membrane Interface Probe Investigation Locations**

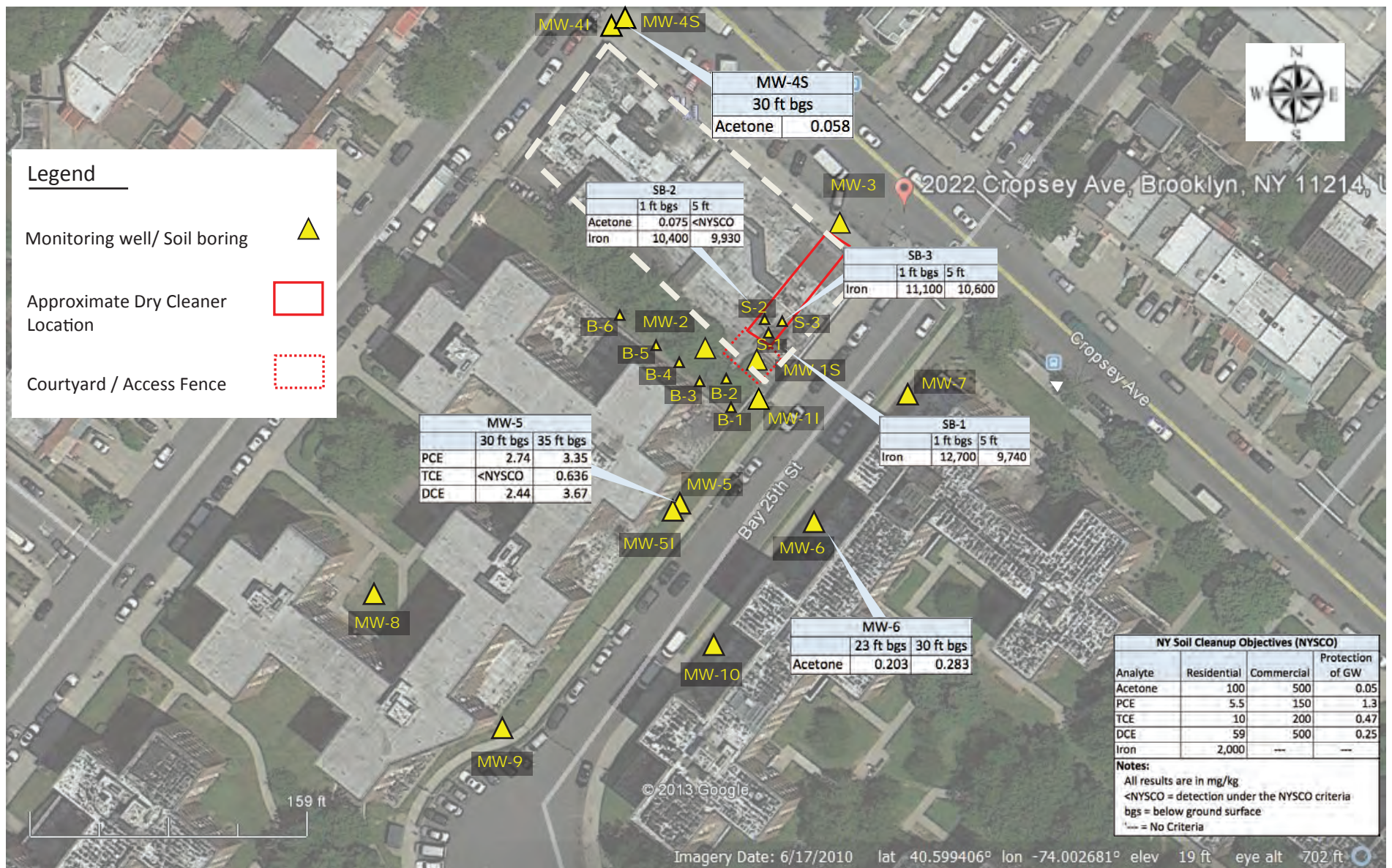
<b>Client:</b>	2002 Cropsey Associates
<b>Project No.:</b>	85265
<b>Project:</b>	2002-2024 Cropsey BCP
<b>Date:</b>	August 11, 2017





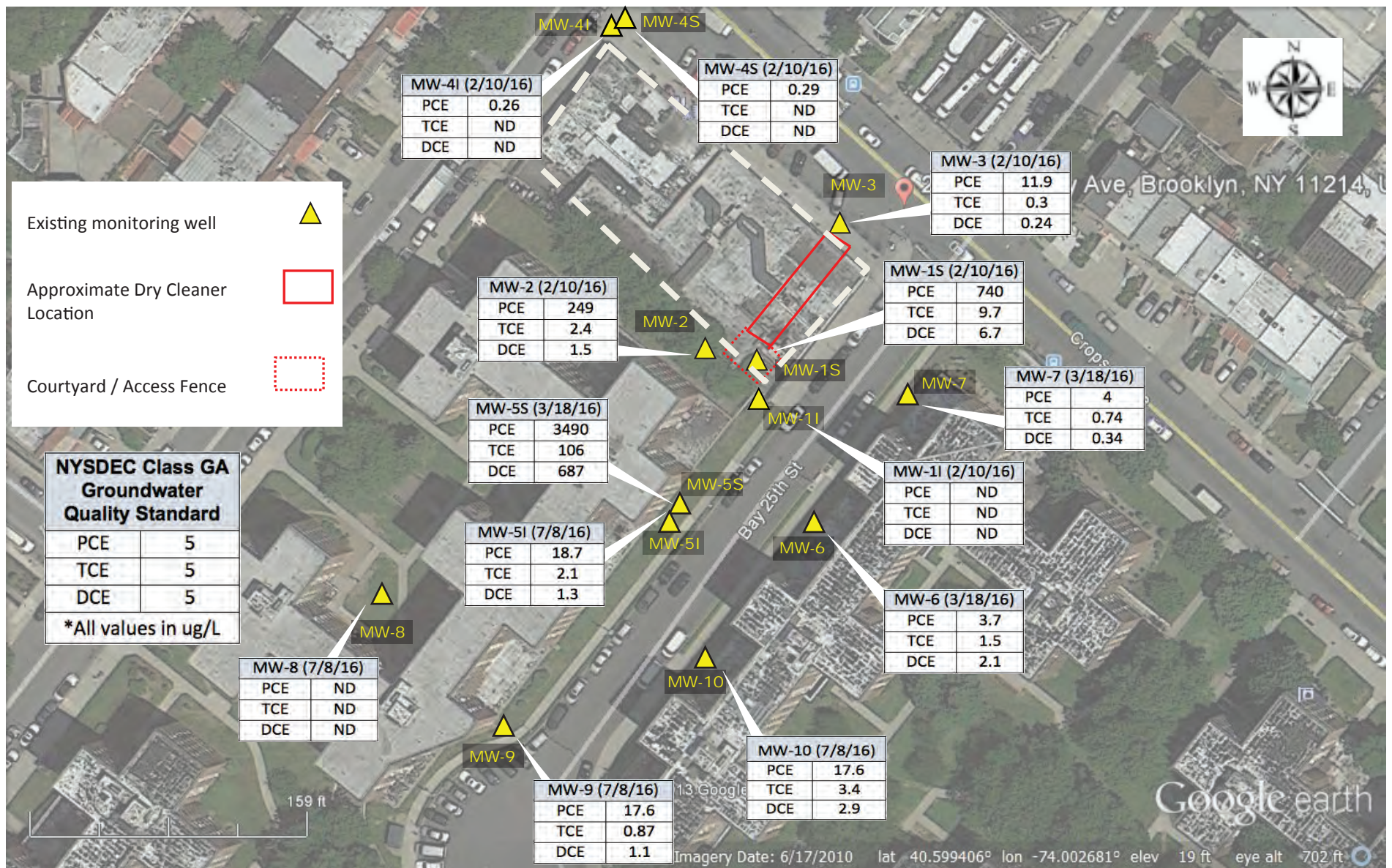
**Figure 12**  
**Soil Vapor / Indoor Air Sample Results Summary**  
**(All Events 2012 - 2017)**



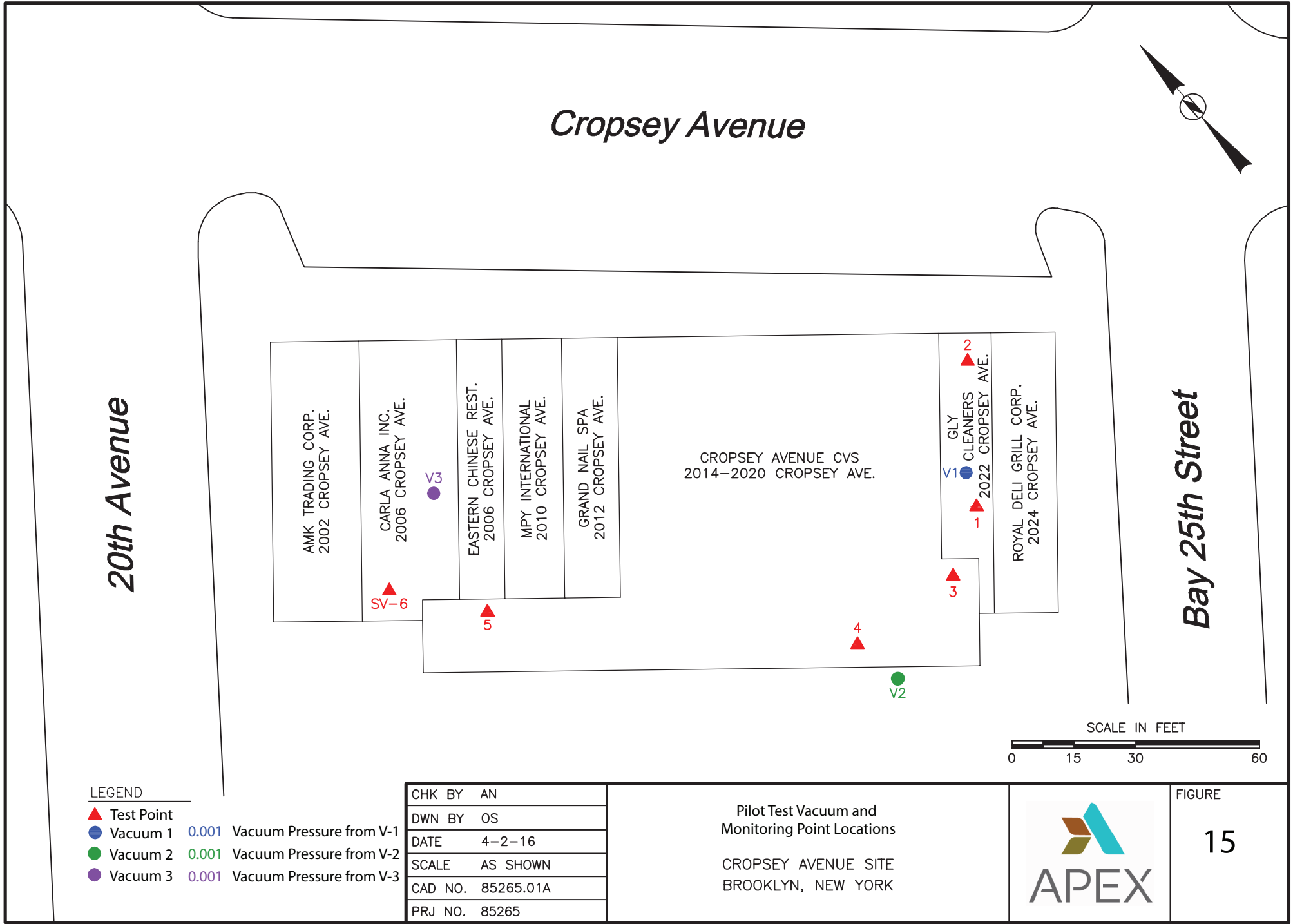


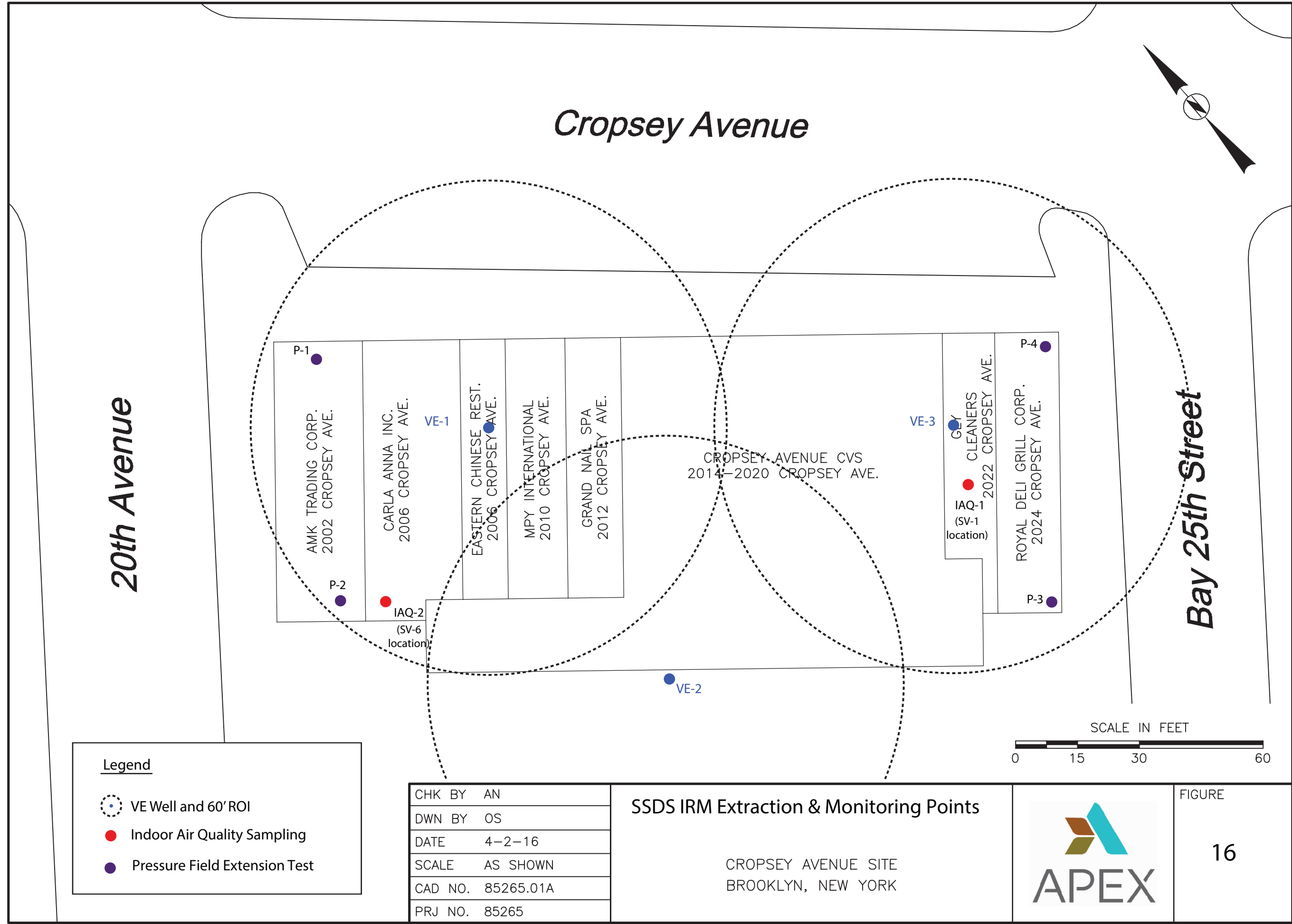
**Figure 13**  
**Supplemental Soil Investigation Results Summary**  
**(only exceedances of SCO indicated)**





**Figure 14**  
**Groundwater Investigation Results Summary**  
 (only COCs indicated, 2016 composite data set)





Legend

- VE Well and 60' ROI
- Indoor Air Quality Sampling
- Pressure Field Extension Test

CHK BY	AN
DWN BY	OS
DATE	4-2-16
SCALE	AS SHOWN
CAD NO.	85265.01A
PRJ NO.	85265

SSDS IRM Extraction & Monitoring Points

CROPSEY AVENUE SITE  
BROOKLYN, NEW YORK



FIGURE

16



## **Appendix A**

### **Apex Limited Phase II ESA Report**

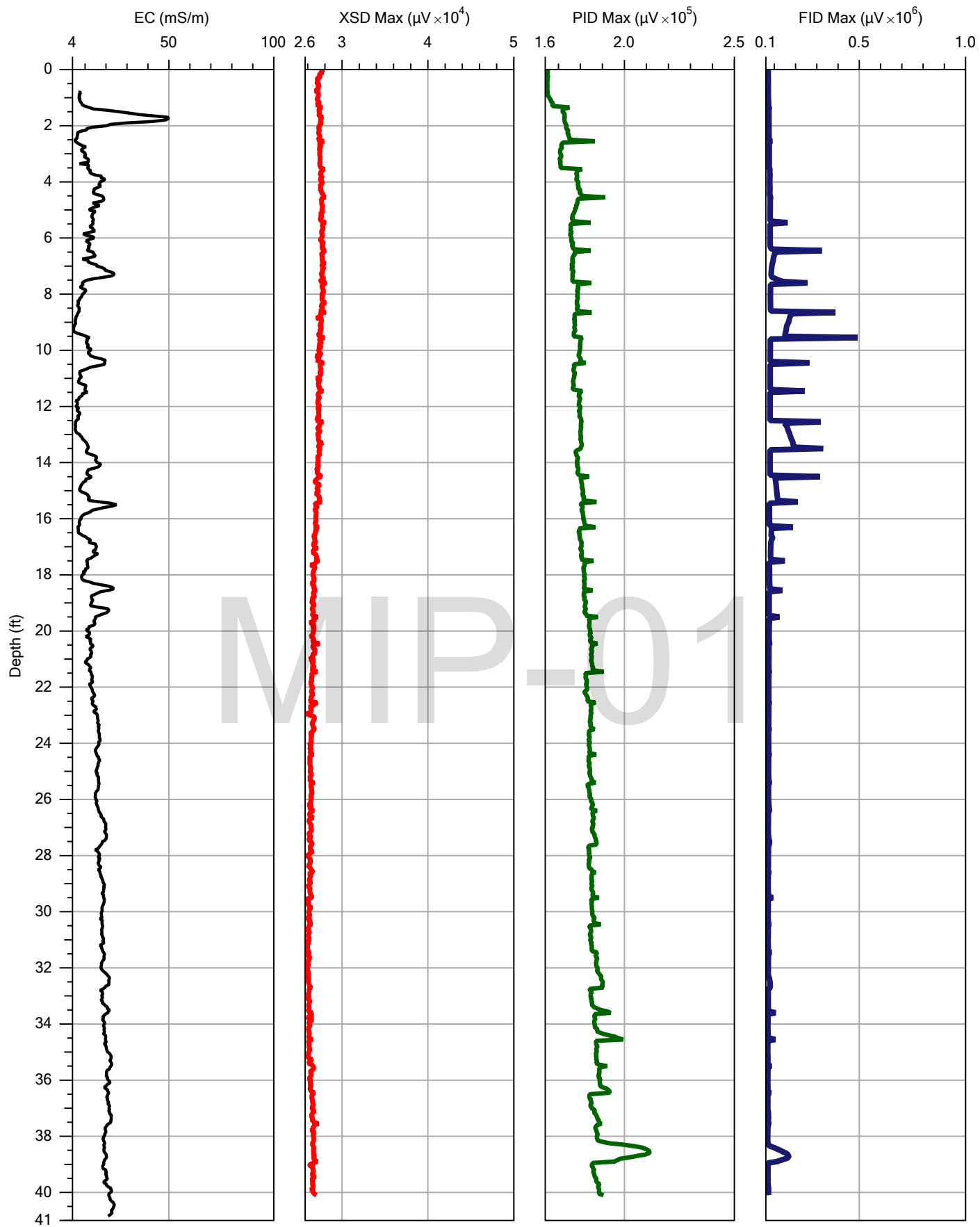
**(incorporated by reference – under separate cover)**



## Appendix B

### Membrane Interface Probe Investigation Data



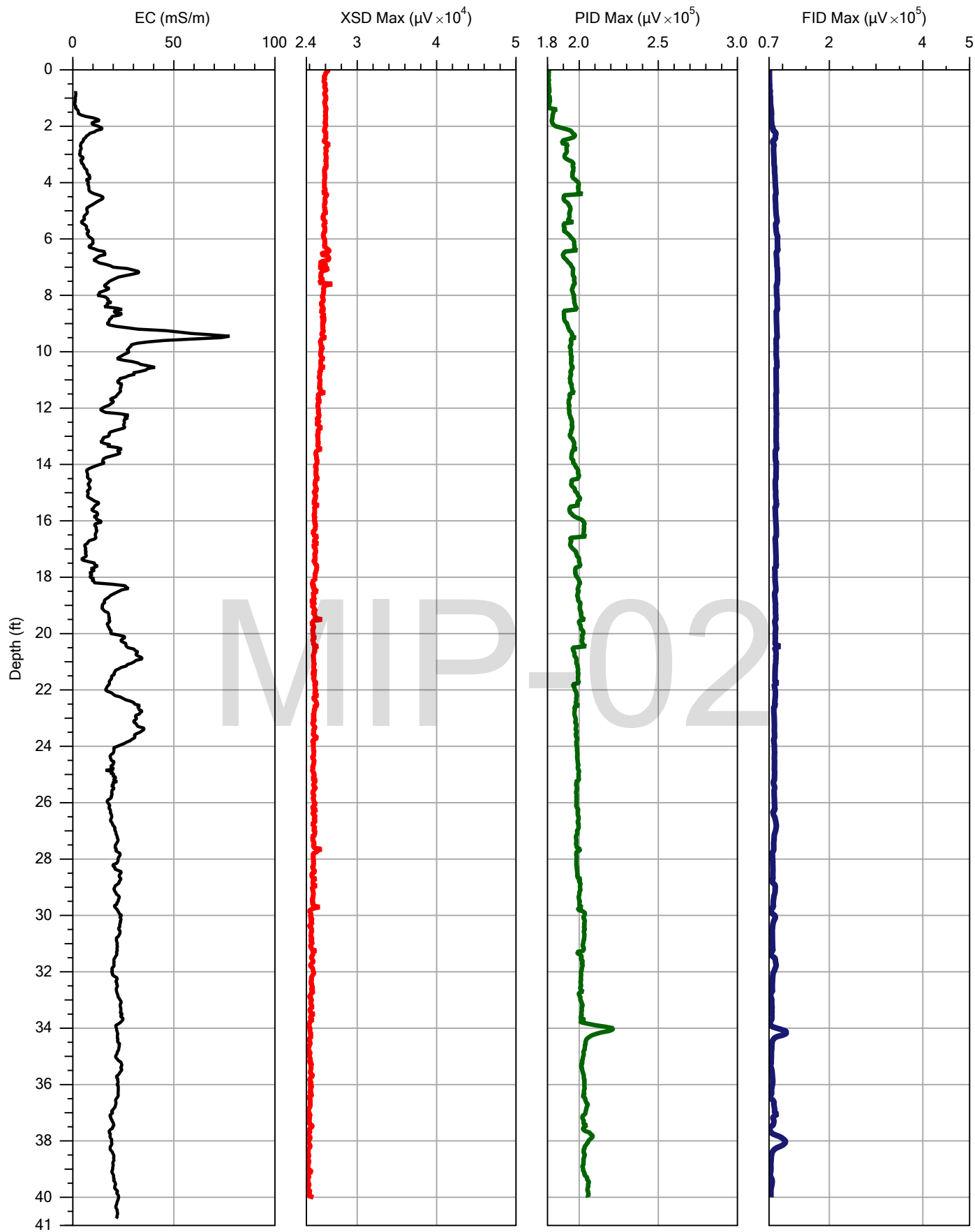


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Project ID: Cropsey Ave Brooklyn

Operator: MR  
Client: APEX

File: MIP1.MIP  
Date: 10/28/2015  
Location:

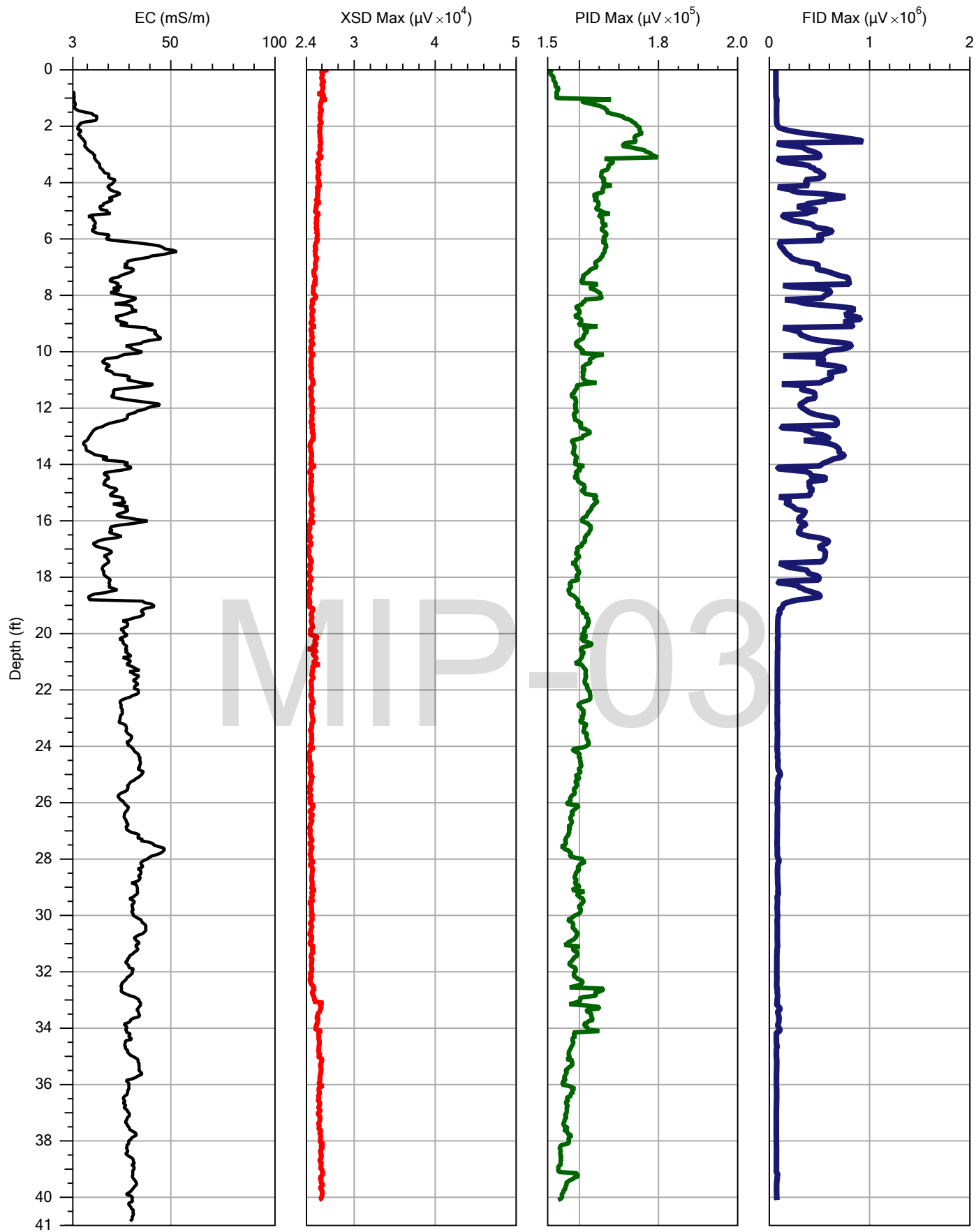




Company: ZTS  
Project ID: Cropsey Ave Brooklyn

Operator: MR  
Client: APEX

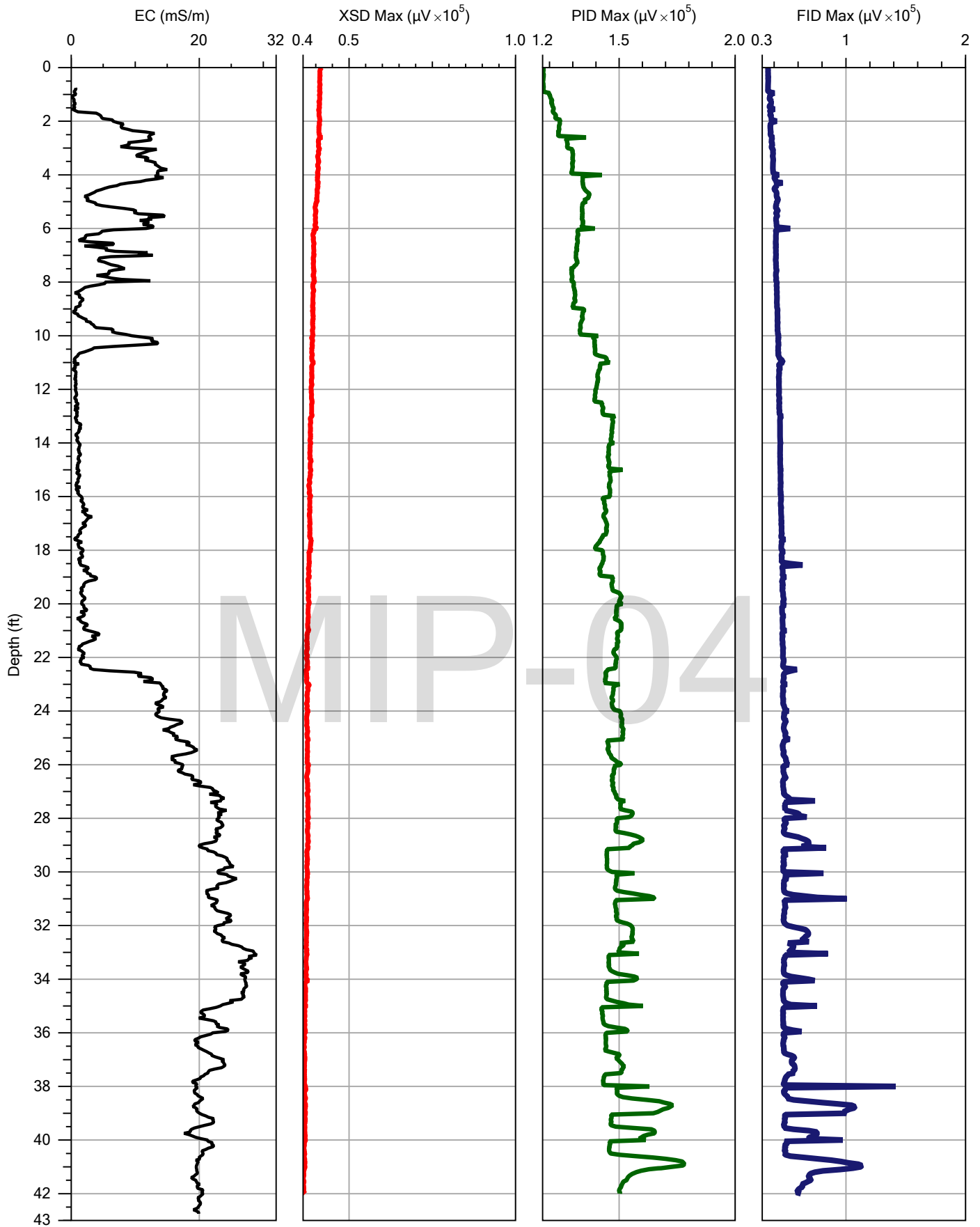
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Location:	



Company: ZTS  
Project ID: Cropsey Ave Brooklyn

Operator: MR  
Client: APEX

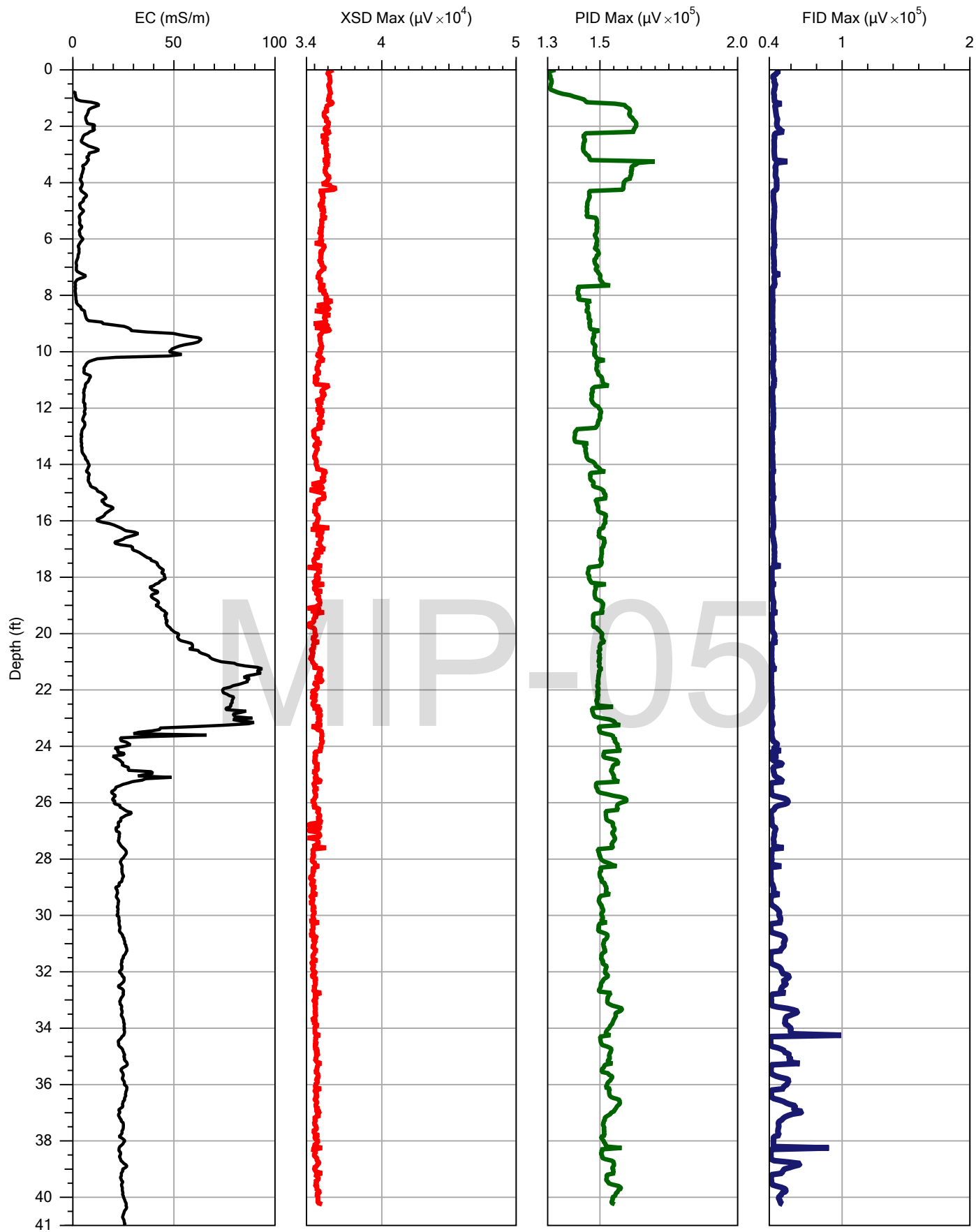
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Date: 10/27/2015  
Location:



Company: ZTS  
Project ID: Cropsey Ave Brooklyn

Operator: MR  
Client: APEX

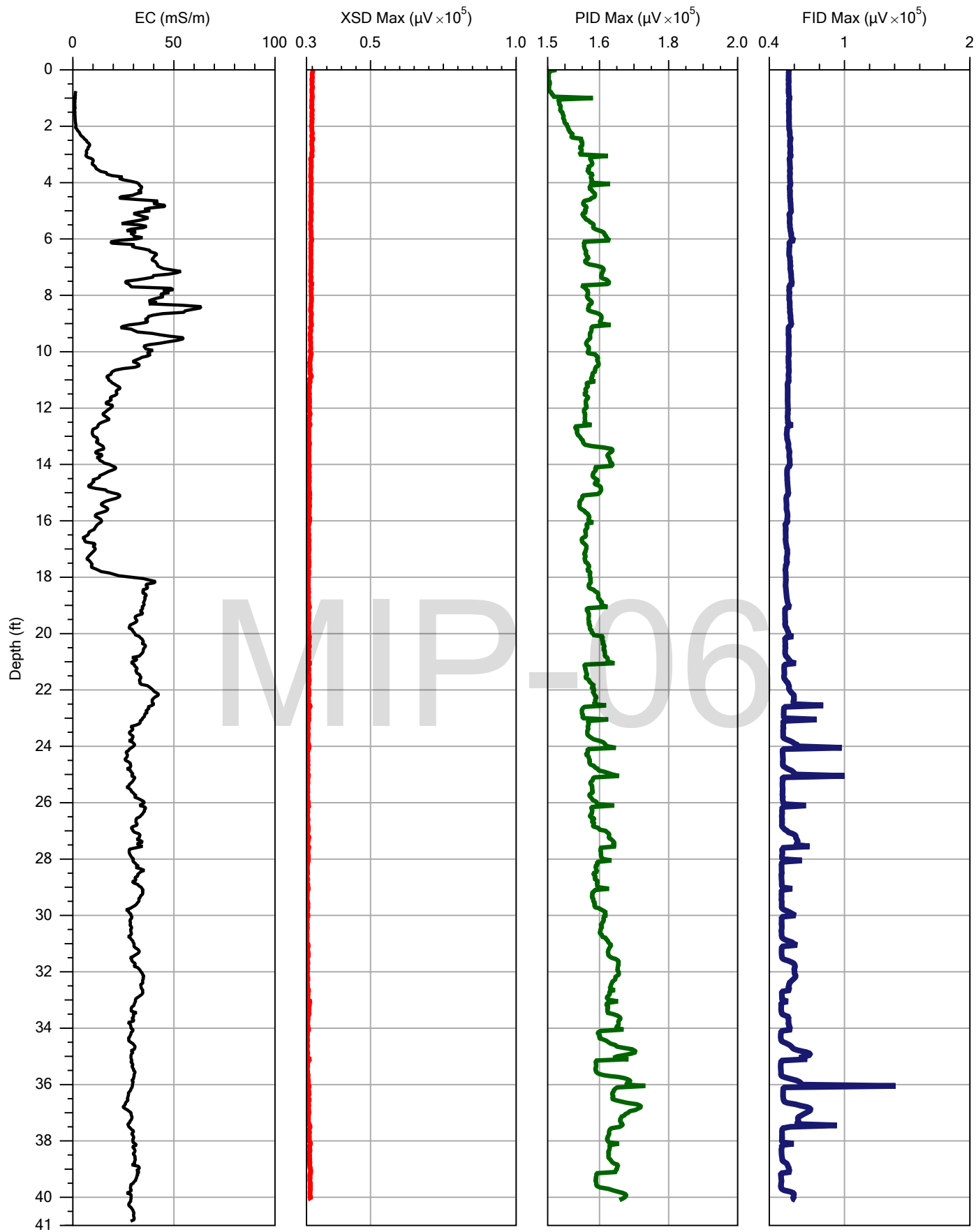
File:	MIP 4.MIP
Date:	10/27/2015
Location:	



Company: ZTS  
Project ID: Cropsey Ave Brooklyn

Operator: MR  
Client: APEX

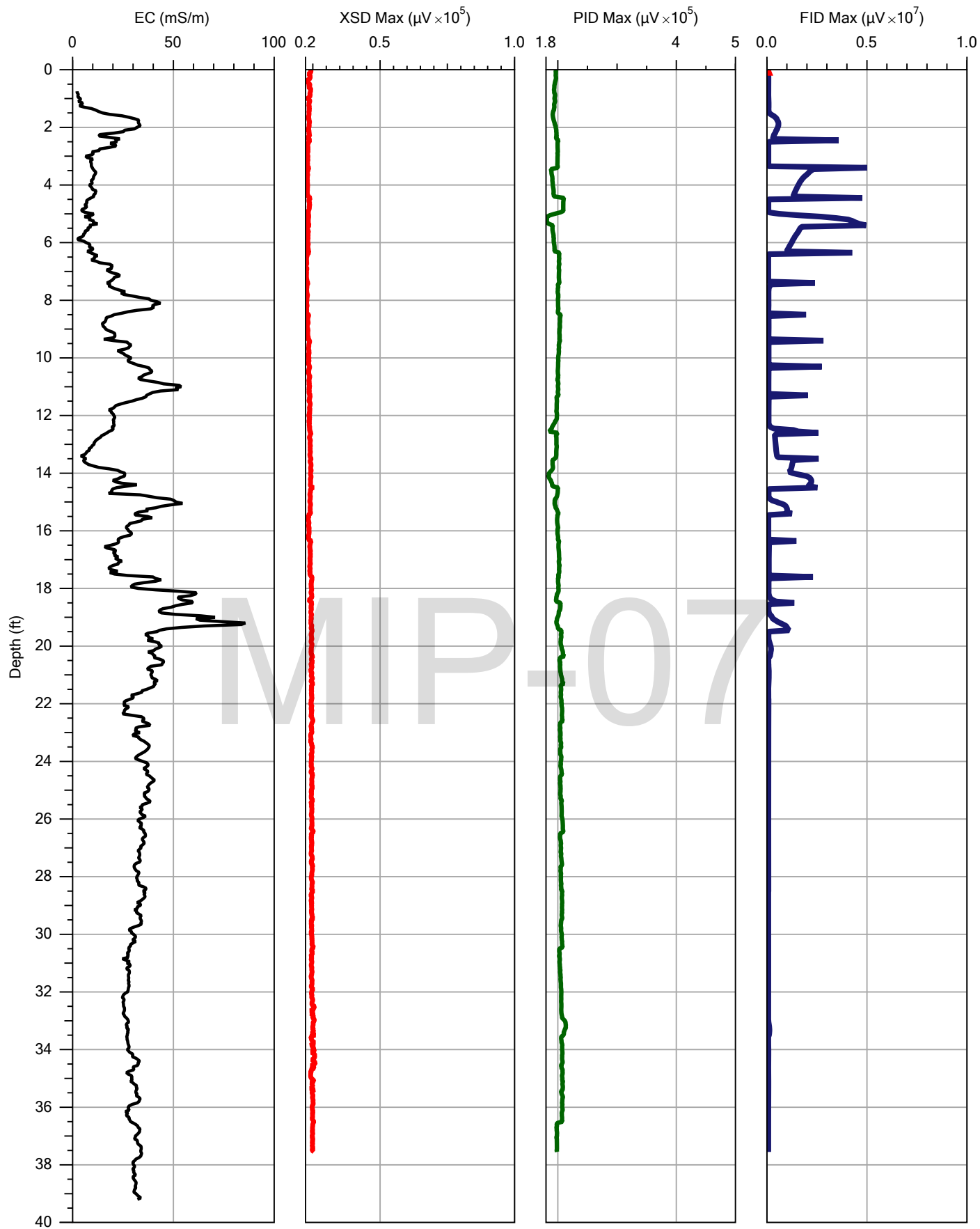
File: MIP 5.MIP  
Date: 10/27/2015  
Location:



Company: ZTS  
Project ID: Cropsey Ave Brooklyn

Operator: MR  
Client: APEX

File: MIP 6.MIP  
Date: 10/27/2015  
Location:

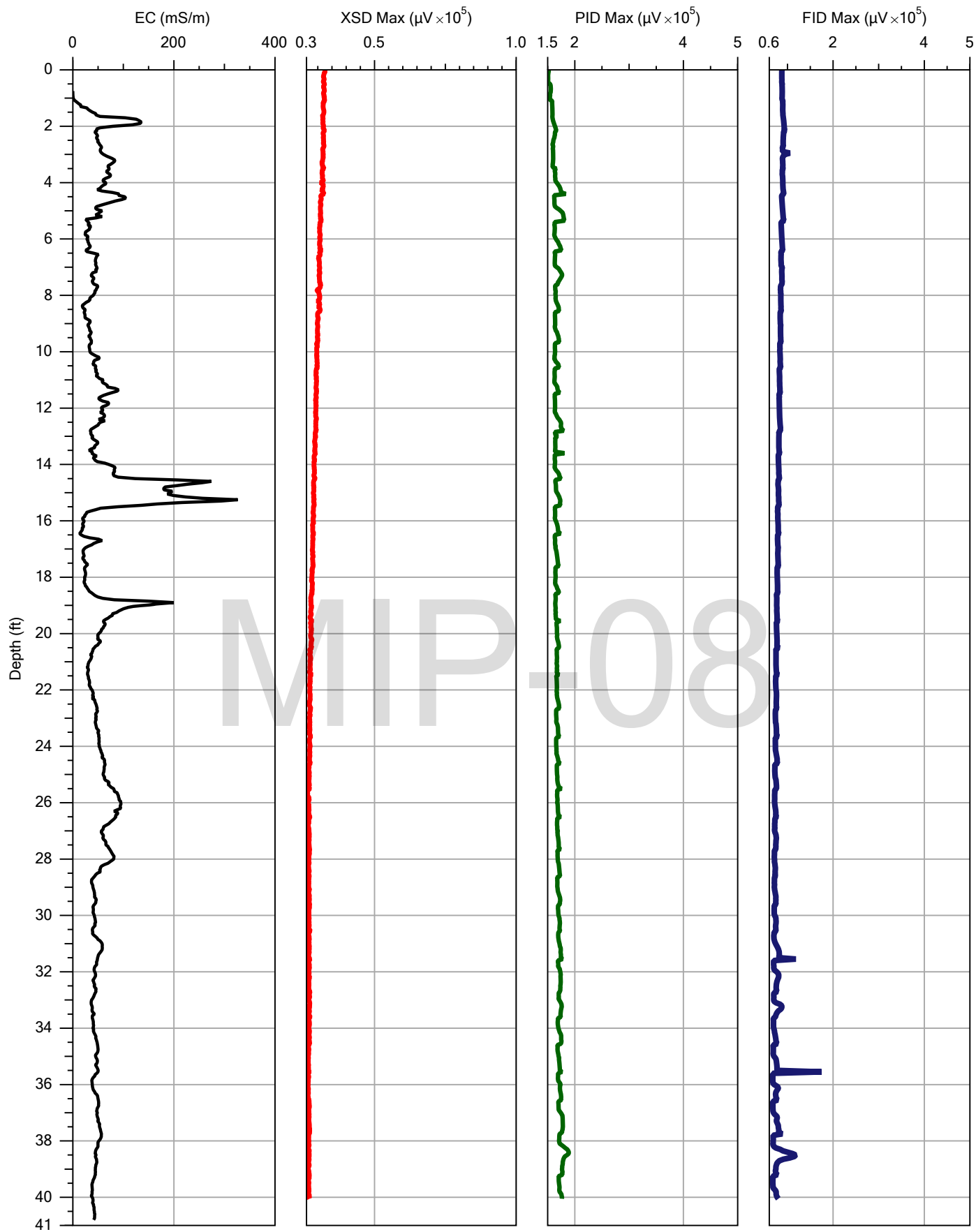


Company: ZTS  
Project ID: Cropsey Ave Brooklyn

Operator: MR  
Client: APEX

File:	MIP 7.MIP
Date:	10/28/2015
Location:	





Company: ZTS  
Project ID: Cropsey Ave Brooklyn

Operator: MR  
Client: APEX

File: MIP8.MIP  
Date: 10/28/2015  
Location:



## **Appendix C**

### **Soil Vapor and Indoor Air Quality Data**

### **Analytical Reports**



Sample Results

Report of Analysis

SGS Accutest LabLink@945686 14:23 10-Feb-2017

## Report of Analysis

Page 1 of 3

<b>Client Sample ID:</b>	SV-09	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7519-1	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A1090	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3W50810.D	1	11/03/15	YMH	n/a	n/a	V3W1930
Run #2	W52341.D	1.48	11/04/15	YMH	n/a	n/a	VW2090

	Initial Volume
Run #1	100 ml
Run #2	40.0 ml

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	280 <sup>a</sup>	3.0	0.47	ppbv		665 <sup>a</sup>	7.1	1.1	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.12	ppbv		ND	1.8	0.27	ug/m3
71-43-2	78.11	Benzene	25.0	0.80	0.12	ppbv		79.9	2.6	0.38	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.13	ppbv		ND	5.4	0.87	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.082	ppbv		ND	8.3	0.85	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.087	ppbv		ND	3.1	0.34	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.081	ppbv		ND	3.5	0.35	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.10	ppbv		ND	4.1	0.52	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.13	ppbv		ND	3.7	0.60	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.086	ppbv		ND	2.1	0.23	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.12	ppbv		ND	3.9	0.59	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.12	ppbv		ND	1.7	0.25	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv		ND	4.1	0.67	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.098	ppbv		ND	5.0	0.62	ug/m3
110-82-7	84.16	Cyclohexane	1.2	0.80	0.13	ppbv		4.1	2.8	0.45	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.12	ppbv		ND	3.2	0.49	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.11	ppbv		ND	3.2	0.44	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.14	ppbv		ND	6.1	1.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.10	ppbv		ND	3.2	0.40	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.20	ppbv		ND	3.7	0.92	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.25	ppbv		ND	2.9	0.90	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.68	0.80	0.15	ppbv	J	3.4	4.0	0.74	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.17	ppbv		ND	6.8	1.4	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.081	ppbv		ND	3.2	0.32	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.099	ppbv		ND	3.2	0.39	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.14	ppbv		ND	3.6	0.64	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.11	ppbv		ND	4.8	0.66	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.12	ppbv		ND	4.8	0.72	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.077	ppbv		ND	4.8	0.46	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.082	ppbv		ND	3.6	0.37	ug/m3

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 2 of 3

<b>Client Sample ID:</b>	SV-09	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7519-1	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A1090	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	13.3	2.0	0.66	ppbv		25.1	3.8	1.2	ug/m3
100-41-4	106.2	Ethylbenzene	23.0	0.80	0.19	ppbv		99.9	3.5	0.83	ug/m3
141-78-6	88	Ethyl Acetate	1.9	0.80	0.25	ppbv		6.8	2.9	0.90	ug/m3
622-96-8	120.2	4-Ethyltoluene	4.6	0.80	0.088	ppbv		23	3.9	0.43	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.11	ppbv		ND	6.1	0.84	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.10	ppbv		ND	5.6	0.70	ug/m3
142-82-5	100.2	Heptane	13.2	0.80	0.12	ppbv		54.1	3.3	0.49	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.13	ppbv		ND	8.5	1.4	ug/m3
110-54-3	86.17	Hexane	15.4	0.80	0.11	ppbv		54.3	2.8	0.39	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.18	ppbv		ND	3.3	0.74	ug/m3
67-63-0	60.1	Isopropyl Alcohol	1.6	0.80	0.48	ppbv		3.9	2.0	1.2	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.54	ppbv		ND	2.8	1.9	ug/m3
78-93-3	72.11	Methyl ethyl ketone	13.1	0.80	0.19	ppbv		38.6	2.4	0.56	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.11	ppbv		ND	3.3	0.45	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.10	ppbv		ND	2.9	0.36	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.12	ppbv		ND	3.3	0.49	ug/m3
115-07-1	42	Propylene	ND	2.0	0.32	ppbv		ND	3.4	0.55	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.10	ppbv		ND	3.4	0.43	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.13	ppbv		ND	4.4	0.71	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.12	ppbv		ND	5.5	0.82	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.14	ppbv		ND	4.4	0.76	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.18	ppbv		ND	5.9	1.3	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	7.4	0.80	0.092	ppbv		36	3.9	0.45	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	2.3	0.80	0.12	ppbv		11	3.9	0.59	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	1.2	0.80	0.085	ppbv		5.6	3.7	0.40	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	7.7	0.80	0.20	ppbv		23	2.4	0.61	ug/m3
127-18-4	165.8	Tetrachloroethylene	297 <sup>a</sup>	0.59	0.35	ppbv		2010 <sup>a</sup>	4.0	2.4	ug/m3
109-99-9	72.11	Tetrahydrofuran	0.58	0.80	0.17	ppbv	J	1.7	2.4	0.50	ug/m3
108-88-3	92.14	Toluene	327 <sup>a</sup>	3.0	0.30	ppbv		1230 <sup>a</sup>	11	1.1	ug/m3
79-01-6	131.4	Trichloroethylene	0.25	0.16	0.10	ppbv		1.3	0.86	0.54	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.081	ppbv		ND	4.5	0.46	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.13	ppbv		ND	2.0	0.33	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.22	ppbv		ND	2.8	0.77	ug/m3
	106.2	m,p-Xylene	82.0	0.80	0.17	ppbv		356	3.5	0.74	ug/m3
95-47-6	106.2	o-Xylene	14.3	0.80	0.10	ppbv		62.1	3.5	0.43	ug/m3
1330-20-7	106.2	Xylenes (total)	96.4	0.80	0.10	ppbv		419	3.5	0.43	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	105%	96%	65-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	SV-09	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7519-1	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A1090	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
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(a) Result is from Run# 2

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	SV-10		
<b>Lab Sample ID:</b>	JC7519-2		
<b>Matrix:</b>	AIR - Soil Vapor Comp.	Summa ID: A1045	<b>Date Sampled:</b> 10/29/15
<b>Method:</b>	TO-15		<b>Date Received:</b> 10/31/15
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		<b>Percent Solids:</b> n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3W50811.D	1	11/03/15	YMH	n/a	n/a	V3W1930
Run #2	3W50835.D	1.48	11/05/15	YMH	n/a	n/a	V3W1931

	Initial Volume
Run #1	100 ml
Run #2	40.0 ml

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	111	0.80	0.13	ppbv		264	1.9	0.31	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.12	ppbv		ND	1.8	0.27	ug/m3
71-43-2	78.11	Benzene	22.4	0.80	0.12	ppbv		71.6	2.6	0.38	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.13	ppbv		ND	5.4	0.87	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.082	ppbv		ND	8.3	0.85	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.087	ppbv		ND	3.1	0.34	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.081	ppbv		ND	3.5	0.35	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.10	ppbv		ND	4.1	0.52	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.13	ppbv		ND	3.7	0.60	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.086	ppbv		ND	2.1	0.23	ug/m3
67-66-3	119.4	Chloroform	0.56	0.80	0.12	ppbv	J	2.7	3.9	0.59	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.12	ppbv		ND	1.7	0.25	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv		ND	4.1	0.67	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.098	ppbv		ND	5.0	0.62	ug/m3
110-82-7	84.16	Cyclohexane	3.2	0.80	0.13	ppbv		11	2.8	0.45	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.12	ppbv		ND	3.2	0.49	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.11	ppbv		ND	3.2	0.44	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.14	ppbv		ND	6.1	1.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.10	ppbv		ND	3.2	0.40	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.20	ppbv		ND	3.7	0.92	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.25	ppbv		ND	2.9	0.90	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.73	0.80	0.15	ppbv	J	3.6	4.0	0.74	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.17	ppbv		ND	6.8	1.4	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.081	ppbv		ND	3.2	0.32	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.099	ppbv		ND	3.2	0.39	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.14	ppbv		ND	3.6	0.64	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.11	ppbv		ND	4.8	0.66	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.12	ppbv		ND	4.8	0.72	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.077	ppbv		ND	4.8	0.46	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.082	ppbv		ND	3.6	0.37	ug/m3

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	SV-10	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7519-2	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A1045	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	8.5	2.0	0.66	ppbv		16	3.8	1.2	ug/m3
100-41-4	106.2	Ethylbenzene	22.4	0.80	0.19	ppbv		97.3	3.5	0.83	ug/m3
141-78-6	88	Ethyl Acetate	1.1	0.80	0.25	ppbv		4.0	2.9	0.90	ug/m3
622-96-8	120.2	4-Ethyltoluene	5.1	0.80	0.088	ppbv		25	3.9	0.43	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.11	ppbv		ND	6.1	0.84	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.10	ppbv		ND	5.6	0.70	ug/m3
142-82-5	100.2	Heptane	13.8	0.80	0.12	ppbv		56.6	3.3	0.49	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.13	ppbv		ND	8.5	1.4	ug/m3
110-54-3	86.17	Hexane	19.3	0.80	0.11	ppbv		68.0	2.8	0.39	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.18	ppbv		ND	3.3	0.74	ug/m3
67-63-0	60.1	Isopropyl Alcohol	ND	0.80	0.48	ppbv		ND	2.0	1.2	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.54	ppbv		ND	2.8	1.9	ug/m3
78-93-3	72.11	Methyl ethyl ketone	8.1	0.80	0.19	ppbv		24	2.4	0.56	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.11	ppbv		ND	3.3	0.45	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.10	ppbv		ND	2.9	0.36	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.12	ppbv		ND	3.3	0.49	ug/m3
115-07-1	42	Propylene	ND	2.0	0.32	ppbv		ND	3.4	0.55	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.10	ppbv		ND	3.4	0.43	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.13	ppbv		ND	4.4	0.71	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.12	ppbv		ND	5.5	0.82	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.14	ppbv		ND	4.4	0.76	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.18	ppbv		ND	5.9	1.3	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	8.2	0.80	0.092	ppbv		40	3.9	0.45	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	2.4	0.80	0.12	ppbv		12	3.9	0.59	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	2.8	0.80	0.085	ppbv		13	3.7	0.40	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	10.5	0.80	0.20	ppbv		31.8	2.4	0.61	ug/m3
127-18-4	165.8	Tetrachloroethylene	370 <sup>a</sup>	0.59	0.35	ppbv		2510 <sup>a</sup>	4.0	2.4	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.17	ppbv		ND	2.4	0.50	ug/m3
108-88-3	92.14	Toluene	198 <sup>a</sup>	3.0	0.30	ppbv		746 <sup>a</sup>	11	1.1	ug/m3
79-01-6	131.4	Trichloroethylene	1.1	0.16	0.10	ppbv		5.9	0.86	0.54	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.081	ppbv		ND	4.5	0.46	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.13	ppbv		ND	2.0	0.33	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.22	ppbv		ND	2.8	0.77	ug/m3
	106.2	m,p-Xylene	81.5	0.80	0.17	ppbv		354	3.5	0.74	ug/m3
95-47-6	106.2	o-Xylene	15.3	0.80	0.10	ppbv		66.5	3.5	0.43	ug/m3
1330-20-7	106.2	Xylenes (total)	96.9	0.80	0.10	ppbv		421	3.5	0.43	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	106%	98%	65-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

<b>Client Sample ID:</b>	SV-10	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7519-2	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A1045	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
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(a) Result is from Run# 2

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

4.2  
4

## Report of Analysis

<b>Client Sample ID:</b>	SV-11	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7519-3	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A663	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	W52368.D	1.38	11/05/15	YMH	n/a	n/a	VW2091
Run #2							

Run	Initial Volume
Run #1	40.0 ml
Run #2	

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	ND	2.8	0.44	ppbv		ND	6.7	1.0	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	2.8	0.43	ppbv		ND	6.2	0.95	ug/m3
71-43-2	78.11	Benzene	12.6	2.8	0.41	ppbv		40.3	8.9	1.3	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	2.8	0.44	ppbv		ND	19	2.9	ug/m3
75-25-2	252.8	Bromoform	ND	2.8	0.28	ppbv		ND	29	2.9	ug/m3
74-83-9	94.94	Bromomethane	ND	2.8	0.30	ppbv		ND	11	1.2	ug/m3
593-60-2	106.9	Bromoethene	ND	2.8	0.28	ppbv		ND	12	1.2	ug/m3
100-44-7	126	Benzyl Chloride	ND	2.8	0.36	ppbv		ND	14	1.9	ug/m3
75-15-0	76.14	Carbon disulfide	ND	2.8	0.39	ppbv		ND	8.7	1.2	ug/m3
108-90-7	112.6	Chlorobenzene	ND	2.8	0.45	ppbv		ND	13	2.1	ug/m3
75-00-3	64.52	Chloroethane	ND	2.8	0.30	ppbv		ND	7.4	0.79	ug/m3
67-66-3	119.4	Chloroform	ND	2.8	0.43	ppbv		ND	14	2.1	ug/m3
74-87-3	50.49	Chloromethane	ND	2.8	0.40	ppbv		ND	5.8	0.83	ug/m3
107-05-1	76.53	3-Chloropropene	ND	2.8	0.38	ppbv		ND	8.8	1.2	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	2.8	0.45	ppbv		ND	14	2.3	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	2.8	0.34	ppbv		ND	18	2.1	ug/m3
110-82-7	84.16	Cyclohexane	39.7	2.8	0.44	ppbv		137	9.6	1.5	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	2.8	0.43	ppbv		ND	11	1.7	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	2.8	0.39	ppbv		ND	11	1.5	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	2.8	0.49	ppbv		ND	22	3.8	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	2.8	0.36	ppbv		ND	11	1.5	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	2.8	0.69	ppbv		ND	13	3.2	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	2.8	0.87	ppbv		ND	10	3.1	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	ND	2.8	0.51	ppbv		ND	14	2.5	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	2.8	0.57	ppbv		ND	24	4.9	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	2.8	0.28	ppbv		ND	11	1.1	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	2.8	0.34	ppbv		ND	11	1.3	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	2.8	0.49	ppbv		ND	13	2.2	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	2.8	0.38	ppbv		ND	17	2.3	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	2.8	0.41	ppbv		ND	17	2.5	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	2.8	0.26	ppbv		ND	17	1.6	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	2.8	0.28	ppbv		ND	13	1.3	ug/m3

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 3

<b>Client Sample ID:</b>	SV-11	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7519-3	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A663	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	ND	6.9	2.3	ppbv		ND	13	4.3	ug/m3
100-41-4	106.2	Ethylbenzene	0.92	2.8	0.66	ppbv	J	4.0	12	2.9	ug/m3
141-78-6	88	Ethyl Acetate	ND	2.8	0.88	ppbv		ND	10	3.2	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	2.8	0.30	ppbv		ND	14	1.5	ug/m3
76-13-1	187.4	Freon 113	ND	2.8	0.37	ppbv		ND	21	2.8	ug/m3
76-14-2	170.9	Freon 114	ND	2.8	0.35	ppbv		ND	20	2.4	ug/m3
142-82-5	100.2	Heptane	35.2	2.8	0.41	ppbv		144	11	1.7	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	2.8	0.45	ppbv		ND	30	4.8	ug/m3
110-54-3	86.17	Hexane	61.2	2.8	0.38	ppbv		216	9.9	1.3	ug/m3
591-78-6	100	2-Hexanone	ND	2.8	0.61	ppbv		ND	11	2.5	ug/m3
67-63-0	60.1	Isopropyl Alcohol	ND	2.8	1.7	ppbv		ND	6.9	4.2	ug/m3
75-09-2	84.94	Methylene chloride	ND	2.8	1.8	ppbv		ND	9.7	6.3	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	2.8	0.67	ppbv		ND	8.3	2.0	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	2.8	0.37	ppbv		ND	11	1.5	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	2.8	0.36	ppbv		ND	10	1.3	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	2.8	0.42	ppbv		ND	11	1.7	ug/m3
115-07-1	42	Propylene	ND	6.9	1.1	ppbv		ND	12	1.9	ug/m3
100-42-5	104.1	Styrene	ND	2.8	0.35	ppbv		ND	12	1.5	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	2.8	0.43	ppbv		ND	15	2.3	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	2.8	0.42	ppbv		ND	19	2.9	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	2.8	0.49	ppbv		ND	15	2.7	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	2.8	0.61	ppbv		ND	21	4.5	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	2.8	0.32	ppbv		ND	14	1.6	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	2.8	0.42	ppbv		ND	14	2.1	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	12.8	2.8	0.29	ppbv		59.8	13	1.4	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	2.8	0.69	ppbv		ND	8.5	2.1	ug/m3
127-18-4	165.8	Tetrachloroethylene	ND	0.55	0.33	ppbv		ND	3.7	2.2	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	2.8	0.60	ppbv		ND	8.3	1.8	ug/m3
108-88-3	92.14	Toluene	25.0	2.8	0.28	ppbv		94.2	11	1.1	ug/m3
79-01-6	131.4	Trichloroethylene	0.58	0.55	0.35	ppbv		3.1	3.0	1.9	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	2.8	0.28	ppbv		ND	16	1.6	ug/m3
75-01-4	62.5	Vinyl chloride	ND	2.8	0.45	ppbv		ND	7.2	1.2	ug/m3
108-05-4	86	Vinyl Acetate	ND	2.8	0.76	ppbv		ND	9.8	2.7	ug/m3
	106.2	m,p-Xylene	3.1	2.8	0.60	ppbv		13	12	2.6	ug/m3
95-47-6	106.2	o-Xylene	1.0	2.8	0.35	ppbv	J	4.3	12	1.5	ug/m3
1330-20-7	106.2	Xylenes (total)	4.2	2.8	0.35	ppbv		18	12	1.5	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		65-128%

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	SV-11	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7519-3	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A663	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
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(a) Diluted due to high concentration of non-target compound.

