

SEARS AUTO CENTER AND STORE  
2359 BEDFORD AVENUE AND 2307 BEVERLY ROAD  
BROOKLYN, NEWYORK  
BLOCK 5135 LOT 53 AND BLOCK 5133 LOT 14

**PHASE II**  
**ENVIRONMENTAL SITE ASSESSMENT**  
**(ASTM 1903-19)**

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



## 1.0 INTRODUCTION

Artist Construction (Client) retained P.W. Grosser Consulting, Inc. (PWGC) to prepare a Phase II Environmental Site Assessment (ESA) for the property located at 2359 Bedford Avenue and 2307 Beverly Road, Brooklyn, New York. The purpose of the Phase II ESA was to further evaluate recognized environmental conditions (RECs) identified in a February 2022 Phase I ESA prepared by PWGC to obtain sound, scientifically valid data concerning actual property conditions.

Work was conducted in accordance with the American Society for Testing and Materials (ASTM) Standard E 1903-19 (Standard Practices for Environmental Site Assessment: Phase II Environmental Site Assessment Process) and in substantial conformance with the New York State Department of Environmental Conservation's (NYSDEC's) Division of Environmental Remediation's (DER's) Technical Guidance for Site Investigation and Remediation, May 2010 (DER-10).



## 2.0 BACKGROUND

### 2.1 Site Description and Features

The subject property consists of two parcels located at 2359 Bedford Avenue and 2307 Beverly Road in the Flatbush neighborhood of Brooklyn, New York. The subject property is located in Brooklyn and Kings County. The property is identified in the NYC Tax Map as Block 5135, Lot 53 and Block 5133, Lot 14.

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

### 2.2 Physical Setting

The topography of the subject property and surrounding area was reviewed from the USGS 7.5-minute series topographic map for the Brooklyn, New York quadrangle. The property elevation is approximately 35 feet above the National Geodetic Vertical Datum (NGVD).

### 2.3 Site History and Land Use

The site appears to have been historically used for industrial purposes, including a blacksmith shop, an auto repair shop with gasoline tank, rail car shed, plastic molding manufacturing and the current auto repair shop, since at least 1966. The historical and current operations have included the storage and usage of hazardous substances and petroleum products on the site. Currently, the eastern portion of the site consists of one L-shaped building with a basement and the western portion of the site consists of a three-story building with two mechanical penthouses on the roof, a clock tower, basement. Both the buildings on site are currently unoccupied.

### 2.4 Adjacent Property Land Use

The adjacent properties have been primarily utilized for commercial, industrial, and residential purposes from when they were first developed to the present day. The sites adjacent to the north of the subject site have been historically utilized as an auto repair shop and service station. The sites adjacent to the west of the subject site have been historically utilized for industrial purposes. The sites adjacent to the south and east of the subject site have been used only for residential purposes.



## 2.5 Summary of Previous Assessments

### 2.5.1 Phase I Environmental Site Assessment Report (February 2022)

PWGC prepared a Phase I ESA in February of 2022. The Phase I ESA identified the following RECs associated with the subject property.

- REC 1 – Historical usage of the site for industrial and commercial purposes including plastic molding manufacturing and auto shop.
- REC 2 – Presence of onsite floor drains and stormwater drains, presenting pathways for such substances to potentially have been released to the environment.
- REC 3 – RCRA Non-Gen with evidence of poor housekeeping, presenting pathways for such substances to potentially have been released to the environment.
- REC 4 – Historical and current usage of adjacent and surrounding properties for commercial purposes (gas station/ service station).

Based on the findings of the Phase I ESA PWGC recommended that a Phase II ESA be performed at the subject property consisting of a geophysical survey and a subsurface investigation including soil, groundwater, and a soil vapor intrusion investigation.



### 3.0 INVESTIGATION METHODOLOGY

The Phase II ESA included the following tasks:

- Geophysical survey
- Soil quality evaluation
- Groundwater quality evaluation
- Soil vapor intrusion investigation

#### 3.1 Geophysical Survey

On January 26, 2022, PWGC and Advanced Geological Services (Advanced Geo) of Malvern, Pennsylvania mobilized to the subject property to perform a geophysical survey. The purpose of the geophysical survey was to determine the absence/presence of subsurface anomalies at the subject property. Descriptions of the geophysical methods are described below.

A copy of the Geophysical Survey Report, including further detail regarding the methodology and findings, is included in **Appendix A**.

##### 3.1.1 Radio Frequency (RF) Utility Locating Method

Advanced Geo utilized a Radiodetection RD4000 utility locating instrument was used to search for utilities. This instrument consists of a receiver/tracer and a remote transmitter which operates at multiple radio frequencies (RF) ranging from 8 kHz to 65 kHz. The receiver unit detects a transmitted RF signal, as well as standard 60 Hz electrical power lines and broad-band RF signals when operated in passive detection modes. This utility tracing instrument is an analog device that provides visual and audible feedback to the operator when a utility coupled with the transmitted signal is crossed. The transmitter produces a radio-frequency signal in the utility to be traced by either induction coupling or direct hook-up. The receiver output varies an audible pitch depending upon how far the utility is from the receiver. By carefully adjusting the gain of the receiver it is possible to determine the location of the utility and to separate it from adjacent utilities. The RF instrument is also capable of providing a depth estimate to the utility being traced based on the vertical gradient of the received RF signal strength. Passive detection scanning techniques and direct hook-up techniques were used during this investigation.



### 3.1.2 Ground Penetrating Radar Survey

Following the electromagnetic survey, Advanced Geo utilized a Survey Systems Inc. SIR-3000 with a 400 Mhz antenna to further investigate the metallic anomalies. Ground penetrating radar (GPR) uses high-frequency pulsed electromagnetic waves to acquire subsurface information. Energy is propagated downward into the ground and is reflected back to the surface from boundaries at which there are electrical property contrasts. Penetration is the greatest in unsaturated sands and fine gravels and dry, well-cured concrete. Clayey, highly saline or saturated soils, areas covered by steel reinforced concrete, foundry slag, uncured concrete, or other highly conductive materials significantly reduce depth penetration of the GPR signal. The 400 MHz antenna can achieve depths of penetration up to about 20 feet, but this depth may be greatly reduced due to site-specific conditions as discussed above.

## 3.2 Soil Quality Evaluation

To characterize soil quality at the subject property, soil borings were installed in the Areas of Concern (AOC). A total of sixteen soil borings were installed during the Phase II ESA investigation. Soil boring locations are illustrated in **Figure 3**.

### 3.2.1 Soil Boring Protocol

Associated Environmental Services, Ltd. (Associated) of Hauppauge, New York provided environmental drilling services during the investigation. A 420M Drill Rig and Geoprobe® 7822DT direct push drill rig was utilized to install the environmental soil borings. Soils were collected continuously from the ground surface to an approximate depth of 25 feet below surface grade.

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



### 3.2.2 Soil Sample Collection Protocol

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

### 3.3 Groundwater Quality Evaluation

To characterize groundwater quality at the subject property, groundwater samples were collected from locations focused on up-gradient and down gradient sides of the property to determine if contamination from an off-site source could be migrating on-site or if potential on-site contamination was migrating off-site. A total of four groundwater samples were collected during the investigation. Groundwater sampling locations are illustrated in **Figure 3**.