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

4.3  
4





**Sample Results**

**Report of Analysis**

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## Report of Analysis

<b>Client Sample ID:</b>	SV-8	<b>Date Sampled:</b>	10/30/15
<b>Lab Sample ID:</b>	JC7667-1	<b>Date Received:</b>	11/03/15
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A1046	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3W50844.D	1	11/05/15	YMH	n/a	n/a	V3W1931
Run #2	3W50862.D	1.52	11/06/15	YMH	n/a	n/a	V3W1932

	Initial Volume
Run #1	100 ml
Run #2	40.0 ml

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	266 <sup>a</sup>	3.0	0.48	ppbv		632 <sup>a</sup>	7.1	1.1	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.12	ppbv		ND	1.8	0.27	ug/m3
71-43-2	78.11	Benzene	1.9	0.80	0.12	ppbv		6.1	2.6	0.38	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.13	ppbv		ND	5.4	0.87	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.082	ppbv		ND	8.3	0.85	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.087	ppbv		ND	3.1	0.34	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.081	ppbv		ND	3.5	0.35	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.10	ppbv		ND	4.1	0.52	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.13	ppbv		ND	3.7	0.60	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.086	ppbv		ND	2.1	0.23	ug/m3
67-66-3	119.4	Chloroform	2.5	0.80	0.12	ppbv		12	3.9	0.59	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.12	ppbv		ND	1.7	0.25	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv		ND	4.1	0.67	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.098	ppbv		ND	5.0	0.62	ug/m3
110-82-7	84.16	Cyclohexane	0.69	0.80	0.13	ppbv	J	2.4	2.8	0.45	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.12	ppbv		ND	3.2	0.49	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.11	ppbv		ND	3.2	0.44	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.14	ppbv		ND	6.1	1.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.10	ppbv		ND	3.2	0.40	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.20	ppbv		ND	3.7	0.92	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.25	ppbv		ND	2.9	0.90	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.60	0.80	0.15	ppbv	J	3.0	4.0	0.74	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.17	ppbv		ND	6.8	1.4	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	1.6	0.80	0.081	ppbv		6.3	3.2	0.32	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	1.6	0.80	0.099	ppbv		6.3	3.2	0.39	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.14	ppbv		ND	3.6	0.64	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.11	ppbv		ND	4.8	0.66	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.12	ppbv		ND	4.8	0.72	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.077	ppbv		ND	4.8	0.46	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.082	ppbv		ND	3.6	0.37	ug/m3

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	SV-8	<b>Date Sampled:</b>	10/30/15
<b>Lab Sample ID:</b>	JC7667-1	<b>Date Received:</b>	11/03/15
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A1046	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	8.5	2.0	0.66	ppbv		16	3.8	1.2	ug/m3
100-41-4	106.2	Ethylbenzene	3.5	0.80	0.19	ppbv		15	3.5	0.83	ug/m3
141-78-6	88	Ethyl Acetate	ND	0.80	0.25	ppbv		ND	2.9	0.90	ug/m3
622-96-8	120.2	4-Ethyltoluene	1.2	0.80	0.088	ppbv		5.9	3.9	0.43	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.11	ppbv		ND	6.1	0.84	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.10	ppbv		ND	5.6	0.70	ug/m3
142-82-5	100.2	Heptane	3.7	0.80	0.12	ppbv		15	3.3	0.49	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.13	ppbv		ND	8.5	1.4	ug/m3
110-54-3	86.17	Hexane	1.9	0.80	0.11	ppbv		6.7	2.8	0.39	ug/m3
591-78-6	100	2-Hexanone	3.5	0.80	0.18	ppbv		14	3.3	0.74	ug/m3
67-63-0	60.1	Isopropyl Alcohol	1.6	0.80	0.48	ppbv		3.9	2.0	1.2	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.54	ppbv		ND	2.8	1.9	ug/m3
78-93-3	72.11	Methyl ethyl ketone	12.5	0.80	0.19	ppbv		36.9	2.4	0.56	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.11	ppbv		ND	3.3	0.45	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.10	ppbv		ND	2.9	0.36	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.12	ppbv		ND	3.3	0.49	ug/m3
115-07-1	42	Propylene	12.9	2.0	0.32	ppbv		22.2	3.4	0.55	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.10	ppbv		ND	3.4	0.43	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.13	ppbv		ND	4.4	0.71	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.12	ppbv		ND	5.5	0.82	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.14	ppbv		ND	4.4	0.76	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.18	ppbv		ND	5.9	1.3	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	3.5	0.80	0.092	ppbv		17	3.9	0.45	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	1.2	0.80	0.12	ppbv		5.9	3.9	0.59	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.67	0.80	0.085	ppbv	J	3.1	3.7	0.40	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	8.2	0.80	0.20	ppbv		25	2.4	0.61	ug/m3
127-18-4	165.8	Tetrachloroethylene	387 <sup>a</sup>	0.61	0.36	ppbv		2620 <sup>a</sup>	4.1	2.4	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.17	ppbv		ND	2.4	0.50	ug/m3
108-88-3	92.14	Toluene	15.5	0.80	0.081	ppbv		58.4	3.0	0.31	ug/m3
79-01-6	131.4	Trichloroethylene	29.3	0.16	0.10	ppbv		157	0.86	0.54	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.081	ppbv		ND	4.5	0.46	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.13	ppbv		ND	2.0	0.33	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.22	ppbv		ND	2.8	0.77	ug/m3
	106.2	m,p-Xylene	13.3	0.80	0.17	ppbv		57.8	3.5	0.74	ug/m3
95-47-6	106.2	o-Xylene	4.7	0.80	0.10	ppbv		20	3.5	0.43	ug/m3
1330-20-7	106.2	Xylenes (total)	17.9	0.80	0.10	ppbv		77.7	3.5	0.43	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	105%	96%	65-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	SV-8	<b>Date Sampled:</b>	10/30/15
<b>Lab Sample ID:</b>	JC7667-1	<b>Date Received:</b>	11/03/15
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A1046	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
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(a) Result is from Run# 2

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 3

<b>Client Sample ID:</b>	SV-7	<b>Date Sampled:</b>	10/30/15
<b>Lab Sample ID:</b>	JC7667-2	<b>Date Received:</b>	11/03/15
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A873	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3W50845.D	1	11/05/15	YMH	n/a	n/a	V3W1931
Run #2	3W50863.D	1.52	11/06/15	YMH	n/a	n/a	V3W1932

	Initial Volume
Run #1	100 ml
Run #2	20.0 ml

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	515 <sup>a</sup>	6.1	0.96	ppbv		1220 <sup>a</sup>	14	2.3	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.12	ppbv		ND	1.8	0.27	ug/m3
71-43-2	78.11	Benzene	1.7	0.80	0.12	ppbv		5.4	2.6	0.38	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.13	ppbv		ND	5.4	0.87	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.082	ppbv		ND	8.3	0.85	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.087	ppbv		ND	3.1	0.34	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.081	ppbv		ND	3.5	0.35	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.10	ppbv		ND	4.1	0.52	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.13	ppbv		ND	3.7	0.60	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.086	ppbv		ND	2.1	0.23	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.12	ppbv		ND	3.9	0.59	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.12	ppbv		ND	1.7	0.25	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv		ND	4.1	0.67	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.098	ppbv		ND	5.0	0.62	ug/m3
110-82-7	84.16	Cyclohexane	0.76	0.80	0.13	ppbv	J	2.6	2.8	0.45	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.12	ppbv		ND	3.2	0.49	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.11	ppbv		ND	3.2	0.44	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.14	ppbv		ND	6.1	1.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.10	ppbv		ND	3.2	0.40	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.20	ppbv		ND	3.7	0.92	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.25	ppbv		ND	2.9	0.90	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.52	0.80	0.15	ppbv	J	2.6	4.0	0.74	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.17	ppbv		ND	6.8	1.4	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.081	ppbv		ND	3.2	0.32	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.099	ppbv		ND	3.2	0.39	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.14	ppbv		ND	3.6	0.64	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.11	ppbv		ND	4.8	0.66	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.12	ppbv		ND	4.8	0.72	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.077	ppbv		ND	4.8	0.46	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.082	ppbv		ND	3.6	0.37	ug/m3

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	SV-7	<b>Date Sampled:</b>	10/30/15
<b>Lab Sample ID:</b>	JC7667-2	<b>Date Received:</b>	11/03/15
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A873	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	8.6	2.0	0.66	ppbv		16	3.8	1.2	ug/m3
100-41-4	106.2	Ethylbenzene	4.3	0.80	0.19	ppbv		19	3.5	0.83	ug/m3
141-78-6	88	Ethyl Acetate	2.8	0.80	0.25	ppbv		10	2.9	0.90	ug/m3
622-96-8	120.2	4-Ethyltoluene	1.4	0.80	0.088	ppbv		6.9	3.9	0.43	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.11	ppbv		ND	6.1	0.84	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.10	ppbv		ND	5.6	0.70	ug/m3
142-82-5	100.2	Heptane	4.7	0.80	0.12	ppbv		19	3.3	0.49	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.13	ppbv		ND	8.5	1.4	ug/m3
110-54-3	86.17	Hexane	2.1	0.80	0.11	ppbv		7.4	2.8	0.39	ug/m3
591-78-6	100	2-Hexanone	5.0	0.80	0.18	ppbv		20	3.3	0.74	ug/m3
67-63-0	60.1	Isopropyl Alcohol	ND	0.80	0.48	ppbv		ND	2.0	1.2	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.54	ppbv		ND	2.8	1.9	ug/m3
78-93-3	72.11	Methyl ethyl ketone	21.7	0.80	0.19	ppbv		64.0	2.4	0.56	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.11	ppbv		ND	3.3	0.45	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.10	ppbv		ND	2.9	0.36	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.12	ppbv		ND	3.3	0.49	ug/m3
115-07-1	42	Propylene	2.3	2.0	0.32	ppbv		4.0	3.4	0.55	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.10	ppbv		ND	3.4	0.43	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.13	ppbv		ND	4.4	0.71	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.12	ppbv		ND	5.5	0.82	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.14	ppbv		ND	4.4	0.76	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.18	ppbv		ND	5.9	1.3	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	4.3	0.80	0.092	ppbv		21	3.9	0.45	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	1.4	0.80	0.12	ppbv		6.9	3.9	0.59	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.55	0.80	0.085	ppbv	J	2.6	3.7	0.40	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	9.5	0.80	0.20	ppbv		29	2.4	0.61	ug/m3
127-18-4	165.8	Tetrachloroethylene	2.4	0.16	0.095	ppbv		16	1.1	0.64	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.17	ppbv		ND	2.4	0.50	ug/m3
108-88-3	92.14	Toluene	17.9	0.80	0.081	ppbv		67.5	3.0	0.31	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.16	0.10	ppbv		ND	0.86	0.54	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.081	ppbv		ND	4.5	0.46	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.13	ppbv		ND	2.0	0.33	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.22	ppbv		ND	2.8	0.77	ug/m3
	106.2	m,p-Xylene	15.9	0.80	0.17	ppbv		69.1	3.5	0.74	ug/m3
95-47-6	106.2	o-Xylene	5.5	0.80	0.10	ppbv		24	3.5	0.43	ug/m3
1330-20-7	106.2	Xylenes (total)	21.5	0.80	0.10	ppbv		93.4	3.5	0.43	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	104%	97%	65-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	SV-7	<b>Date Sampled:</b>	10/30/15
<b>Lab Sample ID:</b>	JC7667-2	<b>Date Received:</b>	11/03/15
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A873	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
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(a) Result is from Run# 2

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	SV-6	<b>Date Sampled:</b>	10/30/15
<b>Lab Sample ID:</b>	JC7667-3	<b>Date Received:</b>	11/03/15
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A779	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3W50846.D	1.48	11/05/15	YMH	n/a	n/a	V3W1931
Run #2	3W50860.D	1.48	11/06/15	YMH	n/a	n/a	V3W1932

	Initial Volume
Run #1	148 ml
Run #2	50.0 ml

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	267 <sup>a</sup>	2.4	0.38	ppbv		634 <sup>a</sup>	5.7	0.90	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.12	ppbv		ND	1.8	0.27	ug/m3
71-43-2	78.11	Benzene	1.5	0.80	0.12	ppbv		4.8	2.6	0.38	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.13	ppbv		ND	5.4	0.87	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.082	ppbv		ND	8.3	0.85	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.087	ppbv		ND	3.1	0.34	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.081	ppbv		ND	3.5	0.35	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.10	ppbv		ND	4.1	0.52	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.13	ppbv		ND	3.7	0.60	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.086	ppbv		ND	2.1	0.23	ug/m3
67-66-3	119.4	Chloroform	8.2	0.80	0.12	ppbv		40	3.9	0.59	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.12	ppbv		ND	1.7	0.25	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.13	ppbv		ND	4.1	0.67	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.098	ppbv		ND	5.0	0.62	ug/m3
110-82-7	84.16	Cyclohexane	0.62	0.80	0.13	ppbv	J	2.1	2.8	0.45	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.12	ppbv		ND	3.2	0.49	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.11	ppbv		ND	3.2	0.44	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.14	ppbv		ND	6.1	1.1	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.10	ppbv		ND	3.2	0.40	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.20	ppbv		ND	3.7	0.92	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.25	ppbv		ND	2.9	0.90	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.57	0.80	0.15	ppbv	J	2.8	4.0	0.74	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.17	ppbv		ND	6.8	1.4	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.081	ppbv		ND	3.2	0.32	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.099	ppbv		ND	3.2	0.39	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.14	ppbv		ND	3.6	0.64	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.11	ppbv		ND	4.8	0.66	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.12	ppbv		ND	4.8	0.72	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.077	ppbv		ND	4.8	0.46	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.082	ppbv		ND	3.6	0.37	ug/m3

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	SV-6	<b>Date Sampled:</b>	10/30/15
<b>Lab Sample ID:</b>	JC7667-3	<b>Date Received:</b>	11/03/15
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A779	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	7.9	2.0	0.66	ppbv		15	3.8	1.2	ug/m3
100-41-4	106.2	Ethylbenzene	4.7	0.80	0.19	ppbv		20	3.5	0.83	ug/m3
141-78-6	88	Ethyl Acetate	ND	0.80	0.25	ppbv		ND	2.9	0.90	ug/m3
622-96-8	120.2	4-Ethyltoluene	1.9	0.80	0.088	ppbv		9.3	3.9	0.43	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.11	ppbv		ND	6.1	0.84	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.10	ppbv		ND	5.6	0.70	ug/m3
142-82-5	100.2	Heptane	4.7	0.80	0.12	ppbv		19	3.3	0.49	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.13	ppbv		ND	8.5	1.4	ug/m3
110-54-3	86.17	Hexane	1.6	0.80	0.11	ppbv		5.6	2.8	0.39	ug/m3
591-78-6	100	2-Hexanone	6.5	0.80	0.18	ppbv		27	3.3	0.74	ug/m3
67-63-0	60.1	Isopropyl Alcohol	ND	0.80	0.48	ppbv		ND	2.0	1.2	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.54	ppbv		ND	2.8	1.9	ug/m3
78-93-3	72.11	Methyl ethyl ketone	19.3	0.80	0.19	ppbv		56.9	2.4	0.56	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.11	ppbv		ND	3.3	0.45	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.10	ppbv		ND	2.9	0.36	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.12	ppbv		ND	3.3	0.49	ug/m3
115-07-1	42	Propylene	ND	2.0	0.32	ppbv		ND	3.4	0.55	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.10	ppbv		ND	3.4	0.43	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.13	ppbv		ND	4.4	0.71	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.12	ppbv		ND	5.5	0.82	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.14	ppbv		ND	4.4	0.76	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.18	ppbv		ND	5.9	1.3	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	5.8	0.80	0.092	ppbv		29	3.9	0.45	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	1.9	0.80	0.12	ppbv		9.3	3.9	0.59	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.57	0.80	0.085	ppbv	J	2.7	3.7	0.40	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	7.3	0.80	0.20	ppbv		22	2.4	0.61	ug/m3
127-18-4	165.8	Tetrachloroethylene	111	0.16	0.095	ppbv		753	1.1	0.64	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.17	ppbv		ND	2.4	0.50	ug/m3
108-88-3	92.14	Toluene	18.4	0.80	0.081	ppbv		69.3	3.0	0.31	ug/m3
79-01-6	131.4	Trichloroethylene	0.25	0.16	0.10	ppbv		1.3	0.86	0.54	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.32	0.80	0.081	ppbv	J	1.8	4.5	0.46	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.13	ppbv		ND	2.0	0.33	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.22	ppbv		ND	2.8	0.77	ug/m3
	106.2	m,p-Xylene	18.6	0.80	0.17	ppbv		80.8	3.5	0.74	ug/m3
95-47-6	106.2	o-Xylene	6.2	0.80	0.10	ppbv		27	3.5	0.43	ug/m3
1330-20-7	106.2	Xylenes (total)	24.8	0.80	0.10	ppbv		108	3.5	0.43	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	104%	101%	65-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	SV-6	<b>Date Sampled:</b>	10/30/15
<b>Lab Sample ID:</b>	JC7667-3	<b>Date Received:</b>	11/03/15
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A779	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
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(a) Result is from Run# 2

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound



Sample Results

Report of Analysis

SGS Accutest LabLink@945686 14:24 10-Feb-2017

## Report of Analysis

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<b>Client Sample ID:</b>	SV-11	<b>Date Sampled:</b>	03/04/16
<b>Lab Sample ID:</b>	JC15505-1	<b>Date Received:</b>	03/05/16
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A1177,A1216	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W16969.D	1.28	03/13/16	TCH	n/a	n/a	V5W679
Run #2	5W16946.D	128	03/12/16	TCH	n/a	n/a	V5W678

	Initial Volume
Run #1	20.0 ml
Run #2	200 ml

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	ND	5.1	0.93	ppbv		ND	12	2.2	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	5.1	0.71	ppbv		ND	11	1.6	ug/m3
71-43-2	78.11	Benzene	27.9	5.1	0.80	ppbv		89.1	16	2.6	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	5.1	0.99	ppbv		ND	34	6.6	ug/m3
75-25-2	252.8	Bromoform	ND	5.1	0.40	ppbv		ND	53	4.1	ug/m3
74-83-9	94.94	Bromomethane	ND	5.1	0.47	ppbv		ND	20	1.8	ug/m3
593-60-2	106.9	Bromoethene	ND	5.1	0.47	ppbv		ND	22	2.1	ug/m3
100-44-7	126	Benzyl Chloride	ND	5.1	0.69	ppbv		ND	26	3.6	ug/m3
75-15-0	76.14	Carbon disulfide	2.5	5.1	0.80	ppbv	J	7.8	16	2.5	ug/m3
108-90-7	112.6	Chlorobenzene	ND	5.1	1.4	ppbv		ND	23	6.4	ug/m3
75-00-3	64.52	Chloroethane	5.3	5.1	0.91	ppbv		14	13	2.4	ug/m3
67-66-3	119.4	Chloroform	ND	5.1	0.42	ppbv		ND	25	2.1	ug/m3
74-87-3	50.49	Chloromethane	ND	5.1	1.3	ppbv		ND	11	2.7	ug/m3
107-05-1	76.53	3-Chloropropene	ND	5.1	0.68	ppbv		ND	16	2.1	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	5.1	0.43	ppbv		ND	26	2.2	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	5.1	0.80	ppbv		ND	32	5.0	ug/m3
110-82-7	84.16	Cyclohexane	631	5.1	0.41	ppbv		2170	18	1.4	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	5.1	0.39	ppbv		ND	21	1.6	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	5.1	0.54	ppbv		ND	20	2.1	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	5.1	1.1	ppbv		ND	39	8.5	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	5.1	0.45	ppbv		ND	21	1.8	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	5.1	0.56	ppbv		ND	24	2.6	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	5.1	1.2	ppbv		ND	18	4.3	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	ND	5.1	0.49	ppbv		ND	25	2.4	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	5.1	1.3	ppbv		ND	43	11	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	4.5	5.1	0.72	ppbv	J	18	20	2.9	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	5.1	0.54	ppbv		ND	20	2.1	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	5.1	0.39	ppbv		ND	23	1.8	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	5.1	0.50	ppbv		ND	31	3.0	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	5.1	0.41	ppbv		ND	31	2.5	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	5.1	0.69	ppbv		ND	31	4.1	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	5.1	0.47	ppbv		ND	23	2.1	ug/m3

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b>	SV-11	<b>Date Sampled:</b>	03/04/16
<b>Lab Sample ID:</b>	JC15505-1	<b>Date Received:</b>	03/05/16
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A1177,A1216	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	22.2	13	1.9	ppbv		41.8	24	3.6	ug/m3
100-41-4	106.2	Ethylbenzene	ND	5.1	1.1	ppbv		ND	22	4.8	ug/m3
141-78-6	88	Ethyl Acetate	ND	5.1	1.9	ppbv		ND	18	6.8	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	5.1	0.43	ppbv		ND	25	2.1	ug/m3
76-13-1	187.4	Freon 113	ND	5.1	0.55	ppbv		ND	39	4.2	ug/m3
76-14-2	170.9	Freon 114	ND	5.1	0.80	ppbv		ND	36	5.6	ug/m3
142-82-5	100.2	Heptane	360	5.1	0.52	ppbv		1480	21	2.1	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	5.1	0.52	ppbv		ND	54	5.5	ug/m3
110-54-3	86.17	Hexane	1640 <sup>a</sup>	51	5.8	ppbv		5780 <sup>a</sup>	180	20	ug/m3
591-78-6	100	2-Hexanone	ND	5.1	1.1	ppbv		ND	21	4.5	ug/m3
67-63-0	60.1	Isopropyl Alcohol	ND	5.1	4.0	ppbv		ND	13	9.8	ug/m3
75-09-2	84.94	Methylene chloride	ND	5.1	0.64	ppbv		ND	18	2.2	ug/m3
78-93-3	72.11	Methyl ethyl ketone	344	5.1	1.2	ppbv		1010	15	3.5	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	5.1	1.4	ppbv		ND	21	5.7	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	5.1	0.50	ppbv		ND	18	1.8	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	5.1	1.0	ppbv		ND	21	4.1	ug/m3
115-07-1	42	Propylene	ND	13	0.83	ppbv		ND	22	1.4	ug/m3
100-42-5	104.1	Styrene	ND	5.1	0.39	ppbv		ND	22	1.7	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	5.1	0.60	ppbv		ND	28	3.3	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	5.1	0.41	ppbv		ND	35	2.8	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	5.1	0.99	ppbv		ND	28	5.4	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	5.1	1.4	ppbv		ND	38	10	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	5.1	0.39	ppbv		ND	25	1.9	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	5.1	1.1	ppbv		ND	25	5.4	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	5.1	0.58	ppbv		ND	24	2.7	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	18.6	5.1	1.4	ppbv		56.4	15	4.2	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.1	1.0	0.59	ppbv		7.5	6.8	4.0	ug/m3
109-99-9	72.11	Tetrahydrofuran	830	5.1	1.2	ppbv		2450	15	3.5	ug/m3
108-88-3	92.14	Toluene	ND	5.1	0.32	ppbv		ND	19	1.2	ug/m3
79-01-6	131.4	Trichloroethylene	1.9	1.0	0.48	ppbv		10	5.4	2.6	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	5.1	0.56	ppbv		ND	29	3.1	ug/m3
75-01-4	62.5	Vinyl chloride	8.9	5.1	0.53	ppbv		23	13	1.4	ug/m3
108-05-4	86	Vinyl Acetate	ND	5.1	1.4	ppbv		ND	18	4.9	ug/m3
	106.2	m,p-Xylene	ND	5.1	1.7	ppbv		ND	22	7.4	ug/m3
95-47-6	106.2	o-Xylene	ND	5.1	1.3	ppbv		ND	22	5.6	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	5.1	1.3	ppbv		ND	22	5.6	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	100%	95%	65-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	SV-11	<b>Date Sampled:</b>	03/04/16
<b>Lab Sample ID:</b>	JC15505-1	<b>Date Received:</b>	03/05/16
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A1177,A1216	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
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(a) Result is from Run# 2

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	IAQ-11	<b>Date Sampled:</b>	03/04/16
<b>Lab Sample ID:</b>	JC15505-2	<b>Date Received:</b>	03/05/16
<b>Matrix:</b>	AIR - Ambient Air Comp. Summa ID: A1112	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W16947.D	1	03/12/16	TCH	n/a	n/a	V5W678
Run #2							

Run #	Initial Volume
Run #1	400 ml
Run #2	

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	4.1	0.20	0.036	ppbv		9.7	0.48	0.086	ug/m3
106-99-0	54.09	1,3-Butadiene	0.25	0.20	0.028	ppbv		0.55	0.44	0.062	ug/m3
71-43-2	78.11	Benzene	2.5	0.20	0.031	ppbv		8.0	0.64	0.099	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	0.26	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	0.17	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	0.079	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	0.14	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	0.26	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	0.095	ug/m3
67-66-3	119.4	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	0.083	ug/m3
74-87-3	50.49	Chloromethane	0.63	0.20	0.052	ppbv		1.3	0.41	0.11	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	0.085	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	0.088	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	0.20	ug/m3
110-82-7	84.16	Cyclohexane	0.29	0.20	0.016	ppbv		1.0	0.69	0.055	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	0.061	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	0.32	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	0.073	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	0.10	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	0.16	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.56	0.20	0.019	ppbv		2.8	0.99	0.094	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	0.45	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	0.068	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	0.12	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	0.096	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	0.082	ug/m3

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b> IAQ-11	<b>Date Sampled:</b> 03/04/16
<b>Lab Sample ID:</b> JC15505-2	<b>Date Received:</b> 03/05/16
<b>Matrix:</b> AIR - Ambient Air Comp. Summa ID: A1112	<b>Percent Solids:</b> n/a
<b>Method:</b> TO-15	
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	15.9	0.50	0.075	ppbv		30.0	0.94	0.14	ug/m3
100-41-4	106.2	Ethylbenzene	0.32	0.20	0.042	ppbv		1.4	0.87	0.18	ug/m3
141-78-6	88	Ethyl Acetate	1.2	0.20	0.075	ppbv		4.3	0.72	0.27	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	0.084	ug/m3
76-13-1	187.4	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	0.22	ug/m3
142-82-5	100.2	Heptane	0.35	0.20	0.020	ppbv		1.4	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	0.21	ug/m3
110-54-3	86.17	Hexane	0.81	0.20	0.023	ppbv		2.9	0.70	0.081	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	7.2	0.20	0.16	ppbv		18	0.49	0.39	ug/m3
75-09-2	84.94	Methylene chloride	0.22	0.20	0.025	ppbv		0.76	0.69	0.087	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.26	0.20	0.048	ppbv		0.77	0.59	0.14	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	0.072	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	0.16	ug/m3
115-07-1	42	Propylene	ND	0.50	0.032	ppbv		ND	0.86	0.055	ug/m3
100-42-5	104.1	Styrene	ND	0.20	0.015	ppbv		ND	0.85	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	0.11	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	0.21	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	0.42	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	0.33	0.20	0.015	ppbv		1.6	0.98	0.074	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	0.11	0.20	0.045	ppbv	J	0.54	0.98	0.22	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	1.1	0.20	0.023	ppbv		5.1	0.93	0.11	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	0.16	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.072	0.040	0.023	ppbv		0.49	0.27	0.16	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	0.13	ug/m3
108-88-3	92.14	Toluene	3.1	0.20	0.012	ppbv		12	0.75	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	0.10	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.25	0.20	0.022	ppbv		1.4	1.1	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	0.054	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	1.4	0.20	0.068	ppbv		6.1	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	0.49	0.20	0.051	ppbv		2.1	0.87	0.22	ug/m3
1330-20-7	106.2	Xylenes (total)	1.9	0.20	0.051	ppbv		8.3	0.87	0.22	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	103%		65-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	IAQ-10	<b>Date Sampled:</b>	03/04/16
<b>Lab Sample ID:</b>	JC15505-3	<b>Date Received:</b>	03/05/16
<b>Matrix:</b>	AIR - Ambient Air Comp. Summa ID: A1183	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W16948.D	1	03/13/16	TCH	n/a	n/a	V5W678
Run #2							

Run #	Initial Volume
Run #1	400 ml
Run #2	

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	8.7	0.20	0.036	ppbv		21	0.48	0.086	ug/m3
106-99-0	54.09	1,3-Butadiene	0.34	0.20	0.028	ppbv		0.75	0.44	0.062	ug/m3
71-43-2	78.11	Benzene	0.74	0.20	0.031	ppbv		2.4	0.64	0.099	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	0.26	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	0.17	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	0.079	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	0.14	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	0.26	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	0.095	ug/m3
67-66-3	119.4	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	0.083	ug/m3
74-87-3	50.49	Chloromethane	0.59	0.20	0.052	ppbv		1.2	0.41	0.11	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	0.085	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	0.088	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	0.20	ug/m3
110-82-7	84.16	Cyclohexane	0.13	0.20	0.016	ppbv	J	0.45	0.69	0.055	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	0.061	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	0.32	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	0.073	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	0.10	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	0.16	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.49	0.20	0.019	ppbv		2.4	0.99	0.094	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	0.45	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	0.068	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	0.12	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	0.096	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	0.082	ug/m3

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	IAQ-10	<b>Date Sampled:</b>	03/04/16
<b>Lab Sample ID:</b>	JC15505-3	<b>Date Received:</b>	03/05/16
<b>Matrix:</b>	AIR - Ambient Air Comp. Summa ID: A1183	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	8.9	0.50	0.075	ppbv		17	0.94	0.14	ug/m3
100-41-4	106.2	Ethylbenzene	0.18	0.20	0.042	ppbv	J	0.78	0.87	0.18	ug/m3
141-78-6	88	Ethyl Acetate	1.6	0.20	0.075	ppbv		5.8	0.72	0.27	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	0.084	ug/m3
76-13-1	187.4	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	0.22	ug/m3
142-82-5	100.2	Heptane	0.17	0.20	0.020	ppbv	J	0.70	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	0.21	ug/m3
110-54-3	86.17	Hexane	0.60	0.20	0.023	ppbv		2.1	0.70	0.081	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	6.7	0.20	0.16	ppbv		16	0.49	0.39	ug/m3
75-09-2	84.94	Methylene chloride	0.46	0.20	0.025	ppbv		1.6	0.69	0.087	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.28	0.20	0.048	ppbv		0.83	0.59	0.14	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	0.072	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	0.16	ug/m3
115-07-1	42	Propylene	3.1	0.50	0.032	ppbv		5.3	0.86	0.055	ug/m3
100-42-5	104.1	Styrene	ND	0.20	0.015	ppbv		ND	0.85	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	0.11	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	0.21	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	0.42	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	0.12	0.20	0.015	ppbv	J	0.59	0.98	0.074	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	0.22	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.24	0.20	0.023	ppbv		1.1	0.93	0.11	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	0.16	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.065	0.040	0.023	ppbv		0.44	0.27	0.16	ug/m3
109-99-9	72.11	Tetrahydrofuran	0.23	0.20	0.045	ppbv		0.68	0.59	0.13	ug/m3
108-88-3	92.14	Toluene	1.2	0.20	0.012	ppbv		4.5	0.75	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	0.10	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.26	0.20	0.022	ppbv		1.5	1.1	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	0.054	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	0.56	0.20	0.068	ppbv		2.4	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	0.19	0.20	0.051	ppbv	J	0.83	0.87	0.22	ug/m3
1330-20-7	106.2	Xylenes (total)	0.76	0.20	0.051	ppbv		3.3	0.87	0.22	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	104%		65-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	SV-9	<b>Date Sampled:</b>	03/04/16
<b>Lab Sample ID:</b>	JC15505-4	<b>Date Received:</b>	03/05/16
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A313	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W16949.D	1	03/13/16	TCH	n/a	n/a	V5W678
Run #2							

Run #	Initial Volume
Run #1	100 ml
Run #2	

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	17.3	0.80	0.14	ppbv		41.1	1.9	0.33	ug/m3
106-99-0	54.09	1,3-Butadiene	0.78	0.80	0.11	ppbv	J	1.7	1.8	0.24	ug/m3
71-43-2	78.11	Benzene	2.0	0.80	0.13	ppbv		6.4	2.6	0.42	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.15	ppbv		ND	5.4	1.0	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.063	ppbv		ND	8.3	0.65	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.074	ppbv		ND	3.1	0.29	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.074	ppbv		ND	3.5	0.32	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.11	ppbv		ND	4.1	0.57	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.80	0.13	ppbv		ND	2.5	0.40	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.22	ppbv		ND	3.7	1.0	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.14	ppbv		ND	2.1	0.37	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.066	ppbv		ND	3.9	0.32	ug/m3
74-87-3	50.49	Chloromethane	0.67	0.80	0.21	ppbv	J	1.4	1.7	0.43	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.068	ppbv		ND	4.1	0.35	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.12	ppbv		ND	5.0	0.75	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.80	0.065	ppbv		ND	2.8	0.22	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.061	ppbv		ND	3.2	0.25	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.084	ppbv		ND	3.2	0.33	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.17	ppbv		ND	6.1	1.3	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.070	ppbv		ND	3.2	0.28	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.088	ppbv		ND	3.7	0.41	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.18	ppbv		ND	2.9	0.65	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.48	0.80	0.076	ppbv	J	2.4	4.0	0.38	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.21	ppbv		ND	6.8	1.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.11	ppbv		ND	3.2	0.44	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.084	ppbv		ND	3.2	0.33	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.061	ppbv		ND	3.6	0.28	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.078	ppbv		ND	4.8	0.47	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.064	ppbv		ND	4.8	0.38	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.11	ppbv		ND	4.8	0.66	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.073	ppbv		ND	3.6	0.33	ug/m3

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b>	SV-9	<b>Date Sampled:</b>	03/04/16
<b>Lab Sample ID:</b>	JC15505-4	<b>Date Received:</b>	03/05/16
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A313	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	12.7	2.0	0.30	ppbv		23.9	3.8	0.57	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.80	0.17	ppbv		ND	3.5	0.74	ug/m3
141-78-6	88	Ethyl Acetate	1.5	0.80	0.30	ppbv		5.4	2.9	1.1	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.80	0.067	ppbv		ND	3.9	0.33	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.086	ppbv		ND	6.1	0.66	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.13	ppbv		ND	5.6	0.91	ug/m3
142-82-5	100.2	Heptane	ND	0.80	0.081	ppbv		ND	3.3	0.33	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.081	ppbv		ND	8.5	0.86	ug/m3
110-54-3	86.17	Hexane	0.84	0.80	0.090	ppbv		3.0	2.8	0.32	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.18	ppbv		ND	3.3	0.74	ug/m3
67-63-0	60.1	Isopropyl Alcohol	13.9	0.80	0.62	ppbv		34.2	2.0	1.5	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.10	ppbv		ND	2.8	0.35	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	0.80	0.19	ppbv		ND	2.4	0.56	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.80	0.22	ppbv		ND	3.3	0.90	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.079	ppbv		ND	2.9	0.28	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.16	ppbv		ND	3.3	0.66	ug/m3
115-07-1	42	Propylene	4.6	2.0	0.13	ppbv		7.9	3.4	0.22	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.062	ppbv		ND	3.4	0.26	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.094	ppbv		ND	4.4	0.51	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.064	ppbv		ND	5.5	0.44	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.16	ppbv		ND	4.4	0.87	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.22	ppbv		ND	5.9	1.6	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.80	0.061	ppbv		ND	3.9	0.30	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.80	0.18	ppbv		ND	3.9	0.88	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.47	0.80	0.091	ppbv	J	2.2	3.7	0.43	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.80	0.21	ppbv		ND	2.4	0.64	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.16	0.16	0.092	ppbv		1.1	1.1	0.62	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.18	ppbv		ND	2.4	0.53	ug/m3
108-88-3	92.14	Toluene	2.1	0.80	0.050	ppbv		7.9	3.0	0.19	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.16	0.074	ppbv		ND	0.86	0.40	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.088	ppbv		ND	4.5	0.49	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.082	ppbv		ND	2.0	0.21	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.22	ppbv		ND	2.8	0.77	ug/m3
	106.2	m,p-Xylene	0.80	0.80	0.27	ppbv		3.5	3.5	1.2	ug/m3
95-47-6	106.2	o-Xylene	ND	0.80	0.20	ppbv		ND	3.5	0.87	ug/m3
1330-20-7	106.2	Xylenes (total)	0.80	0.80	0.20	ppbv		3.5	3.5	0.87	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	101%		65-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



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## Report of Analysis

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<b>Client Sample ID:</b>	IAQ-9	<b>Date Sampled:</b>	03/04/16
<b>Lab Sample ID:</b>	JC15505-5	<b>Date Received:</b>	03/05/16
<b>Matrix:</b>	AIR - Ambient Air Comp. Summa ID: A278	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W16950.D	1	03/13/16	TCH	n/a	n/a	V5W678
Run #2	5W16970.D	1.55	03/13/16	TCH	n/a	n/a	V5W679

	Initial Volume
Run #1	400 ml
Run #2	20.0 ml

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	153 <sup>a</sup>	6.2	1.1	ppbv		363 <sup>a</sup>	15	2.6	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	0.062	ug/m3
71-43-2	78.11	Benzene	0.20	0.20	0.031	ppbv		0.64	0.64	0.099	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	0.26	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	0.17	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	0.079	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	0.14	ug/m3
75-15-0	76.14	Carbon disulfide	0.70	0.20	0.031	ppbv		2.2	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	0.26	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	0.095	ug/m3
67-66-3	119.4	Chloroform	0.23	0.20	0.017	ppbv		1.1	0.98	0.083	ug/m3
74-87-3	50.49	Chloromethane	ND	0.20	0.052	ppbv		ND	0.41	0.11	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	0.085	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	0.088	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	0.20	ug/m3
110-82-7	84.16	Cyclohexane	0.28	0.20	0.016	ppbv		0.96	0.69	0.055	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	0.061	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	0.32	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	0.073	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	0.10	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	0.16	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.54	0.20	0.019	ppbv		2.7	0.99	0.094	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	0.45	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	0.068	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	0.12	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	0.096	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	0.082	ug/m3

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	IAQ-9	<b>Date Sampled:</b>	03/04/16
<b>Lab Sample ID:</b>	JC15505-5	<b>Date Received:</b>	03/05/16
<b>Matrix:</b>	AIR - Ambient Air Comp. Summa ID: A278	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	15.5	0.50	0.075	ppbv		29.2	0.94	0.14	ug/m3
100-41-4	106.2	Ethylbenzene	0.11	0.20	0.042	ppbv	J	0.48	0.87	0.18	ug/m3
141-78-6	88	Ethyl Acetate	2.0	0.20	0.075	ppbv		7.2	0.72	0.27	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	0.084	ug/m3
76-13-1	187.4	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	0.22	ug/m3
142-82-5	100.2	Heptane	0.12	0.20	0.020	ppbv	J	0.49	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	0.21	ug/m3
110-54-3	86.17	Hexane	0.26	0.20	0.023	ppbv		0.92	0.70	0.081	ug/m3
591-78-6	100	2-Hexanone	0.60	0.20	0.045	ppbv		2.5	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	8.2	0.20	0.16	ppbv		20	0.49	0.39	ug/m3
75-09-2	84.94	Methylene chloride	0.18	0.20	0.025	ppbv	J	0.63	0.69	0.087	ug/m3
78-93-3	72.11	Methyl ethyl ketone	133 <sup>a</sup>	6.2	1.5	ppbv		392 <sup>a</sup>	18	4.4	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	1.2	0.20	0.055	ppbv		4.9	0.82	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	0.072	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	0.16	ug/m3
115-07-1	42	Propylene	1.5	0.50	0.032	ppbv		2.6	0.86	0.055	ug/m3
100-42-5	104.1	Styrene	ND	0.20	0.015	ppbv		ND	0.85	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	0.11	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	0.21	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	0.42	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	0.32	0.20	0.015	ppbv		1.6	0.98	0.074	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	0.097	0.20	0.045	ppbv	J	0.48	0.98	0.22	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	0.11	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	6.5	0.20	0.053	ppbv		20	0.61	0.16	ug/m3
127-18-4	165.8	Tetrachloroethylene	216 <sup>a</sup>	1.2	0.71	ppbv		1460 <sup>a</sup>	8.1	4.8	ug/m3
109-99-9	72.11	Tetrahydrofuran	397 <sup>a</sup>	6.2	1.4	ppbv		1170 <sup>a</sup>	18	4.1	ug/m3
108-88-3	92.14	Toluene	0.90	0.20	0.012	ppbv		3.4	0.75	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	0.19	0.040	0.019	ppbv		1.0	0.21	0.10	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.26	0.20	0.022	ppbv		1.5	1.1	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	0.054	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	0.45	0.20	0.068	ppbv		2.0	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	0.29	0.20	0.051	ppbv		1.3	0.87	0.22	ug/m3
1330-20-7	106.2	Xylenes (total)	0.73	0.20	0.051	ppbv		3.2	0.87	0.22	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	105%	101%	65-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	IAQ-9				
<b>Lab Sample ID:</b>	JC15505-5			<b>Date Sampled:</b>	03/04/16
<b>Matrix:</b>	AIR - Ambient Air Comp.	Summa ID:	A278	<b>Date Received:</b>	03/05/16
<b>Method:</b>	TO-15			<b>Percent Solids:</b>	n/a
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY				

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
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(a) Result is from Run# 2

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

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**Sample Results**

**Report of Analysis**

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## Report of Analysis

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<b>Client Sample ID:</b>	AMBIENT	<b>Date Sampled:</b>	03/09/16
<b>Lab Sample ID:</b>	JC15931-1	<b>Date Received:</b>	03/10/16
<b>Matrix:</b>	AIR - Ambient Air Comp. Summa ID: A1071	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W17095.D	1	03/18/16	TCH	n/a	n/a	V5W683
Run #2							

Run #	Initial Volume
Run #1	400 ml
Run #2	

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	5.5	0.20	0.036	ppbv		13	0.48	0.086	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	0.062	ug/m3
71-43-2	78.11	Benzene	0.33	0.20	0.031	ppbv		1.1	0.64	0.099	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	0.26	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	0.17	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	0.079	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	0.14	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	0.26	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	0.095	ug/m3
67-66-3	119.4	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	0.083	ug/m3
74-87-3	50.49	Chloromethane	0.87	0.20	0.052	ppbv		1.8	0.41	0.11	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	0.085	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	0.088	ug/m3
56-23-5	153.8	Carbon tetrachloride	0.096	0.20	0.031	ppbv	J	0.60	1.3	0.20	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	0.055	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	0.061	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	0.32	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	0.073	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	0.10	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	0.16	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.69	0.20	0.019	ppbv		3.4	0.99	0.094	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	0.45	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	0.068	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	0.12	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	0.096	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	0.082	ug/m3

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AMBIENT	<b>Date Sampled:</b>	03/09/16
<b>Lab Sample ID:</b>	JC15931-1	<b>Date Received:</b>	03/10/16
<b>Matrix:</b>	AIR - Ambient Air Comp. Summa ID: A1071	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	11.5	0.50	0.075	ppbv		21.7	0.94	0.14	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	0.18	ug/m3
141-78-6	88	Ethyl Acetate	2.6	0.20	0.075	ppbv		9.4	0.72	0.27	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	0.084	ug/m3
76-13-1	187.4	Freon 113	0.099	0.20	0.021	ppbv	J	0.76	1.5	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	0.22	ug/m3
142-82-5	100.2	Heptane	0.10	0.20	0.020	ppbv	J	0.41	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	0.21	ug/m3
110-54-3	86.17	Hexane	0.31	0.20	0.023	ppbv		1.1	0.70	0.081	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	2.0	0.20	0.16	ppbv		4.9	0.49	0.39	ug/m3
75-09-2	84.94	Methylene chloride	0.49	0.20	0.025	ppbv		1.7	0.69	0.087	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.43	0.20	0.048	ppbv		1.3	0.59	0.14	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	0.072	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	0.16	ug/m3
115-07-1	42	Propylene	ND	0.50	0.032	ppbv		ND	0.86	0.055	ug/m3
100-42-5	104.1	Styrene	ND	0.20	0.015	ppbv		ND	0.85	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	0.11	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	0.21	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	0.42	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	0.074	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	0.22	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.18	0.20	0.023	ppbv	J	0.84	0.93	0.11	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	0.16	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.14	0.040	0.023	ppbv		0.95	0.27	0.16	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	0.13	ug/m3
108-88-3	92.14	Toluene	0.75	0.20	0.012	ppbv		2.8	0.75	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	0.10	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.37	0.20	0.022	ppbv		2.1	1.1	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	0.054	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	0.22	0.20	0.068	ppbv		0.96	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	0.22	ug/m3
1330-20-7	106.2	Xylenes (total)	0.22	0.20	0.051	ppbv		0.96	0.87	0.22	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	105%		65-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	SV-10	<b>Date Sampled:</b>	03/09/16
<b>Lab Sample ID:</b>	JC15931-2	<b>Date Received:</b>	03/10/16
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A753	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W17103.D	1	03/18/16	TCH	n/a	n/a	V5W683
Run #2	5W17113.D	1	03/18/16	TCH	n/a	n/a	V5W684

	Initial Volume
Run #1	100 ml
Run #2	20.0 ml

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	222 <sup>a</sup>	4.0	0.72	ppbv		527 <sup>a</sup>	9.5	1.7	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.11	ppbv		ND	1.8	0.24	ug/m3
71-43-2	78.11	Benzene	1.1	0.80	0.13	ppbv		3.5	2.6	0.42	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.15	ppbv		ND	5.4	1.0	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.063	ppbv		ND	8.3	0.65	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.074	ppbv		ND	3.1	0.29	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.074	ppbv		ND	3.5	0.32	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.11	ppbv		ND	4.1	0.57	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.80	0.13	ppbv		ND	2.5	0.40	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.22	ppbv		ND	3.7	1.0	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.14	ppbv		ND	2.1	0.37	ug/m3
67-66-3	119.4	Chloroform	ND	0.80	0.066	ppbv		ND	3.9	0.32	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.21	ppbv		ND	1.7	0.43	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.068	ppbv		ND	4.1	0.35	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.12	ppbv		ND	5.0	0.75	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.80	0.065	ppbv		ND	2.8	0.22	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.061	ppbv		ND	3.2	0.25	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.084	ppbv		ND	3.2	0.33	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.17	ppbv		ND	6.1	1.3	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.070	ppbv		ND	3.2	0.28	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.088	ppbv		ND	3.7	0.41	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.18	ppbv		ND	2.9	0.65	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.56	0.80	0.076	ppbv	J	2.8	4.0	0.38	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.21	ppbv		ND	6.8	1.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.11	ppbv		ND	3.2	0.44	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.084	ppbv		ND	3.2	0.33	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.061	ppbv		ND	3.6	0.28	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.078	ppbv		ND	4.8	0.47	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.064	ppbv		ND	4.8	0.38	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.11	ppbv		ND	4.8	0.66	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.073	ppbv		ND	3.6	0.33	ug/m3

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> SV-10	
<b>Lab Sample ID:</b> JC15931-2	
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: A753	<b>Date Sampled:</b> 03/09/16
<b>Method:</b> TO-15	<b>Date Received:</b> 03/10/16
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	<b>Percent Solids:</b> n/a

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	46.9	2.0	0.30	ppbv		88.4	3.8	0.57	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.80	0.17	ppbv		ND	3.5	0.74	ug/m3
141-78-6	88	Ethyl Acetate	3.2	0.80	0.30	ppbv		12	2.9	1.1	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.80	0.067	ppbv		ND	3.9	0.33	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.086	ppbv		ND	6.1	0.66	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.13	ppbv		ND	5.6	0.91	ug/m3
142-82-5	100.2	Heptane	ND	0.80	0.081	ppbv		ND	3.3	0.33	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.081	ppbv		ND	8.5	0.86	ug/m3
110-54-3	86.17	Hexane	0.56	0.80	0.090	ppbv	J	2.0	2.8	0.32	ug/m3
591-78-6	100	2-Hexanone	ND	0.80	0.18	ppbv		ND	3.3	0.74	ug/m3
67-63-0	60.1	Isopropyl Alcohol	25.3	0.80	0.62	ppbv		62.2	2.0	1.5	ug/m3
75-09-2	84.94	Methylene chloride	0.43	0.80	0.10	ppbv	J	1.5	2.8	0.35	ug/m3
78-93-3	72.11	Methyl ethyl ketone	263 <sup>a</sup>	4.0	0.97	ppbv		776 <sup>a</sup>	12	2.9	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	1.2	0.80	0.22	ppbv		4.9	3.3	0.90	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.079	ppbv		ND	2.9	0.28	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.16	ppbv		ND	3.3	0.66	ug/m3
115-07-1	42	Propylene	2.6	2.0	0.13	ppbv		4.5	3.4	0.22	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.062	ppbv		ND	3.4	0.26	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.094	ppbv		ND	4.4	0.51	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.064	ppbv		ND	5.5	0.44	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.16	ppbv		ND	4.4	0.87	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.22	ppbv		ND	5.9	1.6	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.80	0.061	ppbv		ND	3.9	0.30	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.80	0.18	ppbv		ND	3.9	0.88	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.80	0.091	ppbv		ND	3.7	0.43	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	6.8	0.80	0.21	ppbv		21	2.4	0.64	ug/m3
127-18-4	165.8	Tetrachloroethylene	221 <sup>a</sup>	0.80	0.46	ppbv		1500 <sup>a</sup>	5.4	3.1	ug/m3
109-99-9	72.11	Tetrahydrofuran	357 <sup>a</sup>	4.0	0.91	ppbv		1050 <sup>a</sup>	12	2.7	ug/m3
108-88-3	92.14	Toluene	1.6	0.80	0.050	ppbv		6.0	3.0	0.19	ug/m3
79-01-6	131.4	Trichloroethylene	0.80	0.16	0.074	ppbv		4.3	0.86	0.40	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.088	ppbv		ND	4.5	0.49	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.082	ppbv		ND	2.0	0.21	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.22	ppbv		ND	2.8	0.77	ug/m3
	106.2	m,p-Xylene	0.44	0.80	0.27	ppbv	J	1.9	3.5	1.2	ug/m3
95-47-6	106.2	o-Xylene	ND	0.80	0.20	ppbv		ND	3.5	0.87	ug/m3
1330-20-7	106.2	Xylenes (total)	0.44	0.80	0.20	ppbv	J	1.9	3.5	0.87	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%	98%	65-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

<b>Client Sample ID:</b>	SV-10	<b>Date Sampled:</b>	03/09/16
<b>Lab Sample ID:</b>	JC15931-2	<b>Date Received:</b>	03/10/16
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A753	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
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(a) Result is from Run# 2

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

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## Report of Analysis

<b>Client Sample ID:</b>	IAQ-10	<b>Date Sampled:</b>	03/09/16
<b>Lab Sample ID:</b>	JC15931-3	<b>Date Received:</b>	03/10/16
<b>Matrix:</b>	AIR - Indoor Air Comp. Summa ID: A371	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W17130.D	1	03/19/16	TCH	n/a	n/a	V5W684
Run #2							

Run #	Initial Volume
Run #1	400 ml
Run #2	

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	6.6	0.20	0.036	ppbv		16	0.48	0.086	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	0.062	ug/m3
71-43-2	78.11	Benzene	0.80	0.20	0.031	ppbv		2.6	0.64	0.099	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	0.26	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	0.17	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	0.079	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	0.14	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	0.26	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	0.095	ug/m3
67-66-3	119.4	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	0.083	ug/m3
74-87-3	50.49	Chloromethane	0.87	0.20	0.052	ppbv		1.8	0.41	0.11	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	0.085	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	0.088	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	0.20	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	0.055	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	0.061	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	0.32	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	0.073	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	0.10	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	0.16	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.64	0.20	0.019	ppbv		3.2	0.99	0.094	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	0.45	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	0.068	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	0.12	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	0.096	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	0.082	ug/m3

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> IAQ-10	<b>Date Sampled:</b> 03/09/16
<b>Lab Sample ID:</b> JC15931-3	<b>Date Received:</b> 03/10/16
<b>Matrix:</b> AIR - Indoor Air Comp. Summa ID: A371	<b>Percent Solids:</b> n/a
<b>Method:</b> TO-15	
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	18.6	0.50	0.075	ppbv		35.0	0.94	0.14	ug/m3
100-41-4	106.2	Ethylbenzene	0.13	0.20	0.042	ppbv	J	0.56	0.87	0.18	ug/m3
141-78-6	88	Ethyl Acetate	1.9	0.20	0.075	ppbv		6.8	0.72	0.27	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	0.084	ug/m3
76-13-1	187.4	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	0.22	ug/m3
142-82-5	100.2	Heptane	0.19	0.20	0.020	ppbv	J	0.78	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	0.21	ug/m3
110-54-3	86.17	Hexane	0.69	0.20	0.023	ppbv		2.4	0.70	0.081	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	1.8	0.20	0.16	ppbv		4.4	0.49	0.39	ug/m3
75-09-2	84.94	Methylene chloride	1.6	0.20	0.025	ppbv		5.6	0.69	0.087	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.75	0.20	0.048	ppbv		2.2	0.59	0.14	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	0.072	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	0.16	ug/m3
115-07-1	42	Propylene	3.2	0.50	0.032	ppbv		5.5	0.86	0.055	ug/m3
100-42-5	104.1	Styrene	ND	0.20	0.015	ppbv		ND	0.85	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	0.11	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	0.21	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	0.42	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	0.074	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	0.22	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	0.49	0.20	0.023	ppbv		2.3	0.93	0.11	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	0.16	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.11	0.040	0.023	ppbv		0.75	0.27	0.16	ug/m3
109-99-9	72.11	Tetrahydrofuran	0.52	0.20	0.045	ppbv		1.5	0.59	0.13	ug/m3
108-88-3	92.14	Toluene	1.3	0.20	0.012	ppbv		4.9	0.75	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	0.10	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.34	0.20	0.022	ppbv		1.9	1.1	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	0.054	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	0.40	0.20	0.068	ppbv		1.7	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	0.15	0.20	0.051	ppbv	J	0.65	0.87	0.22	ug/m3
1330-20-7	106.2	Xylenes (total)	0.54	0.20	0.051	ppbv		2.3	0.87	0.22	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		65-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Sample Results

Report of Analysis



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## Report of Analysis

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<b>Client Sample ID:</b>	SV-14	<b>Date Sampled:</b>	03/17/16
<b>Lab Sample ID:</b>	JC16571-1	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A752	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3W52959.D	1	03/24/16	YMH	n/a	n/a	V3W1999
Run #2	3W52993.D	1.38	03/26/16	YMH	n/a	n/a	V3W2000

	Initial Volume
Run #1	100 ml
Run #2	20.0 ml

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	551 <sup>a</sup>	5.5	1.0	ppbv		1310 <sup>a</sup>	13	2.4	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.11	ppbv		ND	1.8	0.24	ug/m3
71-43-2	78.11	Benzene	4.9	0.80	0.13	ppbv		16	2.6	0.42	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.15	ppbv		ND	5.4	1.0	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.063	ppbv		ND	8.3	0.65	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.074	ppbv		ND	3.1	0.29	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.074	ppbv		ND	3.5	0.32	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.11	ppbv		ND	4.1	0.57	ug/m3
75-15-0	76.14	Carbon disulfide	1.9	0.80	0.13	ppbv		5.9	2.5	0.40	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.22	ppbv		ND	3.7	1.0	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.14	ppbv		ND	2.1	0.37	ug/m3
67-66-3	119.4	Chloroform	3.5	0.80	0.066	ppbv		17	3.9	0.32	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.21	ppbv		ND	1.7	0.43	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.068	ppbv		ND	4.1	0.35	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.12	ppbv		ND	5.0	0.75	ug/m3
110-82-7	84.16	Cyclohexane	2.3	0.80	0.065	ppbv		7.9	2.8	0.22	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.061	ppbv		ND	3.2	0.25	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.084	ppbv		ND	3.2	0.33	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.17	ppbv		ND	6.1	1.3	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.070	ppbv		ND	3.2	0.28	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.088	ppbv		ND	3.7	0.41	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.18	ppbv		ND	2.9	0.65	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.59	0.80	0.076	ppbv	J	2.9	4.0	0.38	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.21	ppbv		ND	6.8	1.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.11	ppbv		ND	3.2	0.44	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.084	ppbv		ND	3.2	0.33	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.061	ppbv		ND	3.6	0.28	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.078	ppbv		ND	4.8	0.47	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.064	ppbv		ND	4.8	0.38	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.11	ppbv		ND	4.8	0.66	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.073	ppbv		ND	3.6	0.33	ug/m3

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> SV-14	<b>Date Sampled:</b> 03/17/16
<b>Lab Sample ID:</b> JC16571-1	<b>Date Received:</b> 03/18/16
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: A752	<b>Percent Solids:</b> n/a
<b>Method:</b> TO-15	
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	19.7	2.0	0.30	ppbv		37.1	3.8	0.57	ug/m3
100-41-4	106.2	Ethylbenzene	16.9	0.80	0.17	ppbv		73.4	3.5	0.74	ug/m3
141-78-6	88	Ethyl Acetate	ND	0.80	0.30	ppbv		ND	2.9	1.1	ug/m3
622-96-8	120.2	4-Ethyltoluene	3.8	0.80	0.067	ppbv		19	3.9	0.33	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.086	ppbv		ND	6.1	0.66	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.13	ppbv		ND	5.6	0.91	ug/m3
142-82-5	100.2	Heptane	15.1	0.80	0.081	ppbv		61.9	3.3	0.33	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.081	ppbv		ND	8.5	0.86	ug/m3
110-54-3	86.17	Hexane	6.3	0.80	0.090	ppbv		22	2.8	0.32	ug/m3
591-78-6	100	2-Hexanone	2.2	0.80	0.18	ppbv		9.0	3.3	0.74	ug/m3
67-63-0	60.1	Isopropyl Alcohol	3.8	0.80	0.62	ppbv		9.3	2.0	1.5	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.10	ppbv		ND	2.8	0.35	ug/m3
78-93-3	72.11	Methyl ethyl ketone	12.3	0.80	0.19	ppbv		36.3	2.4	0.56	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	1.2	0.80	0.22	ppbv		4.9	3.3	0.90	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.079	ppbv		ND	2.9	0.28	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.16	ppbv		ND	3.3	0.66	ug/m3
115-07-1	42	Propylene	6.9	2.0	0.13	ppbv		12	3.4	0.22	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.062	ppbv		ND	3.4	0.26	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.094	ppbv		ND	4.4	0.51	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.064	ppbv		ND	5.5	0.44	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.16	ppbv		ND	4.4	0.87	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.22	ppbv		ND	5.9	1.6	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	12.8	0.80	0.061	ppbv		62.9	3.9	0.30	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	3.8	0.80	0.18	ppbv		19	3.9	0.88	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	2.4	0.80	0.091	ppbv		11	3.7	0.43	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	2.5	0.80	0.21	ppbv		7.6	2.4	0.64	ug/m3
127-18-4	165.8	Tetrachloroethylene	38.0	0.16	0.092	ppbv		258	1.1	0.62	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.18	ppbv		ND	2.4	0.53	ug/m3
108-88-3	92.14	Toluene	91.2	0.80	0.050	ppbv		344	3.0	0.19	ug/m3
79-01-6	131.4	Trichloroethylene	1.4	0.16	0.074	ppbv		7.5	0.86	0.40	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.088	ppbv		ND	4.5	0.49	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.082	ppbv		ND	2.0	0.21	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.22	ppbv		ND	2.8	0.77	ug/m3
	106.2	m,p-Xylene	60.8	0.80	0.27	ppbv		264	3.5	1.2	ug/m3
95-47-6	106.2	o-Xylene	17.6	0.80	0.20	ppbv		76.4	3.5	0.87	ug/m3
1330-20-7	106.2	Xylenes (total)	78.3	0.80	0.20	ppbv		340	3.5	0.87	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	91%	93%	65-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	SV-14	<b>Date Sampled:</b>	03/17/16
<b>Lab Sample ID:</b>	JC16571-1	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A752	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
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(a) Result is from Run# 2

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	SV-13	<b>Date Sampled:</b>	03/17/16
<b>Lab Sample ID:</b>	JC16571-2	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A219	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3W52960.D	1	03/24/16	YMH	n/a	n/a	V3W1999
Run #2	3W52994.D	1	03/26/16	YMH	n/a	n/a	V3W2000

	Initial Volume
Run #1	100 ml
Run #2	50.0 ml

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	188 <sup>a</sup>	1.6	0.29	ppbv		447 <sup>a</sup>	3.8	0.69	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.80	0.11	ppbv		ND	1.8	0.24	ug/m3
71-43-2	78.11	Benzene	4.6	0.80	0.13	ppbv		15	2.6	0.42	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.80	0.15	ppbv		ND	5.4	1.0	ug/m3
75-25-2	252.8	Bromoform	ND	0.80	0.063	ppbv		ND	8.3	0.65	ug/m3
74-83-9	94.94	Bromomethane	ND	0.80	0.074	ppbv		ND	3.1	0.29	ug/m3
593-60-2	106.9	Bromoethene	ND	0.80	0.074	ppbv		ND	3.5	0.32	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.80	0.11	ppbv		ND	4.1	0.57	ug/m3
75-15-0	76.14	Carbon disulfide	2.0	0.80	0.13	ppbv		6.2	2.5	0.40	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.80	0.22	ppbv		ND	3.7	1.0	ug/m3
75-00-3	64.52	Chloroethane	ND	0.80	0.14	ppbv		ND	2.1	0.37	ug/m3
67-66-3	119.4	Chloroform	11.8	0.80	0.066	ppbv		57.6	3.9	0.32	ug/m3
74-87-3	50.49	Chloromethane	ND	0.80	0.21	ppbv		ND	1.7	0.43	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.80	0.11	ppbv		ND	2.5	0.34	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.80	0.068	ppbv		ND	4.1	0.35	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.80	0.12	ppbv		ND	5.0	0.75	ug/m3
110-82-7	84.16	Cyclohexane	2.9	0.80	0.065	ppbv		10	2.8	0.22	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.80	0.061	ppbv		ND	3.2	0.25	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.80	0.084	ppbv		ND	3.2	0.33	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.80	0.17	ppbv		ND	6.1	1.3	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.80	0.070	ppbv		ND	3.2	0.28	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.80	0.088	ppbv		ND	3.7	0.41	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.80	0.18	ppbv		ND	2.9	0.65	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.58	0.80	0.076	ppbv	J	2.9	4.0	0.38	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.80	0.21	ppbv		ND	6.8	1.8	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.80	0.11	ppbv		ND	3.2	0.44	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.80	0.084	ppbv		ND	3.2	0.33	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.80	0.061	ppbv		ND	3.6	0.28	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.80	0.078	ppbv		ND	4.8	0.47	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.80	0.064	ppbv		ND	4.8	0.38	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.80	0.11	ppbv		ND	4.8	0.66	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.80	0.073	ppbv		ND	3.6	0.33	ug/m3

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b> SV-13	
<b>Lab Sample ID:</b> JC16571-2	
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: A219	<b>Date Sampled:</b> 03/17/16
<b>Method:</b> TO-15	<b>Date Received:</b> 03/18/16
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	<b>Percent Solids:</b> n/a

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	17.9	2.0	0.30	ppbv		33.7	3.8	0.57	ug/m3
100-41-4	106.2	Ethylbenzene	18.3	0.80	0.17	ppbv		79.5	3.5	0.74	ug/m3
141-78-6	88	Ethyl Acetate	ND	0.80	0.30	ppbv		ND	2.9	1.1	ug/m3
622-96-8	120.2	4-Ethyltoluene	4.7	0.80	0.067	ppbv		23	3.9	0.33	ug/m3
76-13-1	187.4	Freon 113	ND	0.80	0.086	ppbv		ND	6.1	0.66	ug/m3
76-14-2	170.9	Freon 114	ND	0.80	0.13	ppbv		ND	5.6	0.91	ug/m3
142-82-5	100.2	Heptane	15.6	0.80	0.081	ppbv		63.9	3.3	0.33	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.80	0.081	ppbv		ND	8.5	0.86	ug/m3
110-54-3	86.17	Hexane	5.6	0.80	0.090	ppbv		20	2.8	0.32	ug/m3
591-78-6	100	2-Hexanone	0.61	0.80	0.18	ppbv	J	2.5	3.3	0.74	ug/m3
67-63-0	60.1	Isopropyl Alcohol	2.1	0.80	0.62	ppbv		5.2	2.0	1.5	ug/m3
75-09-2	84.94	Methylene chloride	ND	0.80	0.10	ppbv		ND	2.8	0.35	ug/m3
78-93-3	72.11	Methyl ethyl ketone	7.7	0.80	0.19	ppbv		23	2.4	0.56	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	2.1	0.80	0.22	ppbv		8.6	3.3	0.90	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.80	0.079	ppbv		ND	2.9	0.28	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.80	0.16	ppbv		ND	3.3	0.66	ug/m3
115-07-1	42	Propylene	3.2	2.0	0.13	ppbv		5.5	3.4	0.22	ug/m3
100-42-5	104.1	Styrene	ND	0.80	0.062	ppbv		ND	3.4	0.26	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.80	0.094	ppbv		ND	4.4	0.51	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.80	0.064	ppbv		ND	5.5	0.44	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.80	0.16	ppbv		ND	4.4	0.87	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.80	0.22	ppbv		ND	5.9	1.6	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	16.3	0.80	0.061	ppbv		80.1	3.9	0.30	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	4.8	0.80	0.18	ppbv		24	3.9	0.88	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	2.8	0.80	0.091	ppbv		13	3.7	0.43	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	1.2	0.80	0.21	ppbv		3.6	2.4	0.64	ug/m3
127-18-4	165.8	Tetrachloroethylene	2.1	0.16	0.092	ppbv		14	1.1	0.62	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.80	0.18	ppbv		ND	2.4	0.53	ug/m3
108-88-3	92.14	Toluene	94.8	0.80	0.050	ppbv		357	3.0	0.19	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.16	0.074	ppbv		ND	0.86	0.40	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.80	0.088	ppbv		ND	4.5	0.49	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.80	0.082	ppbv		ND	2.0	0.21	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.80	0.22	ppbv		ND	2.8	0.77	ug/m3
	106.2	m,p-Xylene	68.4	0.80	0.27	ppbv		297	3.5	1.2	ug/m3
95-47-6	106.2	o-Xylene	20.1	0.80	0.20	ppbv		87.3	3.5	0.87	ug/m3
1330-20-7	106.2	Xylenes (total)	88.5	0.80	0.20	ppbv		384	3.5	0.87	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	92%	93%	65-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	SV-13	<b>Date Sampled:</b>	03/17/16
<b>Lab Sample ID:</b>	JC16571-2	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AIR - Soil Vapor Comp. Summa ID: A219	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
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(a) Result is from Run# 2

ND = Not detected	MDL = Method Detection Limit	J = Indicates an estimated value
RL = Reporting Limit		B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range		N = Indicates presumptive evidence of a compound

4.2  
4

## Report of Analysis

<b>Client Sample ID:</b>	SV-12		
<b>Lab Sample ID:</b>	JC16571-3		
<b>Matrix:</b>	AIR - Soil Vapor Comp.	Summa ID: A364,M206	<b>Date Sampled:</b> 03/17/16
<b>Method:</b>	TO-15		<b>Date Received:</b> 03/18/16
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		<b>Percent Solids:</b> n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3W52961.D	59.2	03/24/16	YMH	n/a	n/a	V3W1999
Run #2							

Run #	Initial Volume
Run #1	200 ml
Run #2	

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	ND	24	4.3	ppbv		ND	57	10	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	24	3.3	ppbv		ND	53	7.3	ug/m3
71-43-2	78.11	Benzene	10.6	24	3.7	ppbv	J	33.9	77	12	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	24	4.6	ppbv		ND	160	31	ug/m3
75-25-2	252.8	Bromoform	ND	24	1.9	ppbv		ND	250	20	ug/m3
74-83-9	94.94	Bromomethane	ND	24	2.2	ppbv		ND	93	8.5	ug/m3
593-60-2	106.9	Bromoethene	ND	24	2.2	ppbv		ND	100	9.6	ug/m3
100-44-7	126	Benzyl Chloride	ND	24	3.2	ppbv		ND	120	16	ug/m3
75-15-0	76.14	Carbon disulfide	ND	24	3.7	ppbv		ND	75	12	ug/m3
108-90-7	112.6	Chlorobenzene	ND	24	6.6	ppbv		ND	110	30	ug/m3
75-00-3	64.52	Chloroethane	ND	24	4.2	ppbv		ND	63	11	ug/m3
67-66-3	119.4	Chloroform	ND	24	2.0	ppbv		ND	120	9.8	ug/m3
74-87-3	50.49	Chloromethane	ND	24	6.2	ppbv		ND	50	13	ug/m3
107-05-1	76.53	3-Chloropropene	ND	24	3.1	ppbv		ND	75	9.7	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	24	2.0	ppbv		ND	120	10	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	24	3.7	ppbv		ND	150	23	ug/m3
110-82-7	84.16	Cyclohexane	115	24	1.9	ppbv		396	83	6.5	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	24	1.8	ppbv		ND	97	7.3	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	24	2.5	ppbv		ND	95	9.9	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	24	5.0	ppbv		ND	180	38	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	24	2.1	ppbv		ND	97	8.5	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	24	2.6	ppbv		ND	110	12	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	24	5.3	ppbv		ND	86	19	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	ND	24	2.3	ppbv		ND	120	11	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	24	6.2	ppbv		ND	200	53	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	24	3.3	ppbv		ND	95	13	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	30.2	24	2.5	ppbv		120	95	9.9	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	24	1.8	ppbv		ND	110	8.2	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	24	2.3	ppbv		ND	140	14	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	24	1.9	ppbv		ND	140	11	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	24	3.2	ppbv		ND	140	19	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	24	2.2	ppbv		ND	110	10	ug/m3

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b> SV-12	<b>Date Sampled:</b> 03/17/16
<b>Lab Sample ID:</b> JC16571-3	<b>Date Received:</b> 03/18/16
<b>Matrix:</b> AIR - Soil Vapor Comp. Summa ID: A364,M206	<b>Percent Solids:</b> n/a
<b>Method:</b> TO-15	
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	ND	59	8.9	ppbv		ND	110	17	ug/m3
100-41-4	106.2	Ethylbenzene	11.6	24	5.0	ppbv	J	50.4	100	22	ug/m3
141-78-6	88	Ethyl Acetate	ND	24	8.8	ppbv		ND	86	32	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	24	2.0	ppbv		ND	120	9.8	ug/m3
76-13-1	187.4	Freon 113	ND	24	2.5	ppbv		ND	180	19	ug/m3
76-14-2	170.9	Freon 114	ND	24	3.7	ppbv		ND	170	26	ug/m3
142-82-5	100.2	Heptane	24.7	24	2.4	ppbv		101	98	9.8	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	24	2.4	ppbv		ND	260	26	ug/m3
110-54-3	86.17	Hexane	488	24	2.7	ppbv		1720	85	9.5	ug/m3
591-78-6	100	2-Hexanone	ND	24	5.3	ppbv		ND	98	22	ug/m3
67-63-0	60.1	Isopropyl Alcohol	ND	24	18	ppbv		ND	59	44	ug/m3
75-09-2	84.94	Methylene chloride	ND	24	2.9	ppbv		ND	83	10	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	24	5.7	ppbv		ND	71	17	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	24	6.5	ppbv		ND	98	27	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	24	2.3	ppbv		ND	87	8.3	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	24	4.7	ppbv		ND	98	19	ug/m3
115-07-1	42	Propylene	ND	59	3.8	ppbv		ND	100	6.5	ug/m3
100-42-5	104.1	Styrene	ND	24	1.8	ppbv		ND	100	7.7	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	24	2.8	ppbv		ND	130	15	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	24	1.9	ppbv		ND	160	13	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	24	4.6	ppbv		ND	130	25	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	24	6.6	ppbv		ND	180	49	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	24	1.8	ppbv		ND	120	8.8	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	24	5.3	ppbv		ND	120	26	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	24	2.7	ppbv		ND	110	13	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	24	6.3	ppbv		ND	73	19	ug/m3
127-18-4	165.8	Tetrachloroethylene	ND	4.7	2.7	ppbv		ND	32	18	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	24	5.4	ppbv		ND	71	16	ug/m3
108-88-3	92.14	Toluene	52.8	24	1.5	ppbv		199	90	5.7	ug/m3
79-01-6	131.4	Trichloroethylene	ND	4.7	2.2	ppbv		ND	25	12	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	24	2.6	ppbv		ND	130	15	ug/m3
75-01-4	62.5	Vinyl chloride	334	24	2.4	ppbv		854	61	6.1	ug/m3
108-05-4	86	Vinyl Acetate	ND	24	6.4	ppbv		ND	84	23	ug/m3
	106.2	m,p-Xylene	41.8	24	8.1	ppbv		182	100	35	ug/m3
95-47-6	106.2	o-Xylene	12.5	24	6.0	ppbv	J	54.3	100	26	ug/m3
1330-20-7	106.2	Xylenes (total)	54.3	24	6.0	ppbv		236	100	26	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	88%		65-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	AMBIENT UPWIND				
<b>Lab Sample ID:</b>	JC16571-4			<b>Date Sampled:</b>	03/17/16
<b>Matrix:</b>	AIR - Ambient Air Comp.	Summa ID:	M111	<b>Date Received:</b>	03/18/16
<b>Method:</b>	TO-15			<b>Percent Solids:</b>	n/a
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY				

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3W52962.D	1	03/25/16	YMH	n/a	n/a	V3W1999
Run #2							

	Initial Volume
Run #1	400 ml
Run #2	

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
67-64-1	58.08	Acetone	0.85	0.20	0.036	ppbv		2.0	0.48	0.086	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	0.028	ppbv		ND	0.44	0.062	ug/m3
71-43-2	78.11	Benzene	ND	0.20	0.031	ppbv		ND	0.64	0.099	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.20	0.039	ppbv		ND	1.3	0.26	ug/m3
75-25-2	252.8	Bromoform	ND	0.20	0.016	ppbv		ND	2.1	0.17	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	0.018	ppbv		ND	0.78	0.070	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	0.018	ppbv		ND	0.87	0.079	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	0.027	ppbv		ND	1.0	0.14	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	0.031	ppbv		ND	0.62	0.097	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	0.056	ppbv		ND	0.92	0.26	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	0.036	ppbv		ND	0.53	0.095	ug/m3
67-66-3	119.4	Chloroform	ND	0.20	0.017	ppbv		ND	0.98	0.083	ug/m3
74-87-3	50.49	Chloromethane	0.19	0.20	0.052	ppbv	J	0.39	0.41	0.11	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	0.027	ppbv		ND	0.63	0.085	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	0.017	ppbv		ND	1.0	0.088	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.20	0.031	ppbv		ND	1.3	0.20	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.20	0.016	ppbv		ND	0.69	0.055	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	0.015	ppbv		ND	0.81	0.061	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
106-93-4	187.9	1,2-Dibromoethane	ND	0.20	0.042	ppbv		ND	1.5	0.32	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	0.018	ppbv		ND	0.81	0.073	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	0.022	ppbv		ND	0.92	0.10	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	0.045	ppbv		ND	0.72	0.16	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.14	0.20	0.019	ppbv	J	0.69	0.99	0.094	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.20	0.053	ppbv		ND	1.7	0.45	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	0.028	ppbv		ND	0.79	0.11	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.20	0.021	ppbv		ND	0.79	0.083	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	0.015	ppbv		ND	0.91	0.068	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.20	0.020	ppbv		ND	1.2	0.12	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.20	0.016	ppbv		ND	1.2	0.096	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.20	0.027	ppbv		ND	1.2	0.16	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	0.018	ppbv		ND	0.91	0.082	ug/m3

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	AMBIENT UPWIND	<b>Date Sampled:</b>	03/17/16
<b>Lab Sample ID:</b>	JC16571-4	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AIR - Ambient Air Comp. Summa ID: M111	<b>Percent Solids:</b>	n/a
<b>Method:</b>	TO-15		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TO15 List

CAS No.	MW	Compound	Result	RL	MDL	Units	Q	Result	RL	MDL	Units
64-17-5	46.07	Ethanol	2.5	0.50	0.075	ppbv		4.7	0.94	0.14	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.20	0.042	ppbv		ND	0.87	0.18	ug/m3
141-78-6	88	Ethyl Acetate	0.21	0.20	0.075	ppbv		0.76	0.72	0.27	ug/m3
622-96-8	120.2	4-Ethyltoluene	ND	0.20	0.017	ppbv		ND	0.98	0.084	ug/m3
76-13-1	187.4	Freon 113	ND	0.20	0.021	ppbv		ND	1.5	0.16	ug/m3
76-14-2	170.9	Freon 114	ND	0.20	0.031	ppbv		ND	1.4	0.22	ug/m3
142-82-5	100.2	Heptane	ND	0.20	0.020	ppbv		ND	0.82	0.082	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.20	0.020	ppbv		ND	2.1	0.21	ug/m3
110-54-3	86.17	Hexane	0.19	0.20	0.023	ppbv	J	0.67	0.70	0.081	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	0.045	ppbv		ND	0.82	0.18	ug/m3
67-63-0	60.1	Isopropyl Alcohol	0.33	0.20	0.16	ppbv		0.81	0.49	0.39	ug/m3
75-09-2	84.94	Methylene chloride	0.40	0.20	0.025	ppbv		1.4	0.69	0.087	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	0.20	0.048	ppbv		ND	0.59	0.14	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.20	0.055	ppbv		ND	0.82	0.23	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	0.020	ppbv		ND	0.72	0.072	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	0.040	ppbv		ND	0.82	0.16	ug/m3
115-07-1	42	Propylene	ND	0.50	0.032	ppbv		ND	0.86	0.055	ug/m3
100-42-5	104.1	Styrene	ND	0.20	0.015	ppbv		ND	0.85	0.064	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.20	0.024	ppbv		ND	1.1	0.13	ug/m3
79-34-5	167.9	1,1,2,2-Tetrachloroethane	ND	0.20	0.016	ppbv		ND	1.4	0.11	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.20	0.039	ppbv		ND	1.1	0.21	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.20	0.056	ppbv		ND	1.5	0.42	ug/m3
95-63-6	120.2	1,2,4-Trimethylbenzene	ND	0.20	0.015	ppbv		ND	0.98	0.074	ug/m3
108-67-8	120.2	1,3,5-Trimethylbenzene	ND	0.20	0.045	ppbv		ND	0.98	0.22	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.20	0.023	ppbv		ND	0.93	0.11	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.20	0.053	ppbv		ND	0.61	0.16	ug/m3
127-18-4	165.8	Tetrachloroethylene	ND	0.040	0.023	ppbv		ND	0.27	0.16	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.20	0.045	ppbv		ND	0.59	0.13	ug/m3
108-88-3	92.14	Toluene	0.13	0.20	0.012	ppbv	J	0.49	0.75	0.045	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.040	0.019	ppbv		ND	0.21	0.10	ug/m3
75-69-4	137.4	Trichlorofluoromethane	ND	0.20	0.022	ppbv		ND	1.1	0.12	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.20	0.021	ppbv		ND	0.51	0.054	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	0.054	ppbv		ND	0.70	0.19	ug/m3
	106.2	m,p-Xylene	ND	0.20	0.068	ppbv		ND	0.87	0.30	ug/m3
95-47-6	106.2	o-Xylene	ND	0.20	0.051	ppbv		ND	0.87	0.22	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.20	0.051	ppbv		ND	0.87	0.22	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	90%		65-128%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