#### 3.3.1 Groundwater Sampling Point Installation Protocol

Following the completion of the soil borings at SB-7, SB-4 and SB-14, Associated installed a temporary sampling point in each borehole to a depth intersecting the top of the groundwater. Groundwater was encountered at approximately 27 feet below surface grade.

#### 3.3.2 Groundwater Sample Collection Protocol

Once the groundwater sampling points were set at the desired depth, disposable high-density polyethylene tubing was inserted into the water-bearing zone of the sampling device. The end of the tubing was connected to a stainless-steel check valve. Three to five casing volumes of water were purged from each temporary sampling point prior to the collection of samples.

Groundwater samples were collected in laboratory supplied glassware and packed in a cooler with ice and shipped under proper chain-of-custody procedures to Alpha, an NYSDOH ELAP certified laboratory, for analysis following NYSDEC ASP-Category A Deliverables.



### 3.4 Soil Vapor Intrusion Investigation

To evaluate potential vapor intrusion at the subject property, a soil vapor intrusion investigation was performed. The investigation consisted of the collection of soil vapor, sub-slab vapor, indoor air, and outdoor (ambient) air samples. The soil vapor, sub-slab vapor and ambient air sampling locations are illustrated in **Figure 3**.

Sampling was conducted in accordance with the NYSDOH "Guidance for Evaluating Soil Vapor Intrusion in New York State," (NYSDOH Guidance) October 2006 and subsequent addenda.

#### 3.4.1 *Indoor Air Quality Questionnaire and Building Inventory*

Prior to sample collection, an inspection was performed to identify and minimize conditions that may interfere with the proposed testing. The inspection evaluated the type of structure, floor layout, air flows and physical conditions of the building being studied.

#### 3.4.2 *Soil Vapor and Air Sampling Point Installation Protocol*

Soil vapor, sub-slab soil vapor, indoor air, and outdoor air sampling was performed in accordance with the NYSDOH "Guidance for Evaluating Soil Vapor Intrusion in New York State," (NYSDOH Guidance) October 2006 and subsequent addenda.

##### 3.4.2.1 Sub-Slab Soil Vapor Sampling

Sub-slab soil vapor sampling points were installed to approximately two inches beneath the floor slab in accordance with procedures specified in the NYSDOH Guidance. Sampling points were constructed of dedicated polyethylene tubing backfilled with clean sand and sealed at the surface with hydrated bentonite.

##### 3.4.2.2 Soil Vapor Sampling

Soil vapor sampling points were installed to two feet, in accordance with procedures specified in the NYSDOH Guidance. The sampling depth corresponded to the approximate depth of the former USTs and associated piping. Soil vapor sampling points were installed utilizing a Geoprobe® direct-push drill rig. At each location, a six-inch stainless-steel screen was installed at the base of the sampling point with dedicated polyethylene tubing to grade. Clean sand was placed surrounding the screen and six inches above. The remainder of the soil vapor point annulus was sealed with bentonite grout to the surface.



#### 3.4.2.3 Indoor and Outdoor Air Sampling

Indoor and outdoor air samples were collected concurrently with sub-slab soil vapor and soil vapor samples. Indoor air samples were co-located with sub-slab soil vapor samples.

The outdoor air sample was collected at an upwind location as determined in the field to determine the potential contribution of outdoor air quality on indoor air. On the dates samples were collected, the wind direction at the subject property was determined to be toward the Northeast; therefore, the outdoor air sample was collected at the Southwest property boundary.

Indoor and outdoor air samples were collected from a height representing the breathing zone (between 3 and 5 feet above the floor).

#### 3.4.2.4 Tracer Gas Testing

Prior to sampling, the integrity of soil vapor and sub-slab soil vapor sampling point seals was tested using tracer gas analysis. The environment surrounding the seal was enriched with the tracer gas (helium) as readings were collected through the sampling probe with a portable helium detector. Seals were adjusted as needed until acceptable tracer gas readings were collected from each soil vapor probe indicating the seals were intact and the sampling probes were acceptable for sample collection.

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

#### *3.4.3 Soil Vapor and Air Sample Collection Protocol*

Soil vapor, sub-slab soil vapor, indoor air, and outdoor air samples were collected into 6-liter Summa® vacuum canisters fitted with 2-hour flow controllers. Canisters and flow controllers were batch certified clean by the laboratory. Proper quality assurance/quality control (QA/QC) protocol was followed during the collection of soil gas samples to ensure that cross-contamination in the field did not occur. Canister sampling data sheets are included as **Appendix C**.



## 4.0 INVESTIGATION FINDINGS

### 4.1 Scope of Assessment

RECs identified in the Phase I ESA were evaluated as follows:

- REC 1 – historical usage of the site for industrial and commercial purposes– Soil borings, groundwater and soil vapor samples.
- REC 2 – Onsite drains – Geophysical survey.
- REC 3 – RCRA Non-Gen with poor housekeeping - Soil borings, groundwater, and soil vapor samples.
- REC 4 – Adjacent properties used for commercial purposes (gas station/ service station) - Groundwater and soil vapor samples.

### 4.2 Evaluation of Onsite and Offsite RECs

To evaluate RECs associated with the site, PWGC performed the following scope of work:

- Geophysical survey to clear the underground utilities in the soil boring areas.
- Installation of sixteen soil borings (SB-1 to SB-16, etc.) in the former UST locations and portions of the site historically used for commercial and industrial purposes, and collection of one soil sample from each boring.
- Installation of three temporary groundwater sampling points. To collect groundwater samples from the upgradient and downgradient portion of the site to determine any offsite impact to subject property from surrounding commercial properties. Collection of one groundwater sample from each. In addition, one groundwater sample (GW-4) was collected from the existing monitoring well on the eastern section of the subject property.
- To determine the potential presence of soil vapor intrusion from former USTs and historical use of the site and surrounding properties for commercial and industrial purposes. Installation of four temporary sub-slab vapor sampling points (SS-1, SS-2, SS-3, SS-4), three temporary soil vapor sampling points (SV-1, SV-2, SV-3), three indoor air samples (IA-1, IA-2, IA-3) and two outdoor air samples (OA-1, OA-2).

#### 4.2.1 Geophysical Survey

A geophysical survey was performed as detailed in Section 3.1. Findings of the geophysical survey relevant to RECs included the following:



AGS cleared numerous proposed drilling locations of identifiable underground utilities and other potential drilling hazards. The proposed drilling locations are located on both of the subject properties, and inside and outside of the buildings. AGS cleared numerous proposed drilling locations during the geophysical investigation. Several proposed drilling locations, associated with floor drains, were identified and marked inside the buildings. Electric lines, storm drain lines, and unknown utilities were also identified in proximity to several proposed drilling locations. When a proposed drilling location was deemed to be too close to an identified utility, the location was relocated at the discretion of the PWGC representative. Final cleared drilling locations and any identified utilities were marked on the ground using spray paint. Identified utilities were marked in accordance with the American Public Workers Association uniform color code. The locations of identified features were recorded as detailed field sketches.

#### 4.2.2 *Soil Quality Evaluation*

To characterize soil quality relative to RECs, soil borings were installed at the site. A total of sixteen soil borings (SB-1 through SB-16) were installed during the investigation. Beneath an approximate two-foot interval of crushed concrete and asphalt under the existing basement slab and paved parking lot, soils generally consisted of silty sands down to approximately four feet below grade surface (bgs). Well-graded sands were then observed to a depth of approximately 20 feet bgs. An exception to this pattern was observed at the south side of the Auto Center property where a approximately three-foot interval of urban fill was observed, underlain by an approximate five-foot lens of clayey sands followed by well-graded sand beneath the lens. The northwest portion of the retail center also showed evidence of urban fill at approximately six to eight feet bgs. The remaining soils conditions at this site were generally consistent with the surrounding borings. Groundwater was encountered at approximately 28 feet bgs on the northern and eastern portions of the site and at approximately 23 feet bgs at the southern side of the site. No evidence of soil staining, odors and no elevated PID readings were encountered. Soil boring locations are illustrated in **Figure 2**.

##### 4.2.2.1 Soil Boring Protocol

Soil borings were installed as detailed in Section 3.2. Soils were collected continuously from the ground surface to an approximate depth of 25 feet below surface grade, with the exception of SB-1 due to refusal at 12 feet below surface grade. Soil boring logs are included in **Appendix B**.



#### 4.2.2.2 Soil Sample Collection Protocol

The samples were planned to be collected from the 2 feet interval with evidence of possible contamination, if no contamination was observed the samples were collected from the two-foot interval above the water table. Based on the field screening using PID, no contamination was observed and each of the soil samples was collected from the two-foot interval above the water table. Soil samples relative to AOC were collected as detailed in Section 3.2, and were analyzed for the following:

- VOCs by USEPA Method 8260
- SVOCs by USEPA Method 8270
- Herbicides by USEPA Method 8151
- Pesticides and PCBs by USEPA Methods 8081/8082
- Metals by USEPA Methods 6010/7196/7471/9012
- Per- and Polyfluoroalkyl Substances (PFAS) by USEPA Method 537 Modified
- 1,4-Dioxane by USEPA Method 8270-SIM

#### 4.2.2.3 Soil Analytical Results

Soil analytical results were compared to the Soil Cleanup Objectives (SCOs) for Unrestricted Use (UNRES), Residential Use (RESR), Restricted Residential Use (RESRR), and Commercial Use (RESC) specified in NYSDEC's Title 6 New York Codes, Rules, and Regulations (NYCRR) Part 375.

Soil analytical results for VOCs, SVOCs, pesticides, PCBs, PFAS and 1,4-Dioxane were not detected exceeding UNRES, RESR, RESRR, and RESC soil cleanup objectives from each of the 16 soil samples. Metals were non detected above the RESR, RESRR, and RESC soil cleanup objectives in each of the soil samples, except for nickel, which was detected at levels exceeding the UNRES soil cleanup objectives in soil samples collected from SB-4, SB-6, SB-7, SB-8, SB-14, SB-15 and SB-16. The maximum concentration of nickel was reported in SB-16 at 47.7 mg/kg. The detection of Nickel in soil samples collected from SB-4, SB-6, SB-7, SB-8, SB-14, SB-15 and SB-16 is not consistent with the contamination typically found at the sites utilized as automobile shop and may be naturally occurring in the soils at the subject property. The soil sampling results indicate the sub-surface contamination at the site from the former USTs and historic use of the site for commercial and industrial purposes was not identified. The soil sampling analytical exceedances are illustrated in **Figure 4**.



Analytical results are detailed in **Tables 1** through **5** and the complete laboratory analytical report is included in **Appendix D**.

#### 4.2.3 *Groundwater Quality Evaluation*

To characterize groundwater quality, groundwater samples were collected from the up-gradient and down gradient sides of the property to determine if contamination from an off-site source could be migrating on-site or if potential on-site contamination was migrating off-site. A total of four groundwater samples (GW-1, GW-2, GW-3 and GW-4) were collected during the investigation. Groundwater sampling locations are illustrated in **Figure 3**.

##### 4.2.3.1 Groundwater Sample Collection Protocol

Following the completion of the soil borings at SB-7, SB-4 and SB-14, temporary groundwater sampling points were installed as detailed in Section 3.3. One groundwater sample was collected from the existing monitoring well in the eastern section of the subject property. A total of four groundwater samples (GW-1, GW-2, GW-3 and GW-4) were collected during the investigation. Samples GW-2 and GW-3 were collected from the upgradient portion of the site. Samples GW-1 and GW-4 were collected from the downgradient of the groundwater flow. The sample screen was set from 25 to 27 feet below surface grade in each borehole.

##### 4.2.3.2 Groundwater Sample Collection Protocol

Groundwater samples relative to RECs were collected as detailed in Section 3.3, and were analyzed for the following:

- VOCs by USEPA Method 8260
- SVOCs by USEPA Method 8270
- Metals by USEPA Methods 6010/7196/7471/9012 (Total and Dissolved)
- Herbicides by USEPA Method 8151
- Pesticides and PCBs by USEPA Methods 8081/8082
- PFAS by USEPA Method 537 Modified
- 1,4-Dioxane by USEPA Method 8270-SIM

##### 4.2.3.3 Groundwater Analytical Results

Groundwater analytical results were compared to NYSDEC Ambient Water Quality Standards and Guidance Values (AWQS).





VOCs were not detected at concentrations exceeding the NYSDEC AWQS in each of the groundwater samples; except for chloroform in sample GW-1. Chloroform was detected at a concentration of 8.8 µg/l in GW-1, which is above the NYSDEC AWQS of 7 µg/l. Several SVOCs were detected at concentrations exceeding their respective NYSDEC AWQS in GW-1, GW-2 and GW-4. These SVOCs detected at concentrations exceeding their respective NYSDEC AWQS include benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene and indeno (1,2,3-cd) pyrene. The groundwater sample GW-3 had only SVOC (1,2,4-Trichlorobenzene) at concentrations exceeding respective NYSDEC AWQS. Based on the lack of corresponding soil impact identified in collected soil samples as a potential onsite source, the presence of these compounds may be related to the presence of historic fill material at the site, rather than a petroleum release at the subject property.

Several Total Metals were detected at concentrations exceeding the NYSDEC AWQS in each of the groundwater samples. Only four Metals were detected in dissolved metal samples, these metals include iron, manganese, nickel and sodium. Based on the lack of elevated metals detected in the soil samples, the elevated total metal concentrations are attributed to high turbidity levels in the groundwater samples and do not indicate a contamination source on site.

Only one organochlorine pesticide (chlordane) was detected at concentrations exceeding the NYSDEC AWQS. Chlordane was detected at a concentration of 0.711 µg/l in GW-3, which is above NYSDEC AWQS of 0.05 µg/l. Based on the lack of elevated pesticide detections in the soil samples, the elevated level of one pesticide does not indicate a contamination source on site.

Perfluorooctanesulfonic Acid (PFOS) and Perfluorooctanoic Acid (PFOA) were detected at concentrations exceeding NYSDEC water quality guidance values for PFOS and PFOA in each of the groundwater samples. The PFOS and PFOA concentrations were detected at greater concentrations in groundwater samples (GW-2 and GW-3) collected from upgradient sampling points, as compared to the groundwater samples (GW-1 and GW-4) collected from downgradient sampling points. The lack of PFOS and PFAS compounds in the soil samples and the fairly low exceedance of PFOS and PFOA above the NYSDEC water quality guidance values is likely related to a regional PFAS issue. The groundwater sampling analytical exceedances are illustrated in **Figures 5 and 6**.