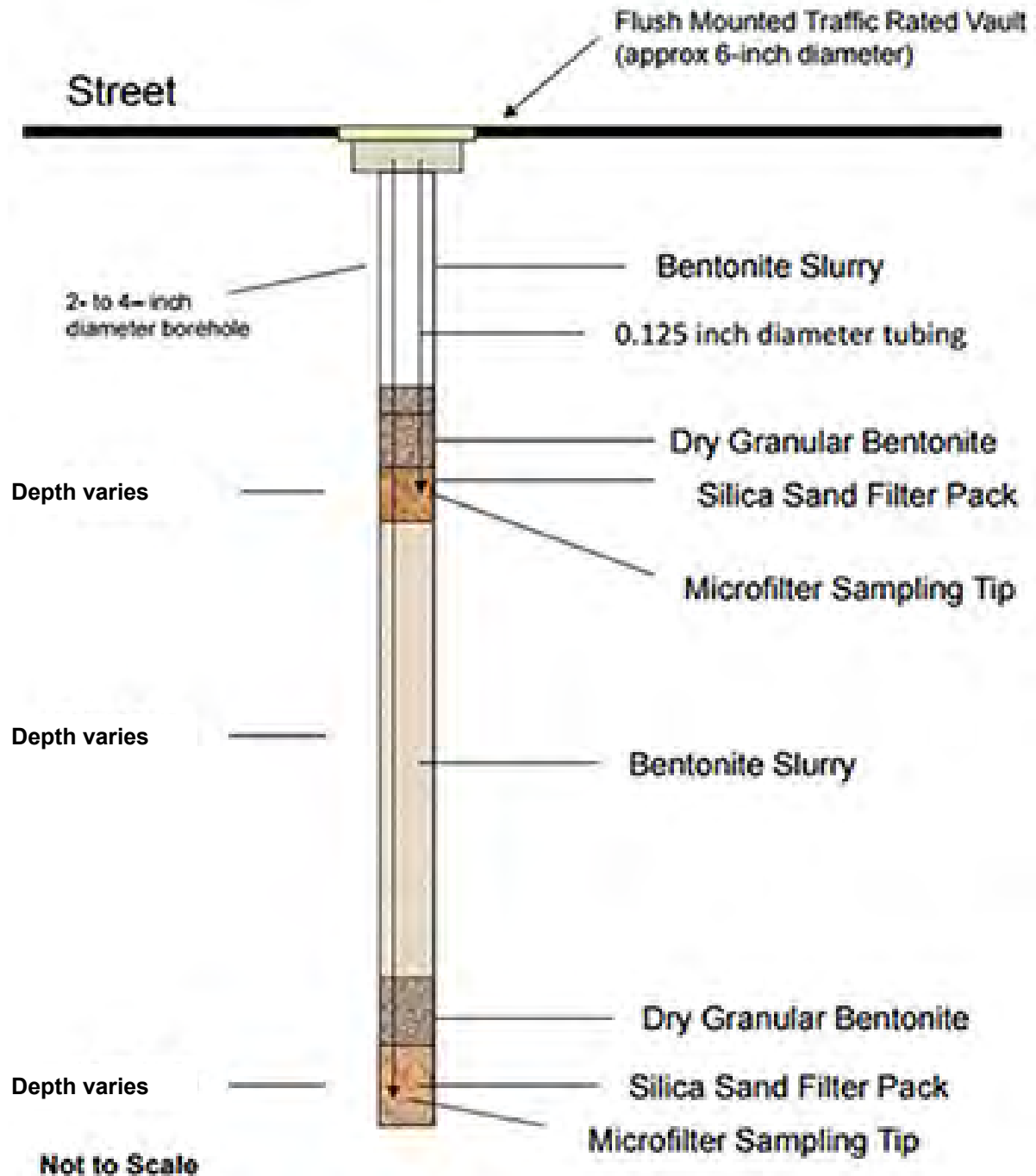
N = Indicates presumptive evidence of a compound



## Appendix D

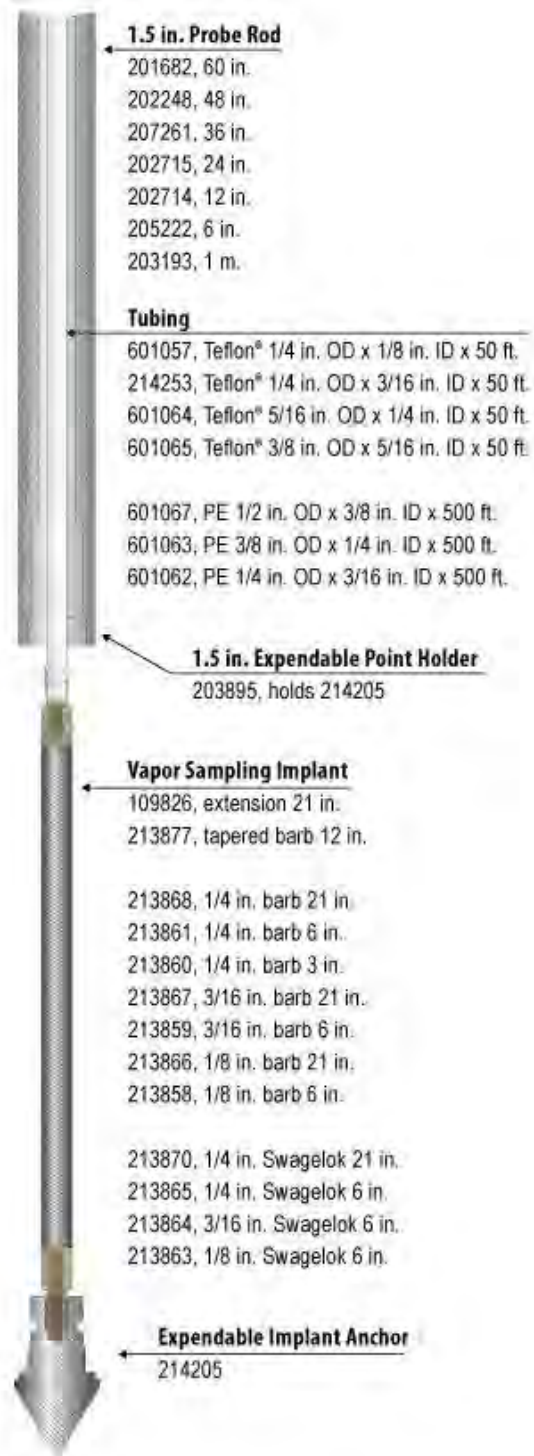
### Typical Soil Vapor Probe and Implant Details

## Typical Soil Vapor Monitoring Probe Details





## Typical Soil Vapor Probe Implants





## **Appendix E**

### **Soil Data Analytical Reports**



Sample Results

Report of Analysis

## Report of Analysis

<b>Client Sample ID:</b>	SB-1-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-1	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.0
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I209229.D	1	11/03/15	SJM	n/a	n/a	VI8395
Run #2							

Run #	Initial Weight
Run #1	5.3 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	36.2	10	2.3	ug/kg	
71-43-2	Benzene	ND	0.52	0.14	ug/kg	
74-97-5	Bromochloromethane	ND	5.2	0.32	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.16	ug/kg	
75-25-2	Bromoform	ND	5.2	0.25	ug/kg	
74-83-9	Bromomethane	ND	5.2	0.38	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	2.0	ug/kg	
75-15-0	Carbon disulfide	ND	2.1	0.24	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.2	0.50	ug/kg	
67-66-3	Chloroform	ND	2.1	0.16	ug/kg	
74-87-3	Chloromethane	ND	5.2	0.27	ug/kg	
110-82-7	Cyclohexane	ND	2.1	0.33	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.1	0.57	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.21	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.0	0.14	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.13	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.24	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.2	0.38	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	0.15	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	0.14	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.0	0.62	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.82	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.62	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.25	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.12	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.19	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.17	ug/kg	
76-13-1	Freon 113	ND	5.2	0.47	ug/kg	
591-78-6	2-Hexanone	ND	5.2	1.4	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b>	SB-1-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-1	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.0
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.1	0.11	ug/kg	
79-20-9	Methyl Acetate	ND	5.2	0.90	ug/kg	
108-87-2	Methylcyclohexane	ND	2.1	0.24	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.16	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.2	0.48	ug/kg	
75-09-2	Methylene chloride	ND	5.2	1.0	ug/kg	
100-42-5	Styrene	ND	2.1	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.18	ug/kg	
127-18-4	Tetrachloroethene	18.3	2.1	0.32	ug/kg	
108-88-3	Toluene	ND	1.0	0.22	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.2	0.18	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.2	0.18	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.16	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.15	ug/kg	
79-01-6	Trichloroethene	ND	1.0	0.15	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.2	0.26	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.21	ug/kg	
	m,p-Xylene	ND	1.0	0.37	ug/kg	
95-47-6	o-Xylene	ND	1.0	0.29	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-122%
17060-07-0	1,2-Dichloroethane-D4	95%		68-124%
2037-26-5	Toluene-D8	93%		77-125%
460-00-4	4-Bromofluorobenzene	93%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	SB-1-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-1	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.0
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3E77583.D	1	11/03/15	AN	11/03/15	OP88613	E3E3376
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.8 g	1.0 ml
Run #2		

## ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	72	27	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	180	33	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	180	29	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	180	66	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	180	160	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	180	69	ug/kg	
95-48-7	2-Methylphenol	ND	72	52	ug/kg	
	3&4-Methylphenol	ND	72	34	ug/kg	
88-75-5	2-Nitrophenol	ND	180	33	ug/kg	
100-02-7	4-Nitrophenol	ND	360	61	ug/kg	
87-86-5	Pentachlorophenol	ND	180	88	ug/kg	
108-95-2	Phenol	ND	72	27	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	180	34	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	180	32	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	180	29	ug/kg	
83-32-9	Acenaphthene	ND	36	34	ug/kg	
208-96-8	Acenaphthylene	ND	36	3.8	ug/kg	
98-86-2	Acetophenone	ND	180	6.1	ug/kg	
120-12-7	Anthracene	ND	36	3.1	ug/kg	
1912-24-9	Atrazine	ND	72	15	ug/kg	
56-55-3	Benzo(a)anthracene	ND	36	7.0	ug/kg	
50-32-8	Benzo(a)pyrene	ND	36	7.7	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	36	7.4	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	36	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	36	8.0	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	72	8.2	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	72	19	ug/kg	
92-52-4	1,1'-Biphenyl	ND	72	6.7	ug/kg	
100-52-7	Benzaldehyde	ND	180	9.0	ug/kg	
91-58-7	2-Chloronaphthalene	ND	72	5.2	ug/kg	
106-47-8	4-Chloroaniline	ND	180	9.6	ug/kg	
86-74-8	Carbazole	ND	72	4.0	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	SB-1-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-1	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.0
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	72	23	ug/kg	
218-01-9	Chrysene	ND	36	5.8	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	72	8.2	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	72	15	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	72	8.3	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	72	6.8	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	36	6.8	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	36	9.3	ug/kg	
91-94-1	3,3' -Dichlorobenzidine	ND	72	24	ug/kg	
123-91-1	1,4-Dioxane	ND	36	24	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	36	13	ug/kg	
132-64-9	Dibenzofuran	ND	72	5.0	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	72	4.3	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	72	4.9	ug/kg	
84-66-2	Diethyl phthalate	ND	72	4.6	ug/kg	
131-11-3	Dimethyl phthalate	ND	72	5.2	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	223	72	13	ug/kg	
206-44-0	Fluoranthene	ND	36	4.4	ug/kg	
86-73-7	Fluorene	ND	36	4.3	ug/kg	
118-74-1	Hexachlorobenzene	ND	72	7.1	ug/kg	
87-68-3	Hexachlorobutadiene	ND	36	9.6	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	360	57	ug/kg	
67-72-1	Hexachloroethane	ND	180	12	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	36	19	ug/kg	
78-59-1	Isophorone	ND	72	6.7	ug/kg	
91-57-6	2-Methylnaphthalene	ND	72	6.7	ug/kg	
88-74-4	2-Nitroaniline	ND	180	8.2	ug/kg	
99-09-2	3-Nitroaniline	ND	180	10	ug/kg	
100-01-6	4-Nitroaniline	ND	180	12	ug/kg	
91-20-3	Naphthalene	ND	36	5.8	ug/kg	
98-95-3	Nitrobenzene	ND	72	11	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	72	11	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	180	19	ug/kg	
85-01-8	Phenanthrene	ND	36	4.0	ug/kg	
129-00-0	Pyrene	ND	36	4.5	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	180	8.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	80%		30-106%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	SB-1-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-1	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.0
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	77%		30-106%
118-79-6	2,4,6-Tribromophenol	93%		24-140%
4165-60-0	Nitrobenzene-d5	106%		26-122%
321-60-8	2-Fluorobiphenyl	90%		36-112%
1718-51-0	Terphenyl-d14	90%		36-132%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
RL = Reporting Limit      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	SB-1-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-1	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.0
<b>Method:</b>	SW846 8151 SW846 3550C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA112008.D	1	11/05/15	VDT	11/03/15	OP88618	GOA3882
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	5.0 ml
Run #2		

## Herbicide List

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	18	8.1	ug/kg	
93-72-1	2,4,5-TP (Silvex)	ND	3.7	1.1	ug/kg	
93-76-5	2,4,5-T	ND	3.7	1.4	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	23%		10-156%
19719-28-9	2,4-DCAA	20%		10-156%

ND = Not detected MDL = Method Detection Limit

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J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	SB-1-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-1	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.0
<b>Method:</b>	SW846 8081B SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G116787.D	1	11/05/15	RK	11/03/15	OP88620	G1G3831
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.6 g	10.0 ml
Run #2		

## Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.71	0.64	ug/kg	
319-84-6	alpha-BHC	ND	0.71	0.48	ug/kg	
319-85-7	beta-BHC	ND	0.71	0.44	ug/kg	
319-86-8	delta-BHC	ND	0.71	0.28	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	0.71	0.32	ug/kg	
5103-71-9	alpha-Chlordane	ND	0.71	0.38	ug/kg	
5103-74-2	gamma-Chlordane	ND	0.71	0.54	ug/kg	
60-57-1	Dieldrin	ND	0.71	0.56	ug/kg	
72-54-8	4,4'-DDD <sup>a</sup>	0.72	0.71	0.26	ug/kg	
72-55-9	4,4'-DDE	ND	0.71	0.24	ug/kg	
50-29-3	4,4'-DDT	1.9	0.71	0.27	ug/kg	
72-20-8	Endrin	ND	0.71	0.25	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.71	0.41	ug/kg	
7421-93-4	Endrin aldehyde	ND	0.71	0.53	ug/kg	
959-98-8	Endosulfan-I	ND	0.71	0.23	ug/kg	
33213-65-9	Endosulfan-II	ND	0.71	0.67	ug/kg	
76-44-8	Heptachlor	ND	0.71	0.59	ug/kg	
1024-57-3	Heptachlor epoxide	ND	0.71	0.29	ug/kg	
72-43-5	Methoxychlor	ND	1.4	0.40	ug/kg	
53494-70-5	Endrin ketone	ND	0.71	0.37	ug/kg	
8001-35-2	Toxaphene	ND	18	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	80%		24-136%
877-09-8	Tetrachloro-m-xylene	78%		24-136%
2051-24-3	Decachlorobiphenyl	67%		10-153%
2051-24-3	Decachlorobiphenyl	95%		10-153%

(a) More than 40 % RPD for detected concentrations between the two GC columns.

ND = Not detected MDL = Method Detection Limit

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B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



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## Report of Analysis

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<b>Client Sample ID:</b>	SB-1-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-1	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.0
<b>Method:</b>	SW846 8082A SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX179842.D	1	11/06/15	JR	11/03/15	OP88619	GXX5510
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.0 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	37	12	ug/kg	
11104-28-2	Aroclor 1221	ND	37	22	ug/kg	
11141-16-5	Aroclor 1232	ND	37	12	ug/kg	
53469-21-9	Aroclor 1242	ND	37	17	ug/kg	
12672-29-6	Aroclor 1248	ND	37	11	ug/kg	
11097-69-1	Aroclor 1254	ND	37	16	ug/kg	
11096-82-5	Aroclor 1260	ND	37	16	ug/kg	
11100-14-4	Aroclor 1268	ND	37	11	ug/kg	
37324-23-5	Aroclor 1262	ND	37	10	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	100%		20-152%
877-09-8	Tetrachloro-m-xylene	99%		20-152%
2051-24-3	Decachlorobiphenyl	94%		12-157%
2051-24-3	Decachlorobiphenyl	96%		12-157%

ND = Not detected MDL = Method Detection Limit

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E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b>	SB-1-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-1	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.0
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	6060	55	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Antimony	< 2.2	2.2	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	2.2	2.2	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	25.2	22	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.44	0.22	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	< 0.55	0.55	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	1080	550	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	18.6	1.1	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	9.4	5.5	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	10.2	2.8	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	12700	55	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	5.6	2.2	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	2800	550	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	272	1.7	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	< 0.035	0.035	mg/kg	1	11/04/15	11/04/15 MA	SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	48.6	4.4	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	1300	1100	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	< 2.2	2.2	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	0.64	0.55	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	< 1100	1100	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	< 1.1	1.1	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	20.7	5.5	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	24.0	5.5	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

(1) Instrument QC Batch: MA37945

(2) Instrument QC Batch: MA37978

(3) Prep QC Batch: MP90046

(4) Prep QC Batch: MP90074

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	SB-1-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-2	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	96.1
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I209230.D	1	11/03/15	SJM	n/a	n/a	VI8395
Run #2							

Run #	Initial Weight
Run #1	4.6 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	2.5	ug/kg	
71-43-2	Benzene	ND	0.57	0.15	ug/kg	
74-97-5	Bromochloromethane	ND	5.7	0.35	ug/kg	
75-27-4	Bromodichloromethane	ND	2.3	0.18	ug/kg	
75-25-2	Bromoform	ND	5.7	0.27	ug/kg	
74-83-9	Bromomethane	ND	5.7	0.41	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	2.2	ug/kg	
75-15-0	Carbon disulfide	ND	2.3	0.26	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.3	0.26	ug/kg	
108-90-7	Chlorobenzene	ND	2.3	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.7	0.54	ug/kg	
67-66-3	Chloroform	ND	2.3	0.17	ug/kg	
74-87-3	Chloromethane	ND	5.7	0.30	ug/kg	
110-82-7	Cyclohexane	ND	2.3	0.36	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.3	0.62	ug/kg	
124-48-1	Dibromochloromethane	ND	2.3	0.23	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.1	0.15	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.1	0.14	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.1	0.18	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.1	0.25	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.7	0.41	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.1	0.16	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.1	0.15	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.1	0.67	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.1	0.88	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.1	0.67	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.3	0.27	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.3	0.13	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.3	0.20	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.18	ug/kg	
76-13-1	Freon 113	ND	5.7	0.51	ug/kg	
591-78-6	2-Hexanone	ND	5.7	1.5	ug/kg	

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J = Indicates an estimated value

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N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b>	SB-1-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-2	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	96.1
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.3	0.12	ug/kg	
79-20-9	Methyl Acetate	ND	5.7	0.97	ug/kg	
108-87-2	Methylcyclohexane	ND	2.3	0.26	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.1	0.17	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.7	0.52	ug/kg	
75-09-2	Methylene chloride	ND	5.7	1.1	ug/kg	
100-42-5	Styrene	ND	2.3	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.3	0.20	ug/kg	
127-18-4	Tetrachloroethene	19.6	2.3	0.34	ug/kg	
108-88-3	Toluene	ND	1.1	0.24	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.7	0.20	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.7	0.19	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.3	0.17	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.3	0.17	ug/kg	
79-01-6	Trichloroethene	0.40	1.1	0.17	ug/kg	J
75-69-4	Trichlorofluoromethane	ND	5.7	0.28	ug/kg	
75-01-4	Vinyl chloride	ND	2.3	0.22	ug/kg	
	m,p-Xylene	ND	1.1	0.40	ug/kg	
95-47-6	o-Xylene	ND	1.1	0.31	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.31	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		70-122%
17060-07-0	1,2-Dichloroethane-D4	93%		68-124%
2037-26-5	Toluene-D8	93%		77-125%
460-00-4	4-Bromofluorobenzene	89%		72-130%

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## Report of Analysis

<b>Client Sample ID:</b>	SB-1-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-2	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	96.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3E77584.D	1	11/03/15	AN	11/03/15	OP88613	E3E3376
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.6 g	1.0 ml
Run #2		

## ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	68	25	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	31	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	27	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	62	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	170	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	170	65	ug/kg	
95-48-7	2-Methylphenol	ND	68	49	ug/kg	
	3&4-Methylphenol	ND	68	33	ug/kg	
88-75-5	2-Nitrophenol	ND	170	31	ug/kg	
100-02-7	4-Nitrophenol	ND	340	58	ug/kg	
87-86-5	Pentachlorophenol	ND	170	83	ug/kg	
108-95-2	Phenol	ND	68	25	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	170	32	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	31	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	27	ug/kg	
83-32-9	Acenaphthene	ND	34	32	ug/kg	
208-96-8	Acenaphthylene	ND	34	3.6	ug/kg	
98-86-2	Acetophenone	ND	170	5.8	ug/kg	
120-12-7	Anthracene	ND	34	2.9	ug/kg	
1912-24-9	Atrazine	ND	68	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	34	6.6	ug/kg	
50-32-8	Benzo(a)pyrene	ND	34	7.2	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	34	7.0	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	34	10	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	34	7.6	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	68	7.8	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	68	18	ug/kg	
92-52-4	1,1'-Biphenyl	ND	68	6.3	ug/kg	
100-52-7	Benzaldehyde	ND	170	8.5	ug/kg	
91-58-7	2-Chloronaphthalene	ND	68	4.9	ug/kg	
106-47-8	4-Chloroaniline	ND	170	9.0	ug/kg	
86-74-8	Carbazole	ND	68	3.8	ug/kg	

ND = Not detected MDL = Method Detection Limit

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E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	SB-1-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-2	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	96.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	68	22	ug/kg	
218-01-9	Chrysene	ND	34	5.5	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	68	7.7	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	68	14	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	68	7.8	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	68	6.4	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	34	6.4	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	34	8.8	ug/kg	
91-94-1	3,3' -Dichlorobenzidine	ND	68	22	ug/kg	
123-91-1	1,4-Dioxane	ND	34	23	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	34	12	ug/kg	
132-64-9	Dibenzofuran	ND	68	4.7	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	68	4.0	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	68	4.6	ug/kg	
84-66-2	Diethyl phthalate	ND	68	4.3	ug/kg	
131-11-3	Dimethyl phthalate	ND	68	4.9	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	68	12	ug/kg	
206-44-0	Fluoranthene	ND	34	4.1	ug/kg	
86-73-7	Fluorene	ND	34	4.0	ug/kg	
118-74-1	Hexachlorobenzene	ND	68	6.7	ug/kg	
87-68-3	Hexachlorobutadiene	ND	34	9.0	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	340	54	ug/kg	
67-72-1	Hexachloroethane	ND	170	11	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	34	18	ug/kg	
78-59-1	Isophorone	ND	68	6.4	ug/kg	
91-57-6	2-Methylnaphthalene	ND	68	6.4	ug/kg	
88-74-4	2-Nitroaniline	ND	170	7.7	ug/kg	
99-09-2	3-Nitroaniline	ND	170	9.7	ug/kg	
100-01-6	4-Nitroaniline	ND	170	11	ug/kg	
91-20-3	Naphthalene	ND	34	5.4	ug/kg	
98-95-3	Nitrobenzene	ND	68	11	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	68	10	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	18	ug/kg	
85-01-8	Phenanthrene	ND	34	3.8	ug/kg	
129-00-0	Pyrene	ND	34	4.3	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	170	8.2	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	78%		30-106%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

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J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	SB-1-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-2	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	96.1
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	76%		30-106%
118-79-6	2,4,6-Tribromophenol	91%		24-140%
4165-60-0	Nitrobenzene-d5	102%		26-122%
321-60-8	2-Fluorobiphenyl	90%		36-112%
1718-51-0	Terphenyl-d14	86%		36-132%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
RL = Reporting Limit      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	SB-1-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-2	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	96.1
<b>Method:</b>	SW846 8151 SW846 3550C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA112009.D	2	11/05/15	VDT	11/03/15	OP88618	GOA3882
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	5.0 ml
Run #2		

## Herbicide List

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	34	15	ug/kg	
93-72-1	2,4,5-TP (Silvex)	ND	6.8	2.0	ug/kg	
93-76-5	2,4,5-T	ND	6.8	2.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	40%		10-156%
19719-28-9	2,4-DCAA	31%		10-156%

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N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	SB-1-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-2	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	96.1
<b>Method:</b>	SW846 8081B SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G116788.D	1	11/05/15	RK	11/03/15	OP88620	G1G3831
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

## Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.66	0.59	ug/kg	
319-84-6	alpha-BHC	ND	0.66	0.44	ug/kg	
319-85-7	beta-BHC	ND	0.66	0.41	ug/kg	
319-86-8	delta-BHC	ND	0.66	0.26	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	0.66	0.30	ug/kg	
5103-71-9	alpha-Chlordane	ND	0.66	0.35	ug/kg	
5103-74-2	gamma-Chlordane	ND	0.66	0.51	ug/kg	
60-57-1	Dieldrin	ND	0.66	0.52	ug/kg	
72-54-8	4,4' -DDD	ND	0.66	0.25	ug/kg	
72-55-9	4,4' -DDE	ND	0.66	0.22	ug/kg	
50-29-3	4,4' -DDT	ND	0.66	0.25	ug/kg	
72-20-8	Endrin	ND	0.66	0.23	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.66	0.38	ug/kg	
7421-93-4	Endrin aldehyde	ND	0.66	0.49	ug/kg	
959-98-8	Endosulfan-I	ND	0.66	0.22	ug/kg	
33213-65-9	Endosulfan-II	ND	0.66	0.63	ug/kg	
76-44-8	Heptachlor	ND	0.66	0.54	ug/kg	
1024-57-3	Heptachlor epoxide	ND	0.66	0.27	ug/kg	
72-43-5	Methoxychlor	ND	1.3	0.37	ug/kg	
53494-70-5	Endrin ketone	ND	0.66	0.35	ug/kg	
8001-35-2	Toxaphene	ND	17	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	68%		24-136%
877-09-8	Tetrachloro-m-xylene	73%		24-136%
2051-24-3	Decachlorobiphenyl	50%		10-153%
2051-24-3	Decachlorobiphenyl	86%		10-153%

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N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	SB-1-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-2	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	96.1
<b>Method:</b>	SW846 8082A SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX179843.D	1	11/06/15	JR	11/03/15	OP88619	GXX5510
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.7 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	33	11	ug/kg	
11104-28-2	Aroclor 1221	ND	33	19	ug/kg	
11141-16-5	Aroclor 1232	ND	33	11	ug/kg	
53469-21-9	Aroclor 1242	ND	33	15	ug/kg	
12672-29-6	Aroclor 1248	ND	33	10	ug/kg	
11097-69-1	Aroclor 1254	ND	33	15	ug/kg	
11096-82-5	Aroclor 1260	ND	33	14	ug/kg	
11100-14-4	Aroclor 1268	ND	33	10	ug/kg	
37324-23-5	Aroclor 1262	ND	33	9.3	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		20-152%
877-09-8	Tetrachloro-m-xylene	93%		20-152%
2051-24-3	Decachlorobiphenyl	84%		12-157%
2051-24-3	Decachlorobiphenyl	86%		12-157%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
RL = Reporting Limit      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

Client Sample ID: SB-1-5

Lab Sample ID: JC7512-2

Matrix: SO - Soil

Date Sampled: 10/29/15

Date Received: 10/31/15

Percent Solids: 96.1

Project: 2002-2024 Cropsey Avenue, Brooklyn, NY

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4560	50	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Antimony	< 2.0	2.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	< 2.0	2.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	23.7	20	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.29	0.20	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	< 0.50	0.50	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	1020	500	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	12.5	0.99	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	5.3	5.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	9.3	2.5	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	9740	50	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	4.2	2.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	2450	500	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	244	1.5	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	< 0.032	0.032	mg/kg	1	11/04/15	11/04/15 MA	SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	50.7	4.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	< 990	990	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	< 2.0	2.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	< 0.50	0.50	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	< 990	990	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	< 0.99	0.99	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	16.1	5.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	20.8	5.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

(1) Instrument QC Batch: MA37945

(2) Instrument QC Batch: MA37978

(3) Prep QC Batch: MP90046

(4) Prep QC Batch: MP90074

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	SB-2-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-3	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.6
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I209359.D	1	11/06/15	SJM	n/a	n/a	VI8400
Run #2							

Run #	Initial Weight
Run #1	5.4 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	75.1	11	2.4	ug/kg	
71-43-2	Benzene	ND	0.53	0.14	ug/kg	
74-97-5	Bromochloromethane	ND	5.3	0.33	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.16	ug/kg	
75-25-2	Bromoform	ND	5.3	0.25	ug/kg	
74-83-9	Bromomethane	ND	5.3	0.38	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	2.0	ug/kg	
75-15-0	Carbon disulfide	ND	2.1	0.24	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.3	0.51	ug/kg	
67-66-3	Chloroform	ND	2.1	0.16	ug/kg	
74-87-3	Chloromethane	ND	5.3	0.28	ug/kg	
110-82-7	Cyclohexane	ND	2.1	0.33	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.1	0.58	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.22	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.1	0.14	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.1	0.13	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.1	0.17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.1	0.24	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.3	0.38	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.1	0.15	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.1	0.14	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.1	0.63	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.1	0.82	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.1	0.63	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.25	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.12	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.19	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.17	ug/kg	
76-13-1	Freon 113	ND	5.3	0.47	ug/kg	
591-78-6	2-Hexanone	ND	5.3	1.4	ug/kg	

ND = Not detected MDL = Method Detection Limit

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J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b>	SB-2-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-3	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.6
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.1	0.11	ug/kg	
79-20-9	Methyl Acetate	ND	5.3	0.91	ug/kg	
108-87-2	Methylcyclohexane	ND	2.1	0.24	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.1	0.16	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.3	0.49	ug/kg	
75-09-2	Methylene chloride	ND	5.3	1.0	ug/kg	
100-42-5	Styrene	ND	2.1	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.18	ug/kg	
127-18-4	Tetrachloroethene	34.7	2.1	0.32	ug/kg	
108-88-3	Toluene	ND	1.1	0.22	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.3	0.19	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.3	0.18	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.16	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.16	ug/kg	
79-01-6	Trichloroethene	0.70	1.1	0.16	ug/kg	J
75-69-4	Trichlorofluoromethane	ND	5.3	0.26	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.21	ug/kg	
	m,p-Xylene	ND	1.1	0.37	ug/kg	
95-47-6	o-Xylene	ND	1.1	0.29	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		70-122%
17060-07-0	1,2-Dichloroethane-D4	95%		68-124%
2037-26-5	Toluene-D8	94%		77-125%
460-00-4	4-Bromofluorobenzene	98%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	SB-2-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-3	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3E77585.D	1	11/03/15	AN	11/03/15	OP88613	E3E3376
Run #2							

Run #	Initial Weight	Final Volume
Run #1	31.6 g	1.0 ml
Run #2		

## ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	72	27	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	180	33	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	180	29	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	180	66	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	180	160	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	180	69	ug/kg	
95-48-7	2-Methylphenol	ND	72	52	ug/kg	
	3&4-Methylphenol	ND	72	35	ug/kg	
88-75-5	2-Nitrophenol	ND	180	33	ug/kg	
100-02-7	4-Nitrophenol	ND	360	61	ug/kg	
87-86-5	Pentachlorophenol	ND	180	88	ug/kg	
108-95-2	Phenol	ND	72	27	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	180	34	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	180	33	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	180	29	ug/kg	
83-32-9	Acenaphthene	ND	36	34	ug/kg	
208-96-8	Acenaphthylene	ND	36	3.8	ug/kg	
98-86-2	Acetophenone	ND	180	6.1	ug/kg	
120-12-7	Anthracene	ND	36	3.1	ug/kg	
1912-24-9	Atrazine	ND	72	15	ug/kg	
56-55-3	Benzo(a)anthracene	ND	36	7.0	ug/kg	
50-32-8	Benzo(a)pyrene	ND	36	7.7	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	36	7.4	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	36	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	36	8.1	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	72	8.2	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	72	20	ug/kg	
92-52-4	1,1'-Biphenyl	ND	72	6.7	ug/kg	
100-52-7	Benzaldehyde	ND	180	9.0	ug/kg	
91-58-7	2-Chloronaphthalene	ND	72	5.2	ug/kg	
106-47-8	4-Chloroaniline	ND	180	9.6	ug/kg	
86-74-8	Carbazole	ND	72	4.0	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 3

<b>Client Sample ID:</b>	SB-2-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-3	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	72	23	ug/kg	
218-01-9	Chrysene	ND	36	5.8	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	72	8.2	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	72	15	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	72	8.3	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	72	6.8	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	36	6.8	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	36	9.3	ug/kg	
91-94-1	3,3' -Dichlorobenzidine	ND	72	24	ug/kg	
123-91-1	1,4-Dioxane	ND	36	24	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	36	13	ug/kg	
132-64-9	Dibenzofuran	ND	72	5.0	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	72	4.3	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	72	4.9	ug/kg	
84-66-2	Diethyl phthalate	ND	72	4.6	ug/kg	
131-11-3	Dimethyl phthalate	ND	72	5.2	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	1680	72	13	ug/kg	
206-44-0	Fluoranthene	ND	36	4.4	ug/kg	
86-73-7	Fluorene	ND	36	4.3	ug/kg	
118-74-1	Hexachlorobenzene	ND	72	7.1	ug/kg	
87-68-3	Hexachlorobutadiene	ND	36	9.6	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	360	57	ug/kg	
67-72-1	Hexachloroethane	ND	180	12	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	36	19	ug/kg	
78-59-1	Isophorone	ND	72	6.8	ug/kg	
91-57-6	2-Methylnaphthalene	ND	72	6.8	ug/kg	
88-74-4	2-Nitroaniline	ND	180	8.2	ug/kg	
99-09-2	3-Nitroaniline	ND	180	10	ug/kg	
100-01-6	4-Nitroaniline	ND	180	12	ug/kg	
91-20-3	Naphthalene	ND	36	5.8	ug/kg	
98-95-3	Nitrobenzene	ND	72	11	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	72	11	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	180	19	ug/kg	
85-01-8	Phenanthrene	ND	36	4.0	ug/kg	
129-00-0	Pyrene	ND	36	4.5	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	180	8.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	78%		30-106%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



Report of Analysis

<b>Client Sample ID:</b>	SB-2-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-3	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	75%		30-106%
118-79-6	2,4,6-Tribromophenol	89%		24-140%
4165-60-0	Nitrobenzene-d5	100%		26-122%
321-60-8	2-Fluorobiphenyl	88%		36-112%
1718-51-0	Terphenyl-d14	86%		36-132%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
RL = Reporting Limit      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.3  
4

SGS Accutest LabLink@945686 14:22 10-Feb-2017

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b>	SB-2-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-3	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.6
<b>Method:</b>	SW846 8151 SW846 3550C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA112010.D	2	11/05/15	VDT	11/03/15	OP88618	GOA3882
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	5.0 ml
Run #2		

## Herbicide List

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	38	17	ug/kg	
93-72-1	2,4,5-TP (Silvex)	ND	7.5	2.2	ug/kg	
93-76-5	2,4,5-T	ND	7.5	2.8	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	22%		10-156%
19719-28-9	2,4-DCAA	10%		10-156%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	SB-2-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-3	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.6
<b>Method:</b>	SW846 8081B SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G116789.D	1	11/05/15	RK	11/03/15	OP88620	G1G3831
Run #2							

Run #	Initial Weight	Final Volume
Run #1	16.1 g	10.0 ml
Run #2		

## Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.71	0.63	ug/kg	
319-84-6	alpha-BHC	ND	0.71	0.47	ug/kg	
319-85-7	beta-BHC	ND	0.71	0.44	ug/kg	
319-86-8	delta-BHC	ND	0.71	0.28	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	0.71	0.32	ug/kg	
5103-71-9	alpha-Chlordane	ND	0.71	0.38	ug/kg	
5103-74-2	gamma-Chlordane	ND	0.71	0.54	ug/kg	
60-57-1	Dieldrin	ND	0.71	0.56	ug/kg	
72-54-8	4,4' -DDD	ND	0.71	0.26	ug/kg	
72-55-9	4,4' -DDE	ND	0.71	0.24	ug/kg	
50-29-3	4,4' -DDT	ND	0.71	0.27	ug/kg	
72-20-8	Endrin	ND	0.71	0.25	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.71	0.40	ug/kg	
7421-93-4	Endrin aldehyde	ND	0.71	0.53	ug/kg	
959-98-8	Endosulfan-I	ND	0.71	0.23	ug/kg	
33213-65-9	Endosulfan-II	ND	0.71	0.67	ug/kg	
76-44-8	Heptachlor	ND	0.71	0.58	ug/kg	
1024-57-3	Heptachlor epoxide	ND	0.71	0.29	ug/kg	
72-43-5	Methoxychlor	ND	1.4	0.39	ug/kg	
53494-70-5	Endrin ketone	ND	0.71	0.37	ug/kg	
8001-35-2	Toxaphene	ND	18	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	68%		24-136%
877-09-8	Tetrachloro-m-xylene	68%		24-136%
2051-24-3	Decachlorobiphenyl	43%		10-153%
2051-24-3	Decachlorobiphenyl	82%		10-153%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	SB-2-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-3	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.6
<b>Method:</b>	SW846 8082A SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX179844.D	1	11/06/15	JR	11/03/15	OP88619	GXX5510
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.1 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	38	12	ug/kg	
11104-28-2	Aroclor 1221	ND	38	22	ug/kg	
11141-16-5	Aroclor 1232	ND	38	12	ug/kg	
53469-21-9	Aroclor 1242	ND	38	17	ug/kg	
12672-29-6	Aroclor 1248	ND	38	12	ug/kg	
11097-69-1	Aroclor 1254	ND	38	17	ug/kg	
11096-82-5	Aroclor 1260	ND	38	16	ug/kg	
11100-14-4	Aroclor 1268	ND	38	12	ug/kg	
37324-23-5	Aroclor 1262	ND	38	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	93%		20-152%
877-09-8	Tetrachloro-m-xylene	93%		20-152%
2051-24-3	Decachlorobiphenyl	85%		12-157%
2051-24-3	Decachlorobiphenyl	86%		12-157%

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## Report of Analysis

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<b>Client Sample ID:</b>	SB-2-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-3	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.6
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4950	55	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Antimony	< 2.2	2.2	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	< 2.2	2.2	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	< 22	22	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.28	0.22	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	< 0.55	0.55	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	1460	550	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	13.8	1.1	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	32.3	5.5	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	8.1	2.8	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	10400	55	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	4.4	2.2	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	2780	550	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	210	1.7	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	< 0.035	0.035	mg/kg	1	11/04/15	11/04/15 MA	SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	37.0	4.4	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	< 1100	1100	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	< 2.2	2.2	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	1.0	0.55	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	< 1100	1100	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	< 1.1	1.1	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	15.2	5.5	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	19.5	5.5	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

(1) Instrument QC Batch: MA37945

(2) Instrument QC Batch: MA37978

(3) Prep QC Batch: MP90046

(4) Prep QC Batch: MP90074

RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b>	SB-2-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-4	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	96.6
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I209242.D	1	11/03/15	SJM	n/a	n/a	VI8396
Run #2							

Run #	Initial Weight
Run #1	4.9 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	19.6	11	2.4	ug/kg	
71-43-2	Benzene	ND	0.53	0.14	ug/kg	
74-97-5	Bromochloromethane	ND	5.3	0.33	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.16	ug/kg	
75-25-2	Bromoform	ND	5.3	0.25	ug/kg	
74-83-9	Bromomethane	ND	5.3	0.38	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	2.0	ug/kg	
75-15-0	Carbon disulfide	ND	2.1	0.24	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.3	0.51	ug/kg	
67-66-3	Chloroform	ND	2.1	0.16	ug/kg	
74-87-3	Chloromethane	ND	5.3	0.28	ug/kg	
110-82-7	Cyclohexane	ND	2.1	0.33	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.1	0.57	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.22	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.1	0.14	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.1	0.13	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.1	0.17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.1	0.24	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.3	0.38	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.1	0.15	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.1	0.14	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.1	0.63	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.1	0.82	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.1	0.63	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.25	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.12	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.19	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.17	ug/kg	
76-13-1	Freon 113	ND	5.3	0.47	ug/kg	
591-78-6	2-Hexanone	ND	5.3	1.4	ug/kg	

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J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> SB-2-5	<b>Date Sampled:</b> 10/29/15
<b>Lab Sample ID:</b> JC7512-4	<b>Date Received:</b> 10/31/15
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 96.6
<b>Method:</b> SW846 8260C	
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.1	0.11	ug/kg	
79-20-9	Methyl Acetate	ND	5.3	0.91	ug/kg	
108-87-2	Methylcyclohexane	ND	2.1	0.24	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.1	0.16	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.3	0.48	ug/kg	
75-09-2	Methylene chloride	ND	5.3	1.0	ug/kg	
100-42-5	Styrene	ND	2.1	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.18	ug/kg	
127-18-4	Tetrachloroethene	44.8	2.1	0.32	ug/kg	
108-88-3	Toluene	ND	1.1	0.22	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.3	0.19	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.3	0.18	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.16	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.16	ug/kg	
79-01-6	Trichloroethene	0.88	1.1	0.16	ug/kg	J
75-69-4	Trichlorofluoromethane	ND	5.3	0.26	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.21	ug/kg	
	m,p-Xylene	ND	1.1	0.37	ug/kg	
95-47-6	o-Xylene	ND	1.1	0.29	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-122%
17060-07-0	1,2-Dichloroethane-D4	98%		68-124%
2037-26-5	Toluene-D8	92%		77-125%
460-00-4	4-Bromofluorobenzene	94%		72-130%

ND = Not detected MDL = Method Detection Limit

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J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	SB-2-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-4	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	96.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3E77586.D	1	11/03/15	AN	11/03/15	OP88613	E3E3376
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.9 g	1.0 ml
Run #2		

## ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	67	25	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	30	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	27	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	61	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	170	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	170	64	ug/kg	
95-48-7	2-Methylphenol	ND	67	49	ug/kg	
	3&4-Methylphenol	ND	67	32	ug/kg	
88-75-5	2-Nitrophenol	ND	170	31	ug/kg	
100-02-7	4-Nitrophenol	ND	340	57	ug/kg	
87-86-5	Pentachlorophenol	ND	170	82	ug/kg	
108-95-2	Phenol	ND	67	25	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	170	32	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	30	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	27	ug/kg	
83-32-9	Acenaphthene	ND	34	32	ug/kg	
208-96-8	Acenaphthylene	ND	34	3.5	ug/kg	
98-86-2	Acetophenone	ND	170	5.7	ug/kg	
120-12-7	Anthracene	ND	34	2.9	ug/kg	
1912-24-9	Atrazine	ND	67	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	34	6.5	ug/kg	
50-32-8	Benzo(a)pyrene	ND	34	7.1	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	34	6.9	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	34	10	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	34	7.5	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	67	7.6	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	67	18	ug/kg	
92-52-4	1,1'-Biphenyl	ND	67	6.2	ug/kg	
100-52-7	Benzaldehyde	ND	170	8.4	ug/kg	
91-58-7	2-Chloronaphthalene	ND	67	4.8	ug/kg	
106-47-8	4-Chloroaniline	ND	170	8.9	ug/kg	
86-74-8	Carbazole	ND	67	3.7	ug/kg	

ND = Not detected MDL = Method Detection Limit

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RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> SB-2-5	
<b>Lab Sample ID:</b> JC7512-4	
<b>Matrix:</b> SO - Soil	<b>Date Sampled:</b> 10/29/15
<b>Method:</b> SW846 8270D SW846 3546	<b>Date Received:</b> 10/31/15
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	<b>Percent Solids:</b> 96.6

## ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	67	22	ug/kg	
218-01-9	Chrysene	ND	34	5.4	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	67	7.6	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	67	14	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	67	7.7	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	67	6.3	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	34	6.3	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	34	8.6	ug/kg	
91-94-1	3,3' -Dichlorobenzidine	ND	67	22	ug/kg	
123-91-1	1,4-Dioxane	ND	34	23	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	34	12	ug/kg	
132-64-9	Dibenzofuran	ND	67	4.7	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	67	4.0	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	67	4.5	ug/kg	
84-66-2	Diethyl phthalate	ND	67	4.3	ug/kg	
131-11-3	Dimethyl phthalate	ND	67	4.8	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	67	12	ug/kg	
206-44-0	Fluoranthene	ND	34	4.1	ug/kg	
86-73-7	Fluorene	ND	34	4.0	ug/kg	
118-74-1	Hexachlorobenzene	ND	67	6.6	ug/kg	
87-68-3	Hexachlorobutadiene	ND	34	8.9	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	340	53	ug/kg	
67-72-1	Hexachloroethane	ND	170	11	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	34	17	ug/kg	
78-59-1	Isophorone	ND	67	6.3	ug/kg	
91-57-6	2-Methylnaphthalene	ND	67	6.3	ug/kg	
88-74-4	2-Nitroaniline	ND	170	7.6	ug/kg	
99-09-2	3-Nitroaniline	ND	170	9.5	ug/kg	
100-01-6	4-Nitroaniline	ND	170	11	ug/kg	
91-20-3	Naphthalene	ND	34	5.4	ug/kg	
98-95-3	Nitrobenzene	ND	67	11	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	67	9.9	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	18	ug/kg	
85-01-8	Phenanthrene	ND	34	3.7	ug/kg	
129-00-0	Pyrene	ND	34	4.2	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	170	8.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	79%		30-106%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	SB-2-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-4	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	96.6
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	78%		30-106%
118-79-6	2,4,6-Tribromophenol	92%		24-140%
4165-60-0	Nitrobenzene-d5	101%		26-122%
321-60-8	2-Fluorobiphenyl	90%		36-112%
1718-51-0	Terphenyl-d14	85%		36-132%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
RL = Reporting Limit      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound



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## Report of Analysis

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<b>Client Sample ID:</b>	SB-2-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-4	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	96.6
<b>Method:</b>	SW846 8151 SW846 3550C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA112011.D	2	11/05/15	VDT	11/03/15	OP88618	GOA3882
Run #2							

	Initial Weight	Final Volume
Run #1	15.0 g	5.0 ml
Run #2		

## Herbicide List

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	35	15	ug/kg	
93-72-1	2,4,5-TP (Silvex)	ND	6.9	2.0	ug/kg	
93-76-5	2,4,5-T	ND	6.9	2.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	23%		10-156%
19719-28-9	2,4-DCAA	79%		10-156%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	SB-2-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-4	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	96.6
<b>Method:</b>	SW846 8081B SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G116790.D	1	11/05/15	RK	11/03/15	OP88620	G1G3831
Run #2							

Run #	Initial Weight	Final Volume
Run #1	16.5 g	10.0 ml
Run #2		

## Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.63	0.56	ug/kg	
319-84-6	alpha-BHC	ND	0.63	0.42	ug/kg	
319-85-7	beta-BHC	ND	0.63	0.39	ug/kg	
319-86-8	delta-BHC	ND	0.63	0.25	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	0.63	0.29	ug/kg	
5103-71-9	alpha-Chlordane	ND	0.63	0.33	ug/kg	
5103-74-2	gamma-Chlordane	ND	0.63	0.48	ug/kg	
60-57-1	Dieldrin	ND	0.63	0.49	ug/kg	
72-54-8	4,4' -DDD	ND	0.63	0.23	ug/kg	
72-55-9	4,4' -DDE	ND	0.63	0.21	ug/kg	
50-29-3	4,4' -DDT	ND	0.63	0.24	ug/kg	
72-20-8	Endrin	ND	0.63	0.22	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.63	0.36	ug/kg	
7421-93-4	Endrin aldehyde	ND	0.63	0.47	ug/kg	
959-98-8	Endosulfan-I	ND	0.63	0.21	ug/kg	
33213-65-9	Endosulfan-II	ND	0.63	0.59	ug/kg	
76-44-8	Heptachlor	ND	0.63	0.52	ug/kg	
1024-57-3	Heptachlor epoxide	ND	0.63	0.26	ug/kg	
72-43-5	Methoxychlor	ND	1.3	0.35	ug/kg	
53494-70-5	Endrin ketone	ND	0.63	0.33	ug/kg	
8001-35-2	Toxaphene	ND	16	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	85%		24-136%
877-09-8	Tetrachloro-m-xylene	87%		24-136%
2051-24-3	Decachlorobiphenyl	59%		10-153%
2051-24-3	Decachlorobiphenyl	100%		10-153%

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## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b>	SB-2-5		
<b>Lab Sample ID:</b>	JC7512-4	<b>Date Sampled:</b>	10/29/15
<b>Matrix:</b>	SO - Soil	<b>Date Received:</b>	10/31/15
<b>Method:</b>	SW846 8082A SW846 3546	<b>Percent Solids:</b>	96.6
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX179849.D	1	11/07/15	JR	11/03/15	OP88619	GXX5510
Run #2							

Run #	Initial Weight	Final Volume
Run #1	16.5 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	31	10	ug/kg	
11104-28-2	Aroclor 1221	ND	31	18	ug/kg	
11141-16-5	Aroclor 1232	ND	31	10	ug/kg	
53469-21-9	Aroclor 1242	ND	31	14	ug/kg	
12672-29-6	Aroclor 1248	ND	31	9.6	ug/kg	
11097-69-1	Aroclor 1254	ND	31	14	ug/kg	
11096-82-5	Aroclor 1260	ND	31	13	ug/kg	
11100-14-4	Aroclor 1268	ND	31	9.7	ug/kg	
37324-23-5	Aroclor 1262	ND	31	8.8	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	110%		20-152%
877-09-8	Tetrachloro-m-xylene	112%		20-152%
2051-24-3	Decachlorobiphenyl	98%		12-157%
2051-24-3	Decachlorobiphenyl	101%		12-157%

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## Report of Analysis

Page 1 of 1

Client Sample ID: SB-2-5

Lab Sample ID: JC7512-4

Matrix: SO - Soil

Date Sampled: 10/29/15

Date Received: 10/31/15

Percent Solids: 96.6

Project: 2002-2024 Cropsey Avenue, Brooklyn, NY

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4200	50	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Antimony	< 2.0	2.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	< 2.0	2.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	21.6	20	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.31	0.20	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	< 0.50	0.50	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	868	500	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	13.9	1.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	5.8	5.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	8.7	2.5	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	9930	50	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	3.8	2.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	2090	500	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	239	1.5	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	< 0.033	0.033	mg/kg	1	11/04/15	11/04/15 MA	SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	41.5	4.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	< 1000	1000	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	< 2.0	2.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	< 0.50	0.50	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	< 1000	1000	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	< 1.0	1.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	14.0	5.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	19.1	5.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

(1) Instrument QC Batch: MA37945

(2) Instrument QC Batch: MA37978

(3) Prep QC Batch: MP90046

(4) Prep QC Batch: MP90074

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	SB-3-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-5	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.5
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I209243.D	1	11/03/15	SJM	n/a	n/a	VI8396
Run #2							

Run #	Initial Weight
Run #1	5.2 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	14.0	11	2.4	ug/kg	
71-43-2	Benzene	ND	0.54	0.14	ug/kg	
74-97-5	Bromochloromethane	ND	5.4	0.33	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.17	ug/kg	
75-25-2	Bromoform	ND	5.4	0.25	ug/kg	
74-83-9	Bromomethane	ND	5.4	0.39	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	2.1	ug/kg	
75-15-0	Carbon disulfide	ND	2.1	0.24	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.25	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.17	ug/kg	
75-00-3	Chloroethane	ND	5.4	0.52	ug/kg	
67-66-3	Chloroform	ND	2.1	0.16	ug/kg	
74-87-3	Chloromethane	ND	5.4	0.28	ug/kg	
110-82-7	Cyclohexane	ND	2.1	0.34	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.1	0.58	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.22	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.1	0.14	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.1	0.13	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.1	0.17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.1	0.24	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.4	0.39	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.1	0.15	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.1	0.14	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.1	0.64	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.1	0.84	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.1	0.64	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.26	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.13	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.19	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.18	ug/kg	
76-13-1	Freon 113	ND	5.4	0.48	ug/kg	
591-78-6	2-Hexanone	ND	5.4	1.4	ug/kg	

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## Report of Analysis

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<b>Client Sample ID:</b>	SB-3-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-5	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.5
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.1	0.11	ug/kg	
79-20-9	Methyl Acetate	ND	5.4	0.92	ug/kg	
108-87-2	Methylcyclohexane	ND	2.1	0.24	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.1	0.16	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.4	0.49	ug/kg	
75-09-2	Methylene chloride	ND	5.4	1.1	ug/kg	
100-42-5	Styrene	ND	2.1	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.19	ug/kg	
127-18-4	Tetrachloroethene	23.3	2.1	0.32	ug/kg	
108-88-3	Toluene	ND	1.1	0.22	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.4	0.19	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.4	0.18	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.16	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.16	ug/kg	
79-01-6	Trichloroethene	ND	1.1	0.16	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.4	0.27	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.21	ug/kg	
	m,p-Xylene	ND	1.1	0.38	ug/kg	
95-47-6	o-Xylene	ND	1.1	0.29	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-122%
17060-07-0	1,2-Dichloroethane-D4	97%		68-124%
2037-26-5	Toluene-D8	94%		77-125%
460-00-4	4-Bromofluorobenzene	91%		72-130%

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## Report of Analysis

<b>Client Sample ID:</b>	SB-3-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-5	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3E77587.D	1	11/03/15	AN	11/03/15	OP88613	E3E3376
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.9 g	1.0 ml
Run #2		

## ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	72	27	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	180	33	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	180	29	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	180	66	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	180	160	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	180	69	ug/kg	
95-48-7	2-Methylphenol	ND	72	52	ug/kg	
	3&4-Methylphenol	ND	72	35	ug/kg	
88-75-5	2-Nitrophenol	ND	180	33	ug/kg	
100-02-7	4-Nitrophenol	ND	360	61	ug/kg	
87-86-5	Pentachlorophenol	ND	180	88	ug/kg	
108-95-2	Phenol	ND	72	27	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	180	34	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	180	33	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	180	29	ug/kg	
83-32-9	Acenaphthene	ND	36	34	ug/kg	
208-96-8	Acenaphthylene	ND	36	3.8	ug/kg	
98-86-2	Acetophenone	ND	180	6.1	ug/kg	
120-12-7	Anthracene	ND	36	3.1	ug/kg	
1912-24-9	Atrazine	ND	72	15	ug/kg	
56-55-3	Benzo(a)anthracene	ND	36	7.0	ug/kg	
50-32-8	Benzo(a)pyrene	ND	36	7.7	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	36	7.4	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	36	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	36	8.1	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	72	8.2	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	72	20	ug/kg	
92-52-4	1,1'-Biphenyl	ND	72	6.7	ug/kg	
100-52-7	Benzaldehyde	ND	180	9.0	ug/kg	
91-58-7	2-Chloronaphthalene	ND	72	5.2	ug/kg	
106-47-8	4-Chloroaniline	ND	180	9.6	ug/kg	
86-74-8	Carbazole	ND	72	4.0	ug/kg	

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## Report of Analysis

Page 2 of 3

<b>Client Sample ID:</b>	SB-3-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-5	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	72	23	ug/kg	
218-01-9	Chrysene	ND	36	5.8	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	72	8.2	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	72	15	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	72	8.3	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	72	6.8	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	36	6.8	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	36	9.3	ug/kg	
91-94-1	3,3' -Dichlorobenzidine	ND	72	24	ug/kg	
123-91-1	1,4-Dioxane	ND	36	24	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	36	13	ug/kg	
132-64-9	Dibenzofuran	ND	72	5.0	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	72	4.3	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	72	4.9	ug/kg	
84-66-2	Diethyl phthalate	ND	72	4.6	ug/kg	
131-11-3	Dimethyl phthalate	ND	72	5.2	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	72	13	ug/kg	
206-44-0	Fluoranthene	ND	36	4.4	ug/kg	
86-73-7	Fluorene	ND	36	4.3	ug/kg	
118-74-1	Hexachlorobenzene	ND	72	7.1	ug/kg	
87-68-3	Hexachlorobutadiene	ND	36	9.6	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	360	57	ug/kg	
67-72-1	Hexachloroethane	ND	180	12	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	36	19	ug/kg	
78-59-1	Isophorone	ND	72	6.8	ug/kg	
91-57-6	2-Methylnaphthalene	ND	72	6.8	ug/kg	
88-74-4	2-Nitroaniline	ND	180	8.2	ug/kg	
99-09-2	3-Nitroaniline	ND	180	10	ug/kg	
100-01-6	4-Nitroaniline	ND	180	12	ug/kg	
91-20-3	Naphthalene	ND	36	5.8	ug/kg	
98-95-3	Nitrobenzene	ND	72	11	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	72	11	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	180	19	ug/kg	
85-01-8	Phenanthrene	ND	36	4.0	ug/kg	
129-00-0	Pyrene	ND	36	4.5	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	180	8.7	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	83%		30-106%

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B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	SB-3-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-5	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	82%		30-106%
118-79-6	2,4,6-Tribromophenol	98%		24-140%
4165-60-0	Nitrobenzene-d5	109%		26-122%
321-60-8	2-Fluorobiphenyl	93%		36-112%
1718-51-0	Terphenyl-d14	91%		36-132%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
RL = Reporting Limit      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.5  
4

Report of Analysis

<b>Client Sample ID:</b>	SB-3-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-5	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.5
<b>Method:</b>	SW846 8151 SW846 3550C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA112012.D	2	11/05/15	VDT	11/03/15	OP88618	GOA3882
Run #2							

	Initial Weight	Final Volume
Run #1	15.8 g	5.0 ml
Run #2		

Herbicide List

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	35	16	ug/kg	
93-72-1	2,4,5-TP (Silvex)	ND	7.1	2.1	ug/kg	
93-76-5	2,4,5-T	ND	7.1	2.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	19%		10-156%
19719-28-9	2,4-DCAA	16%		10-156%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
RL = Reporting Limit      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.5  
4



## Report of Analysis

<b>Client Sample ID:</b>	SB-3-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-5	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.5
<b>Method:</b>	SW846 8081B SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G116791.D	1	11/05/15	RK	11/03/15	OP88620	G1G3831
Run #2							

	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2		

## Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.74	0.66	ug/kg	
319-84-6	alpha-BHC	ND	0.74	0.49	ug/kg	
319-85-7	beta-BHC	ND	0.74	0.45	ug/kg	
319-86-8	delta-BHC	ND	0.74	0.29	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	0.74	0.33	ug/kg	
5103-71-9	alpha-Chlordane	ND	0.74	0.39	ug/kg	
5103-74-2	gamma-Chlordane	ND	0.74	0.56	ug/kg	
60-57-1	Dieldrin	ND	0.74	0.58	ug/kg	
72-54-8	4,4' -DDD	ND	0.74	0.27	ug/kg	
72-55-9	4,4' -DDE	ND	0.74	0.24	ug/kg	
50-29-3	4,4' -DDT	ND	0.74	0.28	ug/kg	
72-20-8	Endrin	ND	0.74	0.26	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.74	0.42	ug/kg	
7421-93-4	Endrin aldehyde	ND	0.74	0.55	ug/kg	
959-98-8	Endosulfan-I	ND	0.74	0.24	ug/kg	
33213-65-9	Endosulfan-II	ND	0.74	0.70	ug/kg	
76-44-8	Heptachlor	ND	0.74	0.60	ug/kg	
1024-57-3	Heptachlor epoxide	ND	0.74	0.30	ug/kg	
72-43-5	Methoxychlor	ND	1.5	0.41	ug/kg	
53494-70-5	Endrin ketone	ND	0.74	0.39	ug/kg	
8001-35-2	Toxaphene	ND	18	13	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	79%		24-136%
877-09-8	Tetrachloro-m-xylene	79%		24-136%
2051-24-3	Decachlorobiphenyl	64%		10-153%
2051-24-3	Decachlorobiphenyl	95%		10-153%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	SB-3-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-5	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.5
<b>Method:</b>	SW846 8082A SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX179850.D	1	11/07/15	JR	11/03/15	OP88619	GXX5510
Run #2							

Run #	Initial Weight	Final Volume
Run #1	15.2 g	10.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	37	12	ug/kg	
11104-28-2	Aroclor 1221	ND	37	22	ug/kg	
11141-16-5	Aroclor 1232	ND	37	12	ug/kg	
53469-21-9	Aroclor 1242	ND	37	17	ug/kg	
12672-29-6	Aroclor 1248	ND	37	11	ug/kg	
11097-69-1	Aroclor 1254	ND	37	16	ug/kg	
11096-82-5	Aroclor 1260	ND	37	16	ug/kg	
11100-14-4	Aroclor 1268	ND	37	11	ug/kg	
37324-23-5	Aroclor 1262	ND	37	10	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	103%		20-152%
877-09-8	Tetrachloro-m-xylene	102%		20-152%
2051-24-3	Decachlorobiphenyl	95%		12-157%
2051-24-3	Decachlorobiphenyl	97%		12-157%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
RL = Reporting Limit      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b>	SB-3-1	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-5	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.5
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	4880	57	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Antimony	< 2.3	2.3	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	< 2.3	2.3	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	23.5	23	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.32	0.23	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	< 0.57	0.57	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	1000	570	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	15.5	1.1	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	8.4	5.7	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	9.5	2.9	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	11100	57	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	5.0	2.3	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	2120	570	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	257	1.7	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	< 0.036	0.036	mg/kg	1	11/04/15	11/04/15 MA	SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	43.0	4.6	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	< 1100	1100	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	< 2.3	2.3	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	< 0.57	0.57	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	< 1100	1100	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	< 1.1	1.1	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	15.9	5.7	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	20.8	5.7	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

(1) Instrument QC Batch: MA37945

(2) Instrument QC Batch: MA37978

(3) Prep QC Batch: MP90046

(4) Prep QC Batch: MP90074

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	SB-3-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-6	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	95.5
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I209245.D	1	11/03/15	SJM	n/a	n/a	VI8396
Run #2							

Run #	Initial Weight
Run #1	5.1 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	11.6	10	2.3	ug/kg	
71-43-2	Benzene	ND	0.51	0.14	ug/kg	
74-97-5	Bromochloromethane	ND	5.1	0.32	ug/kg	
75-27-4	Bromodichloromethane	ND	2.1	0.16	ug/kg	
75-25-2	Bromoform	ND	5.1	0.24	ug/kg	
74-83-9	Bromomethane	ND	5.1	0.37	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	2.0	ug/kg	
75-15-0	Carbon disulfide	ND	2.1	0.23	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.1	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.1	0.16	ug/kg	
75-00-3	Chloroethane	ND	5.1	0.49	ug/kg	
67-66-3	Chloroform	ND	2.1	0.15	ug/kg	
74-87-3	Chloromethane	ND	5.1	0.27	ug/kg	
110-82-7	Cyclohexane	ND	2.1	0.32	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.1	0.56	ug/kg	
124-48-1	Dibromochloromethane	ND	2.1	0.21	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.0	0.13	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.13	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.23	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.1	0.37	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.0	0.14	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	0.14	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.0	0.61	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.80	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.61	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.1	0.24	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.1	0.12	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.1	0.18	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.17	ug/kg	
76-13-1	Freon 113	ND	5.1	0.46	ug/kg	
591-78-6	2-Hexanone	ND	5.1	1.4	ug/kg	

ND = Not detected MDL = Method Detection Limit

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E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b>	SB-3-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-6	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	95.5
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.1	0.11	ug/kg	
79-20-9	Methyl Acetate	ND	5.1	0.88	ug/kg	
108-87-2	Methylcyclohexane	ND	2.1	0.23	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.16	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.1	0.47	ug/kg	
75-09-2	Methylene chloride	ND	5.1	1.0	ug/kg	
100-42-5	Styrene	ND	2.1	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.1	0.18	ug/kg	
127-18-4	Tetrachloroethene	23.8	2.1	0.31	ug/kg	
108-88-3	Toluene	ND	1.0	0.21	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.1	0.18	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.1	0.17	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.1	0.15	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.1	0.15	ug/kg	
79-01-6	Trichloroethene	0.39	1.0	0.15	ug/kg	J
75-69-4	Trichlorofluoromethane	ND	5.1	0.26	ug/kg	
75-01-4	Vinyl chloride	ND	2.1	0.20	ug/kg	
	m,p-Xylene	ND	1.0	0.36	ug/kg	
95-47-6	o-Xylene	ND	1.0	0.28	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-122%
17060-07-0	1,2-Dichloroethane-D4	96%		68-124%
2037-26-5	Toluene-D8	92%		77-125%
460-00-4	4-Bromofluorobenzene	92%		72-130%

ND = Not detected MDL = Method Detection Limit

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J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	SB-3-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-6	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	95.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3E77588.D	1	11/03/15	AN	11/03/15	OP88613	E3E3376
Run #2							

Run #	Initial Weight	Final Volume
Run #1	30.2 g	1.0 ml
Run #2		

## ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	69	26	ug/kg	
59-50-7	4-Chloro-3-methyl phenol	ND	170	31	ug/kg	
120-83-2	2,4-Dichlorophenol	ND	170	28	ug/kg	
105-67-9	2,4-Dimethylphenol	ND	170	63	ug/kg	
51-28-5	2,4-Dinitrophenol	ND	170	150	ug/kg	
534-52-1	4,6-Dinitro-o-cresol	ND	170	66	ug/kg	
95-48-7	2-Methylphenol	ND	69	50	ug/kg	
	3&4-Methylphenol	ND	69	33	ug/kg	
88-75-5	2-Nitrophenol	ND	170	32	ug/kg	
100-02-7	4-Nitrophenol	ND	350	59	ug/kg	
87-86-5	Pentachlorophenol	ND	170	85	ug/kg	
108-95-2	Phenol	ND	69	26	ug/kg	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	170	33	ug/kg	
95-95-4	2,4,5-Trichlorophenol	ND	170	31	ug/kg	
88-06-2	2,4,6-Trichlorophenol	ND	170	28	ug/kg	
83-32-9	Acenaphthene	ND	35	33	ug/kg	
208-96-8	Acenaphthylene	ND	35	3.6	ug/kg	
98-86-2	Acetophenone	ND	170	5.9	ug/kg	
120-12-7	Anthracene	ND	35	3.0	ug/kg	
1912-24-9	Atrazine	ND	69	14	ug/kg	
56-55-3	Benzo(a)anthracene	ND	35	6.7	ug/kg	
50-32-8	Benzo(a)pyrene	ND	35	7.4	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	35	7.1	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	35	10	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	35	7.7	ug/kg	
101-55-3	4-Bromophenyl phenyl ether	ND	69	7.9	ug/kg	
85-68-7	Butyl benzyl phthalate	ND	69	19	ug/kg	
92-52-4	1,1'-Biphenyl	ND	69	6.4	ug/kg	
100-52-7	Benzaldehyde	ND	170	8.7	ug/kg	
91-58-7	2-Chloronaphthalene	ND	69	5.0	ug/kg	
106-47-8	4-Chloroaniline	ND	170	9.2	ug/kg	
86-74-8	Carbazole	ND	69	3.8	ug/kg	

ND = Not detected MDL = Method Detection Limit

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## Report of Analysis

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<b>Client Sample ID:</b>	SB-3-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-6	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	95.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## ABN TCL List (SOM0 2.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
105-60-2	Caprolactam	ND	69	22	ug/kg	
218-01-9	Chrysene	ND	35	5.6	ug/kg	
111-91-1	bis(2-Chloroethoxy)methane	ND	69	7.9	ug/kg	
111-44-4	bis(2-Chloroethyl)ether	ND	69	14	ug/kg	
108-60-1	bis(2-Chloroisopropyl)ether	ND	69	7.9	ug/kg	
7005-72-3	4-Chlorophenyl phenyl ether	ND	69	6.5	ug/kg	
121-14-2	2,4-Dinitrotoluene	ND	35	6.5	ug/kg	
606-20-2	2,6-Dinitrotoluene	ND	35	8.9	ug/kg	
91-94-1	3,3' -Dichlorobenzidine	ND	69	23	ug/kg	
123-91-1	1,4-Dioxane	ND	35	23	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	35	12	ug/kg	
132-64-9	Dibenzofuran	ND	69	4.8	ug/kg	
84-74-2	Di-n-butyl phthalate	ND	69	4.1	ug/kg	
117-84-0	Di-n-octyl phthalate	ND	69	4.7	ug/kg	
84-66-2	Diethyl phthalate	ND	69	4.4	ug/kg	
131-11-3	Dimethyl phthalate	ND	69	5.0	ug/kg	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	69	12	ug/kg	
206-44-0	Fluoranthene	ND	35	4.2	ug/kg	
86-73-7	Fluorene	ND	35	4.1	ug/kg	
118-74-1	Hexachlorobenzene	ND	69	6.8	ug/kg	
87-68-3	Hexachlorobutadiene	ND	35	9.2	ug/kg	
77-47-4	Hexachlorocyclopentadiene	ND	350	55	ug/kg	
67-72-1	Hexachloroethane	ND	170	11	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	35	18	ug/kg	
78-59-1	Isophorone	ND	69	6.5	ug/kg	
91-57-6	2-Methylnaphthalene	ND	69	6.5	ug/kg	
88-74-4	2-Nitroaniline	ND	170	7.9	ug/kg	
99-09-2	3-Nitroaniline	ND	170	9.8	ug/kg	
100-01-6	4-Nitroaniline	ND	170	12	ug/kg	
91-20-3	Naphthalene	ND	35	5.5	ug/kg	
98-95-3	Nitrobenzene	ND	69	11	ug/kg	
621-64-7	N-Nitroso-di-n-propylamine	ND	69	10	ug/kg	
86-30-6	N-Nitrosodiphenylamine	ND	170	18	ug/kg	
85-01-8	Phenanthrene	ND	35	3.8	ug/kg	
129-00-0	Pyrene	ND	35	4.3	ug/kg	
95-94-3	1,2,4,5-Tetrachlorobenzene	ND	170	8.3	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	79%		30-106%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	SB-3-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-6	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	95.5
<b>Method:</b>	SW846 8270D SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

ABN TCL List (SOM0 2.0)

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-62-2	Phenol-d5	76%		30-106%
118-79-6	2,4,6-Tribromophenol	87%		24-140%
4165-60-0	Nitrobenzene-d5	100%		26-122%
321-60-8	2-Fluorobiphenyl	89%		36-112%
1718-51-0	Terphenyl-d14	86%		36-132%

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
RL = Reporting Limit      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

4.6  
4

Report of Analysis

<b>Client Sample ID:</b>	SB-3-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-6	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	95.5
<b>Method:</b>	SW846 8151 SW846 3550C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA112013.D	2	11/05/15	VDT	11/03/15	OP88618	GOA3882
Run #2							

	Initial Weight	Final Volume
Run #1	15.7 g	5.0 ml
Run #2		

Herbicide List

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	33	15	ug/kg	
93-72-1	2,4,5-TP (Silvex)	ND	6.7	2.0	ug/kg	
93-76-5	2,4,5-T	ND	6.7	2.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	28%		10-156%
19719-28-9	2,4-DCAA	19%		10-156%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	SB-3-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-6	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	95.5
<b>Method:</b>	SW846 8081B SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1G116792.D	1	11/05/15	RK	11/03/15	OP88620	G1G3831
Run #2							

Run #	Initial Weight	Final Volume
Run #1	16.6 g	10.0 ml
Run #2		

## Pesticide TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.63	0.56	ug/kg	
319-84-6	alpha-BHC	ND	0.63	0.42	ug/kg	
319-85-7	beta-BHC	ND	0.63	0.39	ug/kg	
319-86-8	delta-BHC	ND	0.63	0.25	ug/kg	
58-89-9	gamma-BHC (Lindane)	ND	0.63	0.29	ug/kg	
5103-71-9	alpha-Chlordane	ND	0.63	0.34	ug/kg	
5103-74-2	gamma-Chlordane	ND	0.63	0.48	ug/kg	
60-57-1	Dieldrin	ND	0.63	0.49	ug/kg	
72-54-8	4,4' -DDD	ND	0.63	0.23	ug/kg	
72-55-9	4,4' -DDE	ND	0.63	0.21	ug/kg	
50-29-3	4,4' -DDT	ND	0.63	0.24	ug/kg	
72-20-8	Endrin	ND	0.63	0.22	ug/kg	
1031-07-8	Endosulfan sulfate	ND	0.63	0.36	ug/kg	
7421-93-4	Endrin aldehyde	ND	0.63	0.47	ug/kg	
959-98-8	Endosulfan-I	ND	0.63	0.21	ug/kg	
33213-65-9	Endosulfan-II	ND	0.63	0.60	ug/kg	
76-44-8	Heptachlor	ND	0.63	0.52	ug/kg	
1024-57-3	Heptachlor epoxide	ND	0.63	0.26	ug/kg	
72-43-5	Methoxychlor	ND	1.3	0.35	ug/kg	
53494-70-5	Endrin ketone	ND	0.63	0.33	ug/kg	
8001-35-2	Toxaphene	ND	16	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	76%		24-136%
877-09-8	Tetrachloro-m-xylene	75%		24-136%
2051-24-3	Decachlorobiphenyl	60%		10-153%
2051-24-3	Decachlorobiphenyl	89%		10-153%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

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J = Indicates an estimated value

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N = Indicates presumptive evidence of a compound



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## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b>	SB-3-5	<b>Date Sampled:</b>	10/29/15
<b>Lab Sample ID:</b>	JC7512-6	<b>Date Received:</b>	10/31/15
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	95.5
<b>Method:</b>	SW846 8082A SW846 3546		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	XX179851.D	1	11/07/15	JR	11/03/15	OP88619	GXX5510
Run #2							

	Initial Weight	Final Volume
Run #1	16.6 g	10.0 ml
Run #2		

## PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	32	10	ug/kg	
11104-28-2	Aroclor 1221	ND	32	19	ug/kg	
11141-16-5	Aroclor 1232	ND	32	10	ug/kg	
53469-21-9	Aroclor 1242	ND	32	14	ug/kg	
12672-29-6	Aroclor 1248	ND	32	9.7	ug/kg	
11097-69-1	Aroclor 1254	ND	32	14	ug/kg	
11096-82-5	Aroclor 1260	ND	32	13	ug/kg	
11100-14-4	Aroclor 1268	ND	32	9.7	ug/kg	
37324-23-5	Aroclor 1262	ND	32	8.9	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	101%		20-152%
877-09-8	Tetrachloro-m-xylene	99%		20-152%
2051-24-3	Decachlorobiphenyl	91%		12-157%
2051-24-3	Decachlorobiphenyl	94%		12-157%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

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## Report of Analysis

Page 1 of 1

Client Sample ID: SB-3-5

Lab Sample ID: JC7512-6

Matrix: SO - Soil

Date Sampled: 10/29/15

Date Received: 10/31/15

Percent Solids: 95.5

Project: 2002-2024 Cropsey Avenue, Brooklyn, NY

## Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Aluminum	5150	52	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Antimony	< 2.1	2.1	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Arsenic	< 2.1	2.1	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Barium	23.8	21	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Beryllium	0.32	0.21	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cadmium	< 0.52	0.52	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Calcium	1210	520	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Chromium	15.7	1.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Cobalt	6.7	5.2	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Copper	9.4	2.6	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Iron	10600	52	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Lead	4.9	2.1	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Magnesium	2490	520	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Manganese	265	1.6	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Mercury	< 0.031	0.031	mg/kg	1	11/04/15	11/04/15 MA	SW846 7471B <sup>1</sup>	SW846 7471B <sup>4</sup>
Nickel	46.1	4.1	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Potassium	< 1000	1000	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Selenium	< 2.1	2.1	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Silver	< 0.52	0.52	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Sodium	< 1000	1000	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Thallium	< 1.0	1.0	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Vanadium	16.1	5.2	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>
Zinc	20.3	5.2	mg/kg	1	11/03/15	11/07/15 MS	SW846 6010C <sup>2</sup>	SW846 3050B <sup>3</sup>

(1) Instrument QC Batch: MA37945

(2) Instrument QC Batch: MA37978

(3) Prep QC Batch: MP90046

(4) Prep QC Batch: MP90074

RL = Reporting Limit



Sample Results

Report of Analysis

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## Report of Analysis

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<b>Client Sample ID:</b>	MW-11-20'	<b>Date Sampled:</b>	01/18/16
<b>Lab Sample ID:</b>	JC12861-1	<b>Date Received:</b>	01/19/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	82.4
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y160757.D	1	01/24/16	PS	01/20/16 08:00	n/a	VY7020
Run #2							

Run #	Initial Weight
Run #1	4.5 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	3.0	ug/kg	
71-43-2	Benzene	ND	0.67	0.18	ug/kg	
74-97-5	Bromochloromethane	ND	6.7	0.42	ug/kg	
75-27-4	Bromodichloromethane	ND	2.7	0.21	ug/kg	
75-25-2	Bromoform	ND	6.7	0.32	ug/kg	
74-83-9	Bromomethane	ND	6.7	0.49	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	2.6	ug/kg	
75-15-0	Carbon disulfide	ND	2.7	0.31	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.7	0.31	ug/kg	
108-90-7	Chlorobenzene	ND	2.7	0.21	ug/kg	
75-00-3	Chloroethane	ND	6.7	0.65	ug/kg	
67-66-3	Chloroform	ND	2.7	0.20	ug/kg	
74-87-3	Chloromethane	ND	6.7	0.35	ug/kg	
110-82-7	Cyclohexane	ND	2.7	0.43	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.7	0.73	ug/kg	
124-48-1	Dibromochloromethane	ND	2.7	0.28	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.3	0.18	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.3	0.16	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.3	0.21	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.3	0.30	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.7	0.49	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.3	0.19	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.3	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.3	0.80	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.3	1.1	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.3	0.80	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.7	0.32	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.7	0.16	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.7	0.24	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.22	ug/kg	
76-13-1	Freon 113	ND	6.7	0.60	ug/kg	
591-78-6	2-Hexanone	ND	6.7	1.8	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b>	MW-11-20'	<b>Date Sampled:</b>	01/18/16
<b>Lab Sample ID:</b>	JC12861-1	<b>Date Received:</b>	01/19/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	82.4
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.7	0.14	ug/kg	
79-20-9	Methyl Acetate	ND	6.7	1.2	ug/kg	
108-87-2	Methylcyclohexane	ND	2.7	0.31	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.7	0.62	ug/kg	
75-09-2	Methylene chloride	ND	6.7	1.3	ug/kg	
100-42-5	Styrene	ND	2.7	0.24	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.7	0.24	ug/kg	
127-18-4	Tetrachloroethene	13.9	2.7	0.41	ug/kg	
108-88-3	Toluene	ND	1.3	0.28	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.7	0.24	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.7	0.23	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.7	0.20	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.7	0.20	ug/kg	
79-01-6	Trichloroethene	0.74	1.3	0.20	ug/kg	J
75-69-4	Trichlorofluoromethane	ND	6.7	0.34	ug/kg	
75-01-4	Vinyl chloride	ND	2.7	0.27	ug/kg	
	m,p-Xylene	ND	1.3	0.47	ug/kg	
95-47-6	o-Xylene	ND	1.3	0.37	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.37	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		70-122%
17060-07-0	1,2-Dichloroethane-D4	110%		68-124%
2037-26-5	Toluene-D8	99%		77-125%
460-00-4	4-Bromofluorobenzene	115%		72-130%

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J = Indicates an estimated value

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N = Indicates presumptive evidence of a compound



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## Report of Analysis

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<b>Client Sample ID:</b>	MW-11-45'	<b>Date Sampled:</b>	01/18/16
<b>Lab Sample ID:</b>	JC12861-2	<b>Date Received:</b>	01/19/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	82.4
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y160758.D	1	01/24/16	PS	01/20/16 08:00	n/a	VY7020
Run #2							

Run #	Initial Weight
Run #1	5.1 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	2.7	ug/kg	
71-43-2	Benzene	ND	0.59	0.16	ug/kg	
74-97-5	Bromochloromethane	ND	5.9	0.37	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.19	ug/kg	
75-25-2	Bromoform	ND	5.9	0.28	ug/kg	
74-83-9	Bromomethane	ND	5.9	0.43	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	2.3	ug/kg	
75-15-0	Carbon disulfide	ND	2.4	0.27	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	0.27	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.9	0.57	ug/kg	
67-66-3	Chloroform	ND	2.4	0.18	ug/kg	
74-87-3	Chloromethane	ND	5.9	0.31	ug/kg	
110-82-7	Cyclohexane	ND	2.4	0.38	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.4	0.65	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.24	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.2	0.16	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.2	0.15	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.2	0.19	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.2	0.27	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.9	0.43	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.2	0.17	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.2	0.16	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.2	0.70	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.2	0.93	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.2	0.71	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.28	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.14	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.21	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.19	ug/kg	
76-13-1	Freon 113	ND	5.9	0.53	ug/kg	
591-78-6	2-Hexanone	ND	5.9	1.6	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-11-45'	<b>Date Sampled:</b>	01/18/16
<b>Lab Sample ID:</b>	JC12861-2	<b>Date Received:</b>	01/19/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	82.4
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.4	0.13	ug/kg	
79-20-9	Methyl Acetate	ND	5.9	1.0	ug/kg	
108-87-2	Methylcyclohexane	ND	2.4	0.27	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.2	0.18	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.9	0.55	ug/kg	
75-09-2	Methylene chloride	ND	5.9	1.2	ug/kg	
100-42-5	Styrene	ND	2.4	0.21	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.21	ug/kg	
127-18-4	Tetrachloroethene	4.3	2.4	0.36	ug/kg	
108-88-3	Toluene	ND	1.2	0.25	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.9	0.21	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.9	0.20	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.18	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.17	ug/kg	
79-01-6	Trichloroethene	0.26	1.2	0.17	ug/kg	J
75-69-4	Trichlorofluoromethane	ND	5.9	0.30	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	0.23	ug/kg	
	m,p-Xylene	ND	1.2	0.42	ug/kg	
95-47-6	o-Xylene	ND	1.2	0.33	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.33	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		70-122%
17060-07-0	1,2-Dichloroethane-D4	105%		68-124%
2037-26-5	Toluene-D8	98%		77-125%
460-00-4	4-Bromofluorobenzene	115%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	MW-11-50'	<b>Date Sampled:</b>	01/18/16
<b>Lab Sample ID:</b>	JC12861-3	<b>Date Received:</b>	01/19/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	82.4
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y160759.D	1	01/24/16	PS	01/20/16 08:00	n/a	VY7020
Run #2							

Run #	Initial Weight
Run #1	3.8 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	5.7	16	3.6	ug/kg	J
71-43-2	Benzene	ND	0.80	0.21	ug/kg	
74-97-5	Bromochloromethane	ND	8.0	0.49	ug/kg	
75-27-4	Bromodichloromethane	ND	3.2	0.25	ug/kg	
75-25-2	Bromoform	ND	8.0	0.38	ug/kg	
74-83-9	Bromomethane	ND	8.0	0.58	ug/kg	
78-93-3	2-Butanone (MEK)	ND	16	3.0	ug/kg	
75-15-0	Carbon disulfide	ND	3.2	0.36	ug/kg	
56-23-5	Carbon tetrachloride	ND	3.2	0.37	ug/kg	
108-90-7	Chlorobenzene	ND	3.2	0.25	ug/kg	
75-00-3	Chloroethane	ND	8.0	0.77	ug/kg	
67-66-3	Chloroform	ND	3.2	0.24	ug/kg	
74-87-3	Chloromethane	ND	8.0	0.42	ug/kg	
110-82-7	Cyclohexane	ND	3.2	0.50	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	3.2	0.87	ug/kg	
124-48-1	Dibromochloromethane	ND	3.2	0.33	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.6	0.21	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.6	0.19	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.6	0.25	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.6	0.36	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	8.0	0.58	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.6	0.23	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.6	0.21	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.6	0.95	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.6	1.2	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.6	0.95	ug/kg	
78-87-5	1,2-Dichloropropane	ND	3.2	0.38	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	3.2	0.19	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	3.2	0.28	ug/kg	
100-41-4	Ethylbenzene	ND	1.6	0.26	ug/kg	
76-13-1	Freon 113	ND	8.0	0.72	ug/kg	
591-78-6	2-Hexanone	ND	8.0	2.1	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-11-50'	<b>Date Sampled:</b>	01/18/16
<b>Lab Sample ID:</b>	JC12861-3	<b>Date Received:</b>	01/19/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	82.4
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	3.2	0.17	ug/kg	
79-20-9	Methyl Acetate	ND	8.0	1.4	ug/kg	
108-87-2	Methylcyclohexane	ND	3.2	0.36	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.6	0.24	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	8.0	0.73	ug/kg	
75-09-2	Methylene chloride	ND	8.0	1.6	ug/kg	
100-42-5	Styrene	ND	3.2	0.28	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.2	0.28	ug/kg	
127-18-4	Tetrachloroethene	ND	3.2	0.48	ug/kg	
108-88-3	Toluene	ND	1.6	0.33	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	8.0	0.28	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	8.0	0.27	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	3.2	0.24	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	3.2	0.23	ug/kg	
79-01-6	Trichloroethene	ND	1.6	0.23	ug/kg	
75-69-4	Trichlorofluoromethane	ND	8.0	0.40	ug/kg	
75-01-4	Vinyl chloride	ND	3.2	0.31	ug/kg	
	m,p-Xylene	ND	1.6	0.56	ug/kg	
95-47-6	o-Xylene	ND	1.6	0.44	ug/kg	
1330-20-7	Xylene (total)	ND	1.6	0.44	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		70-122%
17060-07-0	1,2-Dichloroethane-D4	106%		68-124%
2037-26-5	Toluene-D8	98%		77-125%
460-00-4	4-Bromofluorobenzene	116%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	MW-11	<b>Date Sampled:</b>	01/18/16
<b>Lab Sample ID:</b>	JC12861-4	<b>Date Received:</b>	01/19/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	82.4
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	17.6		%	1	01/20/16 16:00	KP	SM2540 G-97

RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b>	TRIP	<b>Date Sampled:</b>	01/19/16
<b>Lab Sample ID:</b>	JC12861-5	<b>Date Received:</b>	01/19/16
<b>Matrix:</b>	AQ - Trip Blank Soil	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A165017.D	1	01/22/16	TK	n/a	n/a	V2A7019
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	TRIP	<b>Date Sampled:</b>	01/19/16
<b>Lab Sample ID:</b>	JC12861-5	<b>Date Received:</b>	01/19/16
<b>Matrix:</b>	AQ - Trip Blank Soil	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	105%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	102%		78-117%

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

SGS Accutest LabLink@945686 14:23 10-Feb-2017

## Report of Analysis

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<b>Client Sample ID:</b>	FIELD	<b>Date Sampled:</b>	01/19/16
<b>Lab Sample ID:</b>	JC12861-6	<b>Date Received:</b>	01/19/16
<b>Matrix:</b>	AQ - Field Blank Soil	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A165018.D	1	01/22/16	TK	n/a	n/a	V2A7019
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	FIELD	<b>Date Sampled:</b>	01/19/16
<b>Lab Sample ID:</b>	JC12861-6	<b>Date Received:</b>	01/19/16
<b>Matrix:</b>	AQ - Field Blank Soil	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	105%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	101%		78-117%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	MW-45-23.5'	<b>Date Sampled:</b>	01/19/16
<b>Lab Sample ID:</b>	JC12861-7	<b>Date Received:</b>	01/19/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	78.7
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y160764.D	1	01/24/16	PS	01/20/16 08:00	n/a	VY7020
Run #2							

Run #	Initial Weight
Run #1	4.7 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	23.0	14	3.0	ug/kg	
71-43-2	Benzene	ND	0.68	0.18	ug/kg	
74-97-5	Bromochloromethane	ND	6.8	0.42	ug/kg	
75-27-4	Bromodichloromethane	ND	2.7	0.21	ug/kg	
75-25-2	Bromoform	ND	6.8	0.32	ug/kg	
74-83-9	Bromomethane	ND	6.8	0.49	ug/kg	
78-93-3	2-Butanone (MEK)	ND	14	2.6	ug/kg	
75-15-0	Carbon disulfide	ND	2.7	0.31	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.7	0.31	ug/kg	
108-90-7	Chlorobenzene	ND	2.7	0.21	ug/kg	
75-00-3	Chloroethane	ND	6.8	0.65	ug/kg	
67-66-3	Chloroform	ND	2.7	0.20	ug/kg	
74-87-3	Chloromethane	ND	6.8	0.35	ug/kg	
110-82-7	Cyclohexane	ND	2.7	0.43	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.7	0.74	ug/kg	
124-48-1	Dibromochloromethane	ND	2.7	0.28	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.4	0.18	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.4	0.16	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.4	0.21	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.4	0.30	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.8	0.49	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.4	0.19	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.4	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.4	0.80	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.4	1.1	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.4	0.80	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.7	0.32	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.7	0.16	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.7	0.24	ug/kg	
100-41-4	Ethylbenzene	ND	1.4	0.22	ug/kg	
76-13-1	Freon 113	ND	6.8	0.61	ug/kg	
591-78-6	2-Hexanone	ND	6.8	1.8	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b> MW-45-23.5'	<b>Date Sampled:</b> 01/19/16
<b>Lab Sample ID:</b> JC12861-7	<b>Date Received:</b> 01/19/16
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 78.7
<b>Method:</b> SW846 8260C SW846 5035	
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.7	0.14	ug/kg	
79-20-9	Methyl Acetate	ND	6.8	1.2	ug/kg	
108-87-2	Methylcyclohexane	ND	2.7	0.31	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.4	0.21	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.8	0.62	ug/kg	
75-09-2	Methylene chloride	ND	6.8	1.3	ug/kg	
100-42-5	Styrene	ND	2.7	0.24	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.7	0.24	ug/kg	
127-18-4	Tetrachloroethene	ND	2.7	0.41	ug/kg	
108-88-3	Toluene	ND	1.4	0.28	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.8	0.24	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.8	0.23	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.7	0.20	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.7	0.20	ug/kg	
79-01-6	Trichloroethene	ND	1.4	0.20	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.8	0.34	ug/kg	
75-01-4	Vinyl chloride	ND	2.7	0.27	ug/kg	
	m,p-Xylene	ND	1.4	0.48	ug/kg	
95-47-6	o-Xylene	ND	1.4	0.37	ug/kg	
1330-20-7	Xylene (total)	ND	1.4	0.37	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		70-122%
17060-07-0	1,2-Dichloroethane-D4	105%		68-124%
2037-26-5	Toluene-D8	99%		77-125%
460-00-4	4-Bromofluorobenzene	116%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	MW-45-30'	<b>Date Sampled:</b>	01/19/16
<b>Lab Sample ID:</b>	JC12861-8	<b>Date Received:</b>	01/19/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	78.7
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y160760.D	1	01/24/16	PS	01/20/16 08:00	n/a	VY7020
Run #2							

Run #	Initial Weight
Run #1	3.9 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	58.1	16	3.6	ug/kg	
71-43-2	Benzene	ND	0.81	0.22	ug/kg	
74-97-5	Bromochloromethane	ND	8.1	0.50	ug/kg	
75-27-4	Bromodichloromethane	ND	3.3	0.25	ug/kg	
75-25-2	Bromoform	ND	8.1	0.38	ug/kg	
74-83-9	Bromomethane	ND	8.1	0.59	ug/kg	
78-93-3	2-Butanone (MEK)	ND	16	3.1	ug/kg	
75-15-0	Carbon disulfide	ND	3.3	0.37	ug/kg	
56-23-5	Carbon tetrachloride	ND	3.3	0.37	ug/kg	
108-90-7	Chlorobenzene	ND	3.3	0.25	ug/kg	
75-00-3	Chloroethane	ND	8.1	0.78	ug/kg	
67-66-3	Chloroform	ND	3.3	0.24	ug/kg	
74-87-3	Chloromethane	ND	8.1	0.43	ug/kg	
110-82-7	Cyclohexane	ND	3.3	0.51	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	3.3	0.89	ug/kg	
124-48-1	Dibromochloromethane	ND	3.3	0.33	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.6	0.21	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.6	0.20	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.6	0.26	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.6	0.37	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	8.1	0.59	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.6	0.23	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.6	0.22	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.6	0.96	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.6	1.3	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.6	0.97	ug/kg	
78-87-5	1,2-Dichloropropane	ND	3.3	0.39	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	3.3	0.19	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	3.3	0.29	ug/kg	
100-41-4	Ethylbenzene	ND	1.6	0.27	ug/kg	
76-13-1	Freon 113	ND	8.1	0.73	ug/kg	
591-78-6	2-Hexanone	ND	8.1	2.2	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-45-30'	<b>Date Sampled:</b>	01/19/16
<b>Lab Sample ID:</b>	JC12861-8	<b>Date Received:</b>	01/19/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	78.7
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	3.3	0.17	ug/kg	
79-20-9	Methyl Acetate	ND	8.1	1.4	ug/kg	
108-87-2	Methylcyclohexane	ND	3.3	0.37	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.6	0.25	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	8.1	0.75	ug/kg	
75-09-2	Methylene chloride	ND	8.1	1.6	ug/kg	
100-42-5	Styrene	ND	3.3	0.29	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.3	0.29	ug/kg	
127-18-4	Tetrachloroethene	ND	3.3	0.49	ug/kg	
108-88-3	Toluene	ND	1.6	0.34	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	8.1	0.29	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	8.1	0.28	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	3.3	0.24	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	3.3	0.24	ug/kg	
79-01-6	Trichloroethene	ND	1.6	0.24	ug/kg	
75-69-4	Trichlorofluoromethane	ND	8.1	0.41	ug/kg	
75-01-4	Vinyl chloride	ND	3.3	0.32	ug/kg	
	m,p-Xylene	ND	1.6	0.57	ug/kg	
95-47-6	o-Xylene	ND	1.6	0.45	ug/kg	
1330-20-7	Xylene (total)	ND	1.6	0.45	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		70-122%
17060-07-0	1,2-Dichloroethane-D4	104%		68-124%
2037-26-5	Toluene-D8	98%		77-125%
460-00-4	4-Bromofluorobenzene	116%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	MW-45-40'	<b>Date Sampled:</b>	01/19/16
<b>Lab Sample ID:</b>	JC12861-9	<b>Date Received:</b>	01/19/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	78.7
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y160765.D	1	01/24/16	PS	01/20/16 08:00	n/a	VY7020
Run #2							

Run #	Initial Weight
Run #1	6.7 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	5.7	9.5	2.1	ug/kg	J
71-43-2	Benzene	ND	0.47	0.13	ug/kg	
74-97-5	Bromochloromethane	ND	4.7	0.29	ug/kg	
75-27-4	Bromodichloromethane	ND	1.9	0.15	ug/kg	
75-25-2	Bromoform	ND	4.7	0.22	ug/kg	
74-83-9	Bromomethane	ND	4.7	0.35	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.5	1.8	ug/kg	
75-15-0	Carbon disulfide	ND	1.9	0.22	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.9	0.22	ug/kg	
108-90-7	Chlorobenzene	ND	1.9	0.15	ug/kg	
75-00-3	Chloroethane	ND	4.7	0.46	ug/kg	
67-66-3	Chloroform	ND	1.9	0.14	ug/kg	
74-87-3	Chloromethane	ND	4.7	0.25	ug/kg	
110-82-7	Cyclohexane	ND	1.9	0.30	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.9	0.52	ug/kg	
124-48-1	Dibromochloromethane	ND	1.9	0.19	ug/kg	
106-93-4	1,2-Dibromoethane	ND	0.95	0.12	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	0.95	0.12	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	0.95	0.15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	0.95	0.21	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	4.7	0.34	ug/kg	
75-34-3	1,1-Dichloroethane	ND	0.95	0.13	ug/kg	
107-06-2	1,2-Dichloroethane	ND	0.95	0.13	ug/kg	
75-35-4	1,1-Dichloroethene	ND	0.95	0.56	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	0.95	0.74	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	0.95	0.56	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.9	0.23	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.9	0.11	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.9	0.17	ug/kg	
100-41-4	Ethylbenzene	ND	0.95	0.15	ug/kg	
76-13-1	Freon 113	ND	4.7	0.42	ug/kg	
591-78-6	2-Hexanone	ND	4.7	1.3	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-45-40'	<b>Date Sampled:</b>	01/19/16
<b>Lab Sample ID:</b>	JC12861-9	<b>Date Received:</b>	01/19/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	78.7
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.9	0.10	ug/kg	
79-20-9	Methyl Acetate	ND	4.7	0.82	ug/kg	
108-87-2	Methylcyclohexane	ND	1.9	0.22	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.95	0.15	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	4.7	0.44	ug/kg	
75-09-2	Methylene chloride	ND	4.7	0.93	ug/kg	
100-42-5	Styrene	ND	1.9	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.9	0.17	ug/kg	
127-18-4	Tetrachloroethene	ND	1.9	0.29	ug/kg	
108-88-3	Toluene	ND	0.95	0.20	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	4.7	0.17	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	4.7	0.16	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.9	0.14	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.9	0.14	ug/kg	
79-01-6	Trichloroethene	ND	0.95	0.14	ug/kg	
75-69-4	Trichlorofluoromethane	ND	4.7	0.24	ug/kg	
75-01-4	Vinyl chloride	ND	1.9	0.19	ug/kg	
	m,p-Xylene	ND	0.95	0.33	ug/kg	
95-47-6	o-Xylene	ND	0.95	0.26	ug/kg	
1330-20-7	Xylene (total)	ND	0.95	0.26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		70-122%
17060-07-0	1,2-Dichloroethane-D4	107%		68-124%
2037-26-5	Toluene-D8	99%		77-125%
460-00-4	4-Bromofluorobenzene	114%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	MW-45-MOISTURE	<b>Date Sampled:</b>	01/19/16
<b>Lab Sample ID:</b>	JC12861-10	<b>Date Received:</b>	01/19/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	78.7
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	21.3		%	1	01/20/16 16:00	KP	SM2540 G-97

RL = Reporting Limit

4.10  
4





Sample Results

Report of Analysis

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<b>Client Sample ID:</b>	MW-7-23	<b>Date Sampled:</b>	03/08/16
<b>Lab Sample ID:</b>	JC15742-1	<b>Date Received:</b>	03/09/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	6.3
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I211933.D	1	03/10/16	SJM	03/10/16 08:00	n/a	VI8494
Run #2							

Run #	Initial Weight
Run #1	6.2 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	130	29	ug/kg	
71-43-2	Benzene	ND	6.4	1.7	ug/kg	
74-97-5	Bromochloromethane	ND	64	4.0	ug/kg	
75-27-4	Bromodichloromethane	ND	26	2.0	ug/kg	
75-25-2	Bromoform	ND	64	3.0	ug/kg	
74-83-9	Bromomethane	ND	64	4.7	ug/kg	
78-93-3	2-Butanone (MEK)	ND	130	24	ug/kg	
75-15-0	Carbon disulfide	ND	26	2.9	ug/kg	
56-23-5	Carbon tetrachloride	ND	26	2.9	ug/kg	
108-90-7	Chlorobenzene	ND	26	2.0	ug/kg	
75-00-3	Chloroethane	ND	64	6.2	ug/kg	
67-66-3	Chloroform	ND	26	1.9	ug/kg	
74-87-3	Chloromethane	ND	64	3.4	ug/kg	
110-82-7	Cyclohexane	ND	26	4.0	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	26	7.0	ug/kg	
124-48-1	Dibromochloromethane	ND	26	2.6	ug/kg	
106-93-4	1,2-Dibromoethane	ND	13	1.7	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	13	1.6	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	13	2.0	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	13	2.9	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	64	4.6	ug/kg	
75-34-3	1,1-Dichloroethane	ND	13	1.8	ug/kg	
107-06-2	1,2-Dichloroethane	ND	13	1.7	ug/kg	
75-35-4	1,1-Dichloroethene	ND	13	7.6	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	13	10	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	13	7.6	ug/kg	
78-87-5	1,2-Dichloropropane	ND	26	3.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	26	1.5	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	26	2.3	ug/kg	
100-41-4	Ethylbenzene	ND	13	2.1	ug/kg	
76-13-1	Freon 113	ND	64	5.7	ug/kg	
591-78-6	2-Hexanone	ND	64	17	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-7-23	<b>Date Sampled:</b>	03/08/16
<b>Lab Sample ID:</b>	JC15742-1	<b>Date Received:</b>	03/09/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	6.3
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	26	1.4	ug/kg	
79-20-9	Methyl Acetate	ND	64	11	ug/kg	
108-87-2	Methylcyclohexane	ND	26	2.9	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	13	2.0	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	64	5.9	ug/kg	
75-09-2	Methylene chloride	ND	64	13	ug/kg	
100-42-5	Styrene	ND	26	2.3	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	26	2.2	ug/kg	
127-18-4	Tetrachloroethene	ND	26	3.9	ug/kg	
108-88-3	Toluene	ND	13	2.7	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	64	2.3	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	64	2.2	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	26	1.9	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	26	1.9	ug/kg	
79-01-6	Trichloroethene	ND	13	1.9	ug/kg	
75-69-4	Trichlorofluoromethane	ND	64	3.2	ug/kg	
75-01-4	Vinyl chloride	ND	26	2.5	ug/kg	
	m,p-Xylene	ND	13	4.5	ug/kg	
95-47-6	o-Xylene	ND	13	3.5	ug/kg	
1330-20-7	Xylene (total)	ND	13	3.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-122%
17060-07-0	1,2-Dichloroethane-D4	95%		68-124%
2037-26-5	Toluene-D8	98%		77-125%
460-00-4	4-Bromofluorobenzene	104%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	MW-7-34	<b>Date Sampled:</b>	03/08/16
<b>Lab Sample ID:</b>	JC15742-2	<b>Date Received:</b>	03/09/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	6.3
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I211934.D	1	03/10/16	SJM	03/10/16 08:00	n/a	VI8494
Run #2							

Run #	Initial Weight
Run #1	5.4 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	150	33	ug/kg	
71-43-2	Benzene	ND	7.3	2.0	ug/kg	
74-97-5	Bromochloromethane	ND	73	4.5	ug/kg	
75-27-4	Bromodichloromethane	ND	29	2.3	ug/kg	
75-25-2	Bromoform	ND	73	3.5	ug/kg	
74-83-9	Bromomethane	ND	73	5.3	ug/kg	
78-93-3	2-Butanone (MEK)	ND	150	28	ug/kg	
75-15-0	Carbon disulfide	ND	29	3.4	ug/kg	
56-23-5	Carbon tetrachloride	ND	29	3.4	ug/kg	
108-90-7	Chlorobenzene	ND	29	2.3	ug/kg	
75-00-3	Chloroethane	ND	73	7.1	ug/kg	
67-66-3	Chloroform	ND	29	2.2	ug/kg	
74-87-3	Chloromethane	ND	73	3.9	ug/kg	
110-82-7	Cyclohexane	ND	29	4.6	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	29	8.0	ug/kg	
124-48-1	Dibromochloromethane	ND	29	3.0	ug/kg	
106-93-4	1,2-Dibromoethane	ND	15	1.9	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	15	1.8	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	15	2.3	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	15	3.3	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	73	5.3	ug/kg	
75-34-3	1,1-Dichloroethane	ND	15	2.1	ug/kg	
107-06-2	1,2-Dichloroethane	ND	15	2.0	ug/kg	
75-35-4	1,1-Dichloroethene	ND	15	8.7	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	15	11	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	15	8.7	ug/kg	
78-87-5	1,2-Dichloropropane	ND	29	3.5	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	29	1.7	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	29	2.6	ug/kg	
100-41-4	Ethylbenzene	ND	15	2.4	ug/kg	
76-13-1	Freon 113	ND	73	6.6	ug/kg	
591-78-6	2-Hexanone	ND	73	20	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-7-34	<b>Date Sampled:</b>	03/08/16
<b>Lab Sample ID:</b>	JC15742-2	<b>Date Received:</b>	03/09/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	6.3
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	29	1.6	ug/kg	
79-20-9	Methyl Acetate	ND	73	13	ug/kg	
108-87-2	Methylcyclohexane	ND	29	3.3	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	15	2.2	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	73	6.7	ug/kg	
75-09-2	Methylene chloride	ND	73	14	ug/kg	
100-42-5	Styrene	ND	29	2.6	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	29	2.6	ug/kg	
127-18-4	Tetrachloroethene	7.6	29	4.4	ug/kg	J
108-88-3	Toluene	ND	15	3.1	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	73	2.6	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	73	2.5	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	29	2.2	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	29	2.2	ug/kg	
79-01-6	Trichloroethene	ND	15	2.2	ug/kg	
75-69-4	Trichlorofluoromethane	ND	73	3.7	ug/kg	
75-01-4	Vinyl chloride	ND	29	2.9	ug/kg	
	m,p-Xylene	ND	15	5.2	ug/kg	
95-47-6	o-Xylene	ND	15	4.0	ug/kg	
1330-20-7	Xylene (total)	ND	15	4.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-122%
17060-07-0	1,2-Dichloroethane-D4	99%		68-124%
2037-26-5	Toluene-D8	98%		77-125%
460-00-4	4-Bromofluorobenzene	101%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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<b>Client Sample ID:</b>	MW-6-23	<b>Date Sampled:</b>	03/08/16
<b>Lab Sample ID:</b>	JC15742-3	<b>Date Received:</b>	03/09/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	6.2
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I211935.D	1	03/10/16	SJM	03/10/16 08:00	n/a	VI8494
Run #2							

Run #	Initial Weight
Run #1	4.8 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	203	170	38	ug/kg	
71-43-2	Benzene	ND	8.4	2.2	ug/kg	
74-97-5	Bromochloromethane	ND	84	5.2	ug/kg	
75-27-4	Bromodichloromethane	ND	34	2.6	ug/kg	
75-25-2	Bromoform	ND	84	4.0	ug/kg	
74-83-9	Bromomethane	ND	84	6.1	ug/kg	
78-93-3	2-Butanone (MEK)	ND	170	32	ug/kg	
75-15-0	Carbon disulfide	ND	34	3.8	ug/kg	
56-23-5	Carbon tetrachloride	ND	34	3.9	ug/kg	
108-90-7	Chlorobenzene	ND	34	2.6	ug/kg	
75-00-3	Chloroethane	ND	84	8.1	ug/kg	
67-66-3	Chloroform	ND	34	2.5	ug/kg	
74-87-3	Chloromethane	ND	84	4.4	ug/kg	
110-82-7	Cyclohexane	ND	34	5.3	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	34	9.1	ug/kg	
124-48-1	Dibromochloromethane	ND	34	3.4	ug/kg	
106-93-4	1,2-Dibromoethane	ND	17	2.2	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	17	2.0	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	17	2.6	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	17	3.8	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	84	6.1	ug/kg	
75-34-3	1,1-Dichloroethane	ND	17	2.4	ug/kg	
107-06-2	1,2-Dichloroethane	ND	17	2.3	ug/kg	
75-35-4	1,1-Dichloroethene	ND	17	9.9	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	17	13	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	17	10	ug/kg	
78-87-5	1,2-Dichloropropane	ND	34	4.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	34	2.0	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	34	3.0	ug/kg	
100-41-4	Ethylbenzene	10	17	2.7	ug/kg	J
76-13-1	Freon 113	ND	84	7.5	ug/kg	
591-78-6	2-Hexanone	ND	84	23	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b>	MW-6-23	<b>Date Sampled:</b>	03/08/16
<b>Lab Sample ID:</b>	JC15742-3	<b>Date Received:</b>	03/09/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	6.2
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	34	1.8	ug/kg	
79-20-9	Methyl Acetate	ND	84	14	ug/kg	
108-87-2	Methylcyclohexane	ND	34	3.8	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	17	2.6	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	84	7.7	ug/kg	
75-09-2	Methylene chloride	ND	84	16	ug/kg	
100-42-5	Styrene	ND	34	3.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	34	2.9	ug/kg	
127-18-4	Tetrachloroethene	ND	34	5.1	ug/kg	
108-88-3	Toluene	143	17	3.5	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	84	3.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	84	2.8	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	34	2.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	34	2.5	ug/kg	
79-01-6	Trichloroethene	ND	17	2.5	ug/kg	
75-69-4	Trichlorofluoromethane	ND	84	4.2	ug/kg	
75-01-4	Vinyl chloride	ND	34	3.3	ug/kg	
	m,p-Xylene	42.3	17	5.9	ug/kg	
95-47-6	o-Xylene	14.1	17	4.6	ug/kg	J
1330-20-7	Xylene (total)	56.4	17	4.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-122%
17060-07-0	1,2-Dichloroethane-D4	98%		68-124%
2037-26-5	Toluene-D8	98%		77-125%
460-00-4	4-Bromofluorobenzene	103%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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<b>Client Sample ID:</b>	MW-6-30	<b>Date Sampled:</b>	03/08/16
<b>Lab Sample ID:</b>	JC15742-4	<b>Date Received:</b>	03/09/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	6.2
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I211936.D	1	03/10/16	SJM	03/10/16 08:00	n/a	VI8494
Run #2							

	Initial Weight
Run #1	3.6 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	283	220	50	ug/kg	
71-43-2	Benzene	ND	11	3.0	ug/kg	
74-97-5	Bromochloromethane	ND	110	6.9	ug/kg	
75-27-4	Bromodichloromethane	ND	45	3.5	ug/kg	
75-25-2	Bromoform	ND	110	5.3	ug/kg	
74-83-9	Bromomethane	ND	110	8.2	ug/kg	
78-93-3	2-Butanone (MEK)	ND	220	43	ug/kg	
75-15-0	Carbon disulfide	ND	45	5.1	ug/kg	
56-23-5	Carbon tetrachloride	ND	45	5.2	ug/kg	
108-90-7	Chlorobenzene	ND	45	3.5	ug/kg	
75-00-3	Chloroethane	ND	110	11	ug/kg	
67-66-3	Chloroform	ND	45	3.3	ug/kg	
74-87-3	Chloromethane	ND	110	5.9	ug/kg	
110-82-7	Cyclohexane	ND	45	7.1	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	45	12	ug/kg	
124-48-1	Dibromochloromethane	ND	45	4.6	ug/kg	
106-93-4	1,2-Dibromoethane	ND	22	2.9	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	22	2.7	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	22	3.5	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	22	5.0	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	110	8.1	ug/kg	
75-34-3	1,1-Dichloroethane	ND	22	3.2	ug/kg	
107-06-2	1,2-Dichloroethane	ND	22	3.0	ug/kg	
75-35-4	1,1-Dichloroethene	ND	22	13	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	22	17	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	22	13	ug/kg	
78-87-5	1,2-Dichloropropane	ND	45	5.3	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	45	2.6	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	45	4.0	ug/kg	
100-41-4	Ethylbenzene	8.8	22	3.7	ug/kg	J
76-13-1	Freon 113	ND	110	10	ug/kg	
591-78-6	2-Hexanone	ND	110	30	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-6-30	<b>Date Sampled:</b>	03/08/16
<b>Lab Sample ID:</b>	JC15742-4	<b>Date Received:</b>	03/09/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	6.2
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	45	2.4	ug/kg	
79-20-9	Methyl Acetate	ND	110	19	ug/kg	
108-87-2	Methylcyclohexane	ND	45	5.1	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	22	3.4	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	110	10	ug/kg	
75-09-2	Methylene chloride	ND	110	22	ug/kg	
100-42-5	Styrene	ND	45	4.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	45	3.9	ug/kg	
127-18-4	Tetrachloroethene	ND	45	6.7	ug/kg	
108-88-3	Toluene	124	22	4.7	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	110	3.9	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	110	3.8	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	45	3.3	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	45	3.3	ug/kg	
79-01-6	Trichloroethene	ND	22	3.3	ug/kg	
75-69-4	Trichlorofluoromethane	ND	110	5.6	ug/kg	
75-01-4	Vinyl chloride	ND	45	4.4	ug/kg	
	m,p-Xylene	33.3	22	7.9	ug/kg	
95-47-6	o-Xylene	10.3	22	6.1	ug/kg	J
1330-20-7	Xylene (total)	43.6	22	6.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-122%
17060-07-0	1,2-Dichloroethane-D4	99%		68-124%
2037-26-5	Toluene-D8	98%		77-125%
460-00-4	4-Bromofluorobenzene	103%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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<b>Client Sample ID:</b>	MW-5-22.5	<b>Date Sampled:</b>	03/08/16
<b>Lab Sample ID:</b>	JC15742-5	<b>Date Received:</b>	03/09/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	79.7
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I211937.D	1	03/10/16	SJM	03/10/16 08:00	n/a	VI8494
Run #2							

	Initial Weight
Run #1	4.8 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	12.9	13	2.9	ug/kg	J
71-43-2	Benzene	ND	0.65	0.17	ug/kg	
74-97-5	Bromochloromethane	ND	6.5	0.40	ug/kg	
75-27-4	Bromodichloromethane	ND	2.6	0.20	ug/kg	
75-25-2	Bromoform	ND	6.5	0.31	ug/kg	
74-83-9	Bromomethane	ND	6.5	0.48	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	2.5	ug/kg	
75-15-0	Carbon disulfide	ND	2.6	0.30	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.6	0.30	ug/kg	
108-90-7	Chlorobenzene	ND	2.6	0.20	ug/kg	
75-00-3	Chloroethane	ND	6.5	0.63	ug/kg	
67-66-3	Chloroform	ND	2.6	0.19	ug/kg	
74-87-3	Chloromethane	ND	6.5	0.34	ug/kg	
110-82-7	Cyclohexane	ND	2.6	0.41	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.6	0.71	ug/kg	
124-48-1	Dibromochloromethane	ND	2.6	0.27	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.3	0.17	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.3	0.16	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.3	0.21	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.3	0.29	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.5	0.47	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.3	0.18	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.3	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.3	0.77	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.3	1.0	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.3	0.78	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.6	0.31	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.6	0.15	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.6	0.23	ug/kg	
100-41-4	Ethylbenzene	5.3	1.3	0.21	ug/kg	
76-13-1	Freon 113	ND	6.5	0.59	ug/kg	
591-78-6	2-Hexanone	ND	6.5	1.8	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-5-22.5	<b>Date Sampled:</b>	03/08/16
<b>Lab Sample ID:</b>	JC15742-5	<b>Date Received:</b>	03/09/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	79.7
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.6	0.14	ug/kg	
79-20-9	Methyl Acetate	ND	6.5	1.1	ug/kg	
108-87-2	Methylcyclohexane	ND	2.6	0.30	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.5	0.60	ug/kg	
75-09-2	Methylene chloride	ND	6.5	1.3	ug/kg	
100-42-5	Styrene	ND	2.6	0.23	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.6	0.23	ug/kg	
127-18-4	Tetrachloroethene	11.4	2.6	0.39	ug/kg	
108-88-3	Toluene	117	1.3	0.27	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.5	0.23	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.5	0.22	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.6	0.19	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.6	0.19	ug/kg	
79-01-6	Trichloroethene	ND	1.3	0.19	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.5	0.33	ug/kg	
75-01-4	Vinyl chloride	ND	2.6	0.26	ug/kg	
	m,p-Xylene	20.9	1.3	0.46	ug/kg	
95-47-6	o-Xylene	5.6	1.3	0.36	ug/kg	
1330-20-7	Xylene (total)	26.5	1.3	0.36	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-122%
17060-07-0	1,2-Dichloroethane-D4	101%		68-124%
2037-26-5	Toluene-D8	97%		77-125%
460-00-4	4-Bromofluorobenzene	102%		72-130%

ND = Not detected MDL = Method Detection Limit

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J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	MW-5-30	<b>Date Sampled:</b>	03/08/16
<b>Lab Sample ID:</b>	JC15742-6	<b>Date Received:</b>	03/09/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	79.7
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I211938.D	1	03/10/16	SJM	03/10/16 08:00	n/a	VI8494
Run #2	D238880.D	1	03/14/16	AJ	03/10/16 08:00	n/a	VD9736

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.8 g		
Run #2	4.2 g	5.0 ml	100 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	2.9	ug/kg	
71-43-2	Benzene	ND	0.65	0.17	ug/kg	
74-97-5	Bromochloromethane	ND	6.5	0.40	ug/kg	
75-27-4	Bromodichloromethane	ND	2.6	0.20	ug/kg	
75-25-2	Bromoform	ND	6.5	0.31	ug/kg	
74-83-9	Bromomethane	ND	6.5	0.48	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	2.5	ug/kg	
75-15-0	Carbon disulfide	ND	2.6	0.30	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.6	0.30	ug/kg	
108-90-7	Chlorobenzene	ND	2.6	0.20	ug/kg	
75-00-3	Chloroethane	ND	6.5	0.63	ug/kg	
67-66-3	Chloroform	ND	2.6	0.19	ug/kg	
74-87-3	Chloromethane	ND	6.5	0.34	ug/kg	
110-82-7	Cyclohexane	ND	2.6	0.41	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.6	0.71	ug/kg	
124-48-1	Dibromochloromethane	ND	2.6	0.27	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.3	0.17	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.3	0.16	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.3	0.21	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.3	0.29	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.5	0.47	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.3	0.18	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.3	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.3	0.77	ug/kg	
156-59-2	cis-1,2-Dichloroethene	2440 <sup>a</sup>	87	68	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.3	0.78	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.6	0.31	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.6	0.15	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.6	0.23	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.21	ug/kg	
76-13-1	Freon 113	ND	6.5	0.59	ug/kg	
591-78-6	2-Hexanone	ND	6.5	1.8	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b>	MW-5-30	<b>Date Sampled:</b>	03/08/16
<b>Lab Sample ID:</b>	JC15742-6	<b>Date Received:</b>	03/09/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	79.7
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.6	0.14	ug/kg	
79-20-9	Methyl Acetate	ND	6.5	1.1	ug/kg	
108-87-2	Methylcyclohexane	ND	2.6	0.30	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.5	0.60	ug/kg	
75-09-2	Methylene chloride	ND	6.5	1.3	ug/kg	
100-42-5	Styrene	ND	2.6	0.23	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.6	0.23	ug/kg	
127-18-4	Tetrachloroethene	2740 <sup>a</sup>	170	26	ug/kg	
108-88-3	Toluene	ND	1.3	0.27	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.5	0.23	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.5	0.22	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.6	0.19	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.6	0.19	ug/kg	
79-01-6	Trichloroethene	101	1.3	0.19	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.5	0.33	ug/kg	
75-01-4	Vinyl chloride	ND	2.6	0.26	ug/kg	
	m,p-Xylene	ND	1.3	0.46	ug/kg	
95-47-6	o-Xylene	ND	1.3	0.36	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.36	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%	107%	70-122%
17060-07-0	1,2-Dichloroethane-D4	98%	109%	68-124%
2037-26-5	Toluene-D8	97%	99%	77-125%
460-00-4	4-Bromofluorobenzene	102%	98%	72-130%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

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E = Indicates value exceeds calibration range

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B = Indicates analyte found in associated method blank

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## Report of Analysis

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<b>Client Sample ID:</b>	MW-5-35	<b>Date Sampled:</b>	03/08/16
<b>Lab Sample ID:</b>	JC15742-7	<b>Date Received:</b>	03/09/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	79.7
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I211939.D	1	03/10/16	SJM	03/10/16 08:00	n/a	VI8494
Run #2	D238881.D	1	03/14/16	AJ	03/10/16 08:00	n/a	VD9736

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.8 g		
Run #2	4.0 g	5.0 ml	100 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	2.9	ug/kg	
71-43-2	Benzene	ND	0.65	0.17	ug/kg	
74-97-5	Bromochloromethane	ND	6.5	0.40	ug/kg	
75-27-4	Bromodichloromethane	ND	2.6	0.20	ug/kg	
75-25-2	Bromoform	ND	6.5	0.31	ug/kg	
74-83-9	Bromomethane	ND	6.5	0.48	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	2.5	ug/kg	
75-15-0	Carbon disulfide	ND	2.6	0.30	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.6	0.30	ug/kg	
108-90-7	Chlorobenzene	ND	2.6	0.20	ug/kg	
75-00-3	Chloroethane	ND	6.5	0.63	ug/kg	
67-66-3	Chloroform	ND	2.6	0.19	ug/kg	
74-87-3	Chloromethane	ND	6.5	0.34	ug/kg	
110-82-7	Cyclohexane	ND	2.6	0.41	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.6	0.71	ug/kg	
124-48-1	Dibromochloromethane	ND	2.6	0.27	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.3	0.17	ug/kg	
95-50-1	1,2-Dichlorobenzene	0.31	1.3	0.16	ug/kg	J
541-73-1	1,3-Dichlorobenzene	ND	1.3	0.21	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.3	0.29	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.5	0.47	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.3	0.18	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.3	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	2.5	1.3	0.77	ug/kg	
156-59-2	cis-1,2-Dichloroethene	3670 <sup>a</sup>	91	71	ug/kg	
156-60-5	trans-1,2-Dichloroethene	4.4	1.3	0.78	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.6	0.31	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.6	0.15	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.6	0.23	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.21	ug/kg	
76-13-1	Freon 113	ND	6.5	0.59	ug/kg	
591-78-6	2-Hexanone	ND	6.5	1.8	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

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N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-5-35	<b>Date Sampled:</b>	03/08/16
<b>Lab Sample ID:</b>	JC15742-7	<b>Date Received:</b>	03/09/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	79.7
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	0.15	2.6	0.14	ug/kg	J
79-20-9	Methyl Acetate	ND	6.5	1.1	ug/kg	
108-87-2	Methylcyclohexane	ND	2.6	0.30	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.5	0.60	ug/kg	
75-09-2	Methylene chloride	ND	6.5	1.3	ug/kg	
100-42-5	Styrene	ND	2.6	0.23	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.6	0.23	ug/kg	
127-18-4	Tetrachloroethene	3350 <sup>a</sup>	180	27	ug/kg	
108-88-3	Toluene	ND	1.3	0.27	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.5	0.23	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.5	0.22	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.6	0.19	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.6	0.19	ug/kg	
79-01-6	Trichloroethene	636 <sup>a</sup>	91	13	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.5	0.33	ug/kg	
75-01-4	Vinyl chloride	ND	2.6	0.26	ug/kg	
	m,p-Xylene	ND	1.3	0.46	ug/kg	
95-47-6	o-Xylene	ND	1.3	0.36	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.36	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%	105%	70-122%
17060-07-0	1,2-Dichloroethane-D4	97%	109%	68-124%
2037-26-5	Toluene-D8	98%	97%	77-125%
460-00-4	4-Bromofluorobenzene	103%	99%	72-130%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

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B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	MW-5	<b>Date Sampled:</b>	03/09/16
<b>Lab Sample ID:</b>	JC15742-8	<b>Date Received:</b>	03/09/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	79.7
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Solids, Percent	79.7		%	1	03/16/16 15:30	KP	SM2540 G-97

RL = Reporting Limit



Sample Results

Report of Analysis

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## Report of Analysis

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<b>Client Sample ID:</b>	TRIP BLANK	<b>Date Sampled:</b>	03/10/16
<b>Lab Sample ID:</b>	JC16088-1	<b>Date Received:</b>	03/11/16
<b>Matrix:</b>	AQ - Trip Blank Soil	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204157.D	1	03/15/16	NH	n/a	n/a	VU9383
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	

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J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b>	TRIP BLANK	<b>Date Sampled:</b>	03/10/16
<b>Lab Sample ID:</b>	JC16088-1	<b>Date Received:</b>	03/11/16
<b>Matrix:</b>	AQ - Trip Blank Soil	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	104%		78-117%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS Accutest LabLink@945686 14:25 10-Feb-2017

## Report of Analysis

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<b>Client Sample ID:</b>	FIELD BLANK	<b>Date Sampled:</b>	03/10/16
<b>Lab Sample ID:</b>	JC16088-2	<b>Date Received:</b>	03/11/16
<b>Matrix:</b>	AQ - Field Blank Soil	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U204158.D	1	03/15/16	NH	n/a	n/a	VU9383
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	0.50	0.24	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.37	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.23	ug/l	
75-25-2	Bromoform	ND	1.0	0.23	ug/l	
74-83-9	Bromomethane	ND	2.0	0.42	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	5.6	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.25	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.19	ug/l	
75-00-3	Chloroethane	ND	1.0	0.34	ug/l	
67-66-3	Chloroform	ND	1.0	0.19	ug/l	
74-87-3	Chloromethane	ND	1.0	0.41	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.28	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.99	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.23	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.23	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.27	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.90	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.17	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.18	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.51	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.27	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.65	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.39	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/l	
76-13-1	Freon 113	ND	5.0	0.52	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.7	ug/l	

ND = Not detected MDL = Method Detection Limit

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E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b>	FIELD BLANK	<b>Date Sampled:</b>	03/10/16
<b>Lab Sample ID:</b>	JC16088-2	<b>Date Received:</b>	03/11/16
<b>Matrix:</b>	AQ - Field Blank Soil	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.23	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.9	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.73	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.40	ug/l	
108-88-3	Toluene	ND	1.0	0.16	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.23	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.21	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.21	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.43	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.15	ug/l	
	m,p-Xylene	ND	1.0	0.38	ug/l	
95-47-6	o-Xylene	ND	1.0	0.17	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		76-120%
17060-07-0	1,2-Dichloroethane-D4	107%		73-122%
2037-26-5	Toluene-D8	99%		84-119%
460-00-4	4-Bromofluorobenzene	105%		78-117%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	MW-6	<b>Date Sampled:</b>	03/10/16
<b>Lab Sample ID:</b>	JC16088-3	<b>Date Received:</b>	03/11/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	93.8
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	6.2		%	1	03/14/16 17:00	SP	SM2540 G-97

RL = Reporting Limit

Report of Analysis

<b>Client Sample ID:</b>	MW-7	<b>Date Sampled:</b>	03/10/16
<b>Lab Sample ID:</b>	JC16088-4	<b>Date Received:</b>	03/11/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	93.7
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	6.3		%	1	03/14/16 17:00	SP	SM2540 G-97

RL = Reporting Limit



Sample Results

Report of Analysis



## Report of Analysis

<b>Client Sample ID:</b>	MW-9 (19.4')	<b>Date Sampled:</b>	06/22/16
<b>Lab Sample ID:</b>	JC22892-1	<b>Date Received:</b>	06/24/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	76.1
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y164284.D	1	06/27/16	PS	06/24/16 10:00	n/a	VY7164
Run #2							

Run #	Initial Weight
Run #1	5.3 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	7.7	12	2.3	ug/kg	J
71-43-2	Benzene	ND	0.62	0.15	ug/kg	
74-97-5	Bromochloromethane	ND	6.2	0.40	ug/kg	
75-27-4	Bromodichloromethane	ND	2.5	0.19	ug/kg	
75-25-2	Bromoform	ND	6.2	0.33	ug/kg	
74-83-9	Bromomethane	ND	6.2	0.60	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	2.2	ug/kg	
75-15-0	Carbon disulfide	ND	2.5	0.21	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.5	0.21	ug/kg	
108-90-7	Chlorobenzene	ND	2.5	0.20	ug/kg	
75-00-3	Chloroethane	ND	6.2	0.53	ug/kg	
67-66-3	Chloroform	ND	2.5	0.30	ug/kg	
74-87-3	Chloromethane	ND	6.2	0.26	ug/kg	
110-82-7	Cyclohexane	ND	2.5	0.68	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.60	ug/kg	
124-48-1	Dibromochloromethane	ND	2.5	0.19	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.2	0.30	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.2	0.21	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.2	0.17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.2	0.19	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.2	0.68	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.2	0.23	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.2	0.21	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.2	0.19	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.2	0.54	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.2	0.20	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.5	0.38	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	0.24	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	0.27	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.18	ug/kg	
76-13-1	Freon 113	ND	6.2	0.60	ug/kg	
591-78-6	2-Hexanone	ND	6.2	1.7	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-9 (19.4')	<b>Date Sampled:</b>	06/22/16
<b>Lab Sample ID:</b>	JC22892-1	<b>Date Received:</b>	06/24/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	76.1
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.5	0.19	ug/kg	
79-20-9	Methyl Acetate	ND	6.2	2.5	ug/kg	
108-87-2	Methylcyclohexane	ND	2.5	0.63	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.2	0.33	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.2	1.1	ug/kg	
75-09-2	Methylene chloride	1.5	6.2	0.42	ug/kg	J
100-42-5	Styrene	ND	2.5	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	0.30	ug/kg	
127-18-4	Tetrachloroethene	ND	2.5	0.35	ug/kg	
108-88-3	Toluene	ND	1.2	0.15	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.2	0.28	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.2	0.23	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.21	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.5	0.40	ug/kg	
79-01-6	Trichloroethene	ND	1.2	0.24	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.2	0.78	ug/kg	
75-01-4	Vinyl chloride	ND	2.5	0.25	ug/kg	
	m,p-Xylene	ND	1.2	0.27	ug/kg	
95-47-6	o-Xylene	ND	1.2	0.25	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-122%
17060-07-0	1,2-Dichloroethane-D4	90%		68-124%
2037-26-5	Toluene-D8	96%		77-125%
460-00-4	4-Bromofluorobenzene	100%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	MW-9 (30')						
<b>Lab Sample ID:</b>	JC22892-2					<b>Date Sampled:</b>	06/22/16
<b>Matrix:</b>	SO - Soil					<b>Date Received:</b>	06/24/16
<b>Method:</b>	SW846 8260C SW846 5035					<b>Percent Solids:</b>	85.1
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY						

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y164251.D	1	06/25/16	PS	06/24/16 10:00	n/a	VY7163
Run #2							

	Initial Weight
Run #1	5.4 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	2.0	ug/kg	
71-43-2	Benzene	ND	0.54	0.13	ug/kg	
74-97-5	Bromochloromethane	ND	5.4	0.35	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.17	ug/kg	
75-25-2	Bromoform	ND	5.4	0.29	ug/kg	
74-83-9	Bromomethane	ND	5.4	0.53	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	1.9	ug/kg	
75-15-0	Carbon disulfide	ND	2.2	0.18	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.2	0.18	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.4	0.47	ug/kg	
67-66-3	Chloroform	ND	2.2	0.26	ug/kg	
74-87-3	Chloromethane	ND	5.4	0.23	ug/kg	
110-82-7	Cyclohexane	ND	2.2	0.59	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.2	0.53	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.16	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.1	0.26	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.1	0.19	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.1	0.15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.1	0.17	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.4	0.59	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.1	0.20	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.1	0.19	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.1	0.17	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.82	1.1	0.48	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	ND	1.1	0.17	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.34	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.21	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.24	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.16	ug/kg	
76-13-1	Freon 113	ND	5.4	0.53	ug/kg	
591-78-6	2-Hexanone	ND	5.4	1.5	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b>	MW-9 (30')	<b>Date Sampled:</b>	06/22/16
<b>Lab Sample ID:</b>	JC22892-2	<b>Date Received:</b>	06/24/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.1
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.2	0.17	ug/kg	
79-20-9	Methyl Acetate	ND	5.4	2.2	ug/kg	
108-87-2	Methylcyclohexane	ND	2.2	0.55	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.1	0.29	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.4	0.92	ug/kg	
75-09-2	Methylene chloride	1.2	5.4	0.37	ug/kg	J
100-42-5	Styrene	ND	2.2	0.16	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.26	ug/kg	
127-18-4	Tetrachloroethene	2.8	2.2	0.31	ug/kg	
108-88-3	Toluene	ND	1.1	0.14	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.4	0.25	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.4	0.20	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.18	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.35	ug/kg	
79-01-6	Trichloroethene	ND	1.1	0.21	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.4	0.68	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	0.22	ug/kg	
	m,p-Xylene	ND	1.1	0.24	ug/kg	
95-47-6	o-Xylene	ND	1.1	0.22	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.22	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-122%
17060-07-0	1,2-Dichloroethane-D4	96%		68-124%
2037-26-5	Toluene-D8	99%		77-125%
460-00-4	4-Bromofluorobenzene	99%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	MW-10 (19.5')	<b>Date Sampled:</b>	06/22/16
<b>Lab Sample ID:</b>	JC22892-3	<b>Date Received:</b>	06/24/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	78.0
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y164285.D	1	06/27/16	PS	06/24/16 11:00	n/a	VY7164
Run #2							

	Initial Weight
Run #1	4.4 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	15	2.7	ug/kg	
71-43-2	Benzene	ND	0.73	0.17	ug/kg	
74-97-5	Bromochloromethane	ND	7.3	0.46	ug/kg	
75-27-4	Bromodichloromethane	ND	2.9	0.22	ug/kg	
75-25-2	Bromoform	ND	7.3	0.39	ug/kg	
74-83-9	Bromomethane	ND	7.3	0.71	ug/kg	
78-93-3	2-Butanone (MEK)	ND	15	2.6	ug/kg	
75-15-0	Carbon disulfide	ND	2.9	0.25	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.9	0.24	ug/kg	
108-90-7	Chlorobenzene	ND	2.9	0.24	ug/kg	
75-00-3	Chloroethane	ND	7.3	0.63	ug/kg	
67-66-3	Chloroform	ND	2.9	0.35	ug/kg	
74-87-3	Chloromethane	ND	7.3	0.31	ug/kg	
110-82-7	Cyclohexane	ND	2.9	0.80	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.9	0.71	ug/kg	
124-48-1	Dibromochloromethane	ND	2.9	0.22	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.5	0.35	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.5	0.25	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.5	0.20	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.5	0.22	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	7.3	0.79	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.5	0.27	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.5	0.25	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.5	0.22	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.5	0.64	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.5	0.23	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.9	0.45	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.9	0.29	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.9	0.32	ug/kg	
100-41-4	Ethylbenzene	ND	1.5	0.22	ug/kg	
76-13-1	Freon 113	ND	7.3	0.71	ug/kg	
591-78-6	2-Hexanone	ND	7.3	2.0	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-10 (19.5')	<b>Date Sampled:</b>	06/22/16
<b>Lab Sample ID:</b>	JC22892-3	<b>Date Received:</b>	06/24/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	78.0
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.9	0.22	ug/kg	
79-20-9	Methyl Acetate	ND	7.3	3.0	ug/kg	
108-87-2	Methylcyclohexane	ND	2.9	0.74	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.5	0.39	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	7.3	1.2	ug/kg	
75-09-2	Methylene chloride	1.2	7.3	0.50	ug/kg	J
100-42-5	Styrene	ND	2.9	0.21	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.9	0.35	ug/kg	
127-18-4	Tetrachloroethene	0.77	2.9	0.41	ug/kg	J
108-88-3	Toluene	ND	1.5	0.18	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	7.3	0.33	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	7.3	0.27	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.9	0.24	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.9	0.47	ug/kg	
79-01-6	Trichloroethene	ND	1.5	0.28	ug/kg	
75-69-4	Trichlorofluoromethane	ND	7.3	0.92	ug/kg	
75-01-4	Vinyl chloride	ND	2.9	0.29	ug/kg	
	m,p-Xylene	ND	1.5	0.32	ug/kg	
95-47-6	o-Xylene	ND	1.5	0.29	ug/kg	
1330-20-7	Xylene (total)	ND	1.5	0.29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-122%
17060-07-0	1,2-Dichloroethane-D4	91%		68-124%
2037-26-5	Toluene-D8	97%		77-125%
460-00-4	4-Bromofluorobenzene	99%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



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## Report of Analysis

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<b>Client Sample ID:</b>	MW-10 (30')	<b>Date Sampled:</b>	06/22/16
<b>Lab Sample ID:</b>	JC22892-4	<b>Date Received:</b>	06/24/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	79.3
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y164263.D	1	06/25/16	PS	06/24/16 11:00	n/a	VY7163
Run #2							

Run #	Initial Weight
Run #1	4.8 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	2.5	ug/kg	
71-43-2	Benzene	ND	0.66	0.16	ug/kg	
74-97-5	Bromochloromethane	ND	6.6	0.42	ug/kg	
75-27-4	Bromodichloromethane	ND	2.6	0.20	ug/kg	
75-25-2	Bromoform	ND	6.6	0.35	ug/kg	
74-83-9	Bromomethane	ND	6.6	0.64	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	2.3	ug/kg	
75-15-0	Carbon disulfide	ND	2.6	0.22	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.6	0.22	ug/kg	
108-90-7	Chlorobenzene	ND	2.6	0.21	ug/kg	
75-00-3	Chloroethane	ND	6.6	0.56	ug/kg	
67-66-3	Chloroform	ND	2.6	0.31	ug/kg	
74-87-3	Chloromethane	ND	6.6	0.28	ug/kg	
110-82-7	Cyclohexane	ND	2.6	0.72	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.6	0.64	ug/kg	
124-48-1	Dibromochloromethane	ND	2.6	0.20	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.3	0.32	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.3	0.22	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.3	0.18	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.3	0.20	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.6	0.72	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.3	0.25	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.3	0.22	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.3	0.20	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.3	0.58	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.3	0.21	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.6	0.41	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.6	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.6	0.29	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.20	ug/kg	
76-13-1	Freon 113	ND	6.6	0.64	ug/kg	
591-78-6	2-Hexanone	ND	6.6	1.8	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-10 (30')	<b>Date Sampled:</b>	06/22/16
<b>Lab Sample ID:</b>	JC22892-4	<b>Date Received:</b>	06/24/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	79.3
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.6	0.20	ug/kg	
79-20-9	Methyl Acetate	ND	6.6	2.7	ug/kg	
108-87-2	Methylcyclohexane	ND	2.6	0.66	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.35	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.6	1.1	ug/kg	
75-09-2	Methylene chloride	1.2	6.6	0.45	ug/kg	J
100-42-5	Styrene	ND	2.6	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.6	0.31	ug/kg	
127-18-4	Tetrachloroethene	1.1	2.6	0.37	ug/kg	J
108-88-3	Toluene	ND	1.3	0.16	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.6	0.30	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.6	0.24	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.6	0.22	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.6	0.42	ug/kg	
79-01-6	Trichloroethene	ND	1.3	0.25	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.6	0.83	ug/kg	
75-01-4	Vinyl chloride	ND	2.6	0.27	ug/kg	
	m,p-Xylene	ND	1.3	0.29	ug/kg	
95-47-6	o-Xylene	ND	1.3	0.27	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-122%
17060-07-0	1,2-Dichloroethane-D4	94%		68-124%
2037-26-5	Toluene-D8	99%		77-125%
460-00-4	4-Bromofluorobenzene	99%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	MW-8 (19.5')	<b>Date Sampled:</b>	06/22/16
<b>Lab Sample ID:</b>	JC22892-5	<b>Date Received:</b>	06/24/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	79.8
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y164257.D	1	06/25/16	PS	06/24/16 11:00	n/a	VY7163
Run #2							

Run #	Initial Weight
Run #1	5.0 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	2.3	ug/kg	
71-43-2	Benzene	ND	0.63	0.15	ug/kg	
74-97-5	Bromochloromethane	ND	6.3	0.40	ug/kg	
75-27-4	Bromodichloromethane	ND	2.5	0.19	ug/kg	
75-25-2	Bromoform	ND	6.3	0.33	ug/kg	
74-83-9	Bromomethane	ND	6.3	0.61	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	2.2	ug/kg	
75-15-0	Carbon disulfide	ND	2.5	0.21	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.5	0.21	ug/kg	
108-90-7	Chlorobenzene	ND	2.5	0.20	ug/kg	
75-00-3	Chloroethane	ND	6.3	0.54	ug/kg	
67-66-3	Chloroform	ND	2.5	0.30	ug/kg	
74-87-3	Chloromethane	ND	6.3	0.26	ug/kg	
110-82-7	Cyclohexane	ND	2.5	0.68	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.61	ug/kg	
124-48-1	Dibromochloromethane	ND	2.5	0.19	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.3	0.30	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.3	0.21	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.3	0.17	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.3	0.19	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.3	0.68	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.3	0.23	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.3	0.21	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.3	0.19	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.3	0.55	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.3	0.20	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.5	0.39	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.5	0.25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.5	0.28	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.19	ug/kg	
76-13-1	Freon 113	ND	6.3	0.61	ug/kg	
591-78-6	2-Hexanone	ND	6.3	1.7	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-8 (19.5')	<b>Date Sampled:</b>	06/22/16
<b>Lab Sample ID:</b>	JC22892-5	<b>Date Received:</b>	06/24/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	79.8
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.5	0.19	ug/kg	
79-20-9	Methyl Acetate	ND	6.3	2.5	ug/kg	
108-87-2	Methylcyclohexane	ND	2.5	0.63	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.33	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.3	1.1	ug/kg	
75-09-2	Methylene chloride	1.2	6.3	0.43	ug/kg	J
100-42-5	Styrene	ND	2.5	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.5	0.30	ug/kg	
127-18-4	Tetrachloroethene	ND	2.5	0.35	ug/kg	
108-88-3	Toluene	ND	1.3	0.16	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.3	0.28	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.3	0.23	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.21	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.5	0.40	ug/kg	
79-01-6	Trichloroethene	ND	1.3	0.24	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.3	0.79	ug/kg	
75-01-4	Vinyl chloride	ND	2.5	0.25	ug/kg	
	m,p-Xylene	ND	1.3	0.27	ug/kg	
95-47-6	o-Xylene	ND	1.3	0.25	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-122%
17060-07-0	1,2-Dichloroethane-D4	95%		68-124%
2037-26-5	Toluene-D8	100%		77-125%
460-00-4	4-Bromofluorobenzene	100%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	MW-8 (30')						
<b>Lab Sample ID:</b>	JC22892-6					<b>Date Sampled:</b>	06/22/16
<b>Matrix:</b>	SO - Soil					<b>Date Received:</b>	06/24/16
<b>Method:</b>	SW846 8260C SW846 5035					<b>Percent Solids:</b>	81.1
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y164286.D	1	06/27/16	PS	06/24/16 11:00	n/a	VY7164
Run #2							

	Initial Weight
Run #1	5.5 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	29.6	11	2.1	ug/kg	
71-43-2	Benzene	ND	0.56	0.13	ug/kg	
74-97-5	Bromochloromethane	ND	5.6	0.36	ug/kg	
75-27-4	Bromodichloromethane	ND	2.2	0.17	ug/kg	
75-25-2	Bromoform	ND	5.6	0.30	ug/kg	
74-83-9	Bromomethane	ND	5.6	0.54	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	2.0	ug/kg	
75-15-0	Carbon disulfide	ND	2.2	0.19	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.2	0.19	ug/kg	
108-90-7	Chlorobenzene	ND	2.2	0.18	ug/kg	
75-00-3	Chloroethane	ND	5.6	0.48	ug/kg	
67-66-3	Chloroform	ND	2.2	0.27	ug/kg	
74-87-3	Chloromethane	ND	5.6	0.24	ug/kg	
110-82-7	Cyclohexane	ND	2.2	0.61	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.2	0.54	ug/kg	
124-48-1	Dibromochloromethane	ND	2.2	0.17	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.1	0.27	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.1	0.19	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.1	0.15	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.1	0.17	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.6	0.61	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.1	0.21	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.1	0.19	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.1	0.17	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.1	0.49	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.1	0.18	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.2	0.35	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.2	0.22	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.2	0.25	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.17	ug/kg	
76-13-1	Freon 113	ND	5.6	0.54	ug/kg	
591-78-6	2-Hexanone	ND	5.6	1.6	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-8 (30')	<b>Date Sampled:</b>	06/22/16
<b>Lab Sample ID:</b>	JC22892-6	<b>Date Received:</b>	06/24/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	81.1
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.2	0.17	ug/kg	
79-20-9	Methyl Acetate	ND	5.6	2.3	ug/kg	
108-87-2	Methylcyclohexane	ND	2.2	0.57	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.1	0.30	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.6	0.95	ug/kg	
75-09-2	Methylene chloride	0.51	5.6	0.38	ug/kg	J
100-42-5	Styrene	ND	2.2	0.16	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.2	0.27	ug/kg	
127-18-4	Tetrachloroethene	0.48	2.2	0.31	ug/kg	J
108-88-3	Toluene	ND	1.1	0.14	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.6	0.25	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.6	0.20	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.2	0.19	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.2	0.36	ug/kg	
79-01-6	Trichloroethene	ND	1.1	0.21	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.6	0.71	ug/kg	
75-01-4	Vinyl chloride	ND	2.2	0.23	ug/kg	
	m,p-Xylene	ND	1.1	0.25	ug/kg	
95-47-6	o-Xylene	ND	1.1	0.23	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-122%
17060-07-0	1,2-Dichloroethane-D4	91%		68-124%
2037-26-5	Toluene-D8	97%		77-125%
460-00-4	4-Bromofluorobenzene	101%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