Analytical results are detailed in **Tables 6** through **10** and the complete laboratory analytical report is included in **Appendix D**.

#### 4.2.4 *Soil Vapor Intrusion Investigation*

To evaluate potential vapor intrusion at the subject property, a soil vapor intrusion investigation was performed. Soil vapor and air samples were collected as described in Section 3.4.

##### 4.2.4.1 Indoor Air Quality Questionnaire and Building Inventory Results

An inspection was performed to identify and minimize conditions that may interfere with the air and vapor testing as described in Section 3.4.1.

##### 4.2.4.2 Soil Vapor and Air Analytical Results

The primary method for the evaluation of sub-slab vapor and indoor air data is the use of Soil Vapor / Indoor Air Matrices provided in the NYSDOH Guidance document. The matrices incorporate both sub-slab vapor concentrations and their corresponding indoor air concentrations in a table to formulate an appropriate action for a sampling site. Matrices have been developed for 1,1-dichloroethene, cis-1,2-dichloroethene, vinyl chloride, tetrachloroethene, trichloroethene, 1,1,1-trichloroethane, methylene chloride and carbon tetrachloride. Although matrices have not yet been developed for other compounds, consideration is given to the comparisons between the sub-slab vapor and indoor air concentrations to determine if vapor intrusion is occurring.

Based on the analytical results, matrices were developed for carbon tetrachloride and tetrachloroethene. Comparing the soil vapor concentrations to indoor air concentrations on the matrices, detections for these two compounds met the criteria for "No Further Action". The BTEX compounds (Benzene, Ethylbenzene, Toluene and Xylenes) are petroleum compounds that are typically associated with contamination at gas stations/service stations. BTEX compounds were detected in the sub-slab vapor, soil vapor and ambient air samples, NYSDOH does not provide guidance or contamination limit values for BTEX compounds. The concentration of BTEX compounds ranged between a minimum of 0.969  $\mu\text{g}/\text{m}^3$  to a maximum of 249  $\mu\text{g}/\text{m}^3$  (SS-4) in the sub-slab vapor and soil vapor samples, in the ambient air samples the BTEX compounds ranged between a minimum of 1.22  $\mu\text{g}/\text{m}^3$  to a maximum of 11  $\mu\text{g}/\text{m}^3$ . The presence of BTEX compounds in sub-slab vapor, soil vapor and ambient air samples can be a result of offsite vapor migration from incidental spillage at the surrounding sites historically used as gas stations/service stations. As such, these compounds do not pose a concern at the site. The soil vapor, sub-slab



vapor and ambient air sampling analytical detections for NYSDOH matrices and BTEX compounds are illustrated in **Figure 7**.

Analytical results are detailed in **Table 11**. The complete laboratory analytical report is included in **Appendix D** and copies of Soil Vapor / Indoor Air Matrices are included in **Appendix E**.



## 5.0 CONCLUSIONS AND RECOMMENDATIONS

PWGC has performed a Phase II ESA at the subject property in conformance with the scope and limitations of ASTM Practice E1903-19 for the following objectives:

- REC 1 – historical usage of the site for industrial and commercial purposes– Soil borings, groundwater and soil vapor samples.
- REC 2 – Onsite drains – Geophysical survey.
- REC 3 – RCRA Non-Gen with poor housekeeping - Soil borings, groundwater, and soil vapor samples.
- REC 4 – Adjacent properties used for commercial purposes (gas station/ service station) - Groundwater and soil vapor samples.

### 5.1 Conclusions

Based on the results of the Phase II ESA, PWGC offers the following conclusions:

- The limited geophysical investigation performed at the site discovered numerous utilities at the site no other subsurface anomalies were present in the areas surveyed.
- Sixteen soil boring were installed through the site and soil sample collections and analytical results did not find any significant contamination consistent with the historic use of the site for industrial and commercial purposes including auto shop. The detection of Nickel in levels exceeding the UNRES soil cleanup objectives in soil samples collected from SB-4, SB-6, SB-7, SB-8, SB-14, SB-15 and SB-16 is not consistent with contamination typically found at sites utilized for industrial and commercial purposes and may be naturally occurring. In addition, no other exceedances of nickel above residential, restricted residential and commercial soil cleanup objectives were detected in each of the soil samples.
- Analytical results from the four groundwater samples collected from the site do not indicate that past or present usage of the subject property and adjacent properties are impacting groundwater. Detections of several metals in exceedance of NYSDEC AWQS, however, this is attributed to the natural occurring metal concentrations, elevated sodium from road salt and high turbidity level in the groundwater at the time of sample collection.
- The collection of soil vapor and ambient air samples at the site does not indicate that past and present usage of the subject property and adjacent properties are impacting air and soil vapor or causing a soil vapor intrusion condition.



## 5.2 Recommendations

Based on the conclusions detailed above, PWGC recommends that no further action is needed at this time. However, if the site is to be redeveloped, residual historic fill materials may be encountered and will need to be properly handled and disposed of in accordance with State and local requirements.



## 6.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

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

Usman Chaudhry  
Project Manager

Kris Almskog, PG  
Sr. Vice President

Report Completion Date: 4/27/2022



## 7.0 REFERENCES

6 NYCRR Part 375 Environmental Remediation Programs Subparts 375-1 to 375-4 and 375-6.

6 NYCRR Part 703 Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations.

Commissioners Policy CP-51, Soil Cleanup Guidance, NYSDEC, October 21, 2010.

Sampling, Analysis, and Assessment of Per-and Polyfluoroalkyl Substances (PFAS), Under NYSDEC's Part 375 Remedial Programs, NYSDEC, January 2021.

Standard Operating Procedure for the Administration of Article 12 of the Suffolk County Sanitary Code, SOP 9-95, Pumpout and Soil Cleanup Criteria, SCDHS, August 2010.

Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process, ASTM Standard E 1903-19.

Technical Guidance for Site Investigation and Remediation (DER-10), NYSDEC, May 3, 2010.