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## Report of Analysis

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<b>Client Sample ID:</b>	MW-51 (20')	
<b>Lab Sample ID:</b>	JC22892-7	<b>Date Sampled:</b> 06/23/16
<b>Matrix:</b>	SO - Soil	<b>Date Received:</b> 06/24/16
<b>Method:</b>	SW846 8260C SW846 5035	<b>Percent Solids:</b> 80.6
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y164280.D	1	06/27/16	PS	06/24/16 11:00	n/a	VY7164
Run #2	E236298.D	1	06/29/16	TDN	06/24/16 11:00	n/a	VE10266

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.2 g		
Run #2	4.5 g	5.0 ml	100 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	2.2	ug/kg	
71-43-2	Benzene	ND	0.60	0.14	ug/kg	
74-97-5	Bromochloromethane	ND	6.0	0.38	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.18	ug/kg	
75-25-2	Bromoform	ND	6.0	0.32	ug/kg	
74-83-9	Bromomethane	ND	6.0	0.58	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	2.1	ug/kg	
75-15-0	Carbon disulfide	ND	2.4	0.20	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	0.20	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	6.0	0.51	ug/kg	
67-66-3	Chloroform	ND	2.4	0.28	ug/kg	
74-87-3	Chloromethane	ND	6.0	0.25	ug/kg	
110-82-7	Cyclohexane	ND	2.4	0.65	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.4	0.58	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.18	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.2	0.29	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.2	0.20	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.2	0.16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.2	0.18	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.0	0.65	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.2	0.22	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.2	0.20	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.2	0.18	ug/kg	
156-59-2	cis-1,2-Dichloroethene	30.8	1.2	0.52	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.2	0.19	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.37	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.26	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.18	ug/kg	
76-13-1	Freon 113	ND	6.0	0.58	ug/kg	
591-78-6	2-Hexanone	ND	6.0	1.7	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-5I (20')	<b>Date Sampled:</b>	06/23/16
<b>Lab Sample ID:</b>	JC22892-7	<b>Date Received:</b>	06/24/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	80.6
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.4	0.18	ug/kg	
79-20-9	Methyl Acetate	ND	6.0	2.4	ug/kg	
108-87-2	Methylcyclohexane	ND	2.4	0.60	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.2	0.32	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.0	1.0	ug/kg	
75-09-2	Methylene chloride	1.4	6.0	0.41	ug/kg	J
100-42-5	Styrene	ND	2.4	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.29	ug/kg	
127-18-4	Tetrachloroethene	736 <sup>a</sup>	160	23	ug/kg	
108-88-3	Toluene	ND	1.2	0.15	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.0	0.27	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.0	0.22	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.20	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.39	ug/kg	
79-01-6	Trichloroethene	3.9	1.2	0.23	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.0	0.75	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	0.24	ug/kg	
	m,p-Xylene	ND	1.2	0.26	ug/kg	
95-47-6	o-Xylene	ND	1.2	0.24	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%	103%	70-122%
17060-07-0	1,2-Dichloroethane-D4	91%	94%	68-124%
2037-26-5	Toluene-D8	98%	98%	77-125%
460-00-4	4-Bromofluorobenzene	99%	98%	72-130%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	MW-5I (23')	<b>Date Sampled:</b>	06/23/16
<b>Lab Sample ID:</b>	JC22892-8	<b>Date Received:</b>	06/24/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	78.0
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y164287.D	1	06/27/16	PS	06/24/16 11:00	n/a	VY7164
Run #2							

	Initial Weight
Run #1	5.4 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	2.2	ug/kg	
71-43-2	Benzene	ND	0.59	0.14	ug/kg	
74-97-5	Bromochloromethane	ND	5.9	0.38	ug/kg	
75-27-4	Bromodichloromethane	ND	2.4	0.18	ug/kg	
75-25-2	Bromoform	ND	5.9	0.32	ug/kg	
74-83-9	Bromomethane	ND	5.9	0.58	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	2.1	ug/kg	
75-15-0	Carbon disulfide	ND	2.4	0.20	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.4	0.20	ug/kg	
108-90-7	Chlorobenzene	ND	2.4	0.19	ug/kg	
75-00-3	Chloroethane	ND	5.9	0.51	ug/kg	
67-66-3	Chloroform	ND	2.4	0.28	ug/kg	
74-87-3	Chloromethane	ND	5.9	0.25	ug/kg	
110-82-7	Cyclohexane	ND	2.4	0.65	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.4	0.57	ug/kg	
124-48-1	Dibromochloromethane	ND	2.4	0.18	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.2	0.29	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.2	0.20	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.2	0.16	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.2	0.18	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.9	0.65	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.2	0.22	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.2	0.20	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.2	0.18	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.2	0.52	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.2	0.19	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.4	0.37	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.4	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.4	0.26	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.18	ug/kg	
76-13-1	Freon 113	ND	5.9	0.57	ug/kg	
591-78-6	2-Hexanone	ND	5.9	1.7	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-5I (23')	<b>Date Sampled:</b>	06/23/16
<b>Lab Sample ID:</b>	JC22892-8	<b>Date Received:</b>	06/24/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	78.0
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.4	0.18	ug/kg	
79-20-9	Methyl Acetate	ND	5.9	2.4	ug/kg	
108-87-2	Methylcyclohexane	ND	2.4	0.60	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.2	0.31	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.9	1.0	ug/kg	
75-09-2	Methylene chloride	1.1	5.9	0.41	ug/kg	J
100-42-5	Styrene	ND	2.4	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.4	0.28	ug/kg	
127-18-4	Tetrachloroethene	3.6	2.4	0.33	ug/kg	
108-88-3	Toluene	ND	1.2	0.15	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.9	0.27	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.9	0.22	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.4	0.20	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.4	0.38	ug/kg	
79-01-6	Trichloroethene	0.26	1.2	0.23	ug/kg	J
75-69-4	Trichlorofluoromethane	ND	5.9	0.75	ug/kg	
75-01-4	Vinyl chloride	ND	2.4	0.24	ug/kg	
	m,p-Xylene	ND	1.2	0.26	ug/kg	
95-47-6	o-Xylene	ND	1.2	0.24	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.24	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-122%
17060-07-0	1,2-Dichloroethane-D4	90%		68-124%
2037-26-5	Toluene-D8	97%		77-125%
460-00-4	4-Bromofluorobenzene	100%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	MW-51 (31')						
<b>Lab Sample ID:</b>	JC22892-9					<b>Date Sampled:</b>	06/23/16
<b>Matrix:</b>	SO - Soil					<b>Date Received:</b>	06/24/16
<b>Method:</b>	SW846 8260C SW846 5035					<b>Percent Solids:</b>	78.7
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y164261.D	1	06/25/16	PS	06/24/16 11:00	n/a	VY7163
Run #2							

	Initial Weight
Run #1	4.9 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	2.4	ug/kg	
71-43-2	Benzene	ND	0.65	0.16	ug/kg	
74-97-5	Bromochloromethane	ND	6.5	0.41	ug/kg	
75-27-4	Bromodichloromethane	ND	2.6	0.20	ug/kg	
75-25-2	Bromoform	ND	6.5	0.34	ug/kg	
74-83-9	Bromomethane	ND	6.5	0.63	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	2.3	ug/kg	
75-15-0	Carbon disulfide	ND	2.6	0.22	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.6	0.22	ug/kg	
108-90-7	Chlorobenzene	ND	2.6	0.21	ug/kg	
75-00-3	Chloroethane	ND	6.5	0.56	ug/kg	
67-66-3	Chloroform	ND	2.6	0.31	ug/kg	
74-87-3	Chloromethane	ND	6.5	0.27	ug/kg	
110-82-7	Cyclohexane	ND	2.6	0.71	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.6	0.63	ug/kg	
124-48-1	Dibromochloromethane	ND	2.6	0.19	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.3	0.31	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.3	0.22	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.3	0.18	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.3	0.20	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.5	0.71	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.3	0.24	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.3	0.22	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.3	0.20	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.3	0.57	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.3	0.20	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.6	0.40	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.6	0.25	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.6	0.29	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.19	ug/kg	
76-13-1	Freon 113	ND	6.5	0.63	ug/kg	
591-78-6	2-Hexanone	ND	6.5	1.8	ug/kg	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-5I (31')	<b>Date Sampled:</b>	06/23/16
<b>Lab Sample ID:</b>	JC22892-9	<b>Date Received:</b>	06/24/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	78.7
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.6	0.20	ug/kg	
79-20-9	Methyl Acetate	ND	6.5	2.6	ug/kg	
108-87-2	Methylcyclohexane	ND	2.6	0.65	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.34	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.5	1.1	ug/kg	
75-09-2	Methylene chloride	0.98	6.5	0.44	ug/kg	J
100-42-5	Styrene	ND	2.6	0.19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.6	0.31	ug/kg	
127-18-4	Tetrachloroethene	2.2	2.6	0.36	ug/kg	J
108-88-3	Toluene	ND	1.3	0.16	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.5	0.29	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.5	0.24	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.6	0.22	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.6	0.42	ug/kg	
79-01-6	Trichloroethene	ND	1.3	0.25	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.5	0.82	ug/kg	
75-01-4	Vinyl chloride	ND	2.6	0.26	ug/kg	
	m,p-Xylene	ND	1.3	0.28	ug/kg	
95-47-6	o-Xylene	ND	1.3	0.26	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-122%
17060-07-0	1,2-Dichloroethane-D4	94%		68-124%
2037-26-5	Toluene-D8	99%		77-125%
460-00-4	4-Bromofluorobenzene	98%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	MW-51 (50')	<b>Date Sampled:</b>	06/23/16
<b>Lab Sample ID:</b>	JC22892-10	<b>Date Received:</b>	06/24/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	77.3
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y164262.D	1	06/25/16	PS	06/24/16 11:00	n/a	VY7163
Run #2							

	Initial Weight
Run #1	4.7 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	14	2.6	ug/kg	
71-43-2	Benzene	ND	0.69	0.17	ug/kg	
74-97-5	Bromochloromethane	ND	6.9	0.44	ug/kg	
75-27-4	Bromodichloromethane	ND	2.8	0.21	ug/kg	
75-25-2	Bromoform	ND	6.9	0.37	ug/kg	
74-83-9	Bromomethane	ND	6.9	0.67	ug/kg	
78-93-3	2-Butanone (MEK)	ND	14	2.4	ug/kg	
75-15-0	Carbon disulfide	ND	2.8	0.23	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.8	0.23	ug/kg	
108-90-7	Chlorobenzene	ND	2.8	0.22	ug/kg	
75-00-3	Chloroethane	ND	6.9	0.59	ug/kg	
67-66-3	Chloroform	ND	2.8	0.33	ug/kg	
74-87-3	Chloromethane	ND	6.9	0.29	ug/kg	
110-82-7	Cyclohexane	ND	2.8	0.75	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.8	0.67	ug/kg	
124-48-1	Dibromochloromethane	ND	2.8	0.21	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.4	0.33	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.4	0.24	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.4	0.19	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.4	0.21	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.9	0.75	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.4	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.4	0.24	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.4	0.21	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.4	0.60	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.4	0.22	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.8	0.43	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.8	0.27	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	2.8	0.30	ug/kg	
100-41-4	Ethylbenzene	ND	1.4	0.21	ug/kg	
76-13-1	Freon 113	ND	6.9	0.67	ug/kg	
591-78-6	2-Hexanone	ND	6.9	1.9	ug/kg	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b>	MW-5I (50')	<b>Date Sampled:</b>	06/23/16
<b>Lab Sample ID:</b>	JC22892-10	<b>Date Received:</b>	06/24/16
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	77.3
<b>Method:</b>	SW846 8260C SW846 5035		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	2.8	0.21	ug/kg	
79-20-9	Methyl Acetate	ND	6.9	2.8	ug/kg	
108-87-2	Methylcyclohexane	ND	2.8	0.70	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.4	0.36	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.9	1.2	ug/kg	
75-09-2	Methylene chloride	1.1	6.9	0.47	ug/kg	J
100-42-5	Styrene	ND	2.8	0.20	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.8	0.33	ug/kg	
127-18-4	Tetrachloroethene	2.6	2.8	0.39	ug/kg	J
108-88-3	Toluene	ND	1.4	0.17	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.9	0.31	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.9	0.25	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.8	0.23	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.8	0.44	ug/kg	
79-01-6	Trichloroethene	ND	1.4	0.26	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.9	0.87	ug/kg	
75-01-4	Vinyl chloride	ND	2.8	0.28	ug/kg	
	m,p-Xylene	ND	1.4	0.30	ug/kg	
95-47-6	o-Xylene	ND	1.4	0.28	ug/kg	
1330-20-7	Xylene (total)	ND	1.4	0.28	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-122%
17060-07-0	1,2-Dichloroethane-D4	94%		68-124%
2037-26-5	Toluene-D8	99%		77-125%
460-00-4	4-Bromofluorobenzene	99%		72-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	FB	<b>Date Sampled:</b>	06/22/16
<b>Lab Sample ID:</b>	JC22892-11	<b>Date Received:</b>	06/24/16
<b>Matrix:</b>	AQ - Field Blank Soil	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A151918.D	1	06/29/16	TK	n/a	n/a	V3A6545
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.8	ug/l	
71-43-2	Benzene	ND	0.50	0.14	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.46	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.55	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
74-83-9	Bromomethane	ND	2.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	1.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.33	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.17	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.23	ug/l	
74-87-3	Chloromethane	ND	1.0	0.96	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.73	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.23	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.21	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.70	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.39	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.36	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.5	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b> FB	<b>Date Sampled:</b> 06/22/16
<b>Lab Sample ID:</b> JC22892-11	<b>Date Received:</b> 06/24/16
<b>Matrix:</b> AQ - Field Blank Soil	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C	
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.5	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.78	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.35	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.23	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.58	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	103%		73-122%
2037-26-5	Toluene-D8	102%		84-119%
460-00-4	4-Bromofluorobenzene	106%		78-117%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	TRIP BLANK	<b>Date Sampled:</b>	06/23/16
<b>Lab Sample ID:</b>	JC22892-12	<b>Date Received:</b>	06/24/16
<b>Matrix:</b>	AQ - Trip Blank Soil	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3A151919.D	1	06/29/16	TK	n/a	n/a	V3A6545
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.8	ug/l	
71-43-2	Benzene	ND	0.50	0.14	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.46	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.55	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
74-83-9	Bromomethane	ND	2.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	1.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.33	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.17	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.23	ug/l	
74-87-3	Chloromethane	ND	1.0	0.96	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.73	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.23	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.21	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.70	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.39	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.36	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.5	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b> TRIP BLANK	<b>Date Sampled:</b> 06/23/16
<b>Lab Sample ID:</b> JC22892-12	<b>Date Received:</b> 06/24/16
<b>Matrix:</b> AQ - Trip Blank Soil	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C	
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.5	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.78	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.35	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.23	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.58	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	104%		73-122%
2037-26-5	Toluene-D8	102%		84-119%
460-00-4	4-Bromofluorobenzene	104%		78-117%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound





## Appendix F

### Soil Boring Logs, Well Logs and Sampling Data Summaries

Boring # S-1 MW#            Sheet 1 of 1

Project: AMA - Site Investigation

Job # 85265.001 Site: Cropsey Ave

Logged By: HRM Proj. Eng: DJS Edited By:           

Drilling Contractor: AES

Drill Rig Type/Method: 6" Core Drill

Drillers Name: Chuck / Tom

Borehole Diam./Drill Bit Type 1 1/2" x 2' macro Total Depth 4'

Ref. Elev. 100

Hammer Wt: 50 lbs Drop: 30"

Start Time: 1000 Date: 7/11/12

Completion Time: 1100 Date: 7/11/12

Backfill Time:            Date:           

Sketch Map of Site Area With Drilling Locations

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)	Casing Type & Size	Annulus Filler	Depth		Boring Depth (ft.)	Casing Depth (ft.)	Water Depth (ft.)	1st Water			
							Sample Rec. Analyses	Feet				Time	Date		
78	MC		24	24											
	2'														
52	↓		↓	↓				1							
104	MC		24	24				2							
	2'														
0.0	↓		↓	↓				3							
								4							
								5							
								6							
								7							
								8							
								9							
								10							
								11							
								12							

SP, Brown, medium, dry, med Sand, (



Boring #	S-3	MW#		Sheet	1	of	1
Project:	AMA - Site Investigation						
Job #	85265.001	Site:	Cropsey				
Logged By:	H/2M	Proj. Eng:	DJS	Edited By:			
Drilling Contractor:	AES						
Drill Rig Type/Method:	6" Core Drill						
Drillers Name:	Chuck / Tom						
Borehole Diam./Drill Bit Type	1 1/2" x 2' macro		Total Depth	41'			
			Ref. Elev.	100			
Hammer Wt:	50 lbs	Drop:	30"				
Start Time:	1200	Date:	7/11/12				
Completion Time:	1300	Date:	7/11/12				
Backfill Time:		Date:					

### Sketch Map of Site Area With Drilling Locations

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)	Casing Type & Size	Annulus Filler	Depth		Boring Depth (ft.)	Casing Depth (ft.)	Water Depth (ft.)	Time	Date
							Sample Rec. Analyses	Feet					
0.0	MC		24	24			X						
	2'						X	1					
	↓						X						
	MC		24	24			X	2					
	2'						X						
	↓						X	3					
	↓						X						
	↓						X	4					
							X	5					
							X	6					
							X	7					
							X	8					
							X	9					
							X	10					
							X	11					
							X	12					

HC = Hand Clear

H-2

[illegible]



Boring # B-2 MW# 1 of 2  
 Project: AMA - Site Investigation  
 Job # 85265.001 Site: Cropsey  
 Logged By: HRM Proj. Eng: DJS Edited By:  
 Drilling Contractor: AES  
 Drill Rig Type/Method: Geoprobe  
 Drillers Name: Chuck / Tom  
 Borehole Diam./Drill Bit Type 1 1/2" x 5' Total Depth 20'  
 Ref. Elev. 100  
 Hammer Wt: NA Drop: NA  
 Start Time: 0900 Date: 7/13/12  
 Completion Time: 0930 Date: 7/13/12  
 Backfill Time: Date:

HC = Hard Clear

Sketch Map of Site Area With Drilling Locations

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)	Casing Type & Size	Annulus Filler	Depth		1st Water
							Sample Rec. Analyses	Feet	
0.0 HC			60	0					
								1	
								2	
								3	
								4	
0.0 MC	5'		60	54				5	
								6	
								7	
								8	
								9	
0.0 MC	5'		60	42				10	
								11	
								12	

SP, Brown, moist, med sand, NO odors, NO stain

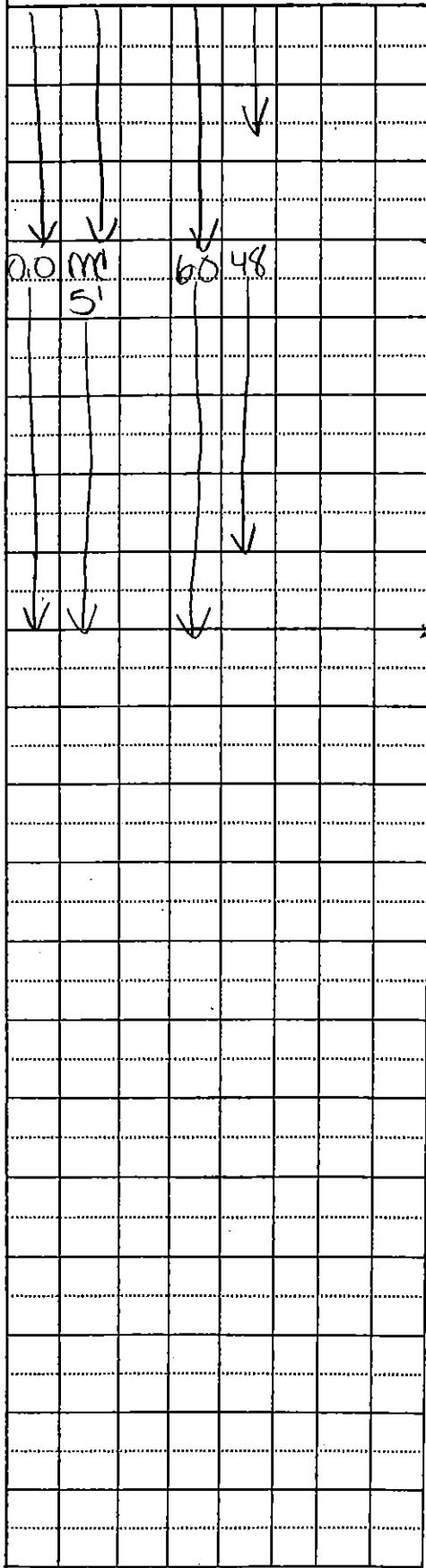
PID/OVA		Sampler Type	Blow Counts	Advance (in.)	Rovd (in.)	Casing	Annulus	Sample Rec Analysis	Feet	Depth	Boring # <b>B-2</b> MW#	Sheet <b>2</b> of <b>2</b>	
										Project: <b>AMA</b>			
										Job # <b>85265.001</b>	Site: <b>Cropsey</b>		
												<p><b>DTW = 18'</b></p>	

HC = Hand Clear

Sketch Map of Site Area With Drilling Locations

**N-2**

PID/OVA	Sampler Type	Blow Counts	Advance (in.)	Rcvd (in.)	Casing	Annulus	Depth		Boring # B-3 MW#	Sheet 2 of 2
							Sample Rec. Analysis	Feet		
									Project: AMA	
									Job # 85265.001	Site: Cropsey
								12		
								13		
								14		
								15		
								16		
								17		
								18		
								19		
								20		
								1		
								2		
								3		
								4		
								5		
								6		
								7		
								8		
								9		
								0		
								1		
								2		



DTW = 18'

Boring # B-4 MW#            Sheet 1 of 2  
 Project: AMA - Site Investigation  
 Job # 85265.001 Site: Cropsey  
 Logged By: HRM Proj. Eng: DJS Edited By:             
 Drilling Contractor: AES  
 Drill Rig Type/Method: Geoprobe  
 Drillers Name: Chuck / Tom  
 Borehole Diam./Drill Bit Type 1 1/2 x 5' Total Depth 20'  
 Ref. Elev. 100  
 Hammer Wt: NA Drop: NA  
 Start Time: 1030 Date: 7/13/12  
 Completion Time: 1100 Date: 7/13/12  
 Backfill Time:            Date:           

HC = Hand Clear

Sketch Map of Site Area With Drilling Locations

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)	Casing Type & Size	Annulus Filler	Depth		Boring Depth (ft.)	Casing Depth (ft.)	Water Depth (ft.)	Time	Date	1st Water			
							Sample Rec. Analyses	Feet									
0.0 HC			60	0													
								1									
								2									
								3									
								4									
0.0 MC	5'		60	30				5									
								6									
								7									
								8									
								9									
0.0 MC	5'		60	46				10									
								11									
								12									

SP. Brown, moist, med sand  
 No odors, No staining

[illegible]



Boring # B-5 MW# 1 of 2  
 Project: AMA-Site Investigation  
 Job # 85265.001 Site: Cropsey  
 Logged By: HRM Proj. Eng: DJS Edited By:  
 Drilling Contractor: AES  
 Drill Rig Type/Method: Geo probe  
 Drillers Name: Chuck / Tom  
 Borehole Diam./Drill Bit Type 1 1/2' x 5' Total Depth 20  
 Ref. Elev. 100  
 Hammer Wt: NA Drop: NA  
 Start Time: 1115 Date: 7/13/12  
 Completion Time: 1145 Date: 7/13/12  
 Backfill Time: Date:

HC=Hard Clear

Sketch Map of Site Area With Drilling Locations

PID/OVA	Sampler Type & Depth	Blow Counts / 6 In.	Advance (in.)	Recovered (in.)	Casing Type & Size	Annulus Filler	Depth		Boring Depth (ft.)	Casing Depth (ft.)	Water Depth (ft.)	Time	Date	1st Water			
							Sample Rec. Analyses	Feet									
0.0	HC		60	0													
								1									
								2									
								3									
								4									
0.0	MC		60	42				5									
	5'							6									
								7									
								8									
								9									
0.0	MC		60	48				10									
	5'							11									
								12									

SP, Brown, moist, med sand  
 No odors, No stain

[illegible]

Boring # B-6 MW# Sheet 1 of 2

Project: AMA

Job # 85265.001 Site: Cropsey

Logged By: HRM Proj. Eng: DJS Edited By:

Drilling Contractor: AES

Drill Rig Type/Method: Geoprobe

Drillers Name: Chuck / Tom

Borehole Diam./Drill Bit Type 1 1/2" x 5' Total Depth

Ref. Elev.

Hammer Wt: NA Drop: NA

Start Time: 1145 Date: 7/13/12

Completion Time: 1215 Date: 7/13/12

Backfill Time: Date:

HC = Hand Clear

Sketch Map of Site Area With Drilling Locations

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)	Casing Type & Size	Annulus Filler	Depth		Boring Depth (ft.)	Casing Depth (ft.)	Water Depth (ft.)	Time	Date	1st Water			
							Sample Rec. Analyses	Feet									
2.0 HC			60	0													
								1									
								2									
								3									
								4									
2.0 MC	5'		60	54				5									
								6									
								7									
								8									
								9									
0.0 MC	5'		60	48				10									
								11									
								12									

SP, Brown, moist, med sand  
NO odors, NO stain

[illegible]

### Sketch Map of Site Area With Drilling Locations

N-2





Boring # MW# 2 Sheet 2 of 2

Project: AMA - Site Investigation

Job # 85265.001 Site: Cropsey

Logged By: HRM Proj. Eng: DJS Edited By:

Drilling Contractor: AES

Drill Rig Type/Method: Geoprobe

Drillers Name: Chuck / Tom

Borehole Diam./Drill Bit Type Total Depth 20

1 1/2" x 5' Ref. Elev. 100

Hammer Wt: NA Drop: NA

Start Time: 1200 Date: 7/13/12

Completion Time: 1100 Date: 7/13/12

Backfill Time: Date:

HC = Hard Clear

Sketch Map of Site Area With Drilling Locations

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)	Casing Type & Size	Annulus Filler	Depth		Boring Depth (ft.)	1st Water			
							Sample Rec. Analyses	Feet		Casing Depth (ft.)	Water Depth (ft.)	Time	Date
0.0 HC			60	0	2" Dia. Sch. 40 PVC Blank	Seal							
								1					
								2					
								3					
								4					
0.0 MC	5'		60	48				5					
								6					
								7					
								8					
								9					
0.0 MC	5'		60	42				10					
								11					
								12					

SP, Brown, moist, med sand  
No colors, no staining

SP, dark Brown/Black,  
med sand / some gravel  
No colors

[illegible]

Boring # MW# 3 Sheet 1 of 2

Project: AMA-Site Investigation

Job # 85265.001 Site: Cropsey

Logged By: ARM Proj. Eng: DJS Edited By:

Drilling Contractor: AES

Drill Rig Type/Method: Geoprobe

Drillers Name: Chuck / Tom

Borehole Diam./Drill Bit Type Total Depth 20  
 1 1/2" x 5'

Ref. Elev. 100

Hammer Wt: NA Drop: NA

Start Time: 1000 Date: 7/12/12

Completion Time: 1130 Date: 7/12/12

Backfill Time: Date:


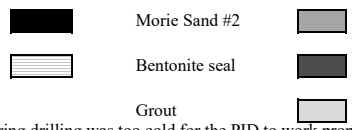
HC = Hand Clear

Sketch Map of Site Area With Drilling Locations

PID/OVA	Sampler Type & Depth	Blow Counts / 6 in.	Advance (in.)	Recovered (in.)	Casing Type & Size	Annulus Filler	Depth		1st Water
							Sample Rec. Analyses	Feet	
0.0 HC			60	0	Plug hole				
								1	
								2	
								3	
								4	
0.0 MC	5'		60	48	2" Dia Sch. 40 PVC Blank			5	SP, brown, moist, med
								6	Smol, no odor's, no
								7	staining
								8	
								9	
2.0 MC	5'		60	54	2" Dia Sch. 40 PVC Blank			10	
								11	
								12	

PID/OVA		Sampler Type	Blow Counts	Advance (in.)	Rcvd (in.)	Casing	Annulus	Depth	Boring #	MW#	Sheet	of	
								Sample Rec. Analysis	Feet				
								Project: AMA					
								Job # 85205.001 Site: Crapsey					
<div style="display: flex; justify-content: space-between;"> <div> <p>↓ 0.0 m</p> <p>5'</p> <p>↓ 6054</p> </div> <div> <p>↓</p> <p>↓</p> </div> </div>								<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">2" Dia. 0.010 Slotted Screen</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">No. 2 Marine Filter Pack Sand</div> </div>		<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">15' 0" 100'</div> </div>		<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">DTW = 18'</div> </div>	
								12					
								13					
								14					
								15					
								16					
								17					
								18					
								19					
								20					
								21					
								22					
								23					
								24					
								25					
								26					
								27					
								28					
								29					
								30					
								1					
								2					

					Project: Cropsey Brooklyn, NY		Boring ID MW-1S Sheet 1 of 1	
Boring Location: Fenced area behind the dry cleaner					Project Manager: R. Costanzo		Project Number: 85265	
Ground Elevation: 22.9					Dated Started: 7/13/11		Date completed: 7/13/11	
Depth to First Water: 18					Drill Type: Direct Push for soil cores; Hollow stem auger for well installation		Borehole Dia: 4.25"	
Depth to Static Water: 19.7								
Top of Casing Elevation: 22.6					Drill Rig Type:		Geoprobe	
					Drilling Company:		Zebra	
Size: 2" I.D. PVC			Sampler		Driller's Name:		Chuck	
Screen: 0.010-inch Slot PVC			Type:		APEX Representative:		HRM	
Sand: #2 Morie			Hammer: NA		Owner/Client Rep.:		AMA Cropsey	
Fall: NA								
Depth (feet)	Recovery	Sample I.D. or Control No.	PID (ppm)	USCS Class.	Description of Soils		Well Construction	
0			0		Hand Clear		Locking Cap at grade	
5	2.5		0	SP	Brown medium grit sand, moist, no odors, no staining			
10	2.5	MW-1-10'-15'	0					
15	4	MW-1-15'-20'	0					
20			0		Groundwater encountered at 18' bgs		Slotted screened interval from 18-28' bgs	
25			0					
30								
Locking Cap			Morie Sand #2					
Screened interval			Bentonite seal					
			Grout					

					Project: Cropsey Brooklyn, NY		Boring ID Sheet 1 of 1			
Boring Location: Grass southeast of drycleaner fenced area					Project Manager: R. Costanzo		Project Number: 85265			
Ground Elevation: 22.6					Dated Started: 1/19/2016		Date completed: 1/19/16			
Depth to First Water:					Drill Type: Direct Push for soil cores; Hollow stem auger for well installation		Borehole Dia: 4.25"			
Depth to Static Water: 19.2					Drill Rig Type:		Geoprobe			
Top of Casing Elevation: 22.2					Drilling Company:		Zebra			
Size: 2" I.D. PVC			Sampler		Driller's Name:		Evan			
Screen: 0.010-inch Slot PVC			Type: Encore		APEX Representative:		Kristen Main/Daniel Kopec			
Sand: #2 Morie			Hammer: NA		Owner/Client Rep.:		AMA Cropsey			
Sand: #2 Morie			Fall: NA							
Depth (feet)	Recovery	Sample I.D. or Control No.	PID (ppm)	USCS Class.	Description of Soils		Well Construction			
0	N/A	N/A	0	SM	1':Topsoil/grass, black, some sand, dry 2-3':Brown silty clay, little to no sand, moist  3-5':Brown medium-coarse sand, 10-20% gravel, moist		Locking Cap at grade			
5	3	N/A	*	SW	7': Brown medium-coarse sand, little to no fines, dry  9': Brown fine-medium sand, dry, some gravels					
10	2.7	N/A	*	SW SW	11': Brown medium to coarse sand, little to no fines, 5-10% gravels, dry 12': Brown medium to coarse sand, little to no fines 13': SAA, 0-5% gravels					
15	4		*	SW SW	16': Brown fine to medium sand, 5-10% gravels 17': Light brown medium to coarse sand, slightly moist, 0-5% gravels, 5-10% fines					
20	4	MW-11-20	*	SW	22': Brown medium to coarse sand, 0-5% gravel, wet Groundwater encountered at ~23' bgs					
25	5	MW-11-25	*	SW	Brown medium to coarse sand, 10-15% gravels, 5-10% fines, wet					
30	5	MW-11-30	*	SW	Brown medium to coarse sand, 0-5% fines, 0-5% gravels. Wet					
35	5	MW-11-35	*	SP SP	34-35': Brown fine sand Brown/light red medium to coarse sand, wet					
40	5	MW-11-40	*	SP	SAA					
45	5	MW-11-45	*	SP	SAA					
				SM	46.5': Brown medium sand, 10-15% fines, wet					
50		MW-11-50	*	SM	SAA					
Locking Cap										
Screened interval										
Grout										
* Outside temp. during drilling was too cold for the PID to work properly										



					Project: Cropsey Brooklyn, NY		Boring ID MW-2 Sheet 1 of 1	
Boring Location: Courtyard behind stripmall					Project Manager: R. Costanzo		Project Number: 85265	
Ground Elevation: 22.7					Dated Started: 7/13/12		Date completed: 7/13/12	
Depth to First Water: 18					Drill Type: Direct Push for soil cores; Hollow stem auger for well installation		Borehole Dia: 4.25"	
Depth to Static Water: 19.3								
Top of Casing Elevation: 22.3					Drill Rig Type:		Geoprobe	
					Drilling Company:		Zebra	
Size: 2" I.D. PVC			Sampler Type:		Driller's Name:		Chuck	
Screen: 0.010-inch Slot PVC			Hammer: NA		APEX Representative:		HRM	
Sand: #2 Morie			Fall: NA		Owner/Client Rep.:		AMA Cropsey	
Depth (feet)	Recovery	Sample I.D. or Control No.	PID (ppm)	USCS Class.	Description of Soils		Well Construction	
0	0		0		Hand Clear		Locking Cap at grade	
5	4		0	SP	Brown medium sand, moist, no odors, no staining			
10	3.5	MW-2-10'-15'	0					
15	4.5	MW-2-15'-20'	0					
20					Groundwater encountered at 18' bgs			
25								
30								
Locking Cap			Morie Sand #2					
Screened interval			Bentonite seal					
			Grout					

					Project: Cropsey Brooklyn, NY		Boring ID MW-3 Sheet 1 of 1	
Boring Location: Courtyard behind stripmall					Project Manager: R. Costanzo		Project Number: 85265	
Ground Elevation: 23.1					Dated Started: 7/13/12		Date completed: 7/13/12	
Depth to First Water: 18					Drill Type: Direct Push for soil cores; Hollow stem auger for well installation		Borehole Dia: 4.25"	
Depth to Static Water: 19.7								
Top of Casing Elevation: 22.6					Drill Rig Type:		Geoprobe	
					Drilling Company:		Zebra	
Size: 2" I.D. PVC			Sampler		Driller's Name:		Chuck	
Screen: 0.010-inch Slot PVC			Type:		APEX Representative:		HRM	
Sand: #2 Morie			Hammer: NA		Owner/Client Rep.:		AMA Cropsey	
Fall: NA								
Depth (feet)	Recovery	Sample I.D. or Control No.	PID (ppm)	USCS Class.	Description of Soils		Well Construction	
0	0		0		Hand Clear		Locking Cap at grade	
5	4		0	SP	Brown medium sand, moist, no odors, no staining			
10	4.5	MW-3-10'-15'	0					
15	4.5	MW-3-15'-20'	0					
20					Groundwater encountered at 18' bgs		Slotted screened interval from 18-28' bgs	
25								
30								
Locking Cap			Morie Sand #2					
Screened interval			Bentonite seal					
			Grout					






					Project: Cropsey Brooklyn, NY		Boring ID MW-4S Sheet 1 of 1	
Boring Location: Sidewalk on the corner of Cropsey Ave and 20th Ave					Project Manager: R. Costanzo		Project Number: 85265	
Ground Elevation: 22					Dated Started: 1/19/2016		Date completed: 1/19/16	
Depth to First Water: 23					Drill Type: Direct Push for soil cores; Hollow stem auger for well installation		Borehole Dia: 4.25"	
Depth to Static Water: 18.6					Drill Rig Type:		Geoprobe	
Top of Casing Elevation: 23.1					Drilling Company:		Zebra	
Size: 2" I.D. PVC			Sampler		Driller's Name:		Evan	
Screen: 0.010-inch Slot PVC			Type: Encore		APEX Representative:		Kristen Main/Ashlyn Norberg	
Sand: #2 Morie			Hammer: NA		Owner/Client Rep.:		AMA Cropsey	
			Fall: NA					
Depth (feet)	Recovery	Sample I.D. or Control No.	PID (ppm)	USCS Class.	Description of Soils	Well Construction		
0	N/A	N/A	0		0-0.5': Concrete 0.5-5': Reddish brown medium to coarse sand, dry	Locking Cap at grade		
5	N/A	N/A	N/A					
10	N/A	N/A	N/A					
15	N/A	N/A	N/A					
20	2		*	SP	Reddish brown medium to coarse sand, wet	Slotted screened interval from 17-27' bgs		
		MW-4S-23.5	*		Groundwater encountered at ~23 ft			
25	3.5		*	SP	SAA			
30		MW-4S-30	*	SW	Brown medium-coarse sand, trace gravel, trace mica, wet			
35	3.5	N/A	*					
				SW	36.5-37.5': SAA			
				SM	37.5-38': Fine-medium grit brown sand			
				SP	38-40': Medium to coarse sand			
40		MW-4S-40	*					
<div>Locking Cap<div></div>Morie Sand #2<div></div></div> <div>Screened interval<div></div>Bentonite seal<div></div></div> <div>Grout<div></div></div> <div>* Outside temp. during drilling was too cold for the PID to work properly</div>								







					Project: Cropsey Brooklyn, NY		Boring ID MW-4I Sheet 1 of 1				
Boring Location: Sidewalk on the corner of Cropsey Ave and 20th Ave					Project Manager: R. Costanzo		Project Number: 85265				
Ground Elevation: 22					Dated Started:		Date completed:				
Depth to First Water:					Drill Type: Direct Push for soil cores; Hollow stem auger for well installation		Borehole Dia: 4.25"				
Depth to Static Water: 18.6					Drill Rig Type:		Geoprobe				
Top of Casing Elevation: 21.6					Drilling Company:		Zebra				
Size: 2" I.D. PVC			Sampler		Driller's Name:		Evan				
Type: Encore			Type:		APEX Representative:		Steve Cotrone/Ashlyn Norberg				
Screen: 0.010-inch Slot PVC			Hammer: NA		Owner/Client Rep.:		AMA Cropsey				
Sand: #2 Morie			Fall: NA								
Depth (feet)	Recovery	Sample I.D. or Control No.	PID (ppm)	USCS Class.	Description of Soils	Well Construction					
0	N/A	N/A	0		0-0.5': Concrete 0.5-5': Reddish brown medium to coarse sand, dry	Locking Cap at grade					
5	N/A	N/A	N/A								
10	N/A	N/A	N/A								
15	N/A	N/A	N/A								
20	2		*	SP	Reddish brown medium to coarse sand, wet	Slotted screened interval from 28-38' bgs					
		MW-4S-23.5	*		Groundwater encountered at ~23 ft						
25	3.5		*	SP	SAA						
30		MW-4S-30	*	SW	Brown medium-coarse sand, trace gravel, trace mica, wet						
35	3.5	N/A	*	SW SM SP	36.5-37.5': SAA 37.5-38': Fine-medium grit brown sand 38-40': Medium to coarse sand						
40		MW-4S-40	*								
<div>Locking CapMorie Sand #2</div> <div>Screened intervalBentonite seal</div> <div>Grout</div>											
* Outside temp. during drilling was too cold for the PID to work properly											

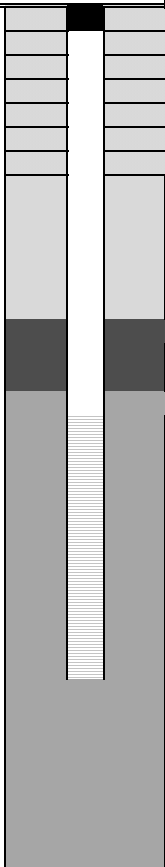
					Project: Cropsey Brooklyn, NY		Boring ID MW-5 Sheet 1 of 1		
Boring Location: Grass northwest side of Bay 25th					Project Manager: R. Costanzo		Project Number: 85265		
Ground Elevation: 22.6					Dated Started: 3/8/16		Date completed: 3/9/16		
Depth to First Water: 19					Drill Type: Direct Push for soil cores; Hollow stem auger for well installation		Borehole Dia: 4.25"		
Depth to Static Water: 19.4					Drill Rig Type:		Geoprobe		
Top of Casing Elevation: 22.2					Drilling Company:		Zebra		
Size: 2" I.D. PVC			<u>Sampler</u>			Driller's Name:		Luke	
Screen: 0.010-inch Slot PVC			Type: Encore			APEX Representative:		Ashlyn Norberg	
Sand: #2 Morie			Hammer: NA			Owner/Client Rep.:		AMA Cropsey	
Sand: #2 Morie			Fall: NA						
Depth (feet)	Recovery	Sample I.D. or Control No.	PID (ppm)	USCS Class.	Description of Soils			Well Construction	
0	N/A	N/A	0	SM	Topsoil/grass, grades to Silty sand, some gravel, brown, moist Hand cleared			Locking Cap at grade	

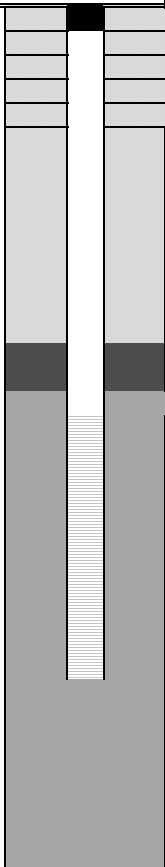
					Project: Cropsey Brooklyn, NY	Boring ID MW-5I Sheet 1 of 1
Boring Location: Sidewalk on the corner of Cropsey Ave and 20th Ave					Project Manager: R. Costanzo	Project Number: 85265
Ground Elevation:					Dated Started:	Date completed: 6/23/16
Depth to First Water:					Drill Type: Direct Push for soil cores; Hollow stem auger for well installation	Borehole Dia: 4.25"
Depth to Static Water:					Drill Rig Type:	Geoprobe
Top of Casing Elevation:					Drilling Company:	Zebra
Size: 2" I.D. PVC		Sampler Type: Encore			Driller's Name:	Luke
Screen: 0.010-inch Slot PVC		Hammer: NA			APEX Representative:	Dan Haug
Sand: #2 Morie		Fall: NA			Owner/Client Rep.:	AMA Cropsey
Depth (feet)	Recovery	Sample I.D. or Control No.	PID (ppm)	USCS Class.	Description of Soils	Well Construction
0	N/A	N/A	0		Topsoil/grass, grades to Silty sand, some gravel, brown, moist Hand cleared	Locking Cap at grade
5	N/A	N/A	N/A			
10	N/A	N/A	N/A			
15	N/A	N/A	N/A			
20						
25						
30						Slotted screened interval from 40-50' bgs
35						
40						
45						

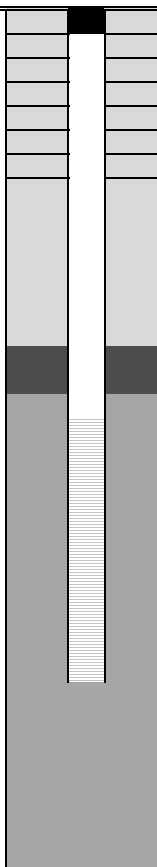


					Project: Cropsey Brooklyn, NY		Boring ID MW-6 Sheet 1 of 1		
Boring Location: Grass southeast side of Bay 25th					Project Manager: R. Cosntanzo		Project Number: 85265		
Ground Elevation: 23.2					Dated Started: 3/8/2016		Date completed: 3/9/16		
Depth to First Water: 27					Drill Type: Direct Push for soil cores; Hollow stem auger for well installation		Borehole Dia: 4.25"		
Depth to Static Water: 20.1					Drill Rig Type:		Geoprobe		
Top of Casing Elevation: 22.9					Drilling Company:		Zebra		
Size: 2" I.D. PVC			<u>Sampler</u>			Driller's Name:		Luke	
Screen: 0.010-inch Slot PVC			Type: Encore			APEX Representative:		Ashlyn Norberg	
Sand: #2 Morie			Hammer: NA			Owner/Client Rep.:		AMA Cropsey	
Sand: #2 Morie			Fall: NA						
Depth (feet)	Recovery	Sample I.D. or Control No.	PID (ppm)	USCS Class.	Description of Soils			Well Construction	
0	N/A	N/A	0	SM	Topsoil/grass, grades to Silty sand, some gravel, brown, moist Hand cleared			Locking Cap at grade	
5	N/A	N/A	N/A						
10	N/A	N/A	N/A						
15	4	N/A	0	GP	15-19': Light brown medium grit sand, course gravel, trace mica, dry				
20	5	MW-6-23	0	GP	21-21.5': SAA			Slotted screened interval from 17' - 27' bgs	
			0	SW	21.5-25': Reddish brown medium grit sand, trace gravel				
25	5		0	SW	25-27 Dark brown medium grit sand, trace gravel, dry				
				SP	27-29': Reddish brown medium grit sand, wet				
					Groundwater encountered at approximately 27' bgs				
30		MW-6-30	0	SP	Reddish brown medium grit sand, wet				
35									
Locking Cap  Morie Sand #2 									
Screened interval  Bentonite seal 									
Grout 									

					Project: Cropsey Brooklyn, NY		Boring ID MW-7 Sheet 1 of 1	
Boring Location: Grass southeast corner of Bay 25th and Cropsey Ave					Project Manager: R. Costanzo		Project Number: 85265	
Ground Elevation: 23.5					Dated Started: 3/8/2016		Date completed: 3/8/16	
Depth to First Water: 23					Drill Type: Direct Push for soil cores; Hollow stem auger for well installation		Borehole Dia: 4.25"	
Depth to Static Water: 20.1					Drill Rig Type:		Geoprobe	
Top of Casing Elevation: 23.1					Drilling Company:		Zebra	
			Sampler		Driller's Name:		Luke	
Size: 2" I.D. PVC			Type: Encore		APEX Representative:		Ashlyn Norberg	
Screen: 0.010-inch Slot PVC			Hammer: NA		Owner/Client Rep.:		AMA Cropsey	
Sand: #2 Morie			Fall: NA					
Depth (feet)	Recovery	Sample I.D. or Control No.	PID (ppm)	USCS Class.	Description of Soils		Well Construction	
0	N/A	N/A	0	SM	Topsoil/grass, grades to Silty sand, some gravel, brown, moist Hand cleared		Locking Cap at grade	
5	N/A	N/A	N/A					
10	N/A	N/A	N/A					
15	3	N/A	0	GW	15-15.5': Coarse gravel			
				SW	15.5-16': Medium grit brown sand			
				GP	16-17': Coarse gravel, medium grit sand			
				SW	17-18': Medium grit grey/brown sand, dry			
20	4	MW-7-23		SW	20-21.5': Dark brown medium grit sand, dry		Slotted screened interval from 20-30' bgs	
				SW	21.5-23': Grey medium grit sand			
			0	SM	23-23.5': Brown fine sand, wet; Groundwater encountered at approximately 23' bgs			
				SW	23.5-24': Brown medium grit sand			
25	4	N/A	0	SW	25-29': Reddish brown medium grit sand, trace gravel			
30	4.8		5	0	SW	SAA		
35		MW-7-34						
<div><div>Locking Cap</div><div></div><div>Morie Sand #2</div><div></div></div> <div><div>Screened interval</div><div></div><div>Bentonite seal</div><div></div></div> <div><div>Grout</div><div></div></div>								

				Project: Cropsey Brooklyn, NY		Boring ID MW-8 Sheet 1 of 1	
Boring Location: Grass, Southwest Courtyard				Project Manager: R. Costanzo		Project Number: 85265	
Ground Elevation:				Dated Started: 6/24/2016		Date completed: 6/24/16	
Depth to First Water:				Drill Type: Direct Push for soil cores; Hollow stem auger for well installation		Borehole Dia: 4.25"	
Depth to Static Water: 18.3				Drill Rig Type:		Geoprobe	
Top of Casing Elevation:				Drilling Company:		Zebra	
Size: 2" I.D. PVC		Sampler Type: Encore		Driller's Name:		Luke	
Screen: 0.010-inch Slot PVC		Hammer: NA		APEX Representative:		Dan Kopec	
Sand: #2 Morie		Fall: NA		Owner/Client Rep.:		AMA Cropsey	
Depth (feet)	Recovery	Sample I.D. or Control No.	PID (ppm)	USCS Class.	Description of Soils	Well Construction	
0	N/A	N/A	0	SM	Topsoil/grass, grades to Silty sand, some gravel, brown, moist Hand cleared	Locking Cap at grade	
5	N/A	N/A	0				
10	0.5	N/A	0	SW	9.5' - 10' : Tan/Dark Brown Fine Sand, Moist		
			0	SW	12' - 12.5' : Tan Fine Sand, Moist		
			0	CL	12.5' - 12.8' : Brown/Orange Clay, Moist		
			0	SW	12.75' - 13.2' : Tan Fine Sand, Moist		
15	3	N/A	0	CH	13.2' - 13.7' : Gray Clay, Wet		
			0	SW	13.7' - 15' : Brown Medium-Coarse Sand. Little- no fines (0-5%)		
			0		17' - 17.4' : Brown Coarse Sand, Moist		
		MW-8 (19.5')	0	CH	17.4' - 17.7' : Gray Clay, Wet		
			0		17.7' - 18' : Tan Fine Sand, Moist		
20	3		0	SW	18' - 20' : Brown Medium-Coarse Sand. Little - no fines	GW encountered at 19.5'	
					20.5' - 23.3' : Brown Fine-Medium Sand, Wet	Slotted screened interval from 17-27' bgs	
			0	CH	23.3' - 25' : Gray Clay, Wet		
25	4.5	N/A	0	SW	25' - 27.4' : Dark Brown Fine Sand, Wet		
			0		27.4' - 28.5' : Brown Medium-Coarse Sand, Wet		
			0	GW	28.5' - 30' : Black Gravelly Sand. Little-no fines. Wet		
30	4.8	MW-8 (30')					
35							
<div> <div>Locking Cap</div> <div>Screened interval</div> <div>Soil Cuttings Fill</div> <div>Morie Sand #2</div> <div>Bentonite seal</div> <div>Grout</div> </div>							

				Project: Cropsey Brooklyn, NY		Boring ID MW-9 Sheet 1 of 1	
Boring Location: Grass, Southwest Courtyard				Project Manager: R. Costanzo		Project Number: 85265	
Ground Elevation:				Dated Started: 6/24/2016		Date completed: 6/23/16	
Depth to First Water:				Drill Type: Direct Push for soil cores; Hollow stem auger for well installation		Borehole Dia: 4.25"	
Depth to Static Water:				Drill Rig Type:		Geoprobe	
Top of Casing Elevation:				Drilling Company:		Zebra	
Size: 2" I.D. PVC		Sampler Type: Encore		Driller's Name:		Luke	
Screen: 0.010-inch Slot PVC		Hammer: NA		APEX Representative:		Dan Haug	
Sand: #2 Morie		Fall: NA		Owner/Client Rep.:		AMA Cropsey	
Depth (feet)	Recovery	Sample I.D. or Control No.	PID (ppm)	USCS Class.	Description of Soils	Well Construction	
0	N/A	N/A	0	SM	Topsoil/grass, grades to Silty sand, some gravel, brown, moist Hand cleared	Locking Cap at grade	
5	N/A	N/A	N/A				
			0		8' - 9.7': Brown Medium Sand. Trace gravels. Slightly Moist		
			0		9.7' - 10': Light Tan Fine Sand. Trace Mica		
10	2	N/A	10.7				
			23.4		11.3' - 11.7': Light Tan Fine Sand. Slightly Moist		
			0	CL	11.7' - 13': Dark Gray Clay. Wet		
			0.4	SW	13' - 22': Brown Medium-Coarse Sand. Little-no fines.		
15	3.7	N/A	0				
		MW-9 (19.4')	0			GW encountered at 19.4'	
20	3.7		0	SW	22' - 24': Dark Brown/Gray Fine-Medium Sand. Wet	Slotted screened interval from 17-27' bgs	
			0	CL	24' - 25': Dark Gray Clay. Wet		
25	4				26.4' - 27.4': Dark Brown Medium-Coarse Sand grading into Gravel 27.4' - 28': Dark Brown Gravel. Little-no fines. 28' - 28.7': Brown Gravel. Some sand (10-20%) 28.7' - 30': Coarse Sand. Wet		
30	3.7	MW-9 (30')					
35							
<div> <div>Locking Cap</div> <div>Screened interval</div> <div>Soil Cuttings Fill</div> <div>Morie Sand #2</div> <div>Bentonite seal</div> <div>Grout</div> </div>							

					Project: Cropsey Brooklyn, NY		Boring ID MW-10 Sheet 1 of 1		
Boring Location: Grass, Southwest Courtyard					Project Manager: R. Costanzo		Project Number: 85265		
Ground Elevation:					Dated Started: 6/24/2016		Date completed: 6/24/16		
Depth to First Water:					Drill Type: Direct Push for soil cores; Hollow stem auger for well installation		Borehole Dia: 4.25"		
Depth to Static Water: 19.3					Drill Rig Type:		Geoprobe		
Top of Casing Elevation:					Drilling Company:		Zebra		
			Sampler		Driller's Name:		Luke		
Size: 2" I.D. PVC			Type: Encore		APEX Representative:		Dan Kopec		
Screen: 0.010-inch Slot PVC			Hammer: NA		Owner/Client Rep.:		AMA Cropsey		
Sand: #2 Morie			Fall: NA						
Depth (feet)	Recovery	Sample I.D. or Control No.	PID (ppm)	USCS Class.	Description of Soils		Well Construction		
0	N/A	N/A	0	SM	Topsoil/grass, grades to Silty sand, some gravel, brown, moist Hand cleared		Locking Cap at grade		
5	N/A	N/A	N/A	0 SW	6' - 8.4': Dark Brown Fine-Medium Sand. Some organics/Some clay 8.4' - 10': White, Dry, Concrete				
10	4	N/A	N/A	0 SW	12.5' - 13.1': White, Dry, Concrete 13.1' - 15': Light Brown Medium Sand. Little-no fines (0-5%)				
15	2.5	N/A		0 SM	16' - 17': Brown Fine Sand. Moist				
				0 SP	17' - 17.5': Light Gray Fine Sand w/ Gravel.				
				0 SW	17.5' - 20': Brown Medium-Coarse Sand. Trace Gravels. Moist				
20	4	MW-10 (19.5')		0 SW	21' - 21.8': Brown Medium-Coarse Sand. Wet			GW encountered at 19.5'	Slotted screened interval from 17-27' bgs
				0 SW	21.8' - 23.5': Light Brown Fine-Medium Sand. Wet				
				0 SP	23.5' - 23.7': Dark Brown Fine Sand. Some gravels (10%)				
				0 SW	23.7' - 25': Dark Brown Medium-Coarse Sand. Trace Gravels				
25	4	N/A		0 SW	25' - 26': - Light Brown Medium-Coarse Sand. Wet				
				0 SW	26' - 29.1': Light Brown Fine-Medium Sand. Wet				
				0 SW	29.1' - 30': Dark Brown Medium-Coarse Sand. Wet				
30	5	MW-10 (30')	0						
35									
<div><div>Locking Cap</div><div>Screened interval</div><div>Soil Cuttings Fill</div><div>Morie Sand #2</div><div>Bentonite seal</div><div>Grout</div></div>									

# GROUNDWATER SAMPLE FIELD DATA SHEET

CLIENT: \_\_\_\_\_ WELL ID: Well MW-15  
 PROJECT #: Cropsey ADDRESS: 2002-2004 Cropsey Ave  
 DATE: 2/10/16 SAMPLING CREW: Dan + Ashlyn  
 DEPTH TO WATER (DTW) 19.63 ft DTB-22.0 ft  
 CASING DIAMETER (inches): 2 3 4 4.5 5 6 8 12 Other \_\_\_\_\_

PRODUCT PRESENT: \_\_\_\_\_ PRODUCT THICKNESS: \_\_\_\_\_

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	CONDUCTIVITY (ms/cm)	TEMPERATURE °F/°C	D.O. (ppm)	ORP	TURBIDITY (NTU)	COLOR (visual)
1350	16	6.59	0.703	19.76	5.84	158	178	Murky/Gray
1355	18	6.56	0.729	21.56	4.88	146	87.3	Clear
1400	19	6.52	0.746	20.95	3.24	130	114	Murky
1405	20	6.50	0.743	21.53	3.27	121	82.7	Clear
1410	20.8	6.47	0.743	21.60	3.41	112	49.1	Clear

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, XDUP-1): \_\_\_\_\_

PURGING EQUIPMENT				SAMPLING EQUIPMENT			
	2" Submersible Pump		Bailer (Teflon®)		2" Submersible Pump		Bailer (Teflon®)
	Centrifugal Pump		Bailer (PVC)		DDL Sampler		Bailer (Stainless Steel)
	4" Submersible Pump		Bailer (Stainless Steel)				Peristaltic Pump
	Dedicated		Peristaltic Pump		Disposable Bailer		Dedicated Bailer
Other: _____				Other: _____			

WALL CONDITION: \_\_\_\_\_ GROUT: \_\_\_\_\_ MANWAY: \_\_\_\_\_ LOCKING CAP: \_\_\_\_\_ LOCK: \_\_\_\_\_

REMARKS: Horiba - 21780  
Monsoon 6W Pump - 16773

COMPLETED BY (PRINT NAME): Daniel Kopeck SIGNATURE: [Signature]  
 DATE: 2/10/16

# GROUNDWATER SAMPLE FIELD DATA SHEET

CLIENT: \_\_\_\_\_

WELL ID: MW-11

PROJECT #: Cropey

ADDRESS: 2002-2004 Cropey Ave

DATE: 2/10/16

SAMPLING CREW: Dan + Ashlyn

DEPTH TO WATER (DTW) 18.10 ft

DTB = 50.12 ft

CASING DIAMETER (inches): X 2 3 4 4.5 5 6 8 12 Other \_\_\_\_\_

PRODUCT PRESENT: \_\_\_\_\_ PRODUCT THICKNESS: \_\_\_\_\_

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	CONDUCTIVITY (ms/cm)	TEMPERATURE °F/°C	D.O. (ppm)	ORP	TURBIDITY (NTU)	COLOR (visual)
1250	58	6.77	0.888	19.05°C	8.10	162	10.4	Clear
1255	59.5	6.86	0.880	20.41°C	2.47	118	11.4	Clear
1300	60.7	6.89	0.888	19.76°C	2.40	110	7.4	Clear
1305	61.8	6.91	0.888	20.16°C	2.25	105	3.0	Clear
1310	62.8	6.89	0.882	20.32°C	2.21	102	0.0	Clear

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e., FB-1, XDUP-1): \_\_\_\_\_

PURGING EQUIPMENT				SAMPLING EQUIPMENT			
<u>X</u>	2" Submersible Pump		Bailer (Teflon®)	<u>X</u>	2" Submersible Pump		Bailer (Teflon®)
	Centrifugal Pump		Bailer (PVC)		DDL Sampler		Bailer (Stainless Steel)
	4" Submersible Pump		Bailer (Stainless Steel)				Peristaltic Pump
	Dedicated		Peristaltic Pump		Disposable Bailer		Dedicated Bailer
Other: _____				Other: _____			

WALL CONDITION: \_\_\_\_\_ GROUT: \_\_\_\_\_ MANWAY: \_\_\_\_\_ LOCKING CAP: \_\_\_\_\_ LOCK: \_\_\_\_\_

REMARKS: Horiba - 21780

Monsoon GW Pump - 16773

COMPLETED BY (PRINT NAME): Daniel Kopeck

SIGNATURE: [Signature]

DATE: 2/10/16

PAGE \_\_\_\_\_ OF \_\_\_\_\_



# GROUNDWATER SAMPLE FIELD DATA SHEET

CLIENT: \_\_\_\_\_

WELL ID: MW-02

PROJECT #: Cropsey

ADDRESS: 2002-2004 Cropsey Ave.

DATE: 2/10/16

SAMPLING CREW: Dan + Ashlyn

DEPTH TO WATER (DTW) 19.28 ft

DTB = 27.39 ft

CASING DIAMETER (inches): X2 3 4 4.5 5 6 8 12 Other \_\_\_\_\_

PRODUCT PRESENT: \_\_\_\_\_ PRODUCT THICKNESS: \_\_\_\_\_

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	CONDUCTIVITY (ms/cm)	TEMPERATURE °F/°C	D.O. (ppm)	ORP	TURBIDITY (NTU)	COLOR (visual)
1050	25	6.41	0.691	19.28 °C	1.46 mg/L	189	32.2	Clear
1055	26	6.52	0.675	19.70 °C	1.99	160	25.2	Clear
1100	27	6.51	0.667	20.60 °C	1.96	152	20.2	Clear
1105	28	6.54	0.672	20.70 °C	2.02	148	21.4	Clear

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e., FB-1, XDUP-1): \_\_\_\_\_

PURGING EQUIPMENT				SAMPLING EQUIPMENT			
<input checked="" type="checkbox"/>	2" Submersible Pump		Bailer (Teflon®)	<input checked="" type="checkbox"/>	2" Submersible Pump		Bailer (Teflon®)
	Centrifugal Pump		Bailer (PVC)		DDL Sampler		Bailer (Stainless Steel)
	4" Submersible Pump		Bailer (Stainless Steel)				Peristaltic Pump
	Dedicated		Peristaltic Pump		Disposable Bailer		Dedicated Bailer
Other: _____				Other: _____			

WALL CONDITION: \_\_\_\_\_ GROUT: \_\_\_\_\_ MANWAY: \_\_\_\_\_ LOCKING CAP: \_\_\_\_\_ LOCK: \_\_\_\_\_

REMARKS: Moriba - 21780

Monsoon GW Pump - 16773

COMPLETED BY (PRINT NAME): Daniel Kopec

SIGNATURE: [Signature]

DATE: 2/10/16

PAGE \_\_\_\_ OF \_\_\_\_

# GROUNDWATER SAMPLE FIELD DATA SHEET

CLIENT: \_\_\_\_\_

WELL ID: MW-3

PROJECT #: Cropsey

ADDRESS: \_\_\_\_\_

DATE: 2/10/16

SAMPLING CREW: \_\_\_\_\_

DEPTH TO WATER (DTW) 19.64

27.93  $\Delta = 5$  3.84 = 15

CASING DIAMETER (inches): 2 3 4 4.5 5 6 8 12 Other \_\_\_\_\_

Start purge 1545  
limited drum space, purged 8 gallons.

PRODUCT PRESENT: \_\_\_\_\_ PRODUCT THICKNESS: \_\_\_\_\_

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	CONDUCTIVITY (ms/cm)	TEMPERATURE °F/°C	D.O. (ppm)	ORP	TURBIDITY (NTU)	COLOR (visual)
1555	8	6.82	0.506	14.89	11.30	234	26.0	clear
1600	8.5	6.50	0.490	16.11	12.21	255	23.5	
1605	9.0	6.44	0.480	16.55	12.10	246	45.7	
1610	9.5	6.42	0.483	16.64	11.88	251	10.1	
1613	- sample collected -							

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, XDUP-1): \_\_\_\_\_

PURGING EQUIPMENT				SAMPLING EQUIPMENT			
	2" Submersible Pump		Bailer (Teflon®)		2" Submersible Pump		Bailer (Teflon®)
	Centrifugal Pump		Bailer (PVC)		DDL Sampler		Bailer (Stainless Steel)
	4" Submersible Pump		Bailer (Stainless Steel)				Peristaltic Pump
	Dedicated		Peristaltic Pump		Disposable Bailer		Dedicated Bailer
Other: _____				Other: _____			

WALL CONDITION: \_\_\_\_\_ GROUT: \_\_\_\_\_ MANWAY: \_\_\_\_\_ LOCKING CAP: \_\_\_\_\_ LOCK: \_\_\_\_\_

REMARKS: Horiba 021674

Monsoon 022611

COMPLETED BY (PRINT NAME): \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

PAGE \_\_\_\_ OF \_\_\_\_



# GROUNDWATER SAMPLE FIELD DATA SHEET

CLIENT: Cropsey

PROJECT #: Cropsey

DATE: 2/10/16

DEPTH TO WATER (DTW) 18.54

CASING DIAMETER (inches): X 2 3 4 4.5 5 6 8 12 Other \_\_\_\_\_

WELL ID: MW 4S

ADDRESS: \_\_\_\_\_

SAMPLING CREW: W

DTW 27.40

1237 Start purge  
X = 5.6 3X = 16.7

PRODUCT PRESENT: \_\_\_\_\_ PRODUCT THICKNESS: \_\_\_\_\_

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	CONDUCTIVITY (ms/cm)	TEMPERATURE (°C)	D.O. (ppm)	ORP	TURBIDITY (NTU)	COLOR (visual)
1255	17	7.14	1.65	13.72	21.9	245	9.1	clear
<del>1300</del>	<del>17.5</del>	<del>6.40</del>	<del>1.62</del>	<del>15.46</del>	<del>11.13</del>	<del>216</del>	<del>1.9</del>	<del>clear</del>
1305	18.5	6.22	1.61	14.96	13.01	279	0.6	
1310	19.5	6.17	1.59	16.27	10.15	274	0.0	
1315	20.0	6.6	0.877	14.71	10.95	231	0.0	

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e., FB-1, XDUP-1): \_\_\_\_\_

PURGING EQUIPMENT				SAMPLING EQUIPMENT			
<input checked="" type="checkbox"/>	2" Submersible Pump		Bailer (Teflon®)		2" Submersible Pump		Bailer (Teflon®)
	Centrifugal Pump		Bailer (PVC)		DDL Sampler		Bailer (Stainless Steel)
	4" Submersible Pump		Bailer (Stainless Steel)				Peristaltic Pump
	Dedicated		Peristaltic Pump		Disposable Bailer		Dedicated Bailer
Other: _____				Other: _____			

WALL CONDITION: \_\_\_\_\_ GROUT: \_\_\_\_\_ MANWAY: \_\_\_\_\_ LOCKING CAP: \_\_\_\_\_ LOCK: \_\_\_\_\_

REMARKS: Honda V5000 21295  
Monsoon 022611

COMPLETED BY (PRINT NAME): Ashlyn Norberg

SIGNATURE: \_\_\_\_\_

DATE: 2/10/16

Time	#	pH	Cond.	Temp.	DO	ORP	Turb.	Color
1320	20.5	6.67	1.46	11.8	8.23	247	0.0	
1325	21.5	6.30	1.70	13.79	13.92	291	0.0	
1330	22	6.19	1.60	15.75	11.79	296	0.0	
1335	23	6.65	1.59	14.59	11.57	284	0.0	

— collected sample @ 1335 —



# GROUNDWATER SAMPLE FIELD DATA SHEET

CLIENT: Cropsey

WELL ID: MW-4I

PROJECT #: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

DATE: 2/10/14

SAMPLING CREW: AW

DEPTH TO WATER (DTW) 18.58

37.65  $\bar{x} = 37.3$

CASING DIAMETER (inches): 2 3 4 4.5 5 6 8 12 Other \_\_\_\_\_

PRODUCT PRESENT: \_\_\_\_\_ PRODUCT THICKNESS: \_\_\_\_\_

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	CONDUCTIVITY (ms/cm)	TEMPERATURE °F/°C	D.O. (ppm)	ORP	TURBIDITY (NTU)	COLOR (visual)
1416	21	6.77	1.16	8.22	14.40	<del>128</del> 128	201	Clear
1421	22	6.74	0.600	8.40	14.48	<del>228</del> 139	237	
1426	22.5	6.79	1.63	8.39	14.95	258	123	
1431	<del>23.5</del> 23.5	6.41	1.40	14.57	12.49	284	47.7	
1436	24	6.40	1.37	15.70	12.00	281	21.9	

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e., FB-1, XDUP-1): \_\_\_\_\_

PURGING EQUIPMENT				SAMPLING EQUIPMENT			
	2" Submersible Pump		Bailer (Teflon®)		2" Submersible Pump		Bailer (Teflon®)
	Centrifugal Pump		Bailer (PVC)		DDL Sampler		Bailer (Stainless Steel)
	4" Submersible Pump		Bailer (Stainless Steel)				Peristaltic Pump
	Dedicated		Peristaltic Pump		Disposable Bailer		Dedicated Bailer
Other: _____				Other: _____			

WALL CONDITION: \_\_\_\_\_ GROUT: \_\_\_\_\_ MANWAY: \_\_\_\_\_ LOCKING CAP: \_\_\_\_\_ LOCK: \_\_\_\_\_

REMARKS: Horiba 021674  
Monsieur 022611

COMPLETED BY (PRINT NAME): \_\_\_\_\_ SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

Time	✓	pH	Cond.	Temp.	DO	ORP	Turb.	Color
1441	25	6.43	1.35	15.61	12.13	278	12.3	

- Sample @ 1445

# GROUNDWATER SAMPLE FIELD DATA SHEET

CLIENT: Cropsey

WELL ID: MW-5

PROJECT #: \_\_\_\_\_

ADDRESS: 2007 Cropsey Ave.

DATE: 3/18/16

SAMPLING CREW: 1N

DEPTH TO WATER (DTW) 19.35

CASING DIAMETER (inches): 2 3 4 4.5 5 6 8 12 Other \_\_\_\_\_

Start purge @ 10:20

PRODUCT PRESENT: \_\_\_\_\_ PRODUCT THICKNESS: \_\_\_\_\_

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	CONDUCTIVITY (ms/cm)	TEMPERATURE °F/°C	D.O. (ppm)	ORP	TURBIDITY (NTU)	COLOR (visual)
1037	6	6.52	0.551	16.12	10.32	253	58.1	clear
1042	7	6.47	0.516	16.99	9.29	240	39	clear
1047	8	6.47	0.509	17.07	9.79	235	21.7	clear
1052	9	6.49	0.510	16.45	9.48	231	12.6	clear
1057	10	6.51	0.528	14.98	9.97	230	7.4	clear

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e., FB-1, XDUP-1): \_\_\_\_\_

PURGING EQUIPMENT			SAMPLING EQUIPMENT		
2" Submersible Pump		Bailer (Teflon®)	2" Submersible Pump		Bailer (Teflon®)
Centrifugal Pump		Bailer (PVC)	DDL Sampler		Bailer (Stainless Steel)
4" Submersible Pump		Bailer (Stainless Steel)			Peristaltic Pump
Dedicated		Peristaltic Pump	Disposable Bailer		Dedicated Bailer
Other: _____			Other: _____		

WALL CONDITION: \_\_\_\_\_ GROUT: \_\_\_\_\_ MANWAY: \_\_\_\_\_ LOCKING CAP: \_\_\_\_\_ LOCK: \_\_\_\_\_

REMARKS: Monsoon 022818  
Flow Controller 'Regular #1'  
Horiba 25357

COMPLETED BY (PRINT NAME): Ashlyn Norberg

SIGNATURE: Ashlyn  
DATE: 3/18/16



Time	Vol	pH	Cond.	Temp	DO	<del>ORP</del>	Turb.	Color
1102	10	6.45	0.500	16.96	10.07	230	6.2	clear
<del>1107</del>	11	6.48	0.498	16.74	10.41	<del>227</del>	5.3	clear
1112	12	6.55	0.499	16.93	9.55	227	3.7	clear
1117	12.5	6.55	0.496	17.15	9.49	227	3.2	clear

— collected samples @ 1120 —

# GROUNDWATER SAMPLE FIELD DATA SHEET

CLIENT: Cropsey

WELL ID: MW-7

PROJECT #: Cropsey

ADDRESS: 2002-2004 Cropsey Ave

DATE: 3/18/16

SAMPLING CREW: Dan

DEPTH TO WATER (DTW) 20.14 ft

CASING DIAMETER (inches): X2 3 4 4.5 5 6 8 12 Other \_\_\_\_\_

PRODUCT PRESENT: \_\_\_\_\_ PRODUCT THICKNESS: \_\_\_\_\_

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	CONDUCTIVITY (ms/cm)	TEMPERATURE °F/°C	D.O. (ppm)	ORP	TURBIDITY (NTU)	COLOR (visual)
0954	6	6.20	0.778	17.89	8.32	169	127	Clear
0959	7.5	6.27	0.750	19.05	8.48	101	138	Clear
1004	9	6.34	0.742	18.91	5.40	10102	32.3	Clear
1009	10	6.39	0.731	18.40	4.83	93	17.8	Clear
1014	11	6.38	0.734	18.45	8.24	88	15.2	Clear

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e. FB-1, XDUP-1): \_\_\_\_\_

PURGING EQUIPMENT			SAMPLING EQUIPMENT		
<input checked="" type="checkbox"/>	2" Submersible Pump	Bailer (Teflon®)	<input type="checkbox"/>	2" Submersible Pump	Bailer (Teflon®)
<input type="checkbox"/>	Centrifugal Pump	Bailer (PVC)	<input type="checkbox"/>	DDL Sampler	Bailer (Stainless Steel)
<input type="checkbox"/>	4" Submersible Pump	Bailer (Stainless Steel)	<input type="checkbox"/>		Peristaltic Pump
<input type="checkbox"/>	Dedicated	Peristaltic Pump	<input type="checkbox"/>	Disposable Bailer	Dedicated Bailer
Other: _____			Other: _____		

WALL CONDITION: \_\_\_\_\_ GROUT: \_\_\_\_\_ MANWAY: \_\_\_\_\_ LOCKING CAP: \_\_\_\_\_ LOCK: \_\_\_\_\_

REMARKS: Started purge at 0945. Purged 3 well volumes (5 gal)  
Took samples @ 1020

COMPLETED BY (PRINT NAME): Daniel Kruger

SIGNATURE: [Signature]

DATE: \_\_\_\_\_

Time	Vol	PH	Cond	Temp	DO	ORP	Turb	Visual
1019	12	6.34	0.739	19.02	7.38	89	10.5	Clear

# GROUNDWATER SAMPLE FIELD DATA SHEET

CLIENT: Crapsey

WELL ID: MW-6

PROJECT #: Crapsey

ADDRESS: 2002-2004 Crapsey Ave Bk, NY

DATE: 3/18/16

SAMPLING CREW: Don

DEPTH TO WATER (DTW) 20.05 ft

CASING DIAMETER (inches): X2 3 4 4.5 5 6 8 12 Other \_\_\_\_\_

PRODUCT PRESENT: \_\_\_\_\_ PRODUCT THICKNESS: \_\_\_\_\_

TIME (2400 Hr)	VOLUME (gal.)	pH (units)	CONDUCTIVITY (ms/cm)	TEMPERATURE °F/°C	D.O. (ppm)	ORP	TURBIDITY (NTU)	COLOR (visual)
1100	5	6.78	0.656	17.90	5.44	178	106	Murky
1105	6	6.59	0.654	18.36	6.99	185	53.5	Clear
1110	7	6.65	0.655	17.41	7.90	190	25.4	Clear
1115	8	6.52	0.646	18.23	4.07	187	16.4	Clear
1120	9	6.50	0.646	18.31	7.14	180	11.1	Clear

FIELD QC SAMPLES COLLECTED AT THIS WELL (i.e., FB-1, XDUP-1): \_\_\_\_\_

PURGING EQUIPMENT				SAMPLING EQUIPMENT			
<input checked="" type="checkbox"/>	2" Submersible Pump		Bailer (Teflon®)		2" Submersible Pump		Bailer (Teflon®)
	Centrifugal Pump		Bailer (PVC)		DDL Sampler		Bailer (Stainless Steel)
	4" Submersible Pump		Bailer (Stainless Steel)				Peristaltic Pump
	Dedicated		Peristaltic Pump		Disposable Bailer		Dedicated Bailer
Other: _____				Other: _____			

WALL CONDITION: \_\_\_\_\_ GROUT: \_\_\_\_\_ MANWAY: \_\_\_\_\_ LOCKING CAP: \_\_\_\_\_ LOCK: \_\_\_\_\_

REMARKS: Purge at 1053. Purged 4 gal (3x volume of water).  
Samples taken @ 1142

COMPLETED BY (PRINT NAME): Daniel Kaper

SIGNATURE: [Signature]

DATE: \_\_\_\_\_



<u>Time</u>	<u>Volume</u>	<u>pH</u>	<u>Cond</u>	<u>Temp</u>	<u>DO</u>	<u>ORP</u>	<u>Turb</u>	<u>Color</u>
1125	10	6.58	0.644	18.10	3.18	182	8.7	Clear
1130	11	6.56	0.646	18.31	3.09	184	6.6	Clear
1135	12	6.56	0.645	18.37	2.28	189	5.2	Clear
1140	13	6.55	0.649	17.88	4.39	193	4.3	Clear
1145								



**APEX COMPANIES, LLC**  
**LOW-FLOW GROUNDWATER SAMPLING LOG**

Client: AMA Cropsey Location (Site/Facility Name): Cropsey Ave, Brooklyn  
Date: 7/8/16 Field Personnel: Don Kopec Weather: Sunny High 80s  
Well Number: MW-5I Evacuation Method: \_\_\_\_\_  
Sampling Method: Low Flow Purging Device (pump type): S.S. Monsoon

Well Information:  
Depth of Well\* 49.54 Screen Begin \_\_\_\_\_ ft. \*Measurements Taken From  
Screen End \_\_\_\_\_ ft. ☐ Top of Well Casing  
Screen Lt 10 ft. ☐ Top of Protective Casing  
Depth of Water \* 19.64 ☐ (Other, Specify)  
Length of Water Column \_\_\_\_\_ Pump Set @ Mid-Point 45 ft. Well Casing size 2"

**Water**

**parameters:**

The last 3 readings must stabilize to criteria below. Sampling rate of 0.2-0.25 liters/minute.

Elapsed times will reflect the actual exact time of readings.

Criteria	0.3 ft Dept To Water ft	3% Temperature degree C	0.1 pH	10mv Oxidation Reduction m. volts	3% Conductivity U ohm/cm	10% Turbidity (NTU)	0.3 mg/l Dissolved Oxygen (mg/l)	200-500 Flow Rate (ml/min)	N/A Color Apparent	N/a Odor Apparent
1247		19.61	6.07	163	0.913	0.0	7.32	280	Clear	None
1252		18.52	6.23	152	0.924	0.0	5.23	480	Clear	None
1257		18.40	6.38	146	0.928	0.0	4.43	220	Clear	None
1302		18.12	6.42	143	0.933	0.0	4.07	480	Clear	None
1307		18.23	6.45	143	0.933	0.0	3.84	440	Clear	None
1312		18.43	6.45	142	0.935	0.0	3.52	320	Clear	None
1317		18.20	6.45	143	0.936	0.0	3.43	420	Clear	None
1319	— Sample —									

**Water Sample:** MW-5I, MW-100 (Field Dup.)

Pump Start: 1117

Time Collected: 1319

Physical appearance at start

Color Clear

Odor None

Sheen/Free Product ☒

Total volume of purged water removed:

Physical appearance at sampling

Color Clear

Odor None

Sheen/Free Product

NOTES: Start purge @ 1117 Sample taken @ 1319  
Stop purge @ 1247  
Start low-flow @ 1247



**APEX COMPANIES, LLC**  
**LOW-FLOW GROUNDWATER SAMPLING LOG**

Client: <u>Cropsey</u>		Location (Site/Facility Name): _____	
Date: <u>7/8/16</u>	Field Personnel: <u>AN</u>	Weather: <u>~90°F, sunny.</u>	
Well Number: <u>MW-8</u>	Evacuation Method: <u>Sub.</u>		
Sampling Method: <u>low-flow</u>	Purging Device (pump type): <u>Monsoon</u>		
Well Information:		*Measurements Taken From	
Depth of Well* <u>26.80</u>	Screen Begin <u>16.8</u>	ft.	<input type="checkbox"/> Top of Well Casing <input type="checkbox"/> Top of Protective Casing <input type="checkbox"/> (Other, Specify)
	Screen End <u>26.8</u>	ft.	
	Screen Lt <u>10</u>	ft.	
Depth of Water * <u>18.42</u>			
Length of Water Column <u>8.38</u>	Pump Set @ Mid-Point _____	ft.	Well Casing size <u>2"</u>

## Water parameters:

parameters:  
The last 3 readings must stabilize to criteria below. Sampling rate of 0.2-0.25 liters/minute.

Elapsed times will reflect the actual exact time of readings.

[illegible]

**Water Sample:**

Pump Start: 10:05

Time Collected: 11:00

Physical appearance at start

Color brown

Odor none

Sheen/Free Product

Total volume of purged water removed:

Physical appearance at sampling

Color

Odor	
------	--

Sheen/Free Product

**NOTES:**

MS/MSD collected.  
Monsoon pump # R10931  
Hornbe 21197

purged ~ 5.0 gal



**APEX COMPANIES, LLC**  
**LOW-FLOW GROUNDWATER SAMPLING LOG**

Client: AMA	Location (Site/Facility Name): Cropsey	
Date: 7/8/16	Field Personnel: AN	Weather: ~90°F, Sunny
Well Number: MW-9	Evacuation Method: Sub.	
Sampling Method: Low-flow	Purging Device (pump type): Monsoon	

**Well Information:**

Depth of Well*: 26.77 ft.  Screen Begin: 16.77 ft. Screen End: 26.77 ft. Screen Lt: 10 ft.  Depth of Water *: 18.27 ft.  Length of Water Column _____ Pump Set @ Mid-Point _____ ft.	<b>*Measurements Taken From</b> <input checked="" type="checkbox"/> Top of Well Casing <input type="checkbox"/> Top of Protective Casing <input type="checkbox"/> (Other, Specify)  Well casing size _____
--	---

**Water parameters:**  
The last 3 readings must stabilize to criteria below. Sampling rate of 0.2-0.25 liters/minute.  
Elapsed times will reflect the actual exact time of readings.

Criteria	0.3 ft Dept To Water ft	3% Temperature degree C	0.1 pH	10mv Oxidation Reduction m. volts	3% Conductivity U ohm/cm	10% Turbidity (NTU)	0.3 mg/l Dissolved Oxygen (mg/l)	200-500 Flow Rate (ml/min)	N/A Color Apparent	N/a Odor Apparent
1220	18.13	27.14	6.34	-89	2.25	0.0	0.00	520	Clear	none
1225	18.10	27.81	6.38	-94	2.28	0.0	0.00	260		
1230	18.10	27.79	6.38	-96	2.29	1.5	0.00	280		
1235	18.10	27.73	6.39	-99	2.27	0.1	0.0	280		
1240	— Sample —									

**Water Sample:**

Pump Start: 1150	Total volume of purged water removed: ~ 7 gal
Time Collected: 1240	
Physical appearance at start	Physical appearance at sampling
Color: grey	Color: clear
Odor: none	Odor: none
Shoen/Free Product	Shoen/Free Product

**NOTES:** Monsoon pump # R10931  
Horiba 21197  
fill-in-one controller      purged ~ 6.0 gal





S.S Monsoon 2" Pump → 016522  
Battery → 35330  
Moriba → 20532  
Flow Controller → 032553



## **Appendix G**

### **Groundwater Data Analytical Reports**



Sample Results

Report of Analysis

## Report of Analysis

<b>Client Sample ID:</b>	MW-11	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-1	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	U203278.D	1	02/11/16	NH	n/a	n/a	VU9349
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	10	1.6	ug/l	
107-13-1	Acrylonitrile	ND	10	2.6	ug/l	
71-43-2	Benzene	ND	1.0	0.10	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.10	ug/l	
75-25-2	Bromoform	ND	1.0	0.17	ug/l	
74-83-9	Bromomethane	ND	1.0	0.57	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.096	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.093	ug/l	
75-00-3	Chloroethane	ND	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.50	ug/l	
67-66-3	Chloroform	0.89	1.0	0.091	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.11	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.11	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.29	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.12	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.090	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.16	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.12	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.14	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.11	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.12	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.15	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.12	ug/l	
127-18-4	Tetrachloroethene	0.72	1.0	0.14	ug/l	J
108-88-3	Toluene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.086	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.13	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b> MW-11	
<b>Lab Sample ID:</b> JC14061-1	<b>Date Sampled:</b> 02/10/16
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 02/10/16
<b>Method:</b> EPA 624	<b>Percent Solids:</b> n/a
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	1.0	0.12	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.13	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	109%		72-125%
2037-26-5	Toluene-D8 (SUR)	102%		78-119%
460-00-4	4-Bromofluorobenzene (SUR)	104%		74-115%
1868-53-7	Dibromofluoromethane (S)	105%		79-120%

(a) (pH= 5) Sample is not acid preserved per method/client criteria. Sample analyzed within 3 days holding time as required for acrolein and acrylonitrile. Other compounds within 7 days as required by the method.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	MW-1S	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-2	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	U203279.D	1	02/11/16	NH	n/a	n/a	VU9349
Run #2 <sup>a</sup>	U203291.D	10	02/12/16	NH	n/a	n/a	VU9350

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	10	1.6	ug/l	
107-13-1	Acrylonitrile	ND	10	2.6	ug/l	
71-43-2	Benzene	ND	1.0	0.10	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.10	ug/l	
75-25-2	Bromoform	ND	1.0	0.17	ug/l	
74-83-9	Bromomethane	ND	1.0	0.57	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.096	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.093	ug/l	
75-00-3	Chloroethane	ND	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.50	ug/l	
67-66-3	Chloroform	0.49	1.0	0.091	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.11	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
95-50-1	1,2-Dichlorobenzene	0.72	1.0	0.19	ug/l	J
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.11	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.29	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.12	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.090	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.16	ug/l	
156-59-2	cis-1,2-Dichloroethene	6.7	1.0	0.12	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.14	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.11	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.12	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.15	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.12	ug/l	
127-18-4	Tetrachloroethene	740 <sup>b</sup>	10	1.4	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.086	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.13	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b>	MW-1S	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-2	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	9.7	1.0	0.12	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.13	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	109%	109%	72-125%
2037-26-5	Toluene-D8 (SUR)	100%	102%	78-119%
460-00-4	4-Bromofluorobenzene (SUR)	104%	102%	74-115%
1868-53-7	Dibromofluoromethane (S)	105%	104%	79-120%

(a) (pH= 5) Sample is not acid preserved per method/client criteria. Sample analyzed within 3 days holding time as required for acrolein and acrylonitrile. Other compounds within 7 days as required by the method.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	MW-2	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-3	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	U203280.D	1	02/11/16	NH	n/a	n/a	VU9349
Run #2 <sup>a</sup>	U203293.D	10	02/12/16	NH	n/a	n/a	VU9350

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	10	1.6	ug/l	
107-13-1	Acrylonitrile	ND	10	2.6	ug/l	
71-43-2	Benzene	ND	1.0	0.10	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.10	ug/l	
75-25-2	Bromoform	ND	1.0	0.17	ug/l	
74-83-9	Bromomethane	ND	1.0	0.57	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.096	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.093	ug/l	
75-00-3	Chloroethane	ND	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.50	ug/l	
67-66-3	Chloroform	0.62	1.0	0.091	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.11	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.11	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.29	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.12	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.090	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.16	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.5	1.0	0.12	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.14	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.11	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.12	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.15	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.12	ug/l	
127-18-4	Tetrachloroethene	249 <sup>b</sup>	10	1.4	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.086	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.13	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-2	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-3	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	2.4	1.0	0.12	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.13	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	109%	108%	72-125%
2037-26-5	Toluene-D8 (SUR)	102%	100%	78-119%
460-00-4	4-Bromofluorobenzene (SUR)	103%	106%	74-115%
1868-53-7	Dibromofluoromethane (S)	104%	104%	79-120%

(a) (pH= 5) Sample is not acid preserved per method/client criteria. Sample analyzed within 3 days holding time as required for acrolein and acrylonitrile. Other compounds within 7 days as required by the method.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	MW-2	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-3	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 625 EPA 625		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F154587.D	1	02/12/16	SD	02/11/16	OP91141	EF6502
Run #2							

Run #	Initial Volume	Final Volume
Run #1	980 ml	1.0 ml
Run #2		

## ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.1	0.97	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.1	1.2	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.1	1.6	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.1	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.1	0.91	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.1	0.74	ug/l	
88-75-5	2-Nitrophenol	ND	2.0	1.8	ug/l	
100-02-7	4-Nitrophenol	ND	10	0.86	ug/l	
87-86-5	Pentachlorophenol	ND	5.1	1.9	ug/l	
108-95-2	Phenol	ND	2.0	0.51	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	2.0	1.3	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.36	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.39	ug/l	
120-12-7	Anthracene	ND	1.0	0.41	ug/l	
92-87-5	Benzidine	ND	20	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.36	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.37	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.60	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.43	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.43	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.0	0.31	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.0	0.61	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.0	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	2.0	0.41	ug/l	
218-01-9	Chrysene	ND	1.0	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.0	0.67	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.0	0.54	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.0	0.75	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.0	0.44	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	2.0	0.21	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	2.0	0.46	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	2.0	0.16	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b>	MW-2	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-3	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 625 EPA 625		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	2.0	0.18	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.0	0.88	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	2.0	0.57	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.0	1.2	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.56	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.0	0.60	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.0	0.58	ug/l	
84-66-2	Diethyl phthalate	ND	2.0	0.40	ug/l	
131-11-3	Dimethyl phthalate	ND	2.0	0.33	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.0	0.67	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.25	ug/l	
86-73-7	Fluorene	ND	1.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.55	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.18	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	0.42	ug/l	
67-72-1	Hexachloroethane	ND	5.1	0.29	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.31	ug/l	
78-59-1	Isophorone	ND	2.0	0.60	ug/l	
91-20-3	Naphthalene	ND	1.0	0.33	ug/l	
98-95-3	Nitrobenzene	ND	2.0	0.43	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	2.0	0.47	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.0	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.53	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.37	ug/l	
129-00-0	Pyrene	ND	1.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	40%		14-110%
4165-62-2	Phenol-d5	29%		10-110%
118-79-6	2,4,6-Tribromophenol	78%		38-145%
4165-60-0	Nitrobenzene-d5	63%		33-136%
321-60-8	2-Fluorobiphenyl	60%		35-127%
1718-51-0	Terphenyl-d14	57%		11-139%

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N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	MW-2	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-3	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 608 EPA 608		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G31855.D	1	02/12/16	YD	02/12/16	OP91166	G6G929
Run #2	XX185091.D	1	02/12/16	KM	02/12/16	OP91165	GXX5601

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2	990 ml	5.0 ml

## Pesticide PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.010	0.0017	ug/l	
319-84-6	alpha-BHC	ND	0.010	0.0013	ug/l	
319-85-7	beta-BHC	ND	0.010	0.0031	ug/l	
319-86-8	delta-BHC	ND	0.010	0.0016	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.010	0.00086	ug/l	
12789-03-6	Chlordane	ND	0.10	0.033	ug/l	
60-57-1	Dieldrin	ND	0.010	0.00086	ug/l	
72-54-8	4,4' -DDD	ND	0.010	0.0012	ug/l	
72-55-9	4,4' -DDE	ND	0.010	0.00084	ug/l	
50-29-3	4,4' -DDT	ND	0.010	0.0025	ug/l	
72-20-8	Endrin	ND	0.010	0.0015	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.010	0.0023	ug/l	
7421-93-4	Endrin aldehyde <sup>a</sup>	ND	0.010	0.0032	ug/l	
959-98-8	Endosulfan-I	ND	0.010	0.0011	ug/l	
33213-65-9	Endosulfan-II	ND	0.010	0.0016	ug/l	
76-44-8	Heptachlor	ND	0.010	0.0013	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.010	0.00074	ug/l	
72-43-5	Methoxychlor	ND	0.010	0.0034	ug/l	
8001-35-2	Toxaphene	ND	0.13	0.047	ug/l	
12674-11-2	Aroclor 1016	ND <sup>b</sup>	0.25	0.047	ug/l	
11104-28-2	Aroclor 1221	ND <sup>b</sup>	0.25	0.24	ug/l	
11141-16-5	Aroclor 1232	ND <sup>b</sup>	0.25	0.20	ug/l	
53469-21-9	Aroclor 1242	ND <sup>b</sup>	0.25	0.083	ug/l	
12672-29-6	Aroclor 1248	ND <sup>b</sup>	0.25	0.077	ug/l	
11097-69-1	Aroclor 1254	ND <sup>b</sup>	0.25	0.055	ug/l	
11096-82-5	Aroclor 1260	ND <sup>b</sup>	0.25	0.059	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	74%	75%	21-137%
877-09-8	Tetrachloro-m-xylene	75%	84%	21-137%
2051-24-3	Decachlorobiphenyl	46%	39%	10-121%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	MW-2	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-3	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 608 EPA 608		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Pesticide PPL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2051-24-3	Decachlorobiphenyl	54%	40%	10-121%

- (a) This compound outside control limits biased high in the associated BS.  
(b) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
RL = Reporting Limit      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	MW-2						
<b>Lab Sample ID:</b>	JC14061-3					<b>Date Sampled:</b>	02/10/16
<b>Matrix:</b>	AQ - Ground Water					<b>Date Received:</b>	02/10/16
<b>Method:</b>	SW846 8151 SW846 8151/3510C					<b>Percent Solids:</b>	n/a
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA114320.D	1	02/16/16	VDT	02/12/16	OP91147	GOA3955
Run #2							

	Initial Volume	Final Volume
Run #1	980 ml	10.0 ml
Run #2		

Herbicide List

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	0.51	0.29	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	0.10	0.056	ug/l	
93-76-5	2,4,5-T	ND	0.10	0.057	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	107%		39-159%
19719-28-9	2,4-DCAA	80%		39-159%

ND = Not detected

MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> MW-2	<b>Date Sampled:</b> 02/10/16
<b>Lab Sample ID:</b> JC14061-3	<b>Date Received:</b> 02/10/16
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Arsenic	< 3.0	3.0	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Beryllium	< 1.0	1.0	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 3.0	3.0	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 10	10	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 3.0	3.0	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	02/12/16	02/12/16 VM	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	18.5	10	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 10	10	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Thallium	< 2.0	2.0	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA38721

(2) Instrument QC Batch: MA38722

(3) Prep QC Batch: MP91988

(4) Prep QC Batch: MP91993

RL = Reporting Limit

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## Report of Analysis

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<b>Client Sample ID:</b>	MW-3	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-4	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	U203281.D	1	02/11/16	NH	n/a	n/a	VU9349
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	10	1.6	ug/l	
107-13-1	Acrylonitrile	ND	10	2.6	ug/l	
71-43-2	Benzene	ND	1.0	0.10	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.10	ug/l	
75-25-2	Bromoform	ND	1.0	0.17	ug/l	
74-83-9	Bromomethane	ND	1.0	0.57	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.096	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.093	ug/l	
75-00-3	Chloroethane	ND	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.50	ug/l	
67-66-3	Chloroform	0.51	1.0	0.091	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.11	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.11	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.29	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.12	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.090	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.16	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.24	1.0	0.12	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.14	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.11	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.12	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.15	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.12	ug/l	
127-18-4	Tetrachloroethene	11.9	1.0	0.14	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.086	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.13	ug/l	

ND = Not detected MDL = Method Detection Limit

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B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b> MW-3	<b>Date Sampled:</b> 02/10/16
<b>Lab Sample ID:</b> JC14061-4	<b>Date Received:</b> 02/10/16
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> EPA 624	
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	0.30	1.0	0.12	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.13	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	110%		72-125%
2037-26-5	Toluene-D8 (SUR)	101%		78-119%
460-00-4	4-Bromofluorobenzene (SUR)	102%		74-115%
1868-53-7	Dibromofluoromethane (S)	104%		79-120%

(a) (pH= 5) Sample is not acid preserved per method/client criteria. Sample analyzed within 3 days holding time as required for acrolein and acrylonitrile. Other compounds within 7 days as required by the method.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	MW-4S	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-5	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	U203282.D	1	02/11/16	NH	n/a	n/a	VU9349
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	10	1.6	ug/l	
107-13-1	Acrylonitrile	ND	10	2.6	ug/l	
71-43-2	Benzene	ND	1.0	0.10	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.10	ug/l	
75-25-2	Bromoform	ND	1.0	0.17	ug/l	
74-83-9	Bromomethane	ND	1.0	0.57	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.096	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.093	ug/l	
75-00-3	Chloroethane	ND	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.50	ug/l	
67-66-3	Chloroform	0.56	1.0	0.091	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.11	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.11	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.29	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.12	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.090	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.16	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.12	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.14	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.11	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.12	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.15	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.12	ug/l	
127-18-4	Tetrachloroethene	0.29	1.0	0.14	ug/l	J
108-88-3	Toluene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.086	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.13	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-4S	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-5	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	1.0	0.12	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.13	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	110%		72-125%
2037-26-5	Toluene-D8 (SUR)	101%		78-119%
460-00-4	4-Bromofluorobenzene (SUR)	103%		74-115%
1868-53-7	Dibromofluoromethane (S)	105%		79-120%

(a) (pH= 5) Sample is not acid preserved per method/client criteria. Sample analyzed within 3 days holding time as required for acrolein and acrylonitrile. Other compounds within 7 days as required by the method.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	MW-4I	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-6	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	U203283.D	1	02/11/16	NH	n/a	n/a	VU9349
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	10	1.6	ug/l	
107-13-1	Acrylonitrile	ND	10	2.6	ug/l	
71-43-2	Benzene	ND	1.0	0.10	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.10	ug/l	
75-25-2	Bromoform	ND	1.0	0.17	ug/l	
74-83-9	Bromomethane	ND	1.0	0.57	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.096	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.093	ug/l	
75-00-3	Chloroethane	ND	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.50	ug/l	
67-66-3	Chloroform	0.52	1.0	0.091	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.11	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.11	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.29	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.12	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.090	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.16	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.12	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.14	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.11	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.12	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.15	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.12	ug/l	
127-18-4	Tetrachloroethene	0.26	1.0	0.14	ug/l	J
108-88-3	Toluene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.086	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.13	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-4I	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-6	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	1.0	0.12	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.13	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	108%		72-125%
2037-26-5	Toluene-D8 (SUR)	101%		78-119%
460-00-4	4-Bromofluorobenzene (SUR)	102%		74-115%
1868-53-7	Dibromofluoromethane (S)	104%		79-120%

(a) (pH= 5) Sample is not acid preserved per method/client criteria. Sample analyzed within 3 days holding time as required for acrolein and acrylonitrile. Other compounds within 7 days as required by the method.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

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 B = Indicates analyte found in associated method blank  
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<b>Client Sample ID:</b>	FIELD/FB	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-7	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	U203277.D	1	02/11/16	NH	n/a	n/a	VU9349
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	10	1.6	ug/l	
107-13-1	Acrylonitrile	ND	10	2.6	ug/l	
71-43-2	Benzene	ND	1.0	0.10	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.10	ug/l	
75-25-2	Bromoform	ND	1.0	0.17	ug/l	
74-83-9	Bromomethane	ND	1.0	0.57	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.096	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.093	ug/l	
75-00-3	Chloroethane	ND	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.091	ug/l	
74-87-3	Chloromethane	ND	1.0	0.11	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.11	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.29	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.12	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.090	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.16	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.12	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.14	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.11	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.12	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.15	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.12	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.14	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.086	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.13	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b> FIELD/FB	<b>Date Sampled:</b> 02/10/16
<b>Lab Sample ID:</b> JC14061-7	<b>Date Received:</b> 02/10/16
<b>Matrix:</b> AQ - Field Blank Water	<b>Percent Solids:</b> n/a
<b>Method:</b> EPA 624	
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	1.0	0.12	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.13	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	109%		72-125%
2037-26-5	Toluene-D8 (SUR)	102%		78-119%
460-00-4	4-Bromofluorobenzene (SUR)	103%		74-115%
1868-53-7	Dibromofluoromethane (S)	103%		79-120%

(a) (pH= 5) Sample is not acid preserved per method/client criteria. Sample analyzed within 3 days holding time as required for acrolein and acrylonitrile. Other compounds within 7 days as required by the method.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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<b>Client Sample ID:</b>	FIELD/FB	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-7	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 625 EPA 625		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F154588.D	1	02/12/16	SD	02/11/16	OP91141	EF6502
Run #2							

Run #	Initial Volume	Final Volume
Run #1	975 ml	1.0 ml
Run #2		

## ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.1	0.98	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.1	1.2	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.1	1.6	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.1	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.1	0.91	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.1	0.74	ug/l	
88-75-5	2-Nitrophenol	ND	2.1	1.9	ug/l	
100-02-7	4-Nitrophenol	ND	10	0.86	ug/l	
87-86-5	Pentachlorophenol	ND	5.1	1.9	ug/l	
108-95-2	Phenol	ND	2.1	0.51	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	2.1	1.3	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.36	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.39	ug/l	
120-12-7	Anthracene	ND	1.0	0.41	ug/l	
92-87-5	Benzidine	ND	21	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.37	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.38	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.61	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.43	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.43	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.1	0.31	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.1	0.61	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.1	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	2.1	0.41	ug/l	
218-01-9	Chrysene	ND	1.0	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.1	0.67	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.1	0.54	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.1	0.76	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.1	0.44	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	2.1	0.21	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	2.1	0.46	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	2.1	0.16	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	FIELD/FB	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-7	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 625 EPA 625		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	2.1	0.18	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.1	0.88	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	2.1	0.57	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.1	1.3	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.56	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.1	0.61	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.1	0.58	ug/l	
84-66-2	Diethyl phthalate	ND	2.1	0.40	ug/l	
131-11-3	Dimethyl phthalate	ND	2.1	0.34	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.68	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.26	ug/l	
86-73-7	Fluorene	ND	1.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.55	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.18	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	0.42	ug/l	
67-72-1	Hexachloroethane	ND	5.1	0.29	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.31	ug/l	
78-59-1	Isophorone	ND	2.1	0.60	ug/l	
91-20-3	Naphthalene	ND	1.0	0.33	ug/l	
98-95-3	Nitrobenzene	ND	2.1	0.43	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	2.1	0.47	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.1	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.1	0.53	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.37	ug/l	
129-00-0	Pyrene	ND	1.0	0.34	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	41%		14-110%
4165-62-2	Phenol-d5	29%		10-110%
118-79-6	2,4,6-Tribromophenol	76%		38-145%
4165-60-0	Nitrobenzene-d5	59%		33-136%
321-60-8	2-Fluorobiphenyl	58%		35-127%
1718-51-0	Terphenyl-d14	70%		11-139%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	FIELD/FB	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-7	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 608 EPA 608		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G31856.D	1	02/12/16	YD	02/12/16	OP91166	G6G929
Run #2	XX185092.D	1	02/12/16	KM	02/12/16	OP91165	GXX5601

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2	970 ml	5.0 ml

## Pesticide PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.010	0.0017	ug/l	
319-84-6	alpha-BHC	ND	0.010	0.0013	ug/l	
319-85-7	beta-BHC	ND	0.010	0.0031	ug/l	
319-86-8	delta-BHC	ND	0.010	0.0016	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.010	0.00086	ug/l	
12789-03-6	Chlordane	ND	0.10	0.033	ug/l	
60-57-1	Dieldrin	ND	0.010	0.00086	ug/l	
72-54-8	4,4' -DDD	ND	0.010	0.0012	ug/l	
72-55-9	4,4' -DDE	ND	0.010	0.00084	ug/l	
50-29-3	4,4' -DDT	ND	0.010	0.0025	ug/l	
72-20-8	Endrin	ND	0.010	0.0015	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.010	0.0023	ug/l	
7421-93-4	Endrin aldehyde <sup>a</sup>	ND	0.010	0.0032	ug/l	
959-98-8	Endosulfan-I	ND	0.010	0.0011	ug/l	
33213-65-9	Endosulfan-II	ND	0.010	0.0016	ug/l	
76-44-8	Heptachlor	ND	0.010	0.0013	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.010	0.00074	ug/l	
72-43-5	Methoxychlor	ND	0.010	0.0034	ug/l	
8001-35-2	Toxaphene	ND	0.13	0.047	ug/l	
12674-11-2	Aroclor 1016	ND <sup>b</sup>	0.26	0.048	ug/l	
11104-28-2	Aroclor 1221	ND <sup>b</sup>	0.26	0.24	ug/l	
11141-16-5	Aroclor 1232	ND <sup>b</sup>	0.26	0.20	ug/l	
53469-21-9	Aroclor 1242	ND <sup>b</sup>	0.26	0.085	ug/l	
12672-29-6	Aroclor 1248	ND <sup>b</sup>	0.26	0.079	ug/l	
11097-69-1	Aroclor 1254	ND <sup>b</sup>	0.26	0.056	ug/l	
11096-82-5	Aroclor 1260	ND <sup>b</sup>	0.26	0.060	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	107%	113%	21-137%
877-09-8	Tetrachloro-m-xylene	108%	119%	21-137%
2051-24-3	Decachlorobiphenyl	83%	70%	10-121%

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	FIELD/FB	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-7	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 608 EPA 608		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Pesticide PPL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2051-24-3	Decachlorobiphenyl	97%	72%	10-121%

- (a) This compound outside control limits biased high in the associated BS.  
(b) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
RL = Reporting Limit      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	FIELD/FB	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-7	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8151 SW846 8151/3510C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA114321.D	1	02/16/16	VDT	02/12/16	OP91147	GOA3955
Run #2							

	Initial Volume	Final Volume
Run #1	960 ml	10.0 ml
Run #2		

## Herbicide List

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	0.52	0.30	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	0.10	0.057	ug/l	
93-76-5	2,4,5-T	ND	0.10	0.058	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	107%		39-159%
19719-28-9	2,4-DCAA	82%		39-159%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b>	FIELD/FB	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-7	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Arsenic	< 3.0	3.0	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Beryllium	< 1.0	1.0	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Cadmium	< 3.0	3.0	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Chromium	< 10	10	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Copper	< 10	10	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Lead	< 3.0	3.0	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Mercury	< 0.20	0.20	ug/l	1	02/12/16	02/12/16 VM	SW846 7470A <sup>1</sup>	SW846 7470A <sup>4</sup>
Nickel	< 10	10	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Selenium	< 10	10	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Silver	< 10	10	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Thallium	< 2.0	2.0	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>
Zinc	< 20	20	ug/l	1	02/12/16	02/12/16 BS	SW846 6010C <sup>2</sup>	SW846 3010A <sup>3</sup>

(1) Instrument QC Batch: MA38721

(2) Instrument QC Batch: MA38722

(3) Prep QC Batch: MP91988

(4) Prep QC Batch: MP91993

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	MW-A	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-8	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	U203284.D	1	02/11/16	NH	n/a	n/a	VU9349
Run #2							

Run	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	10	1.6	ug/l	
107-13-1	Acrylonitrile	ND	10	2.6	ug/l	
71-43-2	Benzene	ND	1.0	0.10	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.10	ug/l	
75-25-2	Bromoform	ND	1.0	0.17	ug/l	
74-83-9	Bromomethane	ND	1.0	0.57	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.096	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.093	ug/l	
75-00-3	Chloroethane	ND	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.091	ug/l	
74-87-3	Chloromethane	ND	1.0	0.11	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.11	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.29	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.12	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.090	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.16	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.12	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.14	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.11	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.12	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.15	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.12	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.14	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.086	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.13	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-A	<b>Date Sampled:</b>	02/10/16
<b>Lab Sample ID:</b>	JC14061-8	<b>Date Received:</b>	02/10/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	1.0	0.12	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.13	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	111%		72-125%
2037-26-5	Toluene-D8 (SUR)	101%		78-119%
460-00-4	4-Bromofluorobenzene (SUR)	105%		74-115%
1868-53-7	Dibromofluoromethane (S)	106%		79-120%

(a) (pH= 5) Sample is not acid preserved per method/client criteria. Sample analyzed within 3 days holding time as required for acrolein and acrylonitrile. Other compounds within 7 days as required by the method.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



Sample Results

Report of Analysis

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## Report of Analysis

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<b>Client Sample ID:</b>	MW-5	<b>Date Sampled:</b>	03/18/16
<b>Lab Sample ID:</b>	JC16575-1	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	N253486.D	10	03/19/16	WO	n/a	n/a	VN10722
Run #2 <sup>a</sup>	N253487.D	100	03/19/16	WO	n/a	n/a	VN10722

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	100	16	ug/l	
107-13-1	Acrylonitrile	ND	100	26	ug/l	
71-43-2	Benzene	ND	10	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	10	1.0	ug/l	
75-25-2	Bromoform	ND	10	1.7	ug/l	
74-83-9	Bromomethane	ND	10	5.7	ug/l	
56-23-5	Carbon tetrachloride	ND	10	0.96	ug/l	
108-90-7	Chlorobenzene	ND	10	0.93	ug/l	
75-00-3	Chloroethane	ND	10	2.1	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	50	5.0	ug/l	
67-66-3	Chloroform	ND	10	0.91	ug/l	
74-87-3	Chloromethane	ND	10	1.1	ug/l	
124-48-1	Dibromochloromethane	ND	10	1.5	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	10	1.9	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	10	1.9	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	10	1.1	ug/l	
75-71-8	Dichlorodifluoromethane	ND	20	2.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	1.2	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	0.90	ug/l	
75-35-4	1,1-Dichloroethene	ND	10	1.6	ug/l	
156-59-2	cis-1,2-Dichloroethene	687	10	1.2	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	10	1.4	ug/l	
78-87-5	1,2-Dichloropropane	ND	10	1.1	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	10	1.2	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10	1.5	ug/l	
100-41-4	Ethylbenzene	ND	10	2.2	ug/l	
75-09-2	Methylene chloride	ND	10	2.2	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	1.2	ug/l	
127-18-4	Tetrachloroethene	3490 <sup>b</sup>	100	14	ug/l	
108-88-3	Toluene	ND	10	2.5	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	0.86	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	1.3	ug/l	

ND = Not detected MDL = Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-5	<b>Date Sampled:</b>	03/18/16
<b>Lab Sample ID:</b>	JC16575-1	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	106	10	1.2	ug/l	
75-69-4	Trichlorofluoromethane	ND	20	2.0	ug/l	
75-01-4	Vinyl chloride	ND	10	1.3	ug/l	
1330-20-7	Xylenes (total)	ND	10	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	104%	107%	72-125%
2037-26-5	Toluene-D8 (SUR)	101%	100%	78-119%
460-00-4	4-Bromofluorobenzene (SUR)	103%	103%	74-115%
1868-53-7	Dibromofluoromethane (S)	102%	104%	79-120%

(a) (pH= 5) Sample is not acid preserved per method/client criteria. Sample analyzed within 3 days holding time as required for acrolein and acrylonitrile. Other compounds within 7 days as required by the method.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	MW-5	<b>Date Sampled:</b>	03/18/16
<b>Lab Sample ID:</b>	JC16575-1	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 625 EPA 625		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F155736.D	1	03/22/16	SD	03/21/16	OP92311	EF6551
Run #2							

Run #	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

## ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.2	0.98	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.2	1.2	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.2	1.6	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.2	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.2	0.92	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.2	0.74	ug/l	
88-75-5	2-Nitrophenol	ND	2.1	1.9	ug/l	
100-02-7	4-Nitrophenol	ND	10	0.87	ug/l	
87-86-5	Pentachlorophenol	ND	5.2	2.0	ug/l	
108-95-2	Phenol	ND	2.1	0.51	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	2.1	1.3	ug/l	
83-32-9	Acenaphthene	ND	1.0	0.36	ug/l	
208-96-8	Acenaphthylene	ND	1.0	0.39	ug/l	
120-12-7	Anthracene	ND	1.0	0.41	ug/l	
92-87-5	Benzidine	ND	21	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.0	0.37	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.0	0.38	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.0	0.61	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.0	0.44	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.0	0.43	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.1	0.31	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.1	0.61	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.1	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	2.1	0.41	ug/l	
218-01-9	Chrysene	ND	1.0	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.1	0.67	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.1	0.55	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.1	0.76	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.1	0.44	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	2.1	0.21	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	2.1	0.47	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	2.1	0.16	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> MW-5	<b>Date Sampled:</b> 03/18/16
<b>Lab Sample ID:</b> JC16575-1	<b>Date Received:</b> 03/18/16
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> EPA 625 EPA 625	
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	

## ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	2.1	0.19	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.1	0.89	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	2.1	0.58	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.1	1.3	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.0	0.56	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.1	0.61	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.1	0.59	ug/l	
84-66-2	Diethyl phthalate	ND	2.1	0.40	ug/l	
131-11-3	Dimethyl phthalate	ND	2.1	0.34	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.68	ug/l	
206-44-0	Fluoranthene	ND	1.0	0.26	ug/l	
86-73-7	Fluorene	ND	1.0	0.46	ug/l	
118-74-1	Hexachlorobenzene	ND	1.0	0.55	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.0	0.18	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	0.42	ug/l	
67-72-1	Hexachloroethane	ND	5.2	0.29	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.0	0.31	ug/l	
78-59-1	Isophorone	ND	2.1	0.61	ug/l	
91-20-3	Naphthalene	ND	1.0	0.33	ug/l	
98-95-3	Nitrobenzene	ND	2.1	0.43	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	2.1	0.47	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.1	0.48	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.2	0.53	ug/l	
85-01-8	Phenanthrene	ND	1.0	0.37	ug/l	
129-00-0	Pyrene	ND	1.0	0.35	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.35	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	40%		14-110%
4165-62-2	Phenol-d5	28%		10-110%
118-79-6	2,4,6-Tribromophenol	71%		38-145%
4165-60-0	Nitrobenzene-d5	71%		33-136%
321-60-8	2-Fluorobiphenyl	65%		35-127%
1718-51-0	Terphenyl-d14	68%		11-139%

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J = Indicates an estimated value

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N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	MW-5	<b>Date Sampled:</b>	03/18/16
<b>Lab Sample ID:</b>	JC16575-1	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 608 EPA 608		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G33312.D	1	03/24/16	BP	03/22/16	OP92352	G6G969
Run #2	EF155238.D	1	03/24/16	KM	03/22/16	OP92353	GEF5609

	Initial Volume	Final Volume
Run #1	900 ml	5.0 ml
Run #2	950 ml	5.0 ml

## Pesticide PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.011	0.0019	ug/l	
319-84-6	alpha-BHC	ND	0.011	0.0014	ug/l	
319-85-7	beta-BHC	ND	0.011	0.0034	ug/l	
319-86-8	delta-BHC	ND	0.011	0.0017	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.011	0.00096	ug/l	
12789-03-6	Chlordane	ND	0.11	0.037	ug/l	
60-57-1	Dieldrin	ND	0.011	0.00095	ug/l	
72-54-8	4,4' -DDD	ND	0.011	0.0013	ug/l	
72-55-9	4,4' -DDE	ND	0.011	0.00093	ug/l	
50-29-3	4,4' -DDT	ND	0.011	0.0027	ug/l	
72-20-8	Endrin	ND	0.011	0.0017	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.011	0.0026	ug/l	
7421-93-4	Endrin aldehyde	ND	0.011	0.0036	ug/l	
959-98-8	Endosulfan-I	ND	0.011	0.0012	ug/l	
33213-65-9	Endosulfan-II	ND	0.011	0.0018	ug/l	
76-44-8	Heptachlor	ND	0.011	0.0014	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.011	0.00082	ug/l	
72-43-5	Methoxychlor	ND	0.011	0.0038	ug/l	
8001-35-2	Toxaphene	ND	0.14	0.052	ug/l	
12674-11-2	Aroclor 1016	ND <sup>a</sup>	0.26	0.049	ug/l	
11104-28-2	Aroclor 1221	ND <sup>a</sup>	0.26	0.25	ug/l	
11141-16-5	Aroclor 1232	ND <sup>a</sup>	0.26	0.20	ug/l	
53469-21-9	Aroclor 1242	ND <sup>a</sup>	0.26	0.086	ug/l	
12672-29-6	Aroclor 1248	ND <sup>a</sup>	0.26	0.081	ug/l	
11097-69-1	Aroclor 1254	ND <sup>a</sup>	0.26	0.057	ug/l	
11096-82-5	Aroclor 1260	ND <sup>a</sup>	0.26	0.062	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%	86%	21-137%
877-09-8	Tetrachloro-m-xylene	83%	88%	21-137%
2051-24-3	Decachlorobiphenyl	96%	106%	10-121%

ND = Not detected MDL = Method Detection Limit

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J = Indicates an estimated value

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N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	MW-5	<b>Date Sampled:</b>	03/18/16
<b>Lab Sample ID:</b>	JC16575-1	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 608 EPA 608		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Pesticide PPL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2051-24-3	Decachlorobiphenyl	102%	95%	10-121%

(a) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
RL = Reporting Limit      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	MW-5	
<b>Lab Sample ID:</b>	JC16575-1	<b>Date Sampled:</b> 03/18/16
<b>Matrix:</b>	AQ - Ground Water	<b>Date Received:</b> 03/18/16
<b>Method:</b>	SW846 8151 SW846 8151/3510C	<b>Percent Solids:</b> n/a
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA115503.D	1	03/28/16	VDT	03/22/16	OP92340	GOA3990
Run #2							

	Initial Volume	Final Volume
Run #1	940 ml	10.0 ml
Run #2		

## Herbicide List

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	0.53	0.31	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	0.11	0.058	ug/l	
93-76-5	2,4,5-T	ND	0.11	0.059	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	93%		39-159%
19719-28-9	2,4-DCAA	72%		39-159%

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J = Indicates an estimated value

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N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-5	<b>Date Sampled:</b>	03/18/16
<b>Lab Sample ID:</b>	JC16575-1	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	03/24/16	03/30/16	GT	SW846 6010C <sup>2</sup> SW846 3010A <sup>4</sup>
Arsenic	< 3.0	3.0	ug/l	1	03/24/16	03/30/16	GT	SW846 6010C <sup>2</sup> SW846 3010A <sup>4</sup>
Beryllium	< 1.0	1.0	ug/l	1	03/24/16	03/30/16	GT	SW846 6010C <sup>2</sup> SW846 3010A <sup>4</sup>
Cadmium	< 3.0	3.0	ug/l	1	03/24/16	03/30/16	GT	SW846 6010C <sup>2</sup> SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	03/24/16	03/30/16	GT	SW846 6010C <sup>2</sup> SW846 3010A <sup>4</sup>
Copper	< 10	10	ug/l	1	03/24/16	03/30/16	GT	SW846 6010C <sup>2</sup> SW846 3010A <sup>4</sup>
Lead	< 3.0	3.0	ug/l	1	03/24/16	03/30/16	GT	SW846 6010C <sup>2</sup> SW846 3010A <sup>4</sup>
Mercury	< 0.20	0.20	ug/l	1	03/22/16	03/22/16	MS	SW846 7470A <sup>1</sup> SW846 7470A <sup>3</sup>
Nickel	30.7	10	ug/l	1	03/24/16	03/30/16	GT	SW846 6010C <sup>2</sup> SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	03/24/16	03/30/16	GT	SW846 6010C <sup>2</sup> SW846 3010A <sup>4</sup>
Silver	< 10	10	ug/l	1	03/24/16	03/30/16	GT	SW846 6010C <sup>2</sup> SW846 3010A <sup>4</sup>
Thallium	< 2.0	2.0	ug/l	1	03/24/16	03/30/16	GT	SW846 6010C <sup>2</sup> SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	03/24/16	03/30/16	GT	SW846 6010C <sup>2</sup> SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA38977

(2) Instrument QC Batch: MA39057

(3) Prep QC Batch: MP92703

(4) Prep QC Batch: MP92763

RL = Reporting Limit



## Report of Analysis

<b>Client Sample ID:</b>	MW-6	<b>Date Sampled:</b>	03/18/16
<b>Lab Sample ID:</b>	JC16575-2	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	N253485.D	1	03/19/16	WO	n/a	n/a	VN10722
Run #2							

Run	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	10	1.6	ug/l	
107-13-1	Acrylonitrile	ND	10	2.6	ug/l	
71-43-2	Benzene	ND	1.0	0.10	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.10	ug/l	
75-25-2	Bromoform	ND	1.0	0.17	ug/l	
74-83-9	Bromomethane	ND	1.0	0.57	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.096	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.093	ug/l	
75-00-3	Chloroethane	ND	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.091	ug/l	
74-87-3	Chloromethane	ND	1.0	0.11	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.11	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.29	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.12	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.090	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.16	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.1	1.0	0.12	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.14	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.11	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.12	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.15	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.12	ug/l	
127-18-4	Tetrachloroethene	3.7	1.0	0.14	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.086	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.13	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> MW-6	<b>Date Sampled:</b> 03/18/16
<b>Lab Sample ID:</b> JC16575-2	<b>Date Received:</b> 03/18/16
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> EPA 624	
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	1.5	1.0	0.12	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.13	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	100%		72-125%
2037-26-5	Toluene-D8 (SUR)	100%		78-119%
460-00-4	4-Bromofluorobenzene (SUR)	102%		74-115%
1868-53-7	Dibromofluoromethane (S)	100%		79-120%

(a) (pH= 5) Sample is not acid preserved per method/client criteria. Sample analyzed within 3 days holding time as required for acrolein and acrylonitrile. Other compounds within 7 days as required by the method.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	MW-7	<b>Date Sampled:</b>	03/18/16
<b>Lab Sample ID:</b>	JC16575-3	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	N253484.D	1	03/19/16	WO	n/a	n/a	VN10722
Run #2							

Run	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	10	1.6	ug/l	
107-13-1	Acrylonitrile	ND	10	2.6	ug/l	
71-43-2	Benzene	ND	1.0	0.10	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.10	ug/l	
75-25-2	Bromoform	ND	1.0	0.17	ug/l	
74-83-9	Bromomethane	ND	1.0	0.57	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.096	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.093	ug/l	
75-00-3	Chloroethane	ND	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.50	ug/l	
67-66-3	Chloroform	1.5	1.0	0.091	ug/l	
74-87-3	Chloromethane	ND	1.0	0.11	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.11	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.29	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.12	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.090	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.16	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.34	1.0	0.12	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.14	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.11	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.12	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.15	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.12	ug/l	
127-18-4	Tetrachloroethene	4.0	1.0	0.14	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.086	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.13	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

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B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-7	<b>Date Sampled:</b>	03/18/16
<b>Lab Sample ID:</b>	JC16575-3	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	0.74	1.0	0.12	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.13	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	111%		72-125%
2037-26-5	Toluene-D8 (SUR)	101%		78-119%
460-00-4	4-Bromofluorobenzene (SUR)	104%		74-115%
1868-53-7	Dibromofluoromethane (S)	106%		79-120%

(a) (pH= 5) Sample is not acid preserved per method/client criteria. Sample analyzed within 3 days holding time as required for acrolein and acrylonitrile. Other compounds within 7 days as required by the method.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
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## Report of Analysis

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<b>Client Sample ID:</b>	FB	<b>Date Sampled:</b>	03/18/16
<b>Lab Sample ID:</b>	JC16575-4	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	N253492.D	1	03/19/16	WO	n/a	n/a	VN10722
Run #2							

Run	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	10	1.6	ug/l	
107-13-1	Acrylonitrile	ND	10	2.6	ug/l	
71-43-2	Benzene	ND	1.0	0.10	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.10	ug/l	
75-25-2	Bromoform	ND	1.0	0.17	ug/l	
74-83-9	Bromomethane	ND	1.0	0.57	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.096	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.093	ug/l	
75-00-3	Chloroethane	ND	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.091	ug/l	
74-87-3	Chloromethane	ND	1.0	0.11	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.11	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.29	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.12	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.090	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.16	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.12	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.14	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.11	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.12	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.15	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.12	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.14	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.086	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.13	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> FB	<b>Date Sampled:</b> 03/18/16
<b>Lab Sample ID:</b> JC16575-4	<b>Date Received:</b> 03/18/16
<b>Matrix:</b> AQ - Field Blank Water	<b>Percent Solids:</b> n/a
<b>Method:</b> EPA 624	
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	1.0	0.12	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.13	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	111%		72-125%
2037-26-5	Toluene-D8 (SUR)	100%		78-119%
460-00-4	4-Bromofluorobenzene (SUR)	104%		74-115%
1868-53-7	Dibromofluoromethane (S)	105%		79-120%

(a) (pH= 5) Sample is not acid preserved per method/client criteria. Sample analyzed within 3 days holding time as required for acrolein and acrylonitrile. Other compounds within 7 days as required by the method.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	FB	<b>Date Sampled:</b>	03/18/16
<b>Lab Sample ID:</b>	JC16575-4	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 625 EPA 625		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F155737.D	1	03/22/16	SD	03/21/16	OP92311	EF6551
Run #2							

Run #	Initial Volume	Final Volume
Run #1	950 ml	1.0 ml
Run #2		

## ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.3	1.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.3	1.2	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.3	1.6	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.3	1.7	ug/l	
51-28-5	2,4-Dinitrophenol	ND	5.3	0.94	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.3	0.76	ug/l	
88-75-5	2-Nitrophenol	ND	2.1	1.9	ug/l	
100-02-7	4-Nitrophenol	ND	11	0.89	ug/l	
87-86-5	Pentachlorophenol	ND	5.3	2.0	ug/l	
108-95-2	Phenol	ND	2.1	0.52	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	2.1	1.3	ug/l	
83-32-9	Acenaphthene	ND	1.1	0.37	ug/l	
208-96-8	Acenaphthylene	ND	1.1	0.40	ug/l	
120-12-7	Anthracene	ND	1.1	0.42	ug/l	
92-87-5	Benzidine	ND	21	0.29	ug/l	
56-55-3	Benzo(a)anthracene	ND	1.1	0.37	ug/l	
50-32-8	Benzo(a)pyrene	ND	1.1	0.39	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	1.1	0.62	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	1.1	0.44	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	1.1	0.44	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	2.1	0.31	ug/l	
85-68-7	Butyl benzyl phthalate	ND	2.1	0.62	ug/l	
91-58-7	2-Chloronaphthalene	ND	2.1	1.0	ug/l	
106-47-8	4-Chloroaniline	ND	2.1	0.42	ug/l	
218-01-9	Chrysene	ND	1.1	0.26	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	2.1	0.69	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	2.1	0.56	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	2.1	0.78	ug/l	
7005-72-3	4-Chlorophenyl phenyl ether	ND	2.1	0.45	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	2.1	0.22	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	2.1	0.48	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	2.1	0.17	ug/l	

ND = Not detected MDL = Method Detection Limit

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E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> FB	<b>Date Sampled:</b> 03/18/16
<b>Lab Sample ID:</b> JC16575-4	<b>Date Received:</b> 03/18/16
<b>Matrix:</b> AQ - Field Blank Water	<b>Percent Solids:</b> n/a
<b>Method:</b> EPA 625 EPA 625	
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	

## ABN PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
106-46-7	1,4-Dichlorobenzene	ND	2.1	0.19	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	2.1	0.91	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	2.1	0.59	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	2.1	1.3	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	1.1	0.57	ug/l	
84-74-2	Di-n-butyl phthalate	ND	2.1	0.62	ug/l	
117-84-0	Di-n-octyl phthalate	ND	2.1	0.60	ug/l	
84-66-2	Diethyl phthalate	ND	2.1	0.41	ug/l	
131-11-3	Dimethyl phthalate	ND	2.1	0.35	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.70	ug/l	
206-44-0	Fluoranthene	ND	1.1	0.26	ug/l	
86-73-7	Fluorene	ND	1.1	0.47	ug/l	
118-74-1	Hexachlorobenzene	ND	1.1	0.57	ug/l	
87-68-3	Hexachlorobutadiene	ND	1.1	0.18	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	11	0.43	ug/l	
67-72-1	Hexachloroethane	ND	5.3	0.30	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	1.1	0.32	ug/l	
78-59-1	Isophorone	ND	2.1	0.62	ug/l	
91-20-3	Naphthalene	ND	1.1	0.34	ug/l	
98-95-3	Nitrobenzene	ND	2.1	0.44	ug/l	
62-75-9	n-Nitrosodimethylamine	ND	2.1	0.48	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	2.1	0.49	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.3	0.54	ug/l	
85-01-8	Phenanthrene	ND	1.1	0.38	ug/l	
129-00-0	Pyrene	ND	1.1	0.35	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.1	0.36	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	40%		14-110%
4165-62-2	Phenol-d5	28%		10-110%
118-79-6	2,4,6-Tribromophenol	63%		38-145%
4165-60-0	Nitrobenzene-d5	65%		33-136%
321-60-8	2-Fluorobiphenyl	59%		35-127%
1718-51-0	Terphenyl-d14	69%		11-139%

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## Report of Analysis

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<b>Client Sample ID:</b>	FB	<b>Date Sampled:</b>	03/18/16
<b>Lab Sample ID:</b>	JC16575-4	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 608 EPA 608		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	6G33313.D	1	03/24/16	BP	03/22/16	OP92352	G6G969
Run #2	EF155239.D	1	03/24/16	KM	03/22/16	OP92353	GEF5609

	Initial Volume	Final Volume
Run #1	970 ml	5.0 ml
Run #2	970 ml	5.0 ml

## Pesticide PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
309-00-2	Aldrin	ND	0.010	0.0017	ug/l	
319-84-6	alpha-BHC	ND	0.010	0.0013	ug/l	
319-85-7	beta-BHC	ND	0.010	0.0032	ug/l	
319-86-8	delta-BHC	ND	0.010	0.0016	ug/l	
58-89-9	gamma-BHC (Lindane)	ND	0.010	0.00089	ug/l	
12789-03-6	Chlordane	ND	0.10	0.034	ug/l	
60-57-1	Dieldrin	ND	0.010	0.00088	ug/l	
72-54-8	4,4' -DDD	ND	0.010	0.0012	ug/l	
72-55-9	4,4' -DDE	ND	0.010	0.00086	ug/l	
50-29-3	4,4' -DDT	ND	0.010	0.0025	ug/l	
72-20-8	Endrin	ND	0.010	0.0016	ug/l	
1031-07-8	Endosulfan sulfate	ND	0.010	0.0024	ug/l	
7421-93-4	Endrin aldehyde	ND	0.010	0.0033	ug/l	
959-98-8	Endosulfan-I	ND	0.010	0.0011	ug/l	
33213-65-9	Endosulfan-II	ND	0.010	0.0017	ug/l	
76-44-8	Heptachlor	ND	0.010	0.0013	ug/l	
1024-57-3	Heptachlor epoxide	ND	0.010	0.00076	ug/l	
72-43-5	Methoxychlor	ND	0.010	0.0035	ug/l	
8001-35-2	Toxaphene	ND	0.13	0.049	ug/l	
12674-11-2	Aroclor 1016	ND <sup>a</sup>	0.26	0.048	ug/l	
11104-28-2	Aroclor 1221	ND <sup>a</sup>	0.26	0.24	ug/l	
11141-16-5	Aroclor 1232	ND <sup>a</sup>	0.26	0.20	ug/l	
53469-21-9	Aroclor 1242	ND <sup>a</sup>	0.26	0.085	ug/l	
12672-29-6	Aroclor 1248	ND <sup>a</sup>	0.26	0.079	ug/l	
11097-69-1	Aroclor 1254	ND <sup>a</sup>	0.26	0.056	ug/l	
11096-82-5	Aroclor 1260	ND <sup>a</sup>	0.26	0.060	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	83%	95%	21-137%
877-09-8	Tetrachloro-m-xylene	79%	96%	21-137%
2051-24-3	Decachlorobiphenyl	53%	69%	10-121%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	FB	<b>Date Sampled:</b>	03/18/16
<b>Lab Sample ID:</b>	JC16575-4	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 608 EPA 608		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Pesticide PPL List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2051-24-3	Decachlorobiphenyl	58%	63%	10-121%

(a) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit      J = Indicates an estimated value  
RL = Reporting Limit      B = Indicates analyte found in associated method blank  
E = Indicates value exceeds calibration range      N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b>	FB	<b>Date Sampled:</b>	03/18/16
<b>Lab Sample ID:</b>	JC16575-4	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8151 SW846 8151/3510C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	OA115476.D	1	03/26/16	VDT	03/22/16	OP92340	GOA3989
Run #2							

	Initial Volume	Final Volume
Run #1	800 ml	10.0 ml
Run #2		

## Herbicide List

CAS No.	Compound	Result	RL	MDL	Units	Q
94-75-7	2,4-D	ND	0.63	0.36	ug/l	
93-72-1	2,4,5-TP (Silvex)	ND	0.13	0.069	ug/l	
93-76-5	2,4,5-T	ND	0.13	0.069	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
19719-28-9	2,4-DCAA	85%		39-159%
19719-28-9	2,4-DCAA	67%		39-159%

ND = Not detected MDL = Method Detection Limit

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J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> FB	<b>Date Sampled:</b> 03/18/16
<b>Lab Sample ID:</b> JC16575-4	<b>Date Received:</b> 03/18/16
<b>Matrix:</b> AQ - Field Blank Water	<b>Percent Solids:</b> n/a
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	

## Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analized By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	03/24/16	03/30/16 GT	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Arsenic	< 3.0	3.0	ug/l	1	03/24/16	03/30/16 GT	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Beryllium	< 1.0	1.0	ug/l	1	03/24/16	03/30/16 GT	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Cadmium	< 3.0	3.0	ug/l	1	03/24/16	03/30/16 GT	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Chromium	< 10	10	ug/l	1	03/24/16	03/30/16 GT	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Copper	< 10	10	ug/l	1	03/24/16	03/30/16 GT	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Lead	< 3.0	3.0	ug/l	1	03/24/16	03/30/16 GT	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Mercury	2.5	0.20	ug/l	1	03/22/16	03/22/16 MS	SW846 7470A <sup>1</sup>	SW846 7470A <sup>3</sup>
Nickel	< 10	10	ug/l	1	03/24/16	03/30/16 GT	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Selenium	< 10	10	ug/l	1	03/24/16	03/30/16 GT	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Silver	< 10	10	ug/l	1	03/24/16	03/30/16 GT	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Thallium	< 2.0	2.0	ug/l	1	03/24/16	03/30/16 GT	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>
Zinc	< 20	20	ug/l	1	03/24/16	03/30/16 GT	SW846 6010C <sup>2</sup>	SW846 3010A <sup>4</sup>

(1) Instrument QC Batch: MA38977

(2) Instrument QC Batch: MA39057

(3) Prep QC Batch: MP92703

(4) Prep QC Batch: MP92763

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	TB	<b>Date Sampled:</b>	03/18/16
<b>Lab Sample ID:</b>	JC16575-5	<b>Date Received:</b>	03/18/16
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	N253493.D	1	03/19/16	WO	n/a	n/a	VN10722
Run #2							

Run	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	10	1.6	ug/l	
107-13-1	Acrylonitrile	ND	10	2.6	ug/l	
71-43-2	Benzene	ND	1.0	0.10	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.10	ug/l	
75-25-2	Bromoform	ND	1.0	0.17	ug/l	
74-83-9	Bromomethane	ND	1.0	0.57	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.096	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.093	ug/l	
75-00-3	Chloroethane	ND	1.0	0.21	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.50	ug/l	
67-66-3	Chloroform	ND	1.0	0.091	ug/l	
74-87-3	Chloromethane	ND	1.0	0.11	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.15	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.19	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.11	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.29	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.12	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.090	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.16	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.12	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.14	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.11	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.12	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.15	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.22	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.12	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.14	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.086	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.13	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b> TB	
<b>Lab Sample ID:</b> JC16575-5	<b>Date Sampled:</b> 03/18/16
<b>Matrix:</b> AQ - Trip Blank Water	<b>Date Received:</b> 03/18/16
<b>Method:</b> EPA 624	<b>Percent Solids:</b> n/a
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	1.0	0.12	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.13	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	110%		72-125%
2037-26-5	Toluene-D8 (SUR)	102%		78-119%
460-00-4	4-Bromofluorobenzene (SUR)	103%		74-115%
1868-53-7	Dibromofluoromethane (S)	108%		79-120%

(a) (pH= 5) Sample is not acid preserved per method/client criteria. Sample analyzed within 3 days holding time as required for acrolein and acrylonitrile. Other compounds within 7 days as required by the method.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



Sample Results

Report of Analysis

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## Report of Analysis

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<b>Client Sample ID:</b>	TRIP BLANK	<b>Date Sampled:</b>	03/31/16
<b>Lab Sample ID:</b>	JC17397-1	<b>Date Received:</b>	03/31/16
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	N253844.D	1	04/04/16	WO	n/a	n/a	VN10735
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	10	1.3	ug/l	
107-13-1	Acrylonitrile	ND	10	1.2	ug/l	
71-43-2	Benzene	ND	1.0	0.11	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.14	ug/l	
75-25-2	Bromoform	ND	1.0	0.15	ug/l	
74-83-9	Bromomethane	ND	1.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.19	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.12	ug/l	
75-00-3	Chloroethane	ND	1.0	0.19	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.11	ug/l	
74-87-3	Chloromethane	ND	1.0	0.22	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.15	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.15	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.13	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.54	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.16	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.21	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.22	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.30	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.14	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.17	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.16	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.17	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.11	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.16	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.18	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.17	ug/l	
108-88-3	Toluene	ND	1.0	0.12	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.17	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.18	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	TRIP BLANK	<b>Date Sampled:</b>	03/31/16
<b>Lab Sample ID:</b>	JC17397-1	<b>Date Received:</b>	03/31/16
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	1.0	0.16	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.55	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.19	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	96%		72-125%
2037-26-5	Toluene-D8 (SUR)	99%		78-119%
460-00-4	4-Bromofluorobenzene (SUR)	97%		74-115%
1868-53-7	Dibromofluoromethane (S)	100%		79-120%

(a) Results reported from the HCl preserved sample. This reported result can only be used for screening purposes for acrolein and acrylonitrile.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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<b>Client Sample ID:</b>	FIELD	<b>Date Sampled:</b>	03/31/16
<b>Lab Sample ID:</b>	JC17397-2	<b>Date Received:</b>	03/31/16
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

Run	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	N253845.D	1	04/04/16	WO	n/a	n/a	VN10735
Run #2							

Run	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	10	1.3	ug/l	
107-13-1	Acrylonitrile	ND	10	1.2	ug/l	
71-43-2	Benzene	ND	1.0	0.11	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.14	ug/l	
75-25-2	Bromoform	ND	1.0	0.15	ug/l	
74-83-9	Bromomethane	ND	1.0	0.20	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.19	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.12	ug/l	
75-00-3	Chloroethane	ND	1.0	0.19	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	5.0	0.73	ug/l	
67-66-3	Chloroform	ND	1.0	0.11	ug/l	
74-87-3	Chloromethane	ND	1.0	0.22	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.15	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.15	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.13	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.54	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.16	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.21	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.22	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.30	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.14	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.17	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.16	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.17	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.11	ug/l	
75-09-2	Methylene chloride	ND	1.0	0.16	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.18	ug/l	
127-18-4	Tetrachloroethene	0.83	1.0	0.17	ug/l	J
108-88-3	Toluene	ND	1.0	0.12	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.17	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.18	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	FIELD	<b>Date Sampled:</b>	03/31/16
<b>Lab Sample ID:</b>	JC17397-2	<b>Date Received:</b>	03/31/16
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	ND	1.0	0.16	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.55	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.19	ug/l	
1330-20-7	Xylenes (total)	ND	1.0	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	102%		72-125%
2037-26-5	Toluene-D8 (SUR)	100%		78-119%
460-00-4	4-Bromofluorobenzene (SUR)	98%		74-115%
1868-53-7	Dibromofluoromethane (S)	104%		79-120%

(a) Results reported from the HCl preserved sample. This reported result can only be used for screening purposes for acrolein and acrylonitrile.