## 8.0 LIMITATIONS

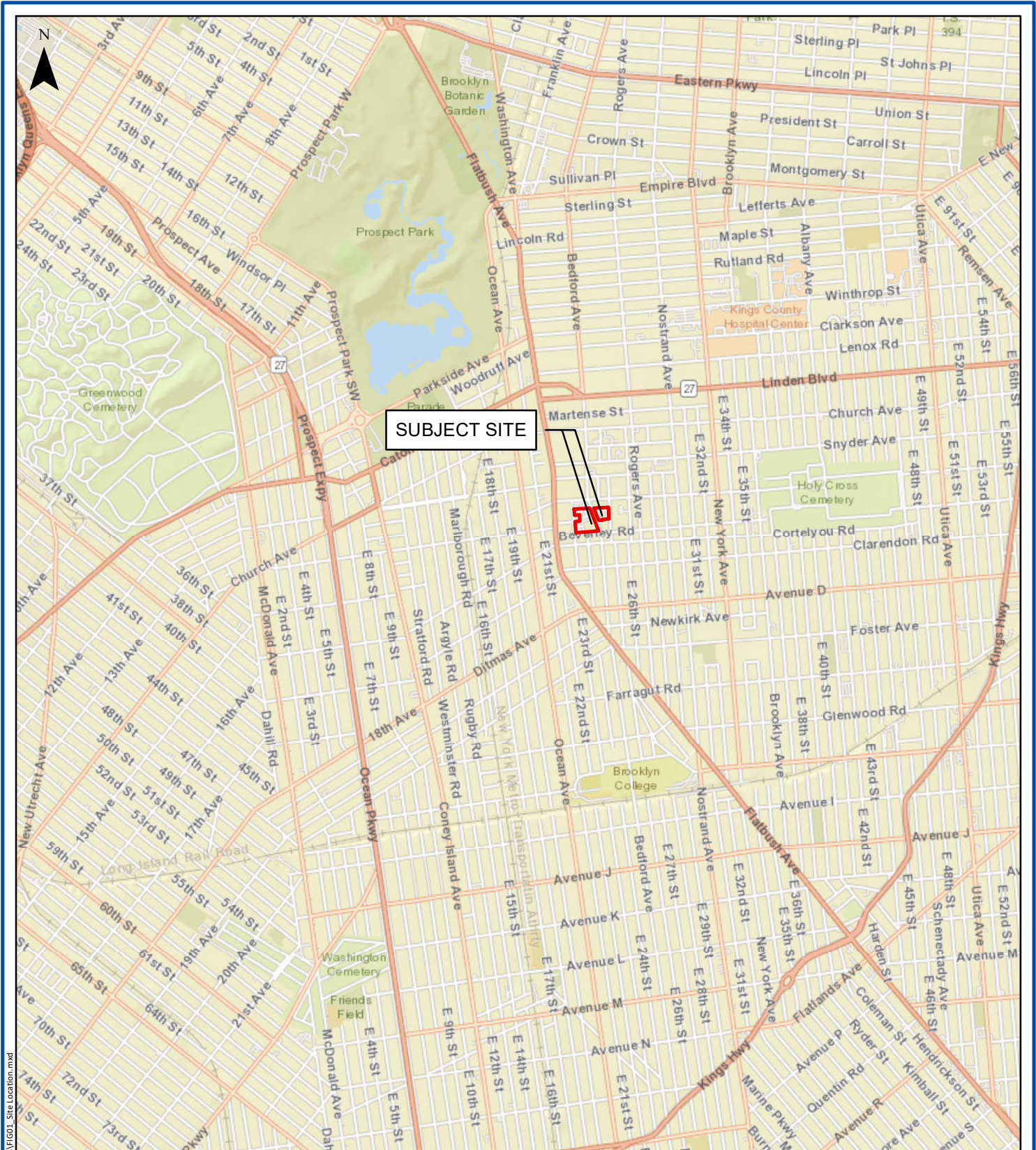
The conclusions presented in this report are professional opinions based on the data described in this report. These opinions have been arrived at in accordance with currently accepted engineering and hydrogeologic standards and practices applicable to this location, and are subject to the following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

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





## FIGURES



SUBJECT SITE



## SITE LOCATION

2359 Bedford Avenue  
 &  
 2307 Beverly Road  
 Brooklyn, NY

Project:	ARC2202
Date:	2/10/2022
Designed by:	UC
Drawn by:	UC
Approved by:	KA
Figure No:	1

Document path: W:\Projects\A-D\ARC2202\Map Files\VI.GD1\_Site Location.mxd



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**SITE PLAN**

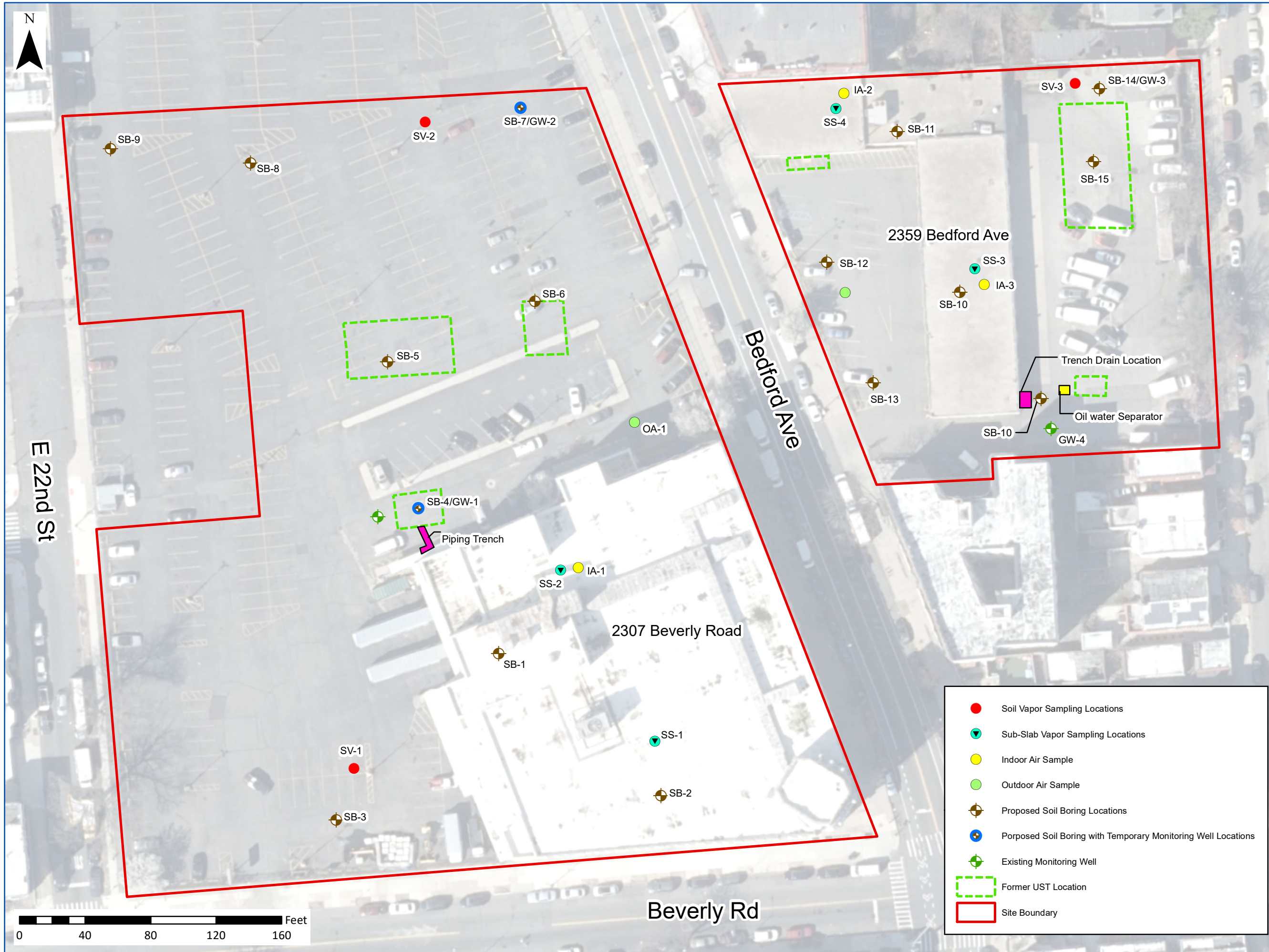
2359 Bedford Avenue  
&  
2307 Beverly Road  
Brooklyn, NY