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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<b>Client Sample ID:</b>	MW-5	<b>Date Sampled:</b>	03/31/16
<b>Lab Sample ID:</b>	JC17397-3	<b>Date Received:</b>	03/31/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	N253846.D	10	04/05/16	WO	n/a	n/a	VN10735
Run #2 <sup>a</sup>	N253847.D	100	04/05/16	WO	n/a	n/a	VN10735

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
107-02-8	Acrolein	ND	100	13	ug/l	
107-13-1	Acrylonitrile	ND	100	12	ug/l	
71-43-2	Benzene	ND	10	1.1	ug/l	
75-27-4	Bromodichloromethane	ND	10	1.4	ug/l	
75-25-2	Bromoform	ND	10	1.5	ug/l	
74-83-9	Bromomethane	ND	10	2.0	ug/l	
56-23-5	Carbon tetrachloride	ND	10	1.9	ug/l	
108-90-7	Chlorobenzene	ND	10	1.2	ug/l	
75-00-3	Chloroethane	ND	10	1.9	ug/l	
110-75-8	2-Chloroethyl vinyl ether	ND	50	7.3	ug/l	
67-66-3	Chloroform	ND	10	1.1	ug/l	
74-87-3	Chloromethane	ND	10	2.2	ug/l	
124-48-1	Dibromochloromethane	ND	10	2.2	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	10	1.5	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	10	1.5	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	10	1.3	ug/l	
75-71-8	Dichlorodifluoromethane	ND	20	5.4	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	1.6	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	2.1	ug/l	
75-35-4	1,1-Dichloroethene	ND	10	2.2	ug/l	
156-59-2	cis-1,2-Dichloroethene	924	10	3.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	8.0	10	1.4	ug/l	J
78-87-5	1,2-Dichloropropane	ND	10	1.7	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	10	1.6	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10	1.7	ug/l	
100-41-4	Ethylbenzene	ND	10	1.1	ug/l	
75-09-2	Methylene chloride	ND	10	1.6	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	1.8	ug/l	
127-18-4	Tetrachloroethene	7270 <sup>b</sup>	100	17	ug/l	
108-88-3	Toluene	ND	10	1.2	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	1.7	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	1.8	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b>	MW-5	<b>Date Sampled:</b>	03/31/16
<b>Lab Sample ID:</b>	JC17397-3	<b>Date Received:</b>	03/31/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	EPA 624		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA PPL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-01-6	Trichloroethene	181	10	1.6	ug/l	
75-69-4	Trichlorofluoromethane	ND	20	5.5	ug/l	
75-01-4	Vinyl chloride	ND	10	1.9	ug/l	
1330-20-7	Xylenes (total)	ND	10	2.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4 (SUR)	91%	97%	72-125%
2037-26-5	Toluene-D8 (SUR)	97%	99%	78-119%
460-00-4	4-Bromofluorobenzene (SUR)	97%	98%	74-115%
1868-53-7	Dibromofluoromethane (S)	96%	99%	79-120%

- (a) Results reported from the HCl preserved sample. This reported result can only be used for screening purposes for acrolein and acrylonitrile.
- (b) Result is from Run# 2

ND = Not detected      MDL = Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



**Sample Results**

**Report of Analysis**

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## Report of Analysis

<b>Client Sample ID:</b>	MW-51	<b>Date Sampled:</b>	07/08/16
<b>Lab Sample ID:</b>	JC23746-1	<b>Date Received:</b>	07/08/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B128390.D	1	07/11/16	HA	n/a	n/a	V3B5741
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.8	ug/l	
71-43-2	Benzene	ND	0.50	0.14	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.46	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.55	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
74-83-9	Bromomethane	ND	2.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	1.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.33	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.17	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	0.78	1.0	0.23	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.96	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.73	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.23	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.21	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.70	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.39	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.3	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.36	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.5	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-51	<b>Date Sampled:</b>	07/08/16
<b>Lab Sample ID:</b>	JC23746-1	<b>Date Received:</b>	07/08/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.5	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.78	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.35	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	18.7	1.0	0.23	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	0.47	1.0	0.22	ug/l	J
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	2.1	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.58	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		76-120%
17060-07-0	1,2-Dichloroethane-D4	100%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	99%		78-117%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	MW-8	<b>Date Sampled:</b>	07/08/16
<b>Lab Sample ID:</b>	JC23746-2	<b>Date Received:</b>	07/08/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B128391.D	1	07/11/16	HA	n/a	n/a	V3B5741
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.8	ug/l	
71-43-2	Benzene	ND	0.50	0.14	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.46	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.55	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
74-83-9	Bromomethane	ND	2.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	1.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.33	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.17	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.23	ug/l	
74-87-3	Chloromethane	ND	1.0	0.96	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.73	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.23	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.21	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.70	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.39	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.36	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.5	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-8	<b>Date Sampled:</b>	07/08/16
<b>Lab Sample ID:</b>	JC23746-2	<b>Date Received:</b>	07/08/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.5	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.78	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.35	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	0.52	1.0	0.23	ug/l	J
108-88-3	Toluene	ND	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.58	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		76-120%
17060-07-0	1,2-Dichloroethane-D4	103%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	99%		78-117%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	MW-9	<b>Date Sampled:</b>	07/08/16
<b>Lab Sample ID:</b>	JC23746-3	<b>Date Received:</b>	07/08/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B128392.D	1	07/11/16	HA	n/a	n/a	V3B5741
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.8	ug/l	
71-43-2	Benzene	0.66	0.50	0.14	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.46	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.55	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
74-83-9	Bromomethane	ND	2.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	1.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.33	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.17	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.23	ug/l	
74-87-3	Chloromethane	ND	1.0	0.96	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.73	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.23	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.21	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.70	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.39	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.1	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.36	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.5	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b>	MW-9	<b>Date Sampled:</b>	07/08/16
<b>Lab Sample ID:</b>	JC23746-3	<b>Date Received:</b>	07/08/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.5	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.78	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.35	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	7.5	1.0	0.23	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	0.87	1.0	0.26	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.58	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	103%		73-122%
2037-26-5	Toluene-D8	102%		84-119%
460-00-4	4-Bromofluorobenzene	100%		78-117%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	MW-10	<b>Date Sampled:</b>	07/08/16
<b>Lab Sample ID:</b>	JC23746-4	<b>Date Received:</b>	07/08/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B128491.D	1	07/14/16	HA	n/a	n/a	V3B5745
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.8	ug/l	
71-43-2	Benzene	ND	0.50	0.14	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.46	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.55	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
74-83-9	Bromomethane	ND	2.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	1.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.33	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.17	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	0.33	1.0	0.23	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.96	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.73	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.23	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.21	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.70	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.39	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.9	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.36	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.5	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-10	<b>Date Sampled:</b>	07/08/16
<b>Lab Sample ID:</b>	JC23746-4	<b>Date Received:</b>	07/08/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.5	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.78	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.35	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	17.6	1.0	0.23	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	3.4	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.58	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	106%		73-122%
2037-26-5	Toluene-D8	102%		84-119%
460-00-4	4-Bromofluorobenzene	99%		78-117%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	MW-100	<b>Date Sampled:</b>	07/08/16
<b>Lab Sample ID:</b>	JC23746-5	<b>Date Received:</b>	07/08/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B128492.D	1	07/14/16	HA	n/a	n/a	V3B5745
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.8	ug/l	
71-43-2	Benzene	ND	0.50	0.14	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.46	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.55	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
74-83-9	Bromomethane	ND	2.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	1.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.33	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.17	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	0.72	1.0	0.23	ug/l	J
74-87-3	Chloromethane	ND	1.0	0.96	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.73	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.23	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.21	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.70	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.39	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.4	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.36	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.5	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	MW-100	<b>Date Sampled:</b>	07/08/16
<b>Lab Sample ID:</b>	JC23746-5	<b>Date Received:</b>	07/08/16
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.5	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.78	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.35	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	18.4	1.0	0.23	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	0.49	1.0	0.22	ug/l	J
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	2.1	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.58	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		76-120%
17060-07-0	1,2-Dichloroethane-D4	106%		73-122%
2037-26-5	Toluene-D8	103%		84-119%
460-00-4	4-Bromofluorobenzene	96%		78-117%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS Accutest LabLink@945686 14:27 10-Feb-2017

## Report of Analysis

Page 1 of 2

<b>Client Sample ID:</b>	FIELD	<b>Date Sampled:</b>	07/08/16
<b>Lab Sample ID:</b>	JC23746-6	<b>Date Received:</b>	07/08/16
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B128396.D	1	07/11/16	HA	n/a	n/a	V3B5741
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.8	ug/l	
71-43-2	Benzene	ND	0.50	0.14	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.46	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.55	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
74-83-9	Bromomethane	ND	2.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	1.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.33	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.17	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.23	ug/l	
74-87-3	Chloromethane	ND	1.0	0.96	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.73	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.23	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.21	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.70	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.39	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.36	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.5	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> FIELD	<b>Date Sampled:</b> 07/08/16
<b>Lab Sample ID:</b> JC23746-6	<b>Date Received:</b> 07/08/16
<b>Matrix:</b> AQ - Field Blank Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260C	
<b>Project:</b> 2002-2024 Cropsey Avenue, Brooklyn, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.5	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.78	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.35	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.23	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.58	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		76-120%
17060-07-0	1,2-Dichloroethane-D4	101%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	98%		78-117%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b>	TRIP	<b>Date Sampled:</b>	07/08/16
<b>Lab Sample ID:</b>	JC23746-7	<b>Date Received:</b>	07/08/16
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3B128397.D	1	07/11/16	HA	n/a	n/a	V3B5741
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.8	ug/l	
71-43-2	Benzene	ND	0.50	0.14	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.46	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.55	ug/l	
75-25-2	Bromoform	ND	1.0	0.34	ug/l	
74-83-9	Bromomethane	ND	2.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	1.9	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.33	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.54	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.17	ug/l	
75-00-3	Chloroethane	ND	1.0	0.44	ug/l	
67-66-3	Chloroform	ND	1.0	0.23	ug/l	
74-87-3	Chloromethane	ND	1.0	0.96	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.73	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.23	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.22	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.23	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.19	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.21	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.70	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.39	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.36	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.33	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.5	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	TRIP	<b>Date Sampled:</b>	07/08/16
<b>Lab Sample ID:</b>	JC23746-7	<b>Date Received:</b>	07/08/16
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260C		
<b>Project:</b>	2002-2024 Cropsey Avenue, Brooklyn, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
98-82-8	Isopropylbenzene	ND	1.0	0.16	ug/l	
79-20-9	Methyl Acetate	ND	5.0	1.5	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	0.78	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.34	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	1.2	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.35	ug/l	
100-42-5	Styrene	ND	1.0	0.27	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.39	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.23	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.25	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.22	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.28	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.26	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.58	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.33	ug/l	
	m,p-Xylene	ND	1.0	0.42	ug/l	
95-47-6	o-Xylene	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.21	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		76-120%
17060-07-0	1,2-Dichloroethane-D4	101%		73-122%
2037-26-5	Toluene-D8	102%		84-119%
460-00-4	4-Bromofluorobenzene	98%		78-117%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## **Appendix H**

### **Data Usability Summary Report (DUSR)**

## RI Appendix H Data Usability Summary Report



### Cropsey Site 2002-2024 Cropsey Avenue Brooklyn, NY

PREPARED FOR:

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2002 Cropsey Associates, LLC  
2611 West 2nd Street  
Brooklyn, NY 11223

March 9, 2018

Apex Companies, LLC  
120-D Wilbur Place  
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# Data Usability Summary Report

## BCP Site No. C224169

### 2002-2024 Cropsey Avenue

### Brooklyn, NY

## Scope of Work

Environmental samples were collected from the Cropsey site in Brooklyn, New York. These samples consisted of groundwater, soil, soil vapor, and ambient air which were collected between October 29, 2015 and July 8, 2016. Analytical results were validated and usability was determined using the following guidelines:

- NYSDEC Analytical Services Protocol (ASP);
- USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic and Inorganic Data Validation, and;
- USEPA analytical methods.

## 1.0 Analytical Laboratory

Samples collected were analyzed by SGS Accutest, Inc. of Dayton, New Jersey. SGS Accutest holds accreditation under The NELAC Institute (TNI) lab code TNI01283.

### 1.1 TNI Accreditation

SGS Accutest, Inc. was accredited for all testing performed except for 1,2-dichlorobenzene, 1,3-dichlorobenzene and 1,4-dichlorobenzene by EPA 625 from laboratory report JC16575. These same analytes were analyzed by EPA 624 in JC16575, which was included in SGS Accutest's accreditation at the time, so reportable data completeness was not affected.

### 1.2 Laboratory Data Packages

Laboratory data packages were complete and included cover pages, chain of custodies, sample log-in information, and case narratives. Raw data was included in data packages and was used in the validation process.


### 1.3 Laboratory Analytical Methods

Analyses of soil and groundwater samples collected consisted of volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), chlorinated pesticides, chlorinated herbicides, metals, mercury, polychlorinated biphenyls (PCB) and percent moisture (soil only). Soil samples were collected using EnCore or similar sampling devices for volatile organic compounds (VOC) under EPA 5035. Soil vapor and ambient air samples were analyzed for VOCs. Data validation for these analytical methods are included in Section 2.

#### 1.3.1 Volatile Organic Analysis

Soil samples were prepared by EPA 5035 and analyzed by EPA 8260C. Groundwater samples were generally analyzed by EPA 624, apart from SDG JC23746, which was analyzed by EPA 8260C. Both methods are acceptable for groundwater analysis. Air samples were analyzed by TO-15. Data validation included review of requirements from EPA





methods and recommendations from the EPA *National Functional Guidelines for Superfund Organic Methods Review*, January 2017 (CLP Guidance). Groundwater and air samples were reviewed under the “Trace Volatiles” CLP Guidance; while soil VOCs were reviewed under the “Low/Medium Volatiles” CLP Guidance.

### 1.3.2 Semi-Volatile Organic Analysis

Soil samples were analyzed by EPA 8270D and groundwater samples were analyzed by EPA 625. Data was validated using EPA methods 8270D and EPA 625 and the EPA *National Functional Guidelines for Superfund Organic Methods Review*, January 2017 (CLP Guidance).

### 1.3.3 Pesticides, PCBs, and Herbicides

EPA methods 8081B, 8082A and 8151 were used to accurately analyze soil samples. Groundwater samples were analyzed by EPA 608 and 8151. CLP Guidance and EPA methods 8081, 8082, 608 and 8151 were used to validate data.

### 1.3.4 Metals and Mercury

Soil and groundwater samples were analyzed by EPA 6010C. Mercury was analyzed by 7471B and 7470, depending on the matrix. These results were validated using EPA *National Functional Guidelines for Superfund Inorganic Methods Review*, January 2017 (CLP Guidance).

## 1.4 Data Qualification

Laboratory data may be qualified with the following flags:

- J** The analyte result is an estimated value.
- U** The analyte was analyzed for but was not detected over the laboratory detection limit.
- UJ** The analyte was analyzed for but was not detected over the laboratory detection limit. Due to findings with data quality, the laboratory detection limit may be inaccurate and is an estimated value.
- R** The analyte result is unusable due to data quality deficiencies.

## 2.0 Data Validation

The following subsections include data validation for individual Sample Delivery Groups (SDG). Each sample within the SDG was reviewed based on EPA method guidelines, CLP Guidance's and NYSDEC's ASP. Summaries of data validation findings and qualifier verification are included below.

### 2.1 SDG JC7512

Data validation and review was conducted for soil samples within SDG JC7512 in accordance with the EPA National Functional Guidelines for Superfund Organic Methods Review, January 2017, EPA National Functional Guidelines for Superfund Inorganic Methods Review, January 2017, and NYDEC Analytical Services Protocol. The SDG included six soil samples to be analyzed for VOCs by EPA 8260C, SVOCs by EPA 8270D, chlorinated herbicides by EPA 8151, chlorinated pesticides by EPA 8081B, polychlorinated biphenyls by EPA 8082A, metals by EPA 6010C, mercury by EPA 7471B and percent moisture by SM2540 G-97. Samples specific to JC7512 are included below.

SDG ID	Sample ID	Matrix	Sample Date	Sample Time
JC7512-1	SB-1-1	Soil	10/29/2015	13:00
JC7512-2	SB-1-5	Soil	10/29/2015	13:10
JC7512-3	SB-2-1	Soil	10/29/2015	13:20
JC7512-4	SB-2-5	Soil	10/29/2015	13:55
JC7512-5	SB-3-1	Soil	10/29/2015	14:30
JC7512-6	SB-3-5	Soil	10/29/2015	14:45

Samples were received by the analytical laboratory, SGS Accutest of Dayton, New Jersey. As indicated by the analytical laboratory sample receipt summary: the cooler temperature upon receipt was 2.5°C, custody seals were intact and containers were accurately labeled and reflected the chain of custody. Soil samples were preserved onsite with DI water and methanol for VOC analysis. Samples preserved with DI water were frozen by the analytical laboratory upon receipt.


#### 2.1.1 VOCs

##### Holding Times

Samples were received below 6°C and within method holding times by the analytical laboratory. Soil samples preserved with DI water were frozen upon receipt by the analytical laboratory. Analysis for VOCs was performed between five and eight days from sample collection. Analysis times were confirmed with raw data.

##### Instrument Performance Check

Bromofluorobenzene (BFB) was evaluated for ion abundance requirements and frequency to ensure adequate instrument performance. Four sequences and subsequently four BFB standards were analyzed for samples included in SDG JC7512.



The initial sequence, with an injection date of 9/17/15, includes the soil matrix calibration and initial calibration check. BFB was analyzed at the beginning of the sequence and within ion abundance criteria. The final sample for the sequence was analyzed six hours past the BFB injection. The BFB ion abundances were reviewed from raw data presented in the SDG. Ion abundances were averaged over three scans and background-subtracted from ten scans away from the BFB peak.

Three more BFB injections were performed. One BFB injection was completed on 11/2/15 for JC7512-1, JC7512-2 and quality control samples. The ion abundances were averaged over three scans and background subtraction was performed ten scans away from the BFB peak. The second BFB injection was completed on 11/3/15 for JC7512-4, JC7512-5, JC7512-6 and quality control samples. Ion abundances were averaged over three scans and were background subtracted from ten scans away from the BFB peak. The final BFB injection was performed on 11/6/15 for JC7512-3 and quality control samples. The ion abundances were averaged over three scans and were background subtracted from ten scans away. All BFB injections were within twelve hours of sample injections and were within ion abundance criteria.

### **Initial Calibration**

Initial calibration included at least five calibration points, were performed prior to ICVs, samples and blanks, and were within twelve hours of a BFB check standard. Relative Response Factors (RRF) and Percent Relative Standard Deviations (%RSD) were calculated for each analyte and surrogate. The mean RRF and %RSD for target analytes were within control limits as stated in Table 18 of the EPA *National Functional Guidelines for Superfund Organic Methods Review*, January 2017.

### **Initial Calibration Verification**

The RRF for target analytes and surrogate analytes were above minimums presented in the CLP Guidance. The percent difference between the mean RRF of the initial calibration and the initial calibration verification were within control limits stated by the CLP Guidance.

### **Continuing Calibration Verification**

Continuing calibration verifications were evaluated to determine instrument performance and calibration validity during each analytical run. The RRF calculated for each analyte and the %D from the initial calibration were within control limits except for dichlorodifluoromethane from the CCV analyzed 11/2/15 at 10:37 pm and 11/6/15 at 10:32 am. Samples within analytical sequences affected by this %RSD failure are JC7512-1 (SB-1-1), JC7512-2 (SB-1-5) and JC7512-3 (SB-2-1). Dichlorodifluoromethane is estimated for these samples and is UJ qualified within the data table.

### **Blanks**

Three method blanks, one per analytical batch, were analyzed to assess possible contamination from the laboratory or the field. There were no detections in any blanks associated with this SDG. Chromatograms were checked to ensure that all measurable peaks were identified.

### **Surrogates**

The percent recovery of surrogate compounds were evaluated to determine method and instrument performance. Surrogate recoveries for soil samples and quality control samples were within laboratory control limits. Raw data was checked for calculation and transcription errors and none were found.

### **Laboratory Control Sample**

One laboratory control sample was analyzed per analytical batch included in the SDG. The percent recoveries for target analytes were within laboratory control limits. Raw data was compared to reported results and no



discrepancies were found.

### **Matrix Spike/Matrix Spike Duplicate**

One matrix spike was analyzed for samples JC7512-4 (SB-2-5), JC7512-5 (SB-3-1) and JC7512-6 (SB-3-5). The recovery of MS analytes was within laboratory and CLP control limits. Two analytical batches included MS/MSD analysis. Both had multiple target analytes outside of percent recovery and RPD control limits. Samples used as the source for these MS/MSDs were not part of SDG JC7512 and no data was qualified in the data table.

### **Laboratory Duplicate**

A laboratory duplicate was performed on sample JC7512-5 (SB-3-1). RPD values were within laboratory control limits.

### **Internal Standard**

Required internal standards were added to samples, blank samples and quality control samples at the same specified concentration to monitor system performance and quantify target analytes. Raw data was checked against acceptance criteria for retention times and area response. Retention times did not differ more than 10 seconds from the check standard (beginning calibration check verification). Area responses were within 50-200% of the check standard. Raw data was compared to reported summary results and no discrepancies were found.

### **Target Analyte Identification**

Target analyte detections are confirmed by ion fragments and retention times. Acetone had secondary and tertiary ion fragments outside of the acceptable abundance range as defined by the initial calibration. These results were accepted as positively identified compounds based on RT and analyte mass spectra compared to the reference spectra. Trichloroethene ion abundances were also outside of acceptance criteria but this is most likely due to the analyte concentration being below the reporting limit. Both retention times and comparison to the reference spectrum suggest that TCE is present within samples.

### **Target Analyte Quantitation and Reported Contract Required Quantitation Limits**

Results for positively identified analytes and method reporting limits were calculated correctly by the laboratory and adjusted based on initial sample volumes and percent solids. The percent solids in the soil samples were greater than 30%. Internal standards based on the ICAL were used for quantitation of analytes in samples and quality control samples. Primary ion fragments used to identify analytes and mean RRF were the same as the ICAL.

## **2.1.2 SVOCs**

### **Preservation and Holding Times**


Samples were received by the laboratory below 6°C, were extracted five days from sample collection and analyzed the same day as extraction. Extraction dates and analysis dates from raw data were confirmed against reported dates.

### **GC/MS Instrument Performance Check**

Decafluorotriphenylphosphine (DFTPP) mass spectra and mass listing was evaluated for ion abundance requirements and analysis frequency to ensure adequate instrument performance. Raw data was evaluated to ensure instrument tuning was within CLP requirements. DFTPP was analyzed at the beginning of each sequence and within 12 hours of the last sample injection. Raw data abundances and calculations were checked against tune reports. No discrepancies were found.

### **Initial Calibration**

Initial calibration was performed before ICV, samples and required blanks and within 12 hours of the DFTPP tune



check. A minimum of five standards that ranged between 1 ppm and 100 ppm were used to calibrate the instrumentation. The initial calibration summary report was checked for correct calculation of RRF, mean RRF and %RSD. The initial calibration summary report was generated from acquisition software. RRF and %RSD of target analytes were within CLP guidance except for 2,4-dinitrophenol which was calibrated using a quadratic regression with a correlation coefficient of 0.999.

### **Initial Calibration Verification**

Initial calibration verification was performed after calibration and before any samples, quality control samples, blank analysis and continuing calibration verification. The ICV standards were prepared at 50 ppm, which is the middle of the calibration curve. The RRF for target analytes were above minimum RRFs stated in CLP guidance. The %RSD for 2-nitroaniline and carbazole were outside of control limits and are UJ-flagged in the data table.

### **Continuing Calibration Verification**

CCV was analyzed at the mid-point of the calibration curve. RRF of analytes were compared to mean RRF from the initial calibration, all were within CLP control limits. The %RSD between the ICAL mean RRF and the CCV target analyte RRF were outside of CLP control limits for nitrobenzene-d5 and hexachlorobutadiene. Results for the DMC nitrobenzene-d5 should be considered estimated. Hexachlorobutadiene is UJ-flagged in the data table as an estimated value.

### **Blanks**

One method blank was extracted with the associated soil samples in SDG JC7512. There were no detections of target analytes within the method blank. The method blank chromatogram was also reviewed to ensure all peaks were identified.

### **Surrogates**

The percent recovery of surrogate compounds was within CLP and laboratory control limits. Each surrogate was accurately identified, as confirmed after raw data review of retention times and primary ion.

### **Laboratory Control Sample**

One laboratory control sample was extracted and analyzed with samples of SDG JC7512. Percent recoveries were within control limits.

### **Matrix Spike/Matrix Spike Duplicate**

One matrix spike and matrix spike duplicate pair were extracted and analyzed with samples from SDG JC7512. The source sample used for the MS/MSD was JC7512-1 and percent recoveries and RPD values of target analytes were within control limits.


### **Internal Standard**

Internal standards were added to all samples, quality control samples and blanks. Area and retention times for internal standards were within limits set by the check standard. The check standard used was the initial CCV on 11/3/15. Raw data was compared to summary data pages and no discrepancies were found.

### **Target Analyte Identification**

The RRT of bis(2-ethylhexyl)phthalate was greater than the 0.06 RT units control limit from sample JC7512-3 (SB-2-1). Due to the mass spectra and ion abundance criteria within control limits, identification of the analyte is accepted.

### **Target Analyte Quantitation and Reported Contract Require Quantitation Limit**



Sample results and reporting limits were correctly calculated based on sample preparation initial and final volumes and the percent solids within the soil samples. Correct internal standards were used to quantitate target analytes. The same mean RRF and quantitation ions were used consistently. Soil samples had greater than 30% total solids.

### 2.1.3 Pesticides

#### **Preservation and Holding Times**

Samples were extracted within five days of samples collection and were analyzed two days after extraction which meets method holding requirements. Samples were not chemically preserved but were held by the laboratory below 6°C.

#### **GC/ECD Performance Check**

The breakdown of DDT and Endrin was below 20%. Breakdown checks were analyzed at the beginning of every sequence and within 12 hours of the final sample injected into the instrument.

#### **Initial Calibration**

Two calibrations were performed to quantitate soil and quality control samples. Target analytes were calibrated at eight concentration levels. A single point toxaphene and chlordane standard were included. Raw data was checked to verify concentration levels were accurately reported. Mean retention times were calculated from three check standards. Response factors were calculated for target analytes and %RSDs were below 20% except for 4,4'-DDT on column 2 of calibration ICC840. Calibration was accepted based on the quadratic calibration for 4,4'-DDT with a correlation coefficient of 0.9996.

#### **Initial and Continuing Calibration**

The %D between the average RF from the ICAL and the initial and continuing calibration checks were within the  $\pm 25\%$  range. Retention times were within windows.

#### **Blanks**

A method blank was extracted in a batch of nine samples that included samples from SDG JC7512. Instrument blanks were analyzed after initial and continuing calibration verification. An erroneous peak was found in the method blank, but retention times did not confirm it with any target analytes.

#### **Surrogate**

TCX and DCB were added to all SDG samples and quality control samples prior to extraction. Retention times for the surrogate compounds were within RT windows. Surrogate recoveries were within laboratory control limits.

#### **Laboratory Control Sample**

One laboratory control sample was prepared with samples from SDG JC7512 on 11/3/15. The recovery of target analytes were within CLP guidance limits.

#### **Matrix Spike/Matrix Spike Duplicate**

A sample not included in SDG JC7512 was used as the source for the MS/MSD. The RPD value was exceeded based on CLP guidance for dieldrin. Since the source sample was not part of JC7512, no sample data was qualified.

#### **Target Analyte Identification**

4,4'-DDD was detected in JC7512-1 (SB-1-1) but the RPD between the concentrations on the two columns exceeded 25%. This analyte has been updated to its DL and qualified with a U in the data table.



#### 2.1.4 PCBs

##### **Preservation and Holding Times**

Samples were extracted within five days of samples collection and were analyzed three to four days after extraction which is within method holding times. Samples were not chemically preserved but were stored by the laboratory below 6°C.

##### **Initial Calibration**

A five-point calibration curve was generated for Aroclor 1016 and 1260. A one-point calibration curve was generated for Aroclors 1221, 1232, 1242, 1248, 1254, 1262 and 1268. Mean retention times were calculated from the 1000 ppb ICAL standard and two subsequent continuing calibration verifications. The RF was calculated for target peaks and the %RSD between the calibration levels was less than 20%.

##### **Continuing Calibration Verification**

The %D between the ICAL mean RF and the ICV/CCV were within  $\pm 35\%$ . All Aroclor peaks were within RT windows set by the ICAL. Instrument blanks bracketed CCVs and were analyzed less than 12 hours apart.

##### **Blanks**

A method blank was included in the extraction batch. No Aroclor patterns were found.

##### **Surrogate**

A surrogate mixture of TCX and DCM was added to all samples and quality control samples prior to extraction. The recovery of the surrogate compounds TCX and DCM were between 30-150% and retention time shifts were within windows.

##### **Matrix Spike/Matrix Spike Duplicate**

One matrix spike and matrix spike duplicate pair were extracted in the batch that included samples in SDG JC7512. The source for the matrix spike and matrix spike duplicate samples was not part of SDG JC7512. Spike recovery and RPD values between MS and MSD were within control limits and were accurately calculated.

##### **Laboratory Control Sample**

A LCS was extracted and analyzed with samples from SDG JC7512. Raw data was verified against report lab values by recalculation. The percent recovery of spiked Aroclor 1016 and 1260 were within control limits of 50-150%.

#### 2.1.5 Herbicides

##### **Preservation and Holding Times**

Samples were extracted within five days of samples collection and were analyzed seven days after extraction.

##### **Initial Calibration**

A six-point calibration curve was generated for 2,4-D, 2,4,5-TP and 2,4,5-T. The RF was calculated for target peaks and the %RSD between the calibration levels was within  $\pm 20\%$ . Mean retention times and RT windows were calculated from ICV and CCV after the ICAL. Analyte identification is based off these RT windows.

##### **Continuing Calibration Verification**

The %D between the ICAL mean RF and the ICV/CCV were within  $\pm 35\%$  for target analytes. All target analyte peaks were within RT windows.





## Blanks

A method blank was included in the extraction batch. No target analytes were found. Raw data was evaluated for any erroneous analyte peaks. Peaks found did not have retention times that aligned with target analytes.

## Surrogate

2,4-DCAA was used as the surrogate for all sample and quality control samples analyzed for herbicides. Low recovery of surrogate was found in all soil samples and MS/MSDs extracted, but laboratory control limits were not exceeded. Target analyte recovery might be compromised due to matrix. Retention times were verified and compared to the check standard.

## Matrix Spike/Matrix Spike Duplicate

One matrix spike and matrix spike duplicate pair were extracted in the batch that included samples in SDG JC7512. The source for the matrix spike and matrix spike duplicate samples was JC7512-1. Spike recovery and RPD values between MS and MSD were within control limits and were accurately calculated. The retention time of analytes were within windows.

## Laboratory Control Sample

A LCS was extracted and analyzed with samples from SDG JC7512. The percent recovery of spiked target analytes was within control limits.

### 2.1.6 Metals

## Preservation and Holding Time

Samples were prepared and analyzed within one week of arrival at the laboratory. Preparation and analysis dates that are reported were confirmed with raw data.

## Calibration

Target analytes were calibrated using a 2-point calibration curve. The initial and continuing calibration verification standards were within 10% of their true values.

## Blanks

A CCB was analyzed after every CCV, which was analyzed every 10 samples. The value of CCB did not exceed laboratory reporting limits. The method blank did not exceed laboratory reporting limits.

## Interference Check Standard

The ICSAB and ICSA check standards were within 20% of the true value and ND values were no greater than  $\pm$ RL.

## Laboratory Control Sample

Target analyte recoveries were within  $\pm$ 30% of true values.

## Matrix Spike/Matrix Spike Duplicate

The source for the MS/MSD is not included in SDG JC7512; a serial dilution was also performed on this sample. The recovery of aluminum was above the upper control limit. No data was qualified since the source sample was not included in SDG JC7512.

### 2.1.7 Mercury

#### Preservation and Holding Times

Samples were prepared six days from collection and analyzed within 24 hours. Raw data was reviewed to verify sample preparation and analysis dates.

#### Calibration

The calibration curve consisted of 5 points with a correlation coefficient of 0.999. CCV4 has a recovery of mercury at 116%. Prep batch quality control may be biased high. Sample data was not affected.

#### Blanks

The CCB and method blanks were below the reporting limit.

#### Spiked Samples

The laboratory control sample was within  $\pm 20\%$  of the true value of the mercury spike. The MS/MSD were not prepared with a sample from SDG JC7512, but all recoveries were within  $\pm 20\%$  and within the RPD limit of 20%.

### 2.1.8 Percent Moisture

Percent moisture was performed and calculated for soil samples included in SDG JC7512. Samples results were verified by recalculation of raw data, where; **Percent Moisture** =  $\frac{\text{Wet Weight} - \text{Dry weight}}{\text{Wet Weight} - \text{Tare Weight}} \times 100\%$ . Results reported by the laboratory are calculated on a dry weight basis.

## 2.2 SDG JC7519

Data validation and review was conducted for air samples within SDG JC7519 in accordance with the EPA *National Functional Guidelines for Superfund Organic Methods Review*, January 2017, EPA method TO-15 and NYDEC Analytical Services Protocol. The SDG included three air samples to be analyzed for VOCs by TO-15. Samples specific to JC7519 are included below.

SDG ID	Sample ID	Matrix	Sample Date	Sample Time
JC7519-1	SV-09	Air	10/29/2015	8:55
JC7519-2	SV-10	Air	10/29/2015	8:45
JC7519-3	SV-11	Air	10/29/2015	8:30

Samples were received by the analytical laboratory, SGS Accutest of Dayton, New Jersey. As indicated by the analytical laboratory sample receipt summary: custody seals were intact and containers were accurately labeled and reflected the chain of custody. The air samples were collected in 6-liter canisters and no damage was present when received by the laboratory.

#### Preservation and Holding Time

The air samples were collected in cleaned metal canisters. They arrived at the analytical laboratory two days after sampling and were analyzed between three and five days from receipt. Raw data was verified to ensure analysis date reported is correct.



### **GC/MS Instrument Performance Check**

BFB ion abundances were within CLP guidance ranges. BFB was analyzed at the beginning of every analytical sequence, per TO-15. Ion abundances were averaged over three scans and background was subtracted from less than 20 scans away from the BFB peak.

### **Initial Calibration**

RRF and %RSD for target analytes were within control limits for all calibrations associated with SDG JC7519. A minimum of 5 calibration points were used for the calibration curves.

### **Initial Calibration Verification**

An ICV standard was analyzed after each ICAL and before any samples or quality control samples. The ICV following calibration on 10/5/15 had a RRF value for 1,2,4-trichlorobenzene below the minimum value of 0.300. No samples or quality control samples included in analysis for SDG JC7519 are affected by this since the calibration was for Summa Cleaning Certification samples.

### **Continuing Calibration Verification**

Target analytes were within %D limits for opening CCVs and above minimum RRFs as stated by CLP Guidance.

### **Blanks**

Method blanks were analyzed with each sequence where analysis of environmental samples or SCC samples were performed. No analytes other than surrogates and internal standards were detected in method blanks. Raw data was verified that no other peaks were present in the chromatograms.

### **Surrogates**

The surrogate was within laboratory control limits. Raw data for samples was checked to ensure that when dilutions were run, both recoveries were within control limits.

### **Laboratory Control Samples**

LCS/LCSDs were performed with each sequence where analysis of environmental samples or SCC samples were performed. Recoveries and RPD values of target analytes were within control limits.

### **Laboratory Duplicate**

A laboratory duplicate was performed on a sample not included in SDG JC7519. All RPD values were within control limits.

### **Summa Cleaning Certification**

Summa's were cleaned and no residual VOCs were found.

### **Internal Standards**

The retention time of the internal standards was compared against daily continuing calibration verifications. The retention times did not differ more than 0.33 minutes and area counts were within 40% of the check standard for samples associated with JC7519.

### **Target Analyte Identification**

Samples associated with JC7519 had complicated matrices with a mixture of different VOCs. Raw data was verified to ensure that analyte identification was accurate by comparing ion abundances and retention times to check standards. Some target analytes did not meet the abundance criteria of  $\pm 20\%$  due to matrix interference or low

analyte concentration. These analytes were reported by the laboratory based on RT and analyte mass spectra.

## 2.3 SDG JC7667

Data validation and review was conducted for air samples within SDG JC7667 in accordance with the EPA *National Functional Guidelines for Superfund Organic Methods Review*, January 2017, EPA Method TO-15 and NYDEC Analytical Services Protocol. The SDG included three air samples that were analyzed for VOCs by TO-15. Samples specific to JC7667 are included below.

SDG ID	Sample ID	Matrix	Sample Date	Sample Time
JC7667-1	SV-8	Air	10/30/2015	6:55
JC7667-2	SV-7	Air	10/30/2015	7:05
JC7667-3	SV-6	Air	10/30/2015	11:10

Samples were received by the analytical laboratory, SGS Accutest of Dayton, New Jersey on November 3, 2015. As indicated by the analytical laboratory sample receipt summary: custody seals were intact and containers were accurately labeled and reflected the chain of custody. The air samples were collected in 6-liter canisters and no damage was present when received by the laboratory.

### Preservation and Holding Time

The air samples were collected in cleaned metal canisters and were analyzed within method holding limits. They arrived at the analytical laboratory four days after sampling and were analyzed on November 5, 2015 and November 6, 2015. Raw data was verified to ensure analysis date reported is correct.

### GC/MS Instrument Performance Check

BFB ion abundances were within CLP guidance ranges. BFB was analyzed at the beginning of every analytical sequence and 24 hours within the last samples injected, per method TO-15. Ion abundances were averaged over three scans and were background subtracted from less than 20 scans away.

### Initial Calibration

RRF and %RSD were within control limits for all calibrations associated with SDG JC7667. A minimum of 5 calibration points were used for the calibration curves.

### Initial Calibration Verification

An ICV standard was analyzed after each ICAL. Minimum RRF was met for target analytes and %D between the mean ICAL RRF and the ICV RRF was within control limits.

### Continuing Calibration Verification

Target analytes were within %D limits for opening CCVs.



## Blanks

Method blanks were analyzed with each sequence where analysis of environmental samples or SCC samples were performed. No analytes other than surrogates and internal standards were detected in method blanks. Raw data was verified that no other peaks were present in the chromatograms.

## Surrogates

The recovery of the surrogate compound was within control limits for samples and associated quality control samples within the SDG.

## Laboratory Control Samples

LCS/LCSDs were analyzed with each sequence where analysis of environmental samples or SCC samples were performed. Recoveries and RPD values of target analytes were within control limits.

## Laboratory Duplicate

The source for the laboratory duplicate analyzed was not part of SDG JC7667. All RPD values were <20%.

## Summa Cleaning Certification

Summa's were cleaned and no residual VOCs were found.

## Internal Standards

The retention time of the internal standards was compared against daily opening continuing calibration verifications. The retention times did not differ more than 0.33 minutes and area counts were within 40% of the check standard.

## Target Analyte Identification

Raw data was verified to ensure that analyte identification was accurate by comparing ion abundances, analyte mass spectra and retention times to check standards. Some target analytes did not meet the abundance criteria of  $\pm 20\%$  due to matrix interferences but RT and mass spectra suggest correct analyte identification.

## 2.4 SDG JC12861

Data validation and review was conducted for soil and blank water samples within SDG JC12861 in accordance with the EPA *National Functional Guidelines for Superfund Organic Methods Review*, January 2017 and NYDEC Analytical Services Protocol. The SDG included eight soil samples, one trip blank and one field blank to be analyzed for VOCs by EPA 8260C and percent moisture by SM2540. Samples specific to JC12861 are included below.

SDG ID	Sample ID	Matrix	Sample Date	Sample Time
JC12861-1	MW-11-20'	Soil	1/18/2016	10:20
JC12861-2	MW-11-45'	Soil	1/18/2016	10:55
JC12861-3	MW-11-50'	Soil	1/18/2016	11:10
JC12861-4	MW-11	Soil	1/18/2016	12:00
JC12861-5	Trip	Trip Blank (aq)	1/18/2016	—
JC12861-6	Field	Field Blank (aq)	1/19/2016	11:42
JC12861-7	MW-45-23.5'	Soil	1/19/2016	10:20
JC12861-8	MW-45-30'	Soil	1/19/2016	10:30
JC12861-9	MW-45-30'	Soil	1/19/2016	10:50
JC12861-10	MW-45-MOISTURE	Soil	1/19/2016	13:20

Samples were received within twenty-four hours of sampling by the analytical laboratory, SGS Accutest of Dayton, New Jersey. As indicated by the analytical laboratory sample receipt summary: the cooler temperature upon receipt was 1.3°C, custody seals were intact, containers were accurately labeled and reflected the chain of custody and there was no headspace in VOA (volatile organic analysis) water containers. Soil samples were collected using field core sampling with enclosed storage containers (EnCore sampler) in compliance with preparation method EPA 5035 and were prepared by the analytical laboratory within twenty-four hours of sample receipt. The QC blank samples were preserved with hydrochloric acid (HCl) and pH checked by the laboratory.

#### 2.4.1 VOCs

##### Holding Times

Samples were received below 6°C and within method holding limits by the analytical laboratory. Soil samples were prepared by the laboratory within twenty-four hours of receipt. QC blank samples were preserved with HCl and tested below a pH of 2 by the laboratory. There was no headspace in VOA containers. Analysis for VOCs was performed between three and six days from sample collection. Holding times for soil and water samples analyzed for VOCs were met.

##### Instrument Performance Check

Bromofluorobenzene (BFB) was evaluated for mass spectra requirements and frequency to ensure adequate instrument performance. Four sequences and subsequently four BFB standards were analyzed for samples included in SDG JC12861.

The initial sequence with injection dates of 1/12/16 includes the water matrix calibration and calibration check. BFB was analyzed at the beginning of the sequence and within ion abundance criteria. The final sample for the sequence was analyzed six hours and forty minutes past the BFB injection. The BFB ion abundances were reviewed from raw data presented in the SDG, recalculated to ensure data validity and presented below. Ion abundances were averaged over three scans and background-subtracted from eleven scans away.

##### BFB Injection: 1/12/16 14:11

m/z	abund.
36.00	717
37.10	3783
38.10	3372
39.05	1194
39.90	62
44.00	332
45.10	569
47.05	832
48.00	427
49.05	3385
50.10	14270
51.05	4365
52.05	165
55.10	66
56.05	1094
57.05	2008
58.10	70
60.05	653
61.05	3353
62.05	3025
63.00	2476
64.10	198
67.15	214

m/z	abund.
68.00	7386
69.05	7372
70.05	660
72.00	459
73.00	3353
74.00	12378
75.05	35056
76.00	3165
77.05	470
78.10	102
78.90	1894
80.00	605
80.90	2004
81.95	456
87.00	2798
87.95	2686
90.95	279
92.00	1925
93.00	3205
94.10	8775
95.00	70125
96.00	4663
103.80	107

m/z	abund.
104.00	217
104.90	67
105.95	331
115.95	314
116.95	479
117.95	286
118.85	414
127.95	261
129.00	72
129.95	334
130.90	76
140.95	857
142.95	896
148.00	66
154.90	147
158.90	60
171.70	72
171.90	68
173.95	71298
175.00	6036
175.95	69288
176.95	4528

Mass	Criteria	% Rel. Abundance
50	15-40% of mass 95	20.35%
75	30-80% of mass 95	49.99%
95	Base peak, 100% of rel. abundance	100.00%
96	5-9% of mass 95	6.65%
173	<2% of mass 174	0.00%
174	50-120% of mass 95	101.67%
175	5-9% of mass 174	8.47%
176	95-101% of mass 174	97.18%
177	5-9% of mass 176	6.54%

A second injection of BFB was performed on 1/21/16 which encompassed quality control samples for a water matrix analytical batch along with the Trip Blank (JC12861-5) and Field Blank (JC12861-6) samples. The BFB sample was analyzed at the beginning of the sequence and was within ion abundance criteria. Abundances were averaged over three scans and background was subtracted from thirteen scans away. The BFB standard was injected ten hours and



forty-six minutes before the final sample in the sequence. Raw data and calculated abundance criteria are present below.

**BFB Injection: 1/27/16 21:21**

m/z	abund.	m/z	abund.	m/z	abund.
36.05	669	72.05	400	115.95	233
37.10	3355	73.05	2907	117.00	461
38.10	2994	74.05	11263	117.95	283
39.10	1216	75.00	32347	118.95	412
44.00	239	76.05	2770	127.90	270
45.05	634	76.95	346	128.90	84
47.05	594	77.95	184	129.95	299
48.05	465	78.90	1959	134.90	68
49.05	2859	80.00	576	136.90	72
50.10	12814	81.00	1940	140.95	876
51.10	3686	81.90	374	141.90	65
52.05	154	87.00	2122	142.95	909
55.00	138	88.00	2110	147.85	258
56.00	1013	90.80	61	154.90	189
57.05	1942	90.95	242	156.80	61
60.05	729	92.00	1844	171.30	68
61.05	3200	93.00	2839	171.90	75
62.05	3081	94.05	7639	172.10	98
63.00	2193	95.00	62933	174.00	63291
64.10	136	96.05	4343	175.00	5224
68.00	6904	104.00	407	175.95	60696
69.05	6755	104.90	68	176.95	4007
70.10	484	105.95	23	177.95	219

Mass	Criteria	% Rel. Abundance
50	15-40% of mass 95	20.36%
75	30-80% of mass 95	51.40%
95	Base peak, 100% of rel. abundance	100.00%
96	5-9% of mass 95	6.90%
173	<2% of mass 174	0.00%
174	50-120% of mass 95	100.57%
175	5-9% of mass 174	8.25%
176	95-101% of mass 174	95.90%
177	5-9% of mass 176	6.60%

For soil analysis, BFB was analyzed at the beginning of the calibration on 1/5/16. The BFB standard was injected six hours and nine minutes before the final sample in the sequence. The ion abundances were within guidance criteria, averaged over three scans and background subtracted from eleven scans away. Raw data and calculated abundance criteria are presented below.

**BFB Injection: 1/5/16 9:36**

m/z	abund.
36.00	959
37.00	5017
38.00	4536
39.00	1665
41.00	121
42.00	127
43.00	113
44.00	359
45.00	970
46.00	58
47.00	1348
48.00	663
49.05	4130
50.00	19080
51.00	5875
52.05	327
55.00	157
56.00	1463
57.00	2620
58.10	65
60.00	922
61.00	4720
62.00	4248
63.00	3298
64.05	307
67.05	416
68.00	10176

m/z	abund.
69.00	10013
69.95	781
72.00	438
73.00	4225
74.00	16637
75.00	48354
76.00	4177
76.95	648
77.90	345
78.10	180
78.90	2763
79.95	791
80.90	2962
81.90	679
87.00	4620
87.95	4232
90.90	485
92.00	2601
93.00	4052
94.00	11273
95.00	100213
96.00	6769
97.00	165
103.95	496
104.80	87
105.85	424
111.80	59

m/z	abund.
115.95	345
116.95	645
117.90	387
118.95	558
127.85	400
128.85	135
129.95	342
130.95	194
134.90	291
136.85	208
139.70	60
140.90	920
141.80	58
142.95	947
146.00	66
147.00	45
147.60	64
148.00	77
154.80	144
156.80	65
157.00	90
173.90	78530
174.95	5936
175.90	76752
176.90	5421
177.90	68
253.05	8

Mass	Criteria	% Rel. Abundance
50	15-40% of mass 95	19.04%
75	30-80% of mass 95	48.25%
95	Base peak, 100% of rel. abundance	100.00%
96	5-9% of mass 95	6.75%
173	<2% of mass 174	0.00%
174	50-120% of mass 95	78.36%
175	5-9% of mass 174	7.56%
176	95-101% of mass 174	97.74%
177	5-9% of mass 176	7.06%

A final BFB standard was analyzed for soil samples and guidance criteria was met. The BFB standard was injected ten hours and thirty minutes before the final sample in the sequence. The ion abundances were averaged over three scans and background subtracted from eleven scans away. Raw data and calculated abundance criteria are presented below.

#### BFB Injection: 1/24/16 10:41

m/z	abund.
36.10	1412
37.10	7945
38.05	6897
39.10	2640
40.00	183
43.05	130
44.00	783
45.05	1420
47.05	2025
48.00	924
49.05	6334
50.10	30901
51.10	9233
52.05	453
55.05	372
56.00	2164
57.00	4198
57.95	205
60.05	1388
61.00	6710
62.05	6703
63.00	4908

m/z	abund.
73.00	6178
74.00	23746
75.00	71661
76.05	6275
76.95	1000
78.05	805
78.90	4082
79.95	1335
80.90	4039
81.95	936
85.90	73
87.00	6138
88.00	6183
90.90	557
92.00	3897
93.00	5449
94.00	15249
95.00	139197
96.00	9622
97.10	320
103.90	653
104.90	196

m/z	abund.
118.90	674
127.95	479
128.90	136
129.85	426
130.90	130
134.90	300
136.90	242
140.95	1253
141.80	59
142.95	1244
145.90	63
147.00	50
147.95	302
154.95	289
156.95	171
158.80	59
160.80	58
161.00	63
171.70	60
173.90	98701
174.95	7288
175.90	96045

64.05	470
67.05	432
68.00	15313
69.00	14886
70.05	1169
72.05	650

105.95	611
110.80	64
114.90	149
115.95	474
116.90	778
117.90	474

176.90	6065
177.95	142
207.95	129
253.00	29

Mass	Criteria	% Rel. Abundance
50	15-40% of mass 95	22.20%
75	30-80% of mass 95	51.48%
95	Base peak, 100% of relative abundance	100.00%
96	5-9% of mass 95	6.91%
173	<2% of mass 174	0.00%
174	50-120% of mass 95	70.91%
175	5-9% of mass 174	7.38%
176	95-101% of mass 174	97.31%
177	5-9% of mass 176	6.31%

### Initial Calibration

Initial calibration was performed for both soil and water analyses. Both calibration curves included at least five calibration points, were performed prior to ICVs, samples and blanks, and were within twelve hours of a BFB check standard. Relative Response Factors (RRF) and Percent Relative Standard Deviations (%RSD) were calculated for each analyte and surrogate. The mean RRF and %RSD for target analytes were within control limits as stated in Table 18 of the EPA *National Functional Guidelines for Superfund Organic Methods Review*, January 2017. Below, the RRF, mean RRF and %RSDs were recalculated from one target analyte and surrogate associated with each internal standard and compared to laboratory reported values for the water calibration.

### Water Calibration

Internal Standard	Target Analyte	Calibration Level	IS Response	Analyte Response	RRF	Mean RRF	%RSD
Pentafluoro-benzene	Dichloro-difluoro-methane	2	268150	3752	0.35	0.509	15.837
		5	264492	12849	0.486		
		10	259432	25657	0.494		
		20	271837	57930	0.533		
		50	270155	151172	0.56		
		100	268034	323388	0.603		
		200	289910	625892	0.54		

	Dibromo-fluoromethane (s)	0.2	286150	103161	0.361	0.365	0.766
		0.5	276425	100477	0.363		
		1	273251	99741	0.365		
		2	268150	98350	0.367		
		5	264492	96517	0.365		
		10	259432	94385	0.364		
		20	271837	99381	0.366		
		50	270155	98231	0.364		
		100	268034	97945	0.365		
		200	289910	107672	0.371		
1,4-difluoro-benzene	Carbon Tetrachloride	0.5	292406	1167	0.399	0.524	14.623
		1	289379	3401	0.588		
		2	284987	4391	0.385		
		5	280557	15399	0.549		
		10	274828	29030	0.528		
		20	293198	66222	0.565		
		50	290253	163881	0.565		
		100	289787	335583	0.579		
		200	319832	711557	0.556		
	Toluene-d8 (s)	0.2	300060	335276	1.117	1.113	0.716
		0.5	292406	325733	1.114		
		1	289379	320340	1.107		
		2	284987	315396	1.107		
		5	280557	312969	1.116		
		10	274828	306258	1.114		
		20	293198	321156	1.095		
		50	290253	323162	1.113		
		100	289787	325490	1.123		
		200	319832	358301	1.12		
Chloro-benzene-d5	Tetrachloro-ethene	0.5	231509	726	0.314	0.392	12.774
		1	229196	2116	0.462		
		2	222484	2741	0.308		
		5	221240	9223	0.417		
		10	216758	17051	0.393		
		20	228386	38209	0.418		
		50	231775	94064	0.406		
		100	232198	192216	0.414		
		200	254687	408369	0.401		
	Isopropyl-benzene	0.2	127486	2127	4.171	3.478	12.094
		0.5	123536	3619	2.93		

1,4-dichloro-benzene-d4		1	122860	9770	3.976		
		2	119482	13197	2.761		
		5	119248	42286	3.546		
		10	117909	77767	3.298		
		20	127001	177377	3.492		
		50	127415	446470	3.504		
		100	129323	915600	3.54		
		200	136940	1954165	3.568		
	4-bromo-fluoro-benzene (s)	0.2	127486	116647	0.915	0.921	1.08
		0.5	123536	115532	0.935		
		1	122860	113267	0.922		
		2	119482	111235	0.931		
		5	119248	110383	0.926		
		10	117909	108881	0.923		
		20	127001	114769	0.904		
		50	127415	116941	0.918		
		100	129323	117667	0.91		
		200	136940	127444	0.931		

### Initial Calibration Verification

A second source calibration verification was analyzed after the soil and water calibrations. The RRF for target analytes and surrogate analytes were above minimums presented in the CLP Guidance. The percent difference between the mean RRF of the initial calibration and the initial calibration verification were within control limits stated by the CLP Guidance.

### Continuing Calibration Verification


Continuing calibration verifications were evaluated to determine instrument performance and calibration validity during each analytical run. The RRF %D was outside of the control limit for carbon tetrachloride, trichlorofluoromethane and 1,1,1-trichloroethane, associated with water sample data. Data for the Trip and Field blanks are considered estimated for carbon tetrachloride. The CCV for soil data had 1,1-dichloroethene and trans-1,2-dichloroethene outside of control limits for %D indicated in Table 18. These analytes are UJ flagged in the data table. The RRF of analytes for CCVs was within control limits.

### Blanks

Method blanks, field blanks and trip blanks were analyzed to assess possible contamination from the laboratory or the field. One method blank was analyzed per analytical batch. One trip blank and one field blank were provided per SDG. There were no detections in any blanks associated with this SDG.

### Surrogates

The percent recovery of surrogate compounds were evaluated to determine method and instrument performance.



Surrogate recoveries for water samples, soil samples and quality control samples were within laboratory control limits. Raw data was checked for calculation and transcription errors and none were found.

### **Laboratory Control Sample**

One laboratory control sample was analyzed per analytical batch included in the SDG. The percent recoveries for target analytes were within laboratory control limits.

### **Matrix Spike/Matrix Spike Duplicate**

One matrix spike was analyzed for the analytical batch encompassing soil data within the report. Percent recoveries for this matrix spike were within laboratory and CLP control limits.

A matrix spike and matrix spike duplicate were analyzed for the analytical batch encompassing water data within the report. The percent recovery for benzene was below the lower control limit. Because the original sample used as the source for the MS and MSD was not included in the SDG and the LCS percent recovery for benzene was within control limits, no data was qualified in the data table.

### **Laboratory Duplicate**

A laboratory duplicate was performed on sample JC12861-1 (MW-1I-20'). RPD values were outside of laboratory control limits for all detected analytes. Only analytes with concentrations greater than 5 times the reporting limit are controlled, which was none of the analytes detected in the original sample and the duplicate.

### **Internal Standard**

All required internal standards were added to samples, blank samples and quality control samples at the same specified concentration to monitor system performance and quantify target analytes. Raw data was checked against acceptance criteria for retention times and area response. Retention times did not differ more than 10 seconds from the check standard (beginning calibration check verification). Area responses were within 50-200% of the check standard. Below are the area responses of internal standards for specific samples and check standards. Retention time is expressed in minutes.



	Tert Butyl Alcohol-D9				Pentafluorobenzene				1,4-Difluorobenzene			
	Area	% of Check Std.	RT	Δ RT	Area	% of Check Std.	RT	Δ RT	Area	% of Check Std.	RT	Δ RT
Check Standard (1/21/16 21:51)	72158	100%	8.3	0	239231	100%	10.75	0	250589	100%	11.68	0
V2A7019-MB1	80223	111%	8.3	0.01	251717	105%	10.75	0	260491	104%	11.68	0
V2A7019-BS	71606	99%	8.3	0	235863	99%	10.75	0	246965	99%	11.68	0
JC12916-14MS	71288	99%	8.3	0	235177	98%	10.75	0	250884	100%	11.68	0
JC12916-14MSD	78946	109%	8.3	0.01	256583	107%	10.75	0	273611	109%	11.68	0
JC12861-5	84942	118%	8.3	0.01	252726	106%	10.75	0	261828	104%	11.68	0
JC12861-6	83683	116%	8.3	0.01	246699	103%	10.75	0	251323	100%	11.68	0

	Chlorobenzene-D5				1,4-Dichlorobenzene-d4			
	Area	% of Check Std.	RT	Δ RT	Area	% of Check Std.	RT	Δ RT
Check Standard (1/21/16 21:51)	202912	100%	14.67	0	113053	100%	16.83	0
V2A7019-MB1	206171	102%	14.67	0	110690	98%	16.83	0
V2A7019-BS	199816	98%	14.67	0	112664	100%	16.83	0
JC12916-14MS	202176	100%	14.67	0	115159	102%	16.83	0
JC12916-14MSD	217501	107%	14.67	0	118415	105%	16.83	0
JC12861-5	207241	102%	14.67	0	112126	99%	16.83	0
JC12861-6	199811	98%	14.67	0	109434	97%	16.83	0



	Tert Butyl Alcohol-D9				Pentafluorobenzene				1,4-Difluorobenzene			
	Area	% of Check Stnd.	RT	Δ RT	Area	% of Check Stnd.	RT	Δ RT	Area	% of Check Stnd.	RT	Δ RT
<b>Check Standard (1/24/16 11:12)</b>	189750	100%	7.25	0	420164	100%	9.46	0	571409	100%	10.37	0
<b>VY7020-MB</b>	165361	87%	7.25	0	401290	96%	9.45	0.01	543143	95%	10.37	0
<b>VY7020-BS</b>	193132	102%	7.26	0.01	413719	98%	9.45	0.01	568506	99%	10.37	0
<b>JC12861-1</b>	214359	113%	7.25	0	427363	102%	9.45	0.01	588133	103%	10.37	0
<b>JC12861-2</b>	189375	100%	7.25	0	439819	105%	9.46	0	605136	106%	10.37	0
<b>JC12861-3</b>	201423	106%	7.25	0	445684	106%	9.46	0	606690	106%	10.37	0
<b>JC12861-8</b>	180821	95%	7.24	0.01	441306	105%	9.45	0.01	599111	105%	10.37	0
<b>JC12861-1DUP</b>	213763	113%	7.24	0.01	435556	104%	9.45	0.01	602841	106%	10.37	0
<b>JC12861-2MS</b>	151785	80%	7.25	0	445731	106%	9.45	0.01	605113	106%	10.37	0
<b>JC12861-7</b>	184415	97%	7.25	0	432639	103%	9.45	0.01	592423	104%	10.37	0
<b>JC12861-9</b>	190434	100%	7.25	0	425229	101%	9.45	0.01	587888	103%	10.37	0



	Chlorobenzene-D5				1,4-Dichlorobenzene-d4			
	Area	% of Check Stnd.	RT	Δ RT	Area	% of Check Stnd.	RT	Δ RT
<b>Check Standard (1/24/16 11:12)</b>	446881	100%	13.52	0	214290	100%	15.82	0
<b>VY7020-MB</b>	432731	97%	13.52	0	198556	93%	15.82	0
<b>VY7020-BS</b>	440060	98%	13.52	0	214777	100%	15.82	0
<b>JC12861-1</b>	470646	105%	13.52	0	210797	98%	15.82	0
<b>JC12861-2</b>	475030	106%	13.52	0	212223	99%	15.82	0
<b>JC12861-3</b>	477033	107%	13.52	0	210846	98%	15.82	0
<b>JC12861-8</b>	466068	104%	13.52	0	208497	97%	15.82	0
<b>JC12861-1DUP</b>	474838	106%	13.52	0	213056	99%	15.82	0
<b>JC12861-2MS</b>	454710	102%	13.52	0	209961	98%	15.82	0
<b>JC12861-7</b>	467252	105%	13.52	0	207020	97%	15.82	0
<b>JC12861-9</b>	469844	105%	13.52	0	208812	97%	15.82	0

#### 2.4.2 Percent Moisture

Percent moisture was performed and calculated on two soil samples for SDG JC12861. Samples results were verified by recalculation of raw data, where; **Percent Moisture** =  $\frac{\text{Wet Weight} - \text{Dry weight}}{\text{Wet Weight} - \text{Tare Weight}} \times 100\%$ .

### 2.5 SDG JC14061

Data validation and review was conducted for soil samples within SDG JC14061 in accordance with the EPA National Functional Guidelines for Superfund Organic Methods Review, January 2017, EPA National Functional Guidelines for Superfund Inorganic Methods Review, January 2017 and NYDEC Analytical Services Protocol. The SDG included seven groundwater samples and one field blank to be analyzed for VOCs by EPA 624, SVOCs by EPA 625, pesticides and PCBs by EPA 608, herbicides by EPA 8151, metals by EPA 6010C and mercury by EPA 7470A. Samples specific to JC14061 are included below.

SDG ID	Sample ID	Matrix	Sample Date	Sample Time
JC14061-1	MW-1I	Groundwater	2/10/2016	13:13
JC14061-2	MW-1S	Groundwater	2/10/2016	14:14
JC14061-3	MW-2	Groundwater	2/10/2016	11:08
JC14061-4	MW-3	Groundwater	2/10/2016	16:13
JC14061-5	MW-4S	Groundwater	2/10/2016	13:35
JC14061-6	MW-4I	Groundwater	2/10/2016	14:45
JC14061-7	Field/FB	Groundwater	2/10/2016	11:16
JC14061-8	MW-A	Groundwater	2/10/2016	12:00

Samples were received by the analytical laboratory, SGS Accutest of Dayton, New Jersey the same day as the samples were collected. As indicated by the analytical laboratory sample receipt summary: sample coolers were received with temperatures below 6°C, VOAs to be analyzed for VOCs did not contain headspace, sufficient sample volume was received, custody seals were intact and containers were accurately labeled and reflected the chain of custody.

### 2.5.1 VOCs

#### Preservation and Holding Time

Samples were received within the required temperature range and were analyzed for VOCs between one and two days after collection. VOAs were not preserved.

#### GC/MS Instrument Performance Check

Ion abundances were averaged over three scans and background was subtracted from less than 20 scans away. BFB ion abundances were within CLP guidance ranges. BFB was analyzed at the beginning of every analytical sequence, per EPA method 624.

#### Initial Calibration

RRF and %RSD were within control limits for all calibrations associated with SDG JC14061. A minimum of 5 calibration points was used for the calibration curves.

#### Initial Calibration Verification

An ICV was analyzed after the last ICAL standard. The ICV RRF for target analytes was greater than the minimum RRF. The %D between the ICAL mean RRF and the ICV RRF was within limits of the CLP guidance for trace volatiles.

#### Continuing Calibration Verification

Target analytes were within %D and RT limits for opening CCVs. RRFs were greater than minimums presented in Table 4 of the CLP guidance.



## Blanks

No target analytes were detected in the field blank or method blanks.

## Surrogates

Surrogate recoveries in environmental samples and quality control samples were within control limits.

## Laboratory Control Samples

A LCS was included in both analytical batches with samples from SDG JC14061. The recovery of target analytes was within laboratory control limits.

## Matrix Spike/Matrix Spike Duplicate

Matrix spike and matrix spike duplicates were analyzed from sources outside of SDG JC14061. Analytes outside of control limits are not expected to affect data quality of JC14061 samples since the LCS and laboratory duplicate were within control limits.

## Laboratory Duplicate

A laboratory duplicate was analyzed as part of the laboratory quality control samples. The source of the laboratory duplicate was not part of SDG JC14061; all RPD values were within control limits.

## Internal Standards

The retention time of the internal standards was compared against daily beginning continuing calibration verifications. The retention times did not differ more than 10 seconds and area counts were within 50-200% of the check standard.

## Target Analyte Identification

Reported target analytes are accurately identified based on ion abundances, analyte spectrums and retention times.

### 2.5.2 SVOCs

## Preservation and Holding Times

Samples to be prepared for SVOC analysis were extracted February 11, 2016 and analyzed February 12, 2016. Extraction and analysis dates were confirmed with preparation logs and instrument run logs. Samples were extracted and analyzed within holding times.

## GC/MS Instrument Performance Check

A DFTPP standard was analyzed at the beginning of every analytical sequence that included analysis of calibration standards, samples associated with JC14601 and quality control samples. The last sample in the analytical sequences were analyzed within 12 hours of the DFTPP standard. Ion abundances were within CLP Guidance limits.



## Initial Calibration

Target analytes had mean RRFs above the minimum RRF values stated in CLP guidance. The %RSD between the RRFs were below maximum control limits, except for 2,4-dinitrophenol, which was calibrated with a quadratic regression with a coefficient of 0.999.

## Initial Calibration Verification

RRF of target analytes in the ICV were above minimum RRF stated by CLP guidance. The %D between the ICAL average and the ICV RRF for 2-methylnaphthalene was above the upper control limit of +20%. Results for 2-methylnaphthalene were not reported by the laboratory. The RT and %D for the remaining target analytes were within control limits.

## Continuing Calibration Verification

The % drift between the ICAL and the CCV standard for 2,4-dinitrophenol was outside of the  $\pm 20\%$  limit. The affected sample, JC14061-3 (MW-2), has the result for 2,4-dinitrophenol UJ flagged in the table. The other target analytes have RRFs above CLP guidance and %D within control limits.

## Blanks

One method blank was extracted with JC14061-3 (MW-2) and a field blank (JC14061-7) was analyzed for SVOCs. No analytes were detected in either sample. Sample chromatograms were examined for potential signs of contamination and none were found.

## Surrogates

The recovery of surrogate compounds was within control limits. Raw data was compared to reported surrogate recoveries and no discrepancies were found.

## Laboratory Control Samples

One laboratory control sample was included in the extraction batch with samples from SDG JC14061. Recovery of target analytes was within laboratory control limits.

## Matrix Spike/Matrix Spike Duplicate

The source for the MS/MSD was JC14061-3 (MW-2). The recovery of benzidine was below the lower control limit for the MS resulting in a RPD violation. Since the recovery of benzidine was 2% for the MS and benzidine is ND in the samples, results in the data table are qualified as unusable (R).

## Internal Standard

The internal standard area counts in samples and quality control samples were within 50-200% of the opening CCV area counts. The retention time of internal standards did not differ more than 30 seconds from the opening CCV target analyte retention times.



## Target Analyte Identification

No target analytes were identified in MW-2 and the field blank sample. Chromatogram were reviewed to ensure all measurable analyte peaks were accounted for.

### 2.5.3 Pesticides

#### Preservation and Holding Time

Samples were extracted two days after collection and were analyzed the same day as extraction. Extraction and analysis were within holding times.

#### GC/ECD Instrument Performance Check

The breakdown of DDT and endrin was below 20%. The breakdown check was performed daily before ICAL and sample analysis.

#### Initial Calibration

More than five calibration levels were performed for target analyte. Toxaphene and chlordane were calibrated using a one-point calibration curve. Mean retention times were calculated using an initial calibration standard and two subsequent continuing calibration verification standards. Response factors were calculated based on the internal standard area counts. The %RSD between the RFs of the calibration levels was less than 25%.

#### Continuing Calibration Verification

Calibration was verified at the beginning and the end of every analytical sequence. Retention times of analytes were within retention time windows. The %D between the CCV and the ICAL was within a  $\pm 25\%$  range except for analytes on the second column of the last CCV. Since there were no detection of pesticides within the sample and the first column was within control limits, no data was qualified.

#### Blanks

The method blank extracted with the samples of JC14061 and the field blank did not contain any target analyte pesticides. Raw data was verified that no contamination was present.

#### Surrogates

Recovery of surrogates were within 30-150%. Retention times of surrogates were verified against retention time windows.

#### Laboratory Control Sample

One LCS/LCSD pair was extracted with samples. The recovery of endrin aldehyde, gamma-BHC, endosulfan sulfate and endrin were above CLP control limits. Because the samples did not contain any pesticides, no data was qualified in the data table.





#### 2.5.4 PCBs

##### **Preservation and Holding Time**

Samples were extracted two days after collection and were analyzed the same day as extraction. Extraction and analysis were within holding times.

##### **Initial Calibration**

The calibration factor for Aroclor 1016 and 1260 peaks were calculated from a six-level calibration. The %RSD between calibration factors was less than 20% for both columns. Retention time windows ( $\pm 0.03$ ) were calculated from the ICAL and two continuing calibration verifications.

##### **Continuing Calibration Verification**

ICVs and CCV were within the inclusive range of  $\pm 25\%$  %D when compared to CF of target analytes from the ICAL. CCVs were analyzed every ten samples and at the beginning and end of each sequence.

##### **Blanks**

A method blank was extracted with MW-2 and the field blank. No PCBs were found in the method blank or field blank and verified against raw data chromatograms.

##### **Surrogates**

Surrogate recoveries were within 30-150% of true values. Surrogate retention times were verified and were within RT windows.

##### **Matrix Spike/Matrix Spike Duplicate**

MW-2 was used as the source for the MS/MSD. The recovery and RPD of Aroclors 1016 and 1260 were within CLP Guidance limits.

##### **Laboratory Control Sample**

The recovery of Aroclors 1016 and 1260 were with CLP Guidance limits.

#### 2.5.5 Herbicides

##### **Preservation and Holding time**

Samples were extracted two days after collection and were analyzed 4 days after extraction. Extraction and analysis were within holding times.

##### **Initial Calibration**

The calibration factor for target analyte herbicides were calculated from a minimum of five calibration points. The %RSD between calibration factors was less than 20% for both columns. Retention time windows ( $\pm 3 \times \text{StdDev}$ ) were



calculated from the ICAL and two continuing calibration verifications.

### **Continuing Calibration Verification**

ICVs and CCV were within the inclusive range of  $\pm 25\%$  %D when compared to CF of target analytes from the ICAL. CCVs were analyzed every ten samples and at the beginning and end of each sequence.

### **Blanks**

A method blank was extracted with MW-2 and the field blank. No target analyte herbicides were found in the method blank or field blank which was verified against raw data chromatograms.

### **Surrogates**

Surrogate recoveries were within 39-159% of true values. Surrogate retention times were verified and were within RT windows.

### **Matrix Spike/Matrix Spike Duplicate**

MW-2 was used as the source for the MS/MSD. The recovery and RPD of target analyte herbicides were within laboratory control limits.

### **Laboratory Control Sample**

The recovery of target analyte herbicides were within laboratory control limits.

## **2.5.6 Metals**

### **Preservation and Holding Time**

The water samples were collected in bottles containing nitric acid ( $\text{HNO}_3$ ) to a  $\text{pH} < 2$ . This was verified by the lab upon digestion of the samples, which was completed two days after collection. Samples were analyzed the same day as digestion. This was confirmed with raw data.

### **Calibration**

The instrument was calibrated with a 2-point calibration curve and internal standard evaluation. Linear regression was used with a 1/conc weighting. The linear calibration range and instrument detection limits were evaluated on 12/9/15.

ICV and CCV recoveries of target analytes were within control limits. CCVs were analyzed every ten samples and followed by a calibration blank.

### **Blanks**

A CCB was analyzed every 10 samples following the CCV sample. No analytes were detected above the reporting limits in CCBs. A method blank was digested along with MW-2 and the field blank. No analytes above the reporting limit were detected. The field blank also did not have any analytes detected above the laboratory reporting limit.



### **Interference Check Standard**

The ICSA and ICSAB analytes were within  $\pm 20\%$  of true values. Analytes that were not spiked within the ICSA were within instrument control limits.

### **Laboratory Control Sample**

A LCS for total and dissolved analytes was prepared with JC14061 samples. The recovery of target analytes were within the 70-130% control limits.

### **Matrix Spike/Matrix Spike Duplicate**

A MS/MSD were prepared with samples from SDG JC14061. The matrix source for the MS/MSD was not a sample from JC14061. Percent recoveries and RPD values were within laboratory control limits.

### **Serial Dilution**

One serial dilution was performed on a sample not included in SDG JC14061. The %D between the original sample and the serial dilution were outside of control limits due to low analyte concentration.

## **2.5.7 Mercury**

### **Preservation and Holding Time**

Samples were preserved with nitric acid and were pH checked by the laboratory before digestion to confirm a  $\text{pH} < 2$ . Samples were digested two days after collection and analyzed the same day as digestion.

### **Calibration**

The mercury instrumentation was calibrated with six standards that resulted in a correlation coefficient of 0.999. Initial and continuing calibration verification was with the 85-115% control limits. CCVs were analyzed every ten samples.

### **Blanks**

CCBs were analyzed immediately after CCVs and were below the mercury reporting limit. One method blank was prepared with samples from JC14061 and mercury was not detected above the reporting limit.

### **Laboratory Control Sample**

One LCS was digested with samples from SDG JC14061. The recovery of mercury was within laboratory control limits.

### **Matrix Spike/Matrix Spike Duplicate**

A MS/MSD were digested with samples from SDG JC14061. The source of the MS/MSD was not part of SDG JC14061. The recovery and RPD of mercury in the MS/MSD was within laboratory control limits.

## 2.6 SDG JC15505

Data validation and review was conducted for air samples within SDG JC15505 in accordance with the EPA *National Functional Guidelines for Superfund Organic Methods Review*, January 2017, EPA Method TO-15 and NYDEC Analytical Services Protocol. The SDG included three air samples to be analyzed for VOCs by TO-15. Samples specific to JC15505 are included below.

SDG ID	Sample ID	Matrix	Sample Date	Sample Time
JC15505-1	SV-11	Air	3/4/2016	11:36
JC15505-2	IAQ-11	Air	3/4/2016	11:36
JC15505-3	IAQ-10	Air	3/4/2016	11:47
JC15505-4	SV-9	Air	3/4/2016	11:54
JC15505-5	IAQ-9	Air	3/4/2016	11:54

Samples were received by the analytical laboratory, SGS Accutest of Dayton, New Jersey on March 5, 2016. As indicated by the analytical laboratory sample receipt summary: custody seals were intact and containers were accurately labeled and reflected the chain of custody. The air samples were collected in 6-liter canisters and no damage was present when received by the laboratory.

### Preservation and Holding Time

The air samples were collected in cleaned metal canisters. They arrived at the analytical laboratory one day after sampling and were analyzed one March 12, 2016 and March 13, 2016. Raw data was verified to ensure analysis date reported is correct.

### GC/MS Instrument Performance Check

BFB ion abundances were within CLP guidance ranges. BFB was analyzed at the beginning of every analytical sequence and 24 hours within the last samples injected, per method TO-15.

### Initial Calibration

RRF and %RSD were within control limits for all calibrations associated with SDG JC15505. A minimum of 5 calibration points were used for the calibration curves.

### Initial Calibration Verification

An ICV standard was analyzed after each ICAL. Minimum RRF was met for target analytes and %D between the mean ICAL RRF and the ICV RRF was within control limits.

### Continuing Calibration Verification

Target analytes were within %D limits for opening CCVs.



## Blanks

Method blanks were analyzed with each sequence where analysis of environmental samples or SCC samples were performed. No analytes other than surrogates and internal standards were detected in method blanks. Raw data was verified that no other peaks were present in the chromatograms.

## Surrogates

The surrogate was within laboratory control limits. Raw data for samples was checked to ensure that when dilutions were run, both recoveries were within control limits.

## Laboratory Control Samples

LCS/LCSDs were analyzed with each sequence where analysis of environmental samples or SCC samples were performed. Recoveries and RPD values of target analytes were within control limits.

## Laboratory Duplicate

A laboratory duplicate was performed on samples not included in SDG JC15505. All RPD values were within control limits.