FIGURE NO:

2



-  Existing Monitoring Well
-  Floor Drain
-  Storm Drain
-  Former UST Location
-  Site Boundary



- Soil Vapor Sampling Locations
- ▼ Sub-Slab Vapor Sampling Locations
- Indoor Air Sample
- Outdoor Air Sample
- ⊕ Proposed Soil Boring Locations
- ⊕ Porposed Soil Boring with Temporary Monitoring Well Locations
- ⊕ Existing Monitoring Well
- Former UST Location
- Site Boundary



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### SITE PLAN

2359 Bedford Avenue  
&  
2307 Beverly Road  
Brooklyn, NY

FIGURE NO:  
3



Analyte	SB-6 2/1/2022
Total Metals in mg/kg	
Nickel, Total	30

Analyte	SB-7 2/1/2022
Total Metals in mg/kg	
Nickel, Total	55.3

Analyte	SB-14 1/28/2022
Total Metals in mg/kg	
Nickel, Total	43.9

Analyte	SB-8 2/1/2022
Total Metals in mg/kg	
Nickel, Total	35.2

Analyte	SB-4 2/1/2022
Total Metals in mg/kg	
Nickel, Total	47.5

Analyte	SB-15 1/28/2022
Total Metals in mg/kg	
Nickel, Total	44.1

Analyte	SB-16 1/28/2022
Total Metals in mg/kg	
Nickel, Total	47.7

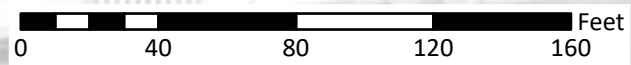
E 22nd St

Bedford Ave

2359 Bedford Ave

2307 Beverly Road

Beverly Rd



Highlighted text denotes concentrations exceeding the NYSDEC Unrestricted Use SCO.

- Soil Boring
- Soil Boring with Temporary Monitoring Well
- Former UST Location
- Site Boundary



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### SOIL ANALYTICAL EXCEEDANCES

2359 Bedford Avenue  
 &  
 2307 Beverly Road  
 Brooklyn, NY

FIGURE NO:  
 4



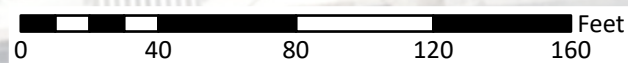
Analyte	GW-2	
SVOCs by GC/MS-SIM in µg/L		
Benzo(a)anthracene	0.03	J
Benzo(b)fluoranthene	0.03	J
Benzo(k)fluoranthene	0.01	J
Chrysene	0.02	J
Indeno(1,2,3-cd)pyrene	0.02	J
PFAS by Isotope Dilution in µg/L		
PFOS	0.0718	
PFOA	0.0437	

Analyte	GW-3	
SVOCs by GC/MS in µg/L		
1,2,4-Trichlorobenzene	7.2	
Organochlorine Pesticides by GC in µg/L		
Chlordane	0.711	
PFAS by Isotope Dilution in µg/L		
PFOS	0.161	
PFOA	0.128	

Analyte	GW-4	
SVOCs by GC/MS-SIM in µg/L		
Benzo(a)anthracene	0.03	J
Benzo(a)pyrene	0.02	J
Benzo(b)fluoranthene	0.03	J
Benzo(k)fluoranthene	0.02	J
Chrysene	0.03	J
Indeno(1,2,3-cd)pyrene	0.03	J
PFAS by Isotope Dilution in µg/L		
PFOS	0.0431	
PFOA	0.0823	

Analyte	GW-1	
VOCs by GC/MS in µg/L		
Chloroform	8.8	
SVOCs by GC/MS-SIM in µg/L		
Benzo(a)anthracene	0.05	J
Benzo(a)pyrene	0.05	J
Benzo(b)fluoranthene	0.09	J
Benzo(k)fluoranthene	0.03	J
Chrysene	0.05	J
Indeno(1,2,3-cd)pyrene	0.07	J
PFAS by Isotope Dilution in µg/L		
PFOS	0.0253	
PFOA	0.041	

**Notes:**  
 J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.  
 Highlighted text denotes concentrations exceeding the NYSDEC AWQS.



- Soil Boring with Temporary Monitoring Well
- Existing Monitoring Well
- Former UST Location
- Site Boundary



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### GROUNDWATER ANALYTICAL EXCEEDANCES

2359 Bedford Avenue & 2307 Beverly Road Brooklyn, NY

FIGURE NO:

5



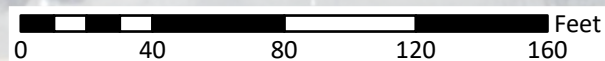
Analyte	GW-2 2/1/2022
<b>Dissolved Metals in µg/L</b>	
Manganese, Total	743.3
Nickel, Total	109.7
Sodium, Total	63,900
<b>Total Metals in µg/L</b>	
Barium, Total	2,871
Beryllium, Total	12.01
Cadmium, Total	7.03
Chromium, Total	729.5
Copper, Total	796
Iron, Total	185,000
Lead, Total	345.2
Magnesium, Total	186,000
Manganese, Total	40,060
Nickel, Total	5,336
Selenium, Total	53.6
Sodium, Total	47,500
Thallium, Total	1.08

Analyte	GW-3 1/28/2022
<b>Dissolved Metals in µg/L</b>	
Iron, Total	354
Manganese, Total	492.2
Sodium, Total	20,900
<b>Total Metals in µg/L</b>	
Arsenic, Total	31.26
Barium, Total	2,452
Beryllium, Total	13.08
Cadmium, Total	6.68
Chromium, Total	720.9
Copper, Total	640.8
Iron, Total	200,000
Lead, Total	414.5
Magnesium, Total	102,000
Manganese, Total	33,430
Nickel, Total	2,916
Selenium, Total	64.6
Thallium, Total	3.49

E 22nd St

Analyte	GW-1 2/1/2022
<b>Dissolved Metals in µg/L</b>	
Sodium, Total	172,000
<b>Total Metals in µg/L</b>	
Antimony, Total	5.97
Chromium, Total	52.75
Iron, Total	36,900
Lead, Total	159.2
Magnesium, Total	36,300
Manganese, Total	2,240
Nickel, Total	316.2
Sodium, Total	119,000
Thallium, Total	0.54 J

**Notes:**  
 J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.  
 Highlighted text denotes concentrations exceeding the NYSDEC AWQS.