## Summa Cleaning Certification

Summa's were cleaned and no residual VOCs were found.

## Internal Standards

The retention time of the internal standards was compared against daily opening continuing calibration verifications. The retention times did not differ more than 0.33 minutes and area counts were within 40% of the check standard for samples associated with JC15505.

## Target Analyte Identification

Raw data was verified to ensure that analyte identification was accurate by comparing ion abundances, analyte mass spectra and retention times to check standards. Some target analytes did not meet the abundance criteria of  $\pm 20\%$  and were accepted based on analyte spectra and retention times.

## 2.7 SDG JC15742

Data validation and review was conducted for soil samples within SDG JC15742 in accordance with the EPA *National Functional Guidelines for Superfund Organic Methods Review*, January 2017 and NYDEC Analytical Services Protocol. The SDG included eight soil samples to be analyzed for VOCs by EPA 8260C and percent moisture by SM2540. Samples specific to JC15742 are included below.

SDG ID	Sample ID	Matrix	Sample Date	Sample Time
JC15742-1	MW-7-23	Soil	3/8/2016	9:10
JC15742-2	MW-7-34	Soil	3/8/2016	9:35
JC15742-3	MW-6-23	Soil	3/8/2016	13:23
JC15742-4	MW-6-30	Soil	3/8/2016	13:45
JC15742-5	MW-5-22.5	Soil	3/8/2016	14:30
JC15742-6	MW-5-30	Soil	3/8/2016	14:45
JC15742-7	MW-5-35	Soil	3/8/2016	14:55
JC15742-8	MW-5	Soil	3/9/2016	13:40

Samples were received within twenty-four hours of sampling to the analytical laboratory, SGS Accutest of Dayton, New Jersey. As indicated by the analytical laboratory sample receipt summary: the cooler temperature upon receipt was <6°C, custody seals were intact, containers were accurately labeled and reflected the chain of custody. Soil samples were collected using field core sampling with enclosed storage containers (EnCore® sampler) in compliance with preparation method EPA 5035 and were prepared by the analytical laboratory within twenty-four hours of sample receipt.

### 2.7.1 VOCs

#### Holding Times

Samples were received below 6°C and within method holding limits by the analytical laboratory. Soil samples were prepared by the laboratory within 24 hours of receipt. Holding times for soil samples analyzed for VOCs were met.

#### Instrument Performance Check


Bromofluorobenzene (BFB) was evaluated for mass spectra requirements and frequency to ensure adequate instrument performance. BFB was analyzed prior to any samples, calibration standard, calibration verification and quality control samples. All samples were run within 12 hours of initial BFB injection. Ion abundances within the BFB peaks were within criteria as established in CLP guidance. Ion abundances were averaged over three scans and were background from less than 20 scans away.

#### Initial Calibration

Calibration curves included at least five calibration points, were performed prior to ICVs, samples and blanks, and were within twelve hours of a BFB check standard. Relative Response Factors (RRF) and Percent Relative Standard Deviations (%RSD) were calculated for each analyte and surrogate. The mean RRF and %RSD for target analytes were within control limits as stated in Table 18 of the EPA *National Functional Guidelines for Superfund Organic Methods Review*, January 2017.

#### Initial Calibration Verification

The RRF for target analytes and surrogate analytes were above minimums presented in the CLP Guidance. The



percent difference between the mean RRF of the initial calibration and the initial calibration verification were within control limits stated by the CLP Guidance.

### **Continuing Calibration Verification**

Continuing calibration verifications were evaluated to determine instrument performance and calibration validity during each analytical run. The CCV analyzed on 3/14/2016 had a %D value outside of control limits for bromomethane. Bromomethane is UJ qualified in the data table for MW-5-30 and MW-5-35.

### **Blanks**

Method blanks were analyzed to assess possible contamination from the laboratory. One method blank was analyzed per analytical batch. There were no detections in any blanks associated with this SDG.

### **Surrogates**

The percent recovery of surrogate compounds was evaluated to determine method and instrument performance. Surrogate recoveries for soil and quality control samples were within laboratory control limits.

### **Laboratory Control Sample**

One laboratory control sample was analyzed per analytical batch included in the SDG. The percent recoveries for target analytes were within laboratory control limits.

### **Matrix Spike/Matrix Spike Duplicate**

One matrix spike was analyzed per analytical batch included in the SDG. The sources of the MS/MSDS were from SDG 15742. The recovery of methyl acetate was outside of control limits for batch V18494. It is not expected that results for associated samples in this batch are affected since the source was not part of SDG 15742 and the LCS had an acceptable recovery.

### **Laboratory Duplicate**

A laboratory duplicate was performed on a sample not included in SDG JC15742. No analytes were detected in the source sample or the laboratory duplicate.

### **Internal Standard**

All required internal standards were added to samples, blank samples and quality control samples at the same specified concentration to monitor system performance and quantify target analytes. Raw data was checked against acceptance criteria for retention times and area response. Retention times did not differ more than 10 seconds from the check standard (beginning calibration check verification). Area responses were within 50-200% of the check standard.

### **Target Analyte Identification**

Target analyte detections are confirmed by ion fragments and retention times. Acetone had ion fragments outside of the acceptable abundance range as defined by the initial calibration. These results were accepted as positively



identified compounds based on RT and analyte mass spectra compared to the reference spectrum.

### Target Analyte Quantitation and Reported Contract Required Quantitation Limits

Results for positively identified analytes and method reporting limits were calculated correctly by the laboratory and adjusted based on initial sample volumes and percent solids for soil samples. The percent solids in the soil samples was greater than 30%. Internal standards based on the ICAL were used for quantitation of analytes in samples and quality control samples. The same primary ion fragments were used as the ICAL and mean RRFs were the same.

#### 2.7.2 Percent Moisture

Percent moisture was performed and calculated for soil samples in SDG JC15742. In addition, two soil samples from JC16088 were also used to calculate dry weight totals in JC15742. Samples results were verified by recalculation of raw data, where; **Percent Moisture** =  $\frac{\text{Wet Weight} - \text{Dry weight}}{\text{Wet Weight} - \text{Tare Weight}} \times 100\%$ .

## 2.8 SDG JC15931

Data validation and review was conducted for air samples within SDG JC15931 in accordance with the EPA *National Functional Guidelines for Superfund Organic Methods Review*, January 2017, EPA method TO-15 and NYDEC Analytical Services Protocol. The SDG included three air samples to be analyzed for VOCs by TO-15. Samples specific to JC15931 are included below.

SDG ID	Sample ID	Matrix	Sample Date	Sample Time
JC15931-1	Ambient	Air	3/9/2016	8:49
JC15931-2	SV-10	Air	3/9/2016	9:27
JC15931-3	IAQ-10	Air	3/9/2016	9:27

Samples were received by the analytical laboratory, SGS Accutest of Dayton, New Jersey. As indicated by the analytical laboratory sample receipt summary: custody seals were intact and containers were accurately labeled and reflected the chain of custody. The air samples were collected in 6-liter canisters and no damage was present when received by the laboratory.

### Preservation and Holding Time

The air samples were collected in cleaned metal canisters. They arrived at the analytical laboratory one day after sampling and were analyzed on 3/18/2016 and 3/19/2016. Samples were analyzed within method holding limits.

### GC/MS Instrument Performance Check

BFB ion abundances were within CLP guidance ranges. BFB was analyzed at the beginning of every analytical sequence and within 24-hours of the final sample, per method TO-15. Ion abundances were averaged over three consecutive scans and no more than 20 scans away from the BFB peak.

### Initial Calibration



RRF and %RSD were within control limits for all calibrations associated with SDG JC15931. A minimum of 5 calibration points were used for the calibration curves.

### **Initial Calibration Verification**

An ICV standard was analyzed after each ICAL and before any samples or quality control samples. RRF values and %D were within control limits.

### **Continuing Calibration Verification**

Target analytes were within %D limits for opening CCVs.

### **Blanks**

Method blanks were analyzed with each sequence where analysis of environmental samples or SCC samples were performed. No analytes other than surrogates and internal standards were detected in method blanks. Raw data was verified that no other peaks were present in the chromatograms.

### **Surrogates**

The surrogate recoveries were within laboratory control limits.

### **Laboratory Control Samples**

LCS/LCSDs were performed with each sequence where analysis of environmental samples or SCC samples were performed. Recoveries and RPD values of target analytes were within control limits except for 1,2,4-trichlorobenzene analyzed on 3/5/16. Because this LCS/LCSD was part of the QC for SCC samples, no data was qualified for sampled in this SDG.

### **Laboratory Duplicate**

Laboratory duplicates were performed on samples not included in SDG JC15931. All RPD values were within control limits.

### **Summa Cleaning Certification**

Summa's were cleaned and no residual VOCs were found.

### **Internal Standards**

The retention time of the internal standards was compared against dialing continuing calibration verifications. The retention times did not differ more than 0.33 minutes and area counts were within 40% of the check standards.

### **Target Analyte Identification**

Some target analytes did not meet the abundance criteria of  $\pm 20\%$  and were accepted based on analyte spectra and retention times.

## 2.9 SDG JC16088

Data validation and review was conducted for soil and blank water samples within SDG JC16088 in accordance with the EPA *National Functional Guidelines for Superfund Organic Methods Review*, January 2017 and NYDEC Analytical Services Protocol. The SDG included two soil samples, one trip blank and one field blank to be analyzed for VOCs by EPA 8260C and percent moisture by SM2540. The percent moisture was used to calculate dry-weight results for SDG JC15742. Trip and field blanks were sampled to show there was no contamination from transportation or field activities which includes samples from SDG JC15742. Samples specific to JC16088 are included below.

SDG ID	Sample ID	Matrix	Sample Date	Sample Time
JC16088-1	Trip Blank	Water	3/10/2016	9:50
JC16088-2	Field Blank	Water	3/10/2016	9:50
JC16088-3	MW-6	Soil	3/10/2016	10:50
JC16088-4	MW-7	Soil	3/10/2016	10:50

Samples were received within twenty-four hours of sampling to the analytical laboratory, SGS Accutest of Dayton, New Jersey. As indicated by the analytical laboratory sample receipt summary: the cooler temperatures upon receipt were <6°C, custody seals were intact, containers were accurately labeled and reflected the chain of custody and there was no headspace in VOA (volatile organic analysis) containers. The QC blank samples were preserved with hydrochloric acid (HCl) and pH checked by the laboratory.

### 2.9.1 VOCs

#### Holding Times

QC blanks samples were analyzed 5 days after collection and within hold time.

#### Instrument Performance Check


Bromofluorobenzene (BFB) was evaluated for mass spectra requirements and frequency to ensure adequate instrument performance. BFB standards were analyzed at the beginning of every sequence and within 12 hours of the final sample injected. Ion abundances were within control limits and were averaged over three scans within the BFB peak and background subtracted from less than 20 scans away.

#### Initial Calibration

The calibration included at least five calibration points, was performed prior to ICVs, samples and blanks, and was within twelve hours of a BFB check standard. Relative Response Factors (RRF) and Percent Relative Standard Deviations (%RSD) were calculated for each analyte and surrogate. The mean RRF and %RSD for target analytes were within control limits.

#### Initial Calibration Verification

A second source calibration verification was analyzed after the soil and water calibrations. The percent difference



between the mean RRF of the initial calibration and the initial calibration verification were within control limits stated by the CLP Guidance.

### **Continuing Calibration Verification**

Continuing calibration verifications were evaluated to determine instrument performance and calibration validity during each analytical run. The percent difference between the mean RRF of the initial calibration and the CCV were within control limits stated by the CLP Guidance.

### **Blanks**

Method blanks, field blanks and trip blanks were analyzed to assess possible contamination from the laboratory or the field. One method blank was analyzed per analytical batch. There were no detections in any blanks associated with this SDG.

### **Surrogates**

Surrogate recoveries were within control limits.

### **Laboratory Control Sample**

One laboratory control sample was analyzed per analytical batch included in the SDG. The percent recoveries for target analytes were within laboratory control limits.

### **Matrix Spike/Matrix Spike Duplicate**

A matrix spike was analyzed with the blank QC samples. Target analytes were within control limits.

### **Laboratory Duplicate**

A laboratory duplicate was analyzed with the blank QC samples. RPD values were within laboratory control limits.

### **Internal Standard**

All required internal standards were added to samples, blank samples and quality control samples at the same specified concentration to monitor system performance and quantify target analytes. Raw data was checked against acceptance criteria for retention times and area response. Retention times did not differ more than 10 seconds from the check standard (beginning calibration check verification). Area responses were within 50-200% of the check standard.

### **2.9.2 Percent Moisture**

Percent moisture was performed and calculated on two soil samples for SDG JC16088. Samples results were verified by recalculation of raw data, where;  $\text{Percent Moisture} = \frac{\text{Wet Weight} - \text{Dry weight}}{\text{Wet Weight} - \text{Tare Weight}} \times 100\%$ .

## 2.10 SDG JC16571

Data validation and review was conducted for air samples within SDG JC16571 in accordance with the EPA *National Functional Guidelines for Superfund Organic Methods Review*, January 2017, EPA Method TO-15 and NYDEC Analytical Services Protocol. The SDG included four air samples to be analyzed for VOCs by TO-15. Samples specific to JC16571 are included below.

SDG ID	Sample ID	Matrix	Sample Date	Sample Time
JC16571-1	SV-14	Air	3/17/2016	7:48
JC16571-2	SV-13	Air	3/17/2016	7:52
JC16571-3	SV-12	Air	3/17/2016	7:58
JC16571-4	Ambient Upwind	Air	3/17/2016	8:02

Samples were received by the analytical laboratory, SGS Accutest of Dayton, New Jersey on March 18, 2016. As indicated by the analytical laboratory sample receipt summary: custody seals were intact and containers were accurately labeled and reflected the chain of custody. The air samples were collected in 6-liter canisters and no damage was present when received by the laboratory.

### Preservation and Holding Time

The air samples were collected in cleaned metal canisters and were analyzed within method holding limits. They arrived at the analytical laboratory one day after sampling and were analyzed between March 24, 2016 and March 26, 2016. Raw data was verified to ensure analysis dates reported are correct.

### GC/MS Instrument Performance Check

BFB ion abundances were within CLP guidance ranges. BFB was analyzed at the beginning of every analytical sequence and 24 hours within the last samples injected, per method TO-15. Ion abundances were averaged over three scans and were background subtracted from less than 20 scans away.

### Initial Calibration

RRF and %RSD were within control limits for all calibrations associated with SDG JC16571. A minimum of 5 calibration points were used for the calibration curves. The %RSD for tetrachloroethene on 3/1/2016 was outside of control limits. No data was qualified since the affected samples were SCCs.

### Initial Calibration Verification

An ICV standard was analyzed after each ICAL. Minimum RRF was met for target analytes and %D between the mean ICAL RRF and the ICV RRF was within control limits.

### Continuing Calibration Verification

Target analytes were within %D limits for opening CCVs.



## Blanks

Method blanks were analyzed with each sequence where analysis of environmental samples or SCC samples were performed. No analytes other than surrogates and internal standards were detected in method blanks. Raw data was verified that no other peaks were present in the chromatograms.

## Surrogates

The recovery of the surrogate compound was within control limits for samples and associated quality control samples within the SDG.

## Laboratory Control Samples

LCS/LCSDs were analyzed with each sequence where analysis of environmental samples or SCC samples were performed. Recoveries and RPD values of target analytes were within control limits.

## Laboratory Duplicate

The source for the laboratory duplicate analyzed was not part of SDG JC16571. All RPD values were <20%.

## Summa Cleaning Certification

Summa's were cleaned and no residual VOCs were found.

## Internal Standards

The retention time of the internal standards was compared against daily opening continuing calibration verifications. The retention times did not differ more than 0.33 minutes and area counts were within 40% of the check standard.

## Target Analyte Identification

Raw data was verified to ensure that analyte identification was accurate by comparing ion abundances, analyte mass spectra and retention times to check standards. Some target analytes did not meet the abundance criteria of  $\pm 20\%$  due to matrix interferences but RT and mass spectra suggest correct analyte identification.

## 2.11 SDG JC16575

Data validation and review was conducted for soil samples within SDG JC16575 in accordance with the EPA National Functional Guidelines for Superfund Organic Methods Review, January 2017, EPA National Functional Guidelines for Superfund Inorganic Methods Review, January 2017, and NYDEC Analytical Services Protocol. The SDG included three groundwater samples and two quality control blank samples to be analyzed for VOCs by EPA 624, SVOCs by EPA 625, chlorinated herbicides by EPA 8151, chlorinated pesticides and PCBs by EPA 608, metals by EPA 6010C and mercury by EPA 7470A. Samples specific to JC16575 are included below.

SDG ID	Sample ID	Matrix	Sample Date	Sample Time
JC16575-1	MW-5	Groundwater	3/18/2016	11:20
JC16575-2	MW-6	Groundwater	3/18/2016	11:42
JC16575-3	MW-7	Groundwater	3/18/2016	10:20
JC16575-4	FB	Water	3/18/2016	9:10
JC16575-5	TB	Water	3/15/2016	9:00

Samples were received by the analytical laboratory, SGS Accutest of Dayton, New Jersey the same day as the samples were collected. As indicated by the analytical laboratory sample receipt summary: sample coolers were received with temperatures below 6°C, VOAs to be analyzed for VOCs did not contain headspace, sufficient sample volume was received, custody seals were intact and containers were accurately labeled and reflected the chain of custody.

### 2.11.1 VOCs

#### Preservation and Holding Time

Samples were received within the required temperature range and were analyzed for VOCs day after collection. VOAs were not preserved.

#### GC/MS Instrument Performance Check

Ion abundances were averaged over three scans and background was subtracted from less than 20 scans away. BFB ion abundances were within CLP guidance ranges. BFB was analyzed at the beginning of every analytical sequence and within 12-hours of the final sample injection time.

#### Initial Calibration

RRF and %RSD were within control limits. A minimum of 5 calibration points was used for the calibration curves.

#### Initial Calibration Verification

An ICV was analyzed after the last ICAL standard. The ICV RRF for target analytes was greater than the minimum RRF. The %D between the ICAL mean RRF and the ICV RRF was within limits of the CLP guidance for trace volatiles.

#### Continuing Calibration Verification

Target analytes were within %D and RT limits for opening CCVs. RRFs were greater than minimums presented in Table 4 of the CLP guidance.

#### Blanks

No target analytes were detected in the field blank, trip blank or method blanks. Contamination was not present in





these blanks.

### **Surrogates**

Surrogate recoveries in environmental samples and quality control samples were within control limits.

### **Laboratory Control Samples**

A LCS was included in both analytical batches with samples from SDG JC16575. The recovery of target analytes was within laboratory control limits.

### **Matrix Spike/Matrix Spike Duplicate**

One matrix spike was analyzed from JC16575-2 (MW-6). The recovery of target analytes was within control limits.

### **Laboratory Duplicate**

A laboratory duplicate was analyzed as part of the laboratory quality control samples. The source of the laboratory duplicate was JC16575-3 (MW-7). The target analyte cis-1,2-dichloroethene was outside of the RPD control limit. Sample data was accepted since the concentration of cis-1,2-dichloroethene was less than the reporting limit and cannot be controlled.

### **Internal Standards**

The retention time of the internal standards was compared against daily beginning continuing calibration verifications. The retention times did not differ more than 10 seconds and area counts were within 50-200% of the check standard.

### **Target Analyte Identification**

Reported target analytes are accurately identified based on ion abundances, analyte spectrums and retention times.

### **2.11.2 SVOCs**

#### **Preservation and Holding Times**


Samples to be prepared for SVOC analysis were extracted three days after collected and analyzed one day after extraction. Samples were prepared and analyzed within holding time.

#### **GC/MS Instrument Performance Check**

A DFTPP standard was analyzed at the beginning of every analytical sequence that included analysis of calibration standards, samples associated with JC16575 and quality control samples. Per EPA 625, DFTPP was analyzed at the beginning of the day.

#### **Initial Calibration**

Target analytes had mean RRFs above the minimum RRF values stated in CLP guidance. The %RSD between the RRFs



were above maximum control limits, except for 2,4-dinitrophenol and 4,6-dinitro-2-methylphenol, which were calibrated with quadratic regressions that had coefficients of 0.999.

### **Initial Calibration Verification**

RRF of target analytes in the ICV were above minimum RRF stated by CLP guidance. The %D between the ICAL average and the ICV RRF for 4-chloro-3-methylphenol was above the upper control limit of +20%. Results for 4-chloro-3-methylphenol were qualified with a UJ in the data table as estimated values. The RT and %D for the remaining target analytes were within control limits.

### **Continuing Calibration Verification**

Analytes reported by the laboratory had RRF values above minimums and %RSD values between the ICAL mean and the CCV within recommended by CLP guidance and %RSD values

### **Blanks**

One method blank was extracted with JC16575-1 (MW-5) and a field blank (JC16575-4) was analyzed for SVOCs. No analytes were detected in either sample. Sample chromatograms were examined for potential signs of contamination and none were found.

### **Surrogates**

The recovery of surrogate compounds was within control limits. Raw data was compared to reported surrogate recoveries and no discrepancies were found.

### **Laboratory Control Samples**

One laboratory control sample was included in the extraction batch with samples from SDG JC16575. Recovery of target analytes was within laboratory control limits.

### **Matrix Spike/Matrix Spike Duplicate**

The source for the MS/MSD was JC16575-1 (MW-5). The recovery of benzidine was below the lower control limit for the MS. Since the recovery of benzidine was 9% for the MS and benzidine is ND in the samples, results in the data table are qualified as unusable (R).

### **Internal Standard**

The internal standard area counts in samples and quality control samples were within 50-200% of the opening CCV area counts. The retention time of internal standards did not differ more than 30 seconds from the opening CCV target analyte retention times.

### **Target Analyte Identification**

No target analytes were identified in MW-5 and the field blank sample. Chromatograms were reviewed to ensure all measurable analyte peaks were accounted for.



### 2.11.3 Pesticides

#### Preservation and Holding Time

Samples were extracted four days after collection and were analyzed two days after extraction. Extraction and analysis were within holding times.

#### GC/ECD Instrument Performance Check

The breakdown of DDT and endrin was below 20%. The breakdown check was performed before ICAL and prior to sample analysis.

#### Initial Calibration

More than five calibration levels were performed for target analyte. Toxaphene and chlordane were calibrated using a one-point calibration curve. Mean retention times were calculated using an initial calibration standard and two subsequent continuing calibration verification standards. Response factors were calculated based on the internal standard area counts. The %RSD between the RFs of the calibration levels were less than 25%.

#### Continuing Calibration Verification

Calibration was verified at the beginning and the end of every analytical sequence. Retention times of analytes were within retention time windows. The %D between the CCV and the ICAL was within a  $\pm 25\%$ .

#### Blanks

The method blank extracted with the samples of JC16575 and the field blank did not contain any target analyte pesticides. Raw data was verified that no contamination was present.

#### Surrogates

Recovery of surrogates were within 30-150%. Retention times of surrogates were verified against retention time windows.

#### Matrix Spike/Matrix Spike Duplicate

The RPD value for endrin aldehyde, heptachlor and Aldrin were outside of CLP guidance or laboratory control limits. No data was qualified since the source sample was not part of SDG JC16575.

#### Laboratory Control Sample

One LCS was extracted with samples. The recovery of target analytes were within control limits.

### 2.11.4 PCBS

#### Preservation and Holding Time

Samples were extracted four days after collection and were analyzed two days after extraction. Extraction and analysis were within holding times.

#### Initial Calibration

The calibration factor for Aroclor 1016 and 1260 peaks were calculated from a six-level calibration. The %RSD between calibration factors was less than 20% for both columns. Retention time windows ( $\pm 0.03$ ) were calculated



from the ICAL and two continuing calibration verifications.

### **Continuing Calibration Verification**

ICVs and CCV were within the inclusive range of  $\pm 25\%$  %D when compared to CF of target analytes from the ICAL. CCVs were analyzed every ten samples and at the beginning and end of each sequence.

### **Blanks**

A method blank was extracted with MW-5 and the field blank. No PCBs were found in the method blank or field blank and verified against raw data chromatograms.

### **Surrogates**

Surrogate recoveries were within 30-150% of true values. Surrogate retention times were verified and were within RT windows.

### **Matrix Spike/Matrix Spike Duplicate**

MW-5 was used as the source for the MS/MSD. The recovery and RPD of Aroclors 1016 and 1260 were within CLP guidance limits.

### **Laboratory Control Sample**

The recovery of Aroclors 1016 and 1260 were with CLP guidance limits.

## **2.11.5 Herbicides**

### **Preservation and Holding time**

Samples were extracted four days after collection and were analyzed six days after extraction. Extraction and analysis were within holding times.

### **Initial Calibration**

The calibration factor for target analyte herbicides were calculated from a minimum of five calibration points. The %RSD between calibration factors was less than 20% for both columns. Retention time windows ( $\pm 3 \times \text{StdDev}$ ) were calculated from the ICAL and two continuing calibration verifications.

### **Continuing Calibration Verification**

ICVs and CCV were within the inclusive range of  $\pm 25\%$  %D when compared to CF of target analytes from the ICAL. CCVs were analyzed every ten samples and at the beginning and end of each sequence.

### **Blanks**

A method blank was extracted with MW-5 and the field blank. No target analyte herbicides were found in the method blank or field blank which was verified against raw data chromatograms.



## Surrogates

Surrogate recoveries were within 39-159% of true values. Surrogate retention times were verified and were within RT windows.

## Matrix Spike/Matrix Spike Duplicate

MW-5 was used as the source for the MS/MSD. The recovery and RPD of target analyte herbicides were within laboratory control limits.

## Laboratory Control Sample

The recovery of target analyte herbicides were within laboratory control limits.

### 2.11.6 Metals

## Preservation and Holding Time

The water samples were collected in bottles containing nitric acid (HNO<sub>3</sub>). This was verified by the lab upon digestion of the samples. Samples were digested and analyzed within holding time.

## Calibration

The instrument was calibrated with a 2-point calibration curve and internal standard evaluation. Linear regression was used with a 1/conc weighting. The linear calibration range and instrument detection limits were evaluated on 12/9/2015 and 1/26/2016, respectively.

ICV and CCV recoveries of target analytes were within control limits. CCVs were analyzed every ten samples followed by a calibration blank.

## Blanks

A CCB was analyzed every 10 samples following the CCV sample. No analytes were detected above the reporting limits in CCBs. A method blank was digested along with MW-5 and the field blank. No analytes above the reporting limit were detected. The field blank also did not have any analytes detected above the laboratory reporting limit.

## Interference Check Standard

The ICS analytes were within  $\pm 20\%$  of true values. Analytes that were not spiked within the ICSA were within instrument control limits.

## Laboratory Control Sample

A LCS for target analytes was prepared with JC16575 samples. The recovery of target analytes were within the 70-130% control limits.

### Matrix Spike/Matrix Spike Duplicate

A MS/MSD were prepared with samples from SDG JC16575. The matrix source for the MS/MSD was not a sample from JC16575. Percent recoveries and RPD values were within laboratory control limits.

### Serial Dilution

One serial dilution was performed on a sample not included in SDG JC16575. The %D between the original sample and the serial dilution were outside of control limits due to low analyte concentration.

### 2.11.7 Mercury

#### Preservation and Holding Time

Samples were preserved with nitric acid and were pH checked by the laboratory before digestion. Samples were digested four days after collection; within holding time limits.

#### Calibration

The mercury instrumentation was calibrated with six standards that resulted in a correlation coefficient of 0.999. Initial and continuing calibration verification was with the 85-115% control limits. CCVs were analyzed every ten samples.

#### Blanks

CCBs were analyzed immediately after CCVs and were below the mercury reporting limit. One method blank was prepared with samples from JC16575 and mercury was not detected above the reporting limit. Mercury was detected in the field blank. No data was qualified since MW-5 did not have a detectable concentration of mercury.

#### Laboratory Control Sample

One LCS was digested with samples from SDG JC16575. The recovery of mercury was within laboratory control limits.


### Matrix Spike/Matrix Spike Duplicate

A MS/MSD were digested with samples from SDG JC16575. The source of the MS/MSD was not part of SDG JC16575. The recovery and RPD of mercury in the MS/MSD was within laboratory control limits.

## 2.12 SDG JC17397

Data validation and review was conducted for groundwater samples within SDG JC17397 in accordance with the EPA *National Functional Guidelines for Superfund Organic Methods Review*, January 2017 and NYDEC Analytical Services Protocol. The SDG included one groundwater sample, one trip blank and one field blank to be analyzed for VOCs by EPA 624. Samples specific to JC17397 are included below.

SDG ID	Sample ID	Matrix	Sample Date	Sample Time
JC17397-1	Trip Blank	Groundwater	3/31/2016	8:30
JC17397-2	Field	Groundwater	3/31/2016	9:45
JC17397-3	MW-5	Groundwater	3/31/2016	10:00



Samples were received by the analytical laboratory, SGS Accutest of Dayton, New Jersey the same day as collected. As indicated by the analytical laboratory sample receipt summary: sample coolers were received with temperatures below 6°C, VOAs to be analyzed for VOCs did not contain headspace, sufficient sample volume was received, custody seals were intact and containers were accurately labeled and reflected the chain of custody.

### 2.12.1 VOCs

#### **Preservation and Holding Time**

Samples were received within the required temperature range and were analyzed for VOCs between five and six days after collection. VOAs were preserved with hydrochloric acid (HCl) and was verified to be pH<2 by the laboratory. Samples were analyzed within method holding time.

#### **GC/MS Instrument Performance Check**

Ion abundances were averaged over three scans and background was subtracted from less than 20 scans away. BFB ion abundances were within CLP guidance ranges. BFB was analyzed at the beginning of every analytical sequence and once per day (EPA 624 method).

#### **Initial Calibration**

RRF and %RSD were within control limits for the calibration used to quantitate target analytes in SDG JC17397.

#### **Initial Calibration Verification**

An ICV was analyzed after the last ICAL standard. The ICV RRF for target analytes was greater than the minimum RRF. The %D between the ICAL mean RRF and the ICV RRF was within limits of the CLP guidance for trace volatiles.

#### **Continuing Calibration Verification**

Target analytes were within %D and RT limits for opening CCVs. RRFs were greater than minimums presented in Table 4 of the CLP guidance.

#### **Blanks**

No target analytes were detected in the trip blank or method blanks. Tetrachloroethene was detected in the field blank. The concentration of tetrachloroethene in the environmental samples within SDG JC17397 was almost 1000 times greater than the concentration found in the field blank. This contamination is not expected to influence the environmental samples concentration of tetrachloroethene.

#### **Surrogates**

Surrogate recoveries in environmental samples and quality control samples were within control limits.

#### **Laboratory Control Samples**

The recovery of target analytes was within laboratory control limits.



### Matrix Spike/Matrix Spike Duplicate

The matrix spike had recoveries of target analytes within control limits.

### Laboratory Duplicate

A laboratory duplicate was analyzed as part of the laboratory quality control samples. The source of the laboratory duplicate was not part of SDG JC17397; all RPD values were within control limits except for chloroethane, which was detected at less than the reporting limit. This value is not controlled.

### Internal Standards

The retention time of the internal standards was compared against daily beginning continuing calibration verifications. The retention times did not differ more than 10 seconds and area counts were within 50-200% of the check standard.


### Target Analyte Identification

Reported target analytes are accurately identified based on ion abundances, analyte spectrums and retention times.

## 2.13 SDG JC22892

Data validation and review was conducted for soil and blank water samples within SDG JC22892 in accordance with the EPA *National Functional Guidelines for Superfund Organic Methods Review*, January 2017 and NYDEC Analytical Services Protocol. The SDG included ten soil samples, one trip blank and one field blank to be analyzed for VOCs by EPA 8260C and percent moisture by SM2540. Trip and field blanks were sampled to show there was no contamination from transportation or field activities. Samples specific to JC22892 are included below.

SDG ID	Sample ID	Matrix	Sample Date	Sample Time
JC22892-1	MW-9 (19.4')	Soil	6/22/2016	10:45
JC22892-2	MW-9 (30')	Soil	6/22/2016	10:45
JC22892-3	MW-10 (19.5')	Soil	6/22/2016	12:05
JC22892-4	MW-10 (30')	Soil	6/22/2016	12:05
JC22892-5	MW-8 (19.5')	Soil	6/22/2016	14:45
JC22892-6	MW-8 (30')	Soil	6/22/2016	14:45
JC22892-7	MW-5I (20')	Soil	6/23/2016	8:35
JC22892-8	MW-5I (23')	Soil	6/23/2016	8:45
JC22892-9	MW-5I (31')	Soil	6/23/2016	8:55
JC22892-10	MW-5I (50')	Soil	6/23/2016	9:40
JC22892-11	FB	Soil	6/22/2016	13:00
JC22892-12	Trip Blank	Soil	6/20/2016	10:30



Samples were received by the analytical laboratory, SGS Accutest of Dayton, New Jersey. As indicated by the analytical laboratory sample receipt summary: the cooler temperatures upon receipt were <6°C, custody seals were intact, containers were accurately labeled and reflected the chain of custody and there was no headspace in VOA (volatile organic analysis) containers. The QC blank samples were preserved with hydrochloric acid (HCl) and pH checked by the laboratory. Soil samples were collected with EnCore samplers.

### 2.13.1 VOCs

#### **Holding Times**

Samples were analyzed within holding times for both water and soil samples.

#### **Instrument Performance Check**

Bromofluorobenzene (BFB) was evaluated for mass spectra requirements and frequency to ensure adequate instrument performance. BFB standards were analyzed at the beginning of every sequence and within 12 hours of the final sample injected. Ion abundances were within control limits, which were averaged over three scans within the BFB peak and background subtracted from less than 20 scans away.

#### **Initial Calibration**

The calibration included at least five calibration points, was performed prior to ICVs, samples and blanks, and was within twelve hours of a BFB check standard. Relative Response Factors (RRF) and Percent Relative Standard Deviations (%RSD) were calculated for each analyte and surrogate. The mean RRF and %RSD for target analytes were within control limits.

#### **Initial Calibration Verification**

A second source calibration verification was analyzed after the soil and water calibrations. The percent difference between the mean RRF of the initial calibration and the initial calibration verification were within control limits stated by the CLP Guidance.

#### **Continuing Calibration Verification**

Continuing calibration verifications were evaluated to determine instrument performance and calibration validity during each analytical run. The percent difference between the mean RRF of the initial calibration and the CCV were within control limits stated by the CLP Guidance with the exception of the %D for carbon tetrachloride in the CCV ran 6/29/16 at 7:16 am. The affected sample is MW-5I (20'), which was ran in the sequence after the CCV. Carbon tetrachloride is considered an estimate in this sample and is UJ qualified in the data table. The %D for acetone was also outside of CLP guidance limits for the CCV ran 6/25/16 at 12:25 pm. Affected samples are MW-9 (30'), MW-8 (19.5'), MW-5I (31'), MW-5I (50') and MW-10 (30'). Acetone was not detected in these samples and results are UJ qualified as estimated values.

#### **Blanks**

Method blanks, field blanks and trip blanks were analyzed to assess possible contamination from the laboratory or the field. One method blank was analyzed per analytical batch. There were no detections in any blanks associated with



this SDG.

### **Surrogates**

Surrogate recoveries were within control limits.

### **Laboratory Control Sample**

One laboratory control sample was analyzed per analytical batch included in the SDG. The percent recoveries for target analytes were within laboratory control limits.

### **Matrix Spike/Matrix Spike Duplicate**

One matrix spike was analyzed per analytical batch. Recoveries of Target analytes were within control limits.

### **Laboratory Duplicate**

One laboratory duplicate was analyzed per analytical batch. Sample JC22892-2 (MW-9 (30')) was used as the source of the laboratory duplicate ran 6/25/16. RPD values were outside of control limits due to low analyte concentrations making it difficult to reproduce results within precision guidelines. No analytes were qualified due to the inability to accurately control the results.

### **Internal Standard**

Required internal standards were added to samples, blank samples and quality control samples at the same specified concentration to monitor system performance and quantify target analytes. Raw data was checked against acceptance criteria for retention times and area response. Retention times did not differ more than 10 seconds from the check standard (beginning calibration check verification). Area responses were within 50-200% of the check standard.

### **Target Analyte Identification**

Reported target analytes are accurately identified based on ion abundances, analyte spectrums and retention times.

### **2.13.2 Percent Moisture**

Percent moisture was performed and calculated for soil samples of SDG JC22892. Samples results were verified by recalculation of raw data, where; **Percent Moisture** =  $\frac{\text{Wet Weight} - \text{Dry weight}}{\text{Wet Weight} - \text{Tare Weight}} \times 100\%$ .

## **2.14 SDG JC23746**

Data validation and review was conducted for groundwater and blank water samples within SDG JC23746 in accordance with the EPA *National Functional Guidelines for Superfund Organic Methods Review*, January 2017 and NYDEC Analytical Services Protocol. The SDG included five groundwater samples, one trip blank and one field blank to be analyzed for VOCs by EPA 8260C. Trip and field blanks were sampled to show there was no contamination from transportation or field activities. Samples specific to JC23746 are included below.

SDG ID	Sample ID	Matrix	Sample Date	Sample Time
JC23746-1	MW-5I	Groundwater	7/8/2016	13:19
JC23746-2	MW-8	Groundwater	7/8/2016	11:00
JC23746-3	MW-9	Groundwater	7/8/2016	12:40
JC23746-4	MW-10	Groundwater	7/8/2016	10:32
JC23746-5	MW-100	Groundwater	7/8/2016	13:19
JC23746-6	Field	Water	7/8/2016	8:50
JC23746-7	Trip	Water	7/5/2016	14:00

Samples were received by the analytical laboratory, SGS Accutest of Dayton, New Jersey. As indicated by the analytical laboratory sample receipt summary: the cooler temperatures upon receipt were  $<6^{\circ}\text{C}$ , custody seals were intact, containers were accurately labeled and reflected the chain of custody and there was no headspace in VOA (volatile organic analysis) containers. The water samples were preserved with hydrochloric acid (HCl) and pH checked by the laboratory.

#### 2.14.1 VOCs

##### Holding Times

Samples were analyzed between three and six days after collection; within holding time.

##### Instrument Performance Check

Bromofluorobenzene (BFB) was evaluated for mass spectra requirements and frequency to ensure adequate instrument performance. BFB standards were analyzed at the beginning of every sequence and within 12 hours of the final sample injected. Ion abundances were within control limits, which were averaged over three scans within the BFB peak and background subtracted from less than 20 scans away.

##### Initial Calibration

The calibration included at least five calibration points, was performed prior to ICVs, samples and blanks, and was within twelve hours of a BFB check standard. Relative Response Factors (RRF) and Percent Relative Standard Deviations (%RSD) were calculated for each analyte and surrogate. The mean RRF and %RSD for target analytes were within control limits.

##### Initial Calibration Verification

The percent difference between the mean RRF of the initial calibration and the initial calibration verification were within control limits stated by the CLP Guidance.

##### Continuing Calibration Verification

Continuing calibration verifications were evaluated to determine instrument performance and calibration validity during each analytical run. The percent difference between the mean RRF of the initial calibration and the CCV were within control limits stated by the CLP Guidance.



## **Blanks**

Method blanks, field blanks and trip blanks were analyzed to assess possible contamination from the laboratory or the field. One method blank was analyzed per analytical batch. There were no detections in any blanks associated with this SDG.

## **Surrogates**

Surrogate recoveries were within control limits.

## **Laboratory Control Sample**

One laboratory control sample was analyzed per analytical batch included in the SDG. The percent recoveries for target analytes were within laboratory control limits.

## **Matrix Spike/Matrix Spike Duplicate**

One MS and MSD were analyzed per analytical batch. Recoveries and RPD values for target analytes were within control limits.

## **Internal Standard**

Required internal standards were added to samples, blank samples and quality control samples at the same specified concentration to monitor system performance and quantify target analytes. Raw data was checked against acceptance criteria for retention times and area response. Retention times did not differ more than 10 seconds from the check standard (beginning calibration check verification). Area responses were within 50-200% of the check standard.

## **Target Analyte Identification**

Reported target analytes are accurately identified based on ion abundances, analyte spectrums and retention times.



**ATTACHMENT A**

**RESUME OF DATA VALIDATOR**



**Kelsi Evans**  
**Staff Chemist**

Kelsi Evans is a staff chemist with 4 years of experience in data quality and management. Beginning as an analytical chemist in an environmental laboratory, Ms. Evans can determine data quality based on standard regulatory methods. She has experience reviewing raw data produced in an environmental laboratory as a QA/QC officer and worked in hands-on positions processing and analyzing environmental samples. Her responsibilities included reviewing air, water, and soil test data produced by the laboratory for historical accuracy, appropriate use of data qualifiers, and precise identification of analytes and EPA methods. Her background in environmental analysis and data review have now cemented her position as an environmental data processor. She routinely works on sites involved in environmental sampling where screening and cleanup levels are implemented. Data packages from environmental laboratories are reviewed by Ms. Evans for criteria that determine usability. Her findings are used in reports that help ensure to clients and regulators that the data was reviewed and all possible data quality problems were discussed. Ms. Evans offers invaluable expertise in managing and interpreting environmental data involving numerous Contaminants of Concern, including metals, mercury, anions, total organic carbon, perchlorate, organochlorine pesticides, organophosphorus pesticides, PCBs, herbicides, haloacetic acids, TPH gas, TPH diesel, TPH motor oil, BTEX, and semi-volatile organics on instrumentation.

**EDUCATION**

B.S., Chemistry, Portland State University, Portland, Oregon, 2013

**PROFESSIONAL REGISTRATIONS/ CERTIFICATION/ TRAINING**

Numerous inorganic and organic chemistry instrumentation credentials  
Hazwoper 40-Hour Certification

**GENERAL EXPERIENCE**

**January 2017 – Present    Apex Companies, LLC, Portland, Oregon**

Kelsi's role at Apex includes applying her laboratory and QA/QC experience to Apex's environmental investigation and remediation projects, including 1) laboratory data tabulation and management; 2) database development; 3) data validation and data quality review; and 4) client and regulatory specific database management.

**August 2013 – December 2016    Environmental Laboratory, Northern California**

QA/QC Officer and Project Manager. Ms. Evans managed a team of technicians and performed quality control review of the laboratory's air, water and soil test data for historical discrepancies to ensure appropriateness of data qualifiers before sending final reports to clients. Her responsibilities included reviewing chain of custody materials and ensuring compliance with clients' specific QAPP methods. As an analytical chemist, she worked with ion chromatography, ICP and GC instruments while managing and training other employees.

**PROJECT EXPERIENCE**

**Port of Portland - Willamette Cove Quarterly Groundwater Monitoring and Soil Sampling, Portland, Oregon.** Ms. Evans was the data manager for the December 2016 Groundwater Data Report for an Upland Facility located within the Portland Harbor Superfund Site. Her responsibilities included quality checking data tables for accuracy against laboratory reports and writing the quality assurance report. The review of the analytical data included twelve laboratory reports from multiple laboratories for VOCs, total and dissolved metals, PCB congeners, SVOCs, PAHs, anions, TOC, speciated arsenic, dioxins and furans and organochlorine pesticides in groundwater and soil. Analytical results and qualifiers were evaluated using the EPA National Functional Guidelines for Superfund Methods Data Review and individual analytical methods. Her process for reviewing the data was to read case narratives that might indicate any data quality issues, then review samples individually for holding time violations or matrix interferences (as indicated by qualifiers and surrogate recoveries) and finally quality control samples were reviewed for percent recovery and RPD control limit exceedances, blank detections and surrogate control limit failures. Sampling



documents, chain of custodies and sample receiving forms were also reviewed for sampling containers and preservation, discrepancies between bottles and chain of custody documents, unbroken chain of custody format, temperature of samples received by the laboratory and analyses. Any findings that might compromise sample data quality were documented in the Quality Assurance/Quality Control (QA/QC) review which was submitted with the Data Report to the Oregon Department of Environmental Quality.

**Confidential Client - Terminal Semi-Annual Groundwater Monitoring, Portland, Oregon.** Ms. Evans was the data manager for the First Semi-Annual 2017 Groundwater Monitoring Report for a bulk petroleum terminal located on the bank of the Willamette River. The environmental sampling included forty-six groundwater locations with analyses for VOCs, diesel range organics, PAHs and total and dissolved metals. Laboratory data was evaluated against the EPA National Functional Guidelines for Superfund Methods Data Review. Ms. Evans reviewed all sample handling paperwork and laboratory reports for any issues that might affect data quality. Her findings were written in a Data Quality Review report to be submitted to the Oregon Department of Environmental Quality along with the Groundwater Monitoring Report. She also reviewed and updated data qualifiers for EDD files based on valid values and data quality findings that were uploaded to a data management platform.

**Gunderson LLC - Quarterly Groundwater Monitoring, Portland, Oregon.** Ms. Evans managed analytical laboratory data for an industrial manufacturer located along the Willamette River. The data reviewed originated from groundwater monitoring well locations which were analyzed for VOCs, TPH diesel, PAHs, phthalates and total and dissolved metals. Laboratory data reports were evaluated for data quality based on documentation provided by the laboratory and analytical results. Any data quality issues were reviewed under the EPA National Functional Guidelines for Superfund Methods Data Review and data tables were updated accordingly to indicate any potential values that might be biased. Ms. Evans also reviewed laboratory data entry for the report data table and updated qualifiers based on her findings from the laboratory report. Exceedance ratios were calculated from screening level values and sample concentrations. These values were reviewed by Ms. Evans for accuracy based on the calculation used. Any data that might be compromised was detailed in the Analytical Laboratory Testing Quality Assurance Review that was included in the Groundwater Monitoring Report which was submitted to the Oregon Department of Environmental Quality.

**Port of Portland - PDX Fire Training Facility Well Reconnaissance Sampling, Portland, Oregon.** Ms. Evans facilitated communication between analytical laboratories and field staff for sampling containers and ways to reduce contamination while in the field for specialty analytes (perfluorinated compounds [PFC]). She created data tables to be included in the report, updated screening levels in tables based on site specifics and managed data to be included in the data table. Laboratory reports were reviewed by Ms. Evans for data quality based on the EPA National Functional Guidelines for Superfund Methods Data Review and all findings were included in the Quality Assurance/Quality Control (QA/QC) Review. Her review of the emerging contaminants, perfluorinated compounds, as reported were evaluated against laboratory SOPs and the EPA analytical method as basis. The EPA method was modified by the laboratory and blank detections, quality control samples and labeled standards were compared against raw data to determine usability. Field duplicates were also implemented to show field sampling and laboratory precision. During her evaluation of the analytical method and data, multiple lines of communication were opened between her and industry professionals who specialize in analytical analysis perfluorinated compounds. In addition to PFCs, groundwater samples at this location were also analyzed for VOCs, diesel and oil, PCBs, PAHs and total and dissolved metals. The review of the data was included in the Well Sampling Report.

## TECHNICAL EXPERIENCE

### QA/QC Officer

As a QA/QC officer at an environmental laboratory, Ms. Evans was responsible for all data quality that the laboratory produced. All raw data was evaluated by her and she determined proper use of methods, quality control completeness and overall usability. If raw data was deemed usable for a sample delivery group (SDG), she would approve the data to be reported to the client. To make these determinations she was

able to draw upon past hands-on experience and methodology provided by the EPA and Standard Methods. She maintained Environmental Laboratory Accreditation Program (ELAP) certification and submitted Performance Evaluation (PE) samples. Her data validation experience for the laboratory is as follows:

- Reviewing raw data packages and LIMS data to ensure correct final concentration based on dilution and sample preparation procedure.
- Chromatograms from GC and IC instruments were checked for ethical quantitation.
- Ensuring that sample preparation and analysis times were consistent between the LIMS and raw data submitted.
- Data submitted was compared to historical data for clients sampling locations. Any discrepancies would initiate communication between Ms. Evans and the client where it would be determined if samples needed to be prepared and analyzed again.
- Updating QC parameters in the LIMS to match client Quality Assurance Project Plans (QAPP).
- Assess data qualifiers for accuracy based on QC or sample integrity violations. Determine acceptable QC violations based on EPA methods.
- Looking at instrument sequences to determine if any carry-over was possible between samples.

### **Project Manager**

Ms. Evans was responsible for managing projects received by the laboratory. Some of her responsibilities included:

- Reviewing sample integrity forms provided by the sample log-in department. These forms would provide a narrative of sample receiving temperature, headspace in VOAs and discrepancies between the chain of custody and bottles received.
- Ms. Evans would evaluate the amount of sample received compared to the volume needed for sample analysis and QC. She would also determine if sample containers were appropriate for methods requested.
- Sample log-in forms were checked against chain of custodies received. Ms. Evans would update any methods that were incorrectly logged in. She would communicate with clients if there were any problems with holding time, wrong matrix for method requested or incorrect preservation.

### **Analytical Chemist**

Ms. Evans has experience working as an analytical chemist for inorganic, organic and wet chemistry departments. Her expertise in instrumental analysis helped to maintain ELAP certification by performing analysis on PE samples in all departments she worked in. Her experience as an analytical chemist includes:

- Organic analysis: GC chemist for SVOCs, pesticides (organophosphorus and organochlorine), PCBs, herbicides, TPH diesel and motor oil, TPH gas, BTEX, haloacetic acids. Duties included calibration of instrumentation. For GC/MS instruments this included tuning of instrument every 12 hours and before any run. Correct use of calibration curves (minimum number of calibration points, curve types, rho values and instrument response factors). Correctly identifying analytes whether by two-column acceptance criteria or MS ion fragments. Ethically quantitating GC chromatograms with consistency. Running calibration verification standards and instrument blanks every ten samples to ensure data quality.
- Inorganic analysis: ICP and AA chemist for metals and mercury. Calibrating each instrument at least once per day. Analyzing interference check standards to determine instrument performance. Analyzing calibration verification and instrument blanks every ten samples to ensure calibration and no carry-over.
- Other experience includes extraction technician for SVOCs, pesticides (organophosphorus and organochlorine), PCBs, herbicides, TPH diesel and motor oil, haloacetic acids, metals and mercury.



## Appendix I

### Garage Ventilation System Documentation

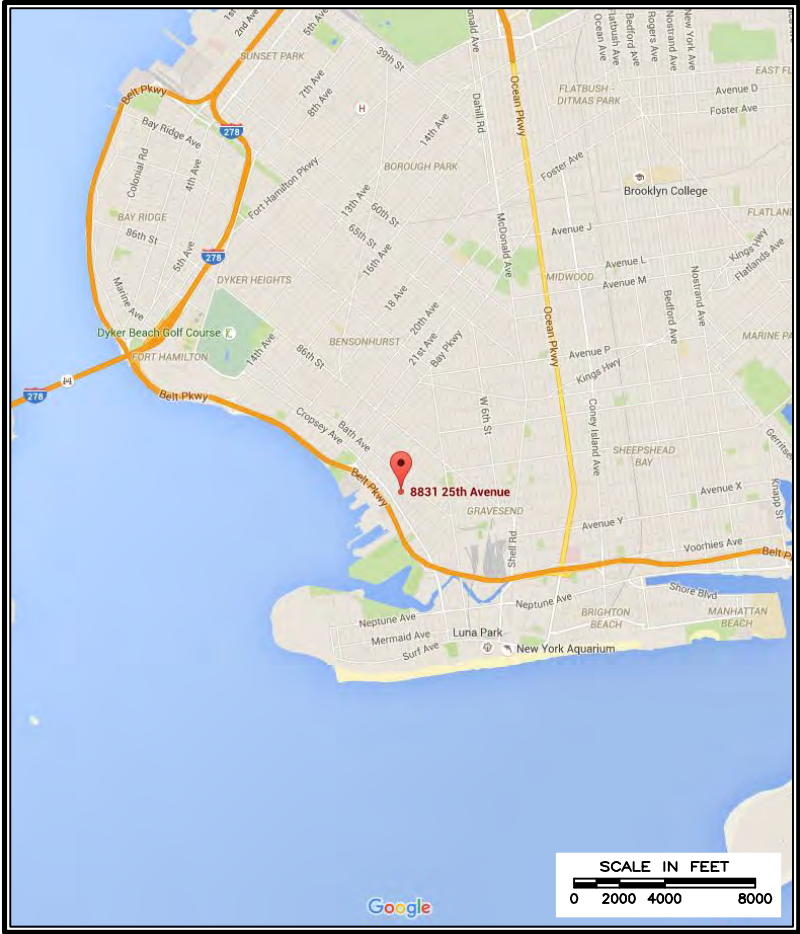
AS-BUILT DESIGN FOR GARAGE FAN SYSTEM

8831, 8841, 8851, AND 8861 BAY 25th STREET

BROOKLYN, NEW YORK



SITE LOCATION MAP



SCHEDULE OF DRAWINGS:

SHEET NO.	TITLE
1	COVER SHEET
2	GARAGE FAN DETAILS
3	GARAGE FAN AIRFLOW PROCESS
4	GARAGE PLAN



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East Brunswick, NJ 08816  
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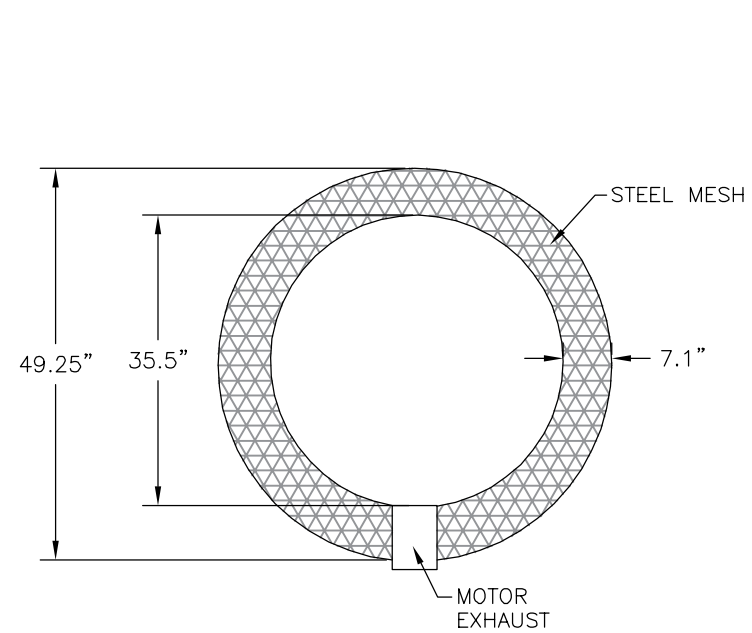
PREPARED FOR:

8831, 8841, 8851, AND 8861 BAY 25th STREET  
BROOKLYN, NEW YORK

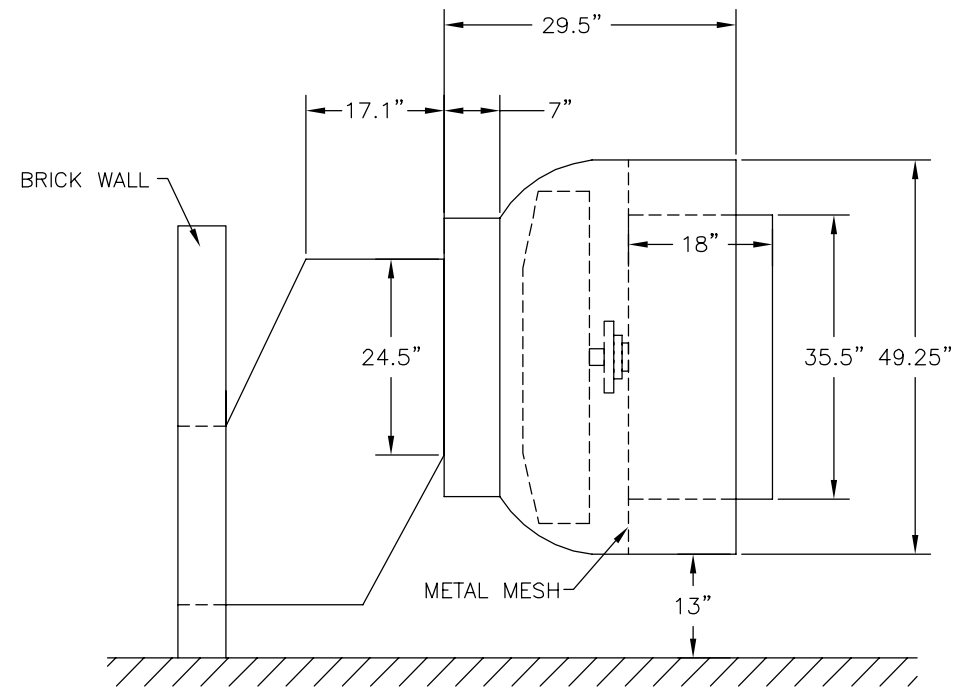
COVER SHEET

SHEET

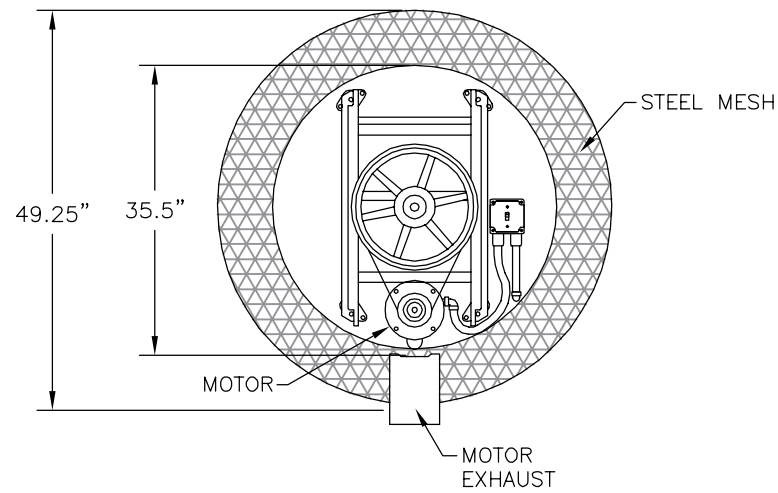
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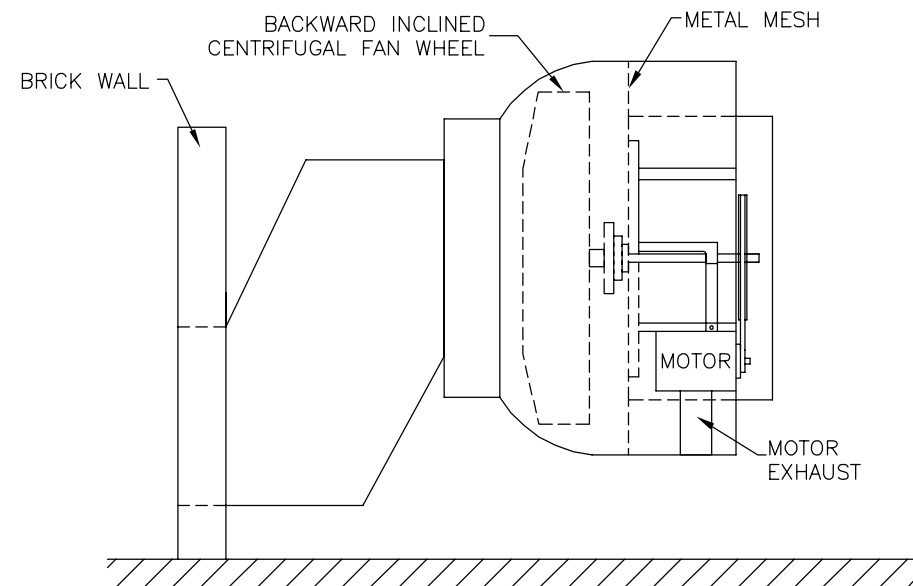
**FRONT VIEW WITH HOUSING COVER**



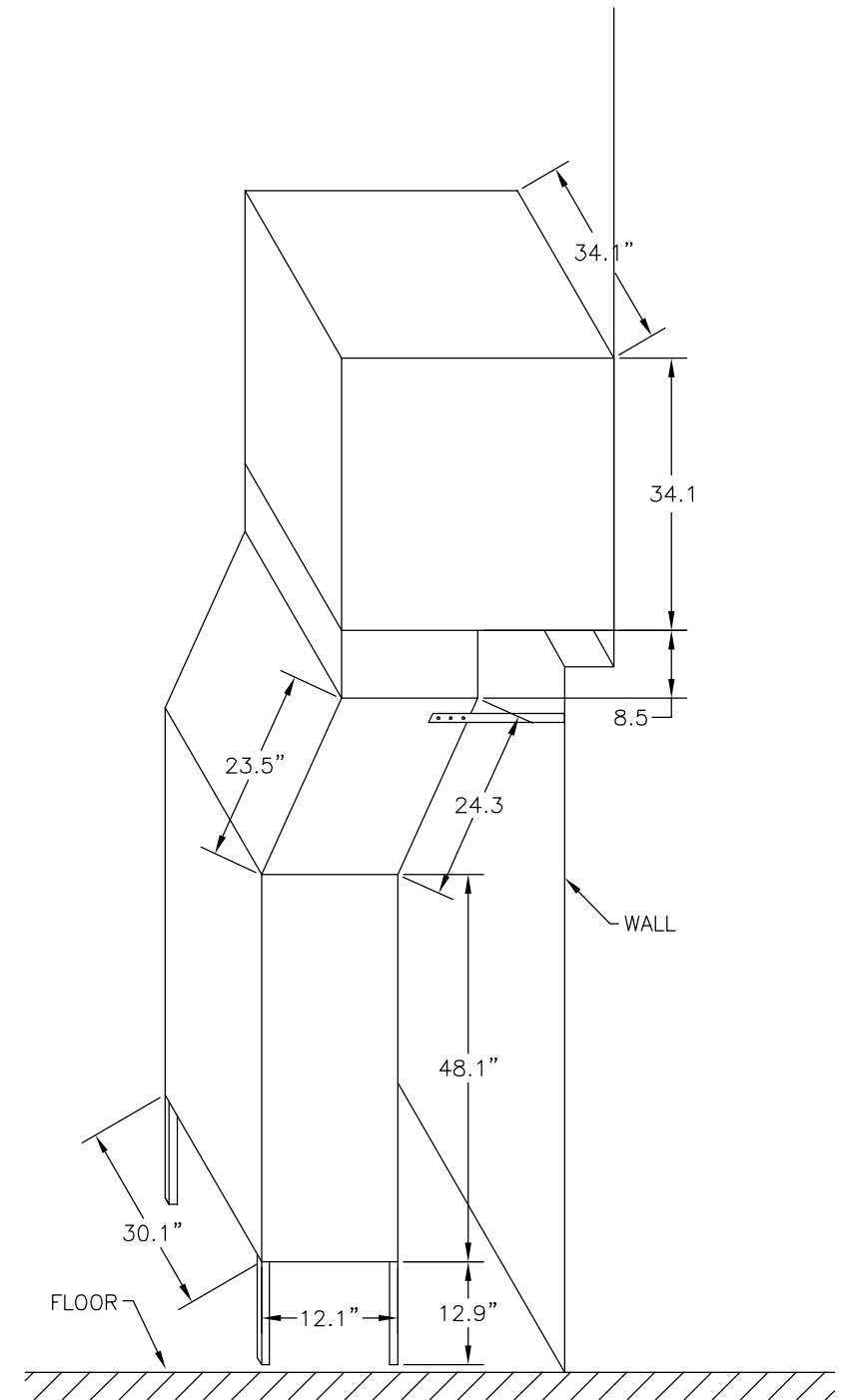
**SIDE VIEW WITH HOUSING COVER**



**FRONT VIEW WITHOUT HOUSING COVER**



**SIDE VIEW**



**DUCT SYSTEM - SIDE VIEW**

Equipment	Make/Model	Specs
Upblast Ventilator	Dayton 5DVN5	30.5" Diam Backward Inclined Centrifugal wheel; 50" Overall Diam; 8625 cfm @ 0.0" wc
Belt Drive Motor	Dayton 6K321BE	1 HP; 1725 RPM; 115/208-230V; 1 Phase

CHECK BY	AN
DRAWN BY	OS
DATE	7-19-16
SCALE	AS SHOWN
CAD NO.	85265.01C
PRJ NO.	85265.001

GARAGE FAN DETAILS

AMA CROPSEY

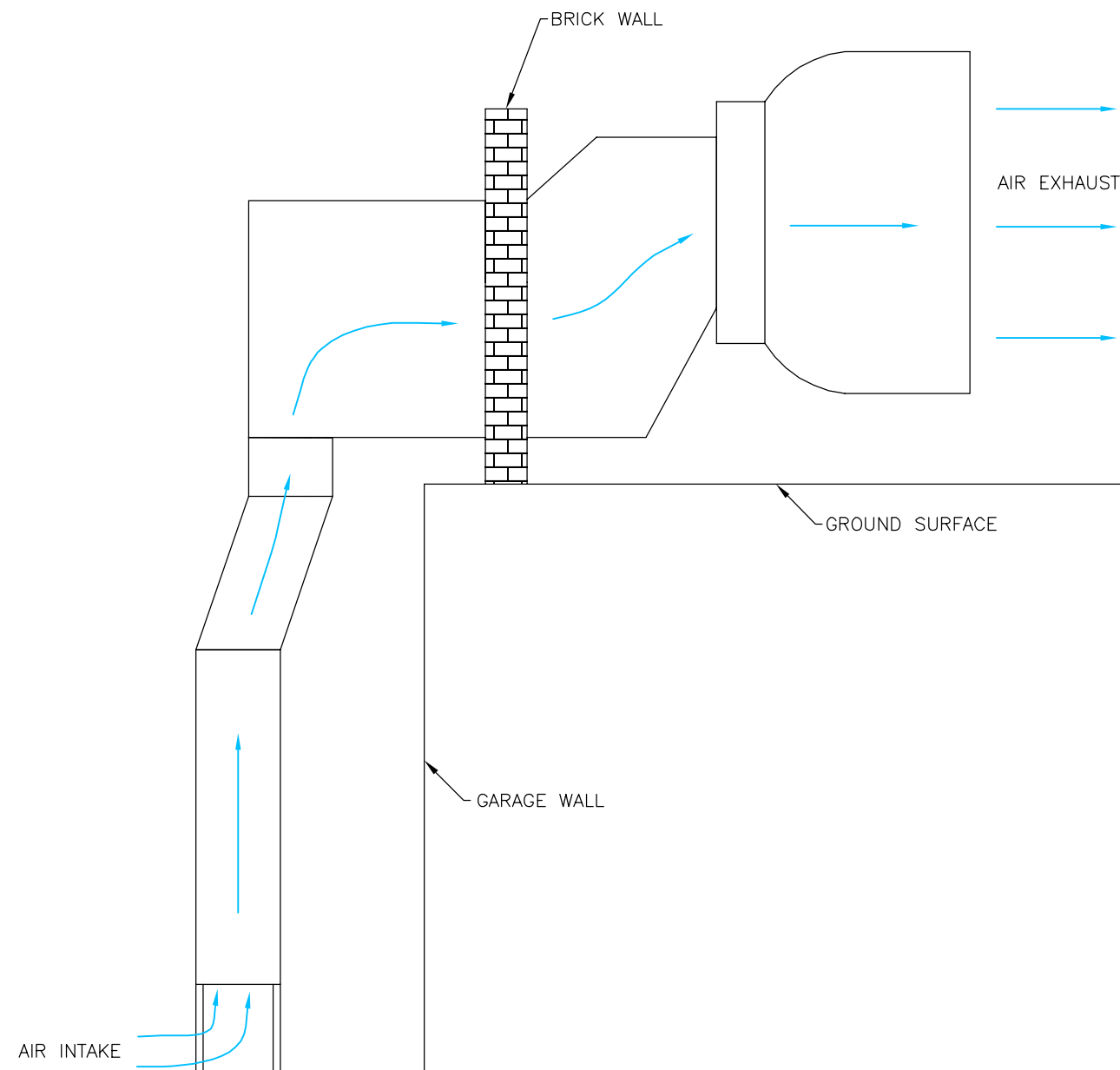
8831, 8841, 8851, AND 8861 BAY 25th STREET

BROOKLYN, NEW YORK



SHEET

2



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SCALE	AS SHOWN
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PRJ NO.	85265.001

GARAGE FAN AIR FLOW PROCESS

AMA CROPSEY

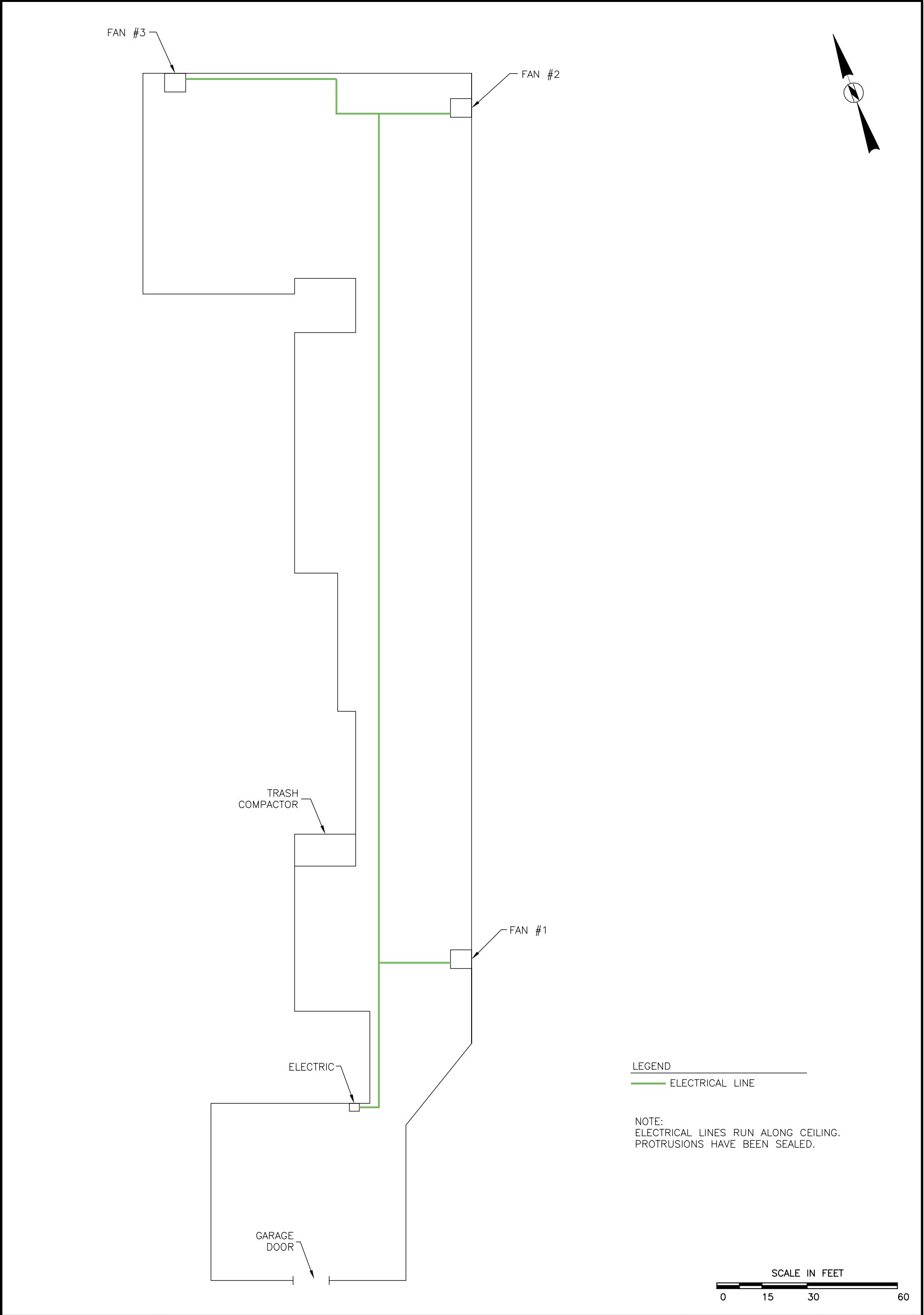
8831, 8841, 8851, AND 8861 BAY 25th STREET


BROOKLYN, NEW YORK



SHEET

3



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DATE 7-19-16			
SCALE AS SHOWN			
CAD NO. 85265.01C			
PRJ NO. 85265.001			