Bedford Ave

2307 Beverly Road

Beverly Rd

2359 Bedford Ave

SB-14/GW-3

Trench Drain Location

Oil water Separator

GW-4

SB-4/GW-1

SB-7/GW-2

Analyte	GW-4 2/1/2022
<b>Dissolved Metals in µg/L</b>	
Sodium, Total	53900

- Soil Boring with Temporary Monitoring Well
- Existing Monitoring Well
- Former UST Location
- Site Boundary



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**GROUNDWATER ANALYTICAL EXCEEDANCES METALS**

2359 Bedford Avenue & 2307 Beverly Road Brooklyn, NY

FIGURE NO:

6



Analyte	SV-2 1/28/2022
<b>Volatile Organics by GC/MS (UG/L)</b>	
Benzene	5.69
Ethylbenzene	4.95
Xylene Total	23.53

Analyte	IA-2 1/28/2022
<b>Volatile Organics by GC/MS (UG/L)</b>	
Benzene	6.61
Carbon tetrachloride	0.447
Ethylbenzene	1.93
Tetrachloroethene	0.312
Xylene Total	11.08

Analyte	SS-4 1/28/2022
<b>Volatile Organics by GC/MS (UG/L)</b>	
Benzene	15.5
Ethylbenzene	118
Tetrachloroethene	2.05
Xylene Total	316.8

Analyte	OA-1 1/28/2022
<b>Volatile Organics by GC/MS (UG/L)</b>	
Benzene	1.22
Carbon tetrachloride	0.56
Tetrachloroethene	0.298

Analyte	SS-2 1/28/2022
<b>Volatile Organics by GC/MS (UG/L)</b>	
Benzene	2.44
Ethylbenzene	14.3
Tetrachloroethene	3.8
Xylene Total	82.9

Analyte	SV-1 1/28/2022
<b>Volatile Organics by GC/MS (UG/L)</b>	
Benzene	4.15
Ethylbenzene	3.75
Xylene Total	18.57

Analyte	SS-1 1/28/2022
<b>Volatile Organics by GC/MS (UG/L)</b>	
Benzene	1.69
Ethylbenzene	8.73
Tetrachloroethene	2.39
Xylene Total	30.55

Analyte	IA-1 1/28/2022
<b>Volatile Organics by GC/MS (UG/L)</b>	
Benzene	1.48
Carbon tetrachloride	0.459
Tetrachloroethene	0.448

Analyte	SV-3 1/28/2022
<b>Volatile Organics by GC/MS (UG/L)</b>	
Benzene	1.25
Ethylbenzene	0.969
Xylene Total	4.68

Analyte	IA-3 1/28/2022
<b>Volatile Organics by GC/MS (UG/L)</b>	
Benzene	1.45
Carbon tetrachloride	0.434
Tetrachloroethene	0.481

Analyte	SS-3 1/28/2022
<b>Volatile Organics by GC/MS (UG/L)</b>	
Benzene	5.88
Ethylbenzene	6.95
Tetrachloroethene	11.8
Xylene Total	21.75

Analyte	OA-2 1/28/2022
<b>Volatile Organics by GC/MS (UG/L)</b>	
Benzene	1.24
Carbon tetrachloride	0.503
Methylene chloride	1.84
Tetrachloroethene	0.305

- Soil Vapor Sampling Locations
- ▼ Sub-Slab Vapor Sampling Locations
- Indoor Air Sample
- Outdoor Air Sample
- Site Boundary

E 22nd St

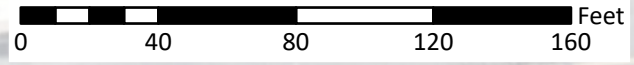
Bedford Ave

2359 Bedford Ave

2307 Beverly Road

Beverly Rd

Piping Trench



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## SOIL VAPOR AND AIR ANALYTICAL RESULTS

2359 Bedford Avenue  
&  
2307 Beverly Road  
Brooklyn, NY

FIGURE NO:  
7





## TABLES

Table 1  
VOC Soil Analytical Data  
2359 Bedford Avenue and 2307 Beverly Road, Brooklyn, New York

Sample ID: Sample Date: Lab Sample ID:	CasNum	NY-UNRES <sup>1</sup>	NY-RESR <sup>2</sup>	NY-RESRR <sup>3</sup>	NY-RESC <sup>4</sup>	SB-1 1/27/2022 L2204699-01	SB-2 1/27/2022 L2204699-02	SB-3 2/1/2022 L2205287-01	SB-4 2/1/2022 L2205287-02	SB-5 2/1/2022 L2205287-08
<b>Volatile Organics by EPA 5035 in mg/kg</b>										
1,1,1,2-Tetrachloroethane	630-20-6	NS	NS	NS	NS	0.00066 U	0.00076 U	0.00068 U	0.00064 U	0.00049 U
1,1,1-Trichloroethane	71-55-6	0.68	100	100	500	0.00066 U	0.00076 U	0.00068 U	0.00064 U	0.00049 U
1,1,2,2-Tetrachloroethane	79-34-5	NS	NS	NS	NS	0.00066 U	0.00076 U	0.00068 U	0.00064 U	0.00049 U
1,1,2-Trichloroethane	79-00-5	NS	NS	NS	NS	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
1,1-Dichloroethane	75-34-3	0.27	19	26	240	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
1,1-Dichloroethene	75-35-4	0.33	100	100	500	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
1,1-Dichloropropene	563-58-6	NS	NS	NS	NS	0.00066 U	0.00076 U	0.00068 U	0.00064 U	0.00049 U
1,2,3-Trichlorobenzene	87-61-6	NS	NS	NS	NS	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
1,2,3-Trichloropropane	96-18-4	NS	NS	NS	NS	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
1,2,4,5-Tetramethylbenzene	95-93-2	NS	NS	NS	NS	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
1,2,4-Trichlorobenzene	120-82-1	NS	NS	NS	NS	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
1,2,4-Trimethylbenzene	95-63-6	3.6	47	52	190	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
1,2-Dibromo-3-chloropropane	96-12-8	NS	NS	NS	NS	0.004 U	0.0045 U	0.0041 U	0.0038 U	0.0029 U
1,2-Dibromoethane	106-93-4	5	NS	NS	NS	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
1,2-Dichlorobenzene	95-50-1	1.1	100	100	500	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
1,2-Dichloroethane	107-06-2	0.02	2.3	3.1	30	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
1,2-Dichloroethene, Total	540-59-0	NS	NS	NS	NS	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
1,2-Dichloropropane	78-87-5	NS	NS	NS	NS	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
1,3,5-Trimethylbenzene	108-67-8	8.4	47	52	190	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
1,3-Dichlorobenzene	541-73-1	2.4	17	49	280	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
1,3-Dichloropropane	142-28-9	NS	NS	NS	NS	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
1,3-Dichloropropene, Total	542-75-6	NS	NS	NS	NS	0.00066 U	0.00076 U	0.00068 U	0.00064 U	0.00049 U
1,4-Dichlorobenzene	106-46-7	1.8	9.8	13	130	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
1,4-Dioxane	123-91-1	0.1	9.8	13	130	0.11 U	0.12 U	0.11 U	0.1 U	0.078 U
2,2-Dichloropropane	594-20-7	NS	NS	NS	NS	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
2-Butanone	78-93-3	0.12	100	100	500	0.013 U	0.015 U	0.014 U	0.013 U	0.0098 U
2-Hexanone	591-78-6	NS	NS	NS	NS	0.013 U	0.015 U	0.014 U	0.013 U	0.0098 U
4-Methyl-2-pentanone	108-10-1	NS	NS	NS	NS	0.013 U	0.015 U	0.014 U	0.013 U	0.0098 U
Acetone	67-64-1	0.05	100	100	500	0.0072 J	0.015 U	0.014 U	0.013 U	0.0098 U
Acrylonitrile	107-13-1	NS	NS	NS	NS	0.0053 U	0.006 U	0.0054 U	0.0051 U	0.0039 U
Benzene	71-43-2	0.06	2.9	4.8	44	0.00066 U	0.00076 U	0.00068 U	0.00064 U	0.00049 U
Bromobenzene	108-86-1	NS	NS	NS	NS	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
Bromochloromethane	74-97-5	NS	NS	NS	NS	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
Bromodichloromethane	75-27-4	NS	NS	NS	NS	0.00066 U	0.00076 U	0.00068 U	0.00064 U	0.00049 U
Bromoform	75-25-2	NS	NS	NS	NS	0.0053 U	0.006 U	0.0054 U	0.0051 U	0.0039 U
Bromomethane	74-83-9	NS	NS	NS	NS	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
Carbon disulfide	75-15-0	NS	NS	NS	NS	0.013 U	0.015 U	0.014 U	0.013 U	0.0098 U
Carbon tetrachloride	56-23-5	0.76	1.4	2.4	22	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
Chlorobenzene	108-90-7	1.1	100	100	500	0.00066 U	0.00076 U	0.00068 U	0.00064 U	0.00049 U
Chloroethane	75-00-3	NS	NS	NS	NS	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
Chloroform	67-66-3	0.37	10	49	350	0.002 U	0.0023 U	0.00089 J	0.0019 U	0.0015 U
Chloromethane	74-87-3	NS	NS	NS	NS	0.0053 U	0.006 U	0.0054 U	0.0051 U	0.0039 U
cis-1,2-Dichloroethene	156-59-2	0.25	59	100	500	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
cis-1,3-Dichloropropene	10061-01-5	NS	NS	NS	NS	0.00066 U	0.00076 U	0.00068 U	0.00064 U	0.00049 U
Dibromochloromethane	124-48-1	NS	NS	NS	NS	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
Dibromomethane	74-95-3	NS	NS	NS	NS	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
Dichlorodifluoromethane	75-71-8	NS	NS	NS	NS	0.013 U	0.015 U	0.014 U	0.013 U	0.0098 U
Ethyl ether	60-29-7	NS	NS	NS	NS	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
Ethylbenzene	100-41-4	1	30	41	390	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
Hexachlorobutadiene	87-68-3	NS	NS	NS	NS	0.0053 U	0.006 U	0.0054 U	0.0051 U	0.0039 U
Isopropylbenzene	98-82-8	NS	NS	NS	NS	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
Methyl tert butyl ether	1634-04-4	0.93	62	100	500	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
Methylene chloride	75-09-2	0.05	51	100	500	0.0066 U	0.0076 U	0.0068 U	0.0064 U	0.0049 U
n-Butylbenzene	104-51-8	12	100	100	500	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
n-Propylbenzene	103-65-1	3.9	100	100	500	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
Naphthalene	91-20-3	12	100	100	500	0.0053 U	0.006 U	0.0054 U	0.0051 U	0.0039 U
o-Chlorotoluene	95-49-8	NS	NS	NS	NS	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
o-Xylene	95-47-6	NS	NS	NS	NS	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
p-Chlorotoluene	106-43-4	NS	NS	NS	NS	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
p-Diethylbenzene	105-05-5	NS	NS	NS	NS	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
p-Ethyltoluene	622-96-8	NS	NS	NS	NS	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
p-Isopropyltoluene	99-87-6	NS	NS	NS	NS	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
p/m-Xylene	179601-23-1	NS	NS	NS	NS	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
sec-Butylbenzene	135-98-8	11	100	100	500	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
Styrene	100-42-5	NS	NS	NS	NS	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
tert-Butylbenzene	98-06-6	5.9	100	100	500	0.0027 U	0.003 U	0.0027 U	0.0026 U	0.002 U
Tetrachloroethene	127-18-4	1.3	5.5	19	150	0.00066 U	0.00076 U	0.00068 U	0.00064 U	0.00049 U
Toluene	108-88-3	0.7	100	100	500	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
trans-1,2-Dichloroethene	156-60-5	0.19	100	100	500	0.002 U	0.0023 U	0.002 U	0.0019 U	0.0015 U
trans-1,3-Dichloropropene	10061-02-6	NS	NS	NS	NS	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
trans-1,4-Dichloro-2-butene	110-57-6	NS	NS	NS	NS	0.0066 U	0.0076 U	0.0068 U	0.0064 U	0.0049 U
Trichloroethene	79-01-6	0.47	10	21	200	0.00066 U	0.00076 U	0.00068 U	0.00064 U	0.00049 U
Trichlorofluoromethane	75-69-4	NS	NS	NS	NS	0.0053 U	0.006 U	0.0054 U	0.0051 U	0.0039 U
Vinyl acetate	108-05-4	NS	NS	NS	NS	0.013 U	0.015 U	0.014 U	0.013 U	0.0098 U
Vinyl chloride	75-01-4	0.02	0.21	0.9	13	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U
Xylenes, Total	1330-20-7	0.26	100	100	500	0.0013 U	0.0015 U	0.0014 U	0.0013 U	0.00098 U

Notes:  
(1) - NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.  
(2) - NY-RESR: New York NYCRR Part 375 Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.  
(3) - NY-RESRR: New York NYCRR Part 375 Restricted-Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.  
(4) - NY-RESC: New York NYCRR Part 375 Commercial Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

NS - No Standard

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U - Indicates the analyte was analyzed for but not detected.

E - The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.

Highlighted text denotes concentrations exceeding the NYSDEC Unrestricted Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Residential Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Restricted-Residential Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Commercial Use SCO

Table 1  
VOC Soil Analytical Data  
2359 Bedford Avenue and 2307 Beverly Road, Brooklyn, New York

Sample ID: Sample Date: Lab Sample ID:	CasNum	NY-UNRES <sup>1</sup>	NY-RESR <sup>2</sup>	NY-RESRR <sup>3</sup>	NY-RESC <sup>4</sup>	SB-6 2/1/2022 L2205287-07	SB-7 2/1/2022 L2205287-03	SB-8 2/1/2022 L2205287-04	SB-9 2/1/2022 L2205287-09	SB-10 1/28/2022 L2204927-01
Volatile Organics by EPA 5035 in mg/kg										
1,1,1,2-Tetrachloroethane	630-20-6	NS	NS	NS	NS	0.00053 U	0.00083 U	0.0006 U	0.00062 U	0.0005 U
1,1,1-Trichloroethane	71-55-6	0.68	100	100	500	0.00053 U	0.00083 U	0.0006 U	0.00062 U	0.0005 U
1,1,2,2-Tetrachloroethane	79-34-5	NS	NS	NS	NS	0.00053 U	0.00083 U	0.0006 U	0.00062 U	0.0005 U
1,1,2-Trichloroethane	79-00-5	NS	NS	NS	NS	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
1,1-Dichloroethane	75-34-3	0.27	19	26	240	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
1,1-Dichloroethene	75-35-4	0.33	100	100	500	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
1,1-Dichloropropene	563-58-6	NS	NS	NS	NS	0.00053 U	0.00083 U	0.0006 U	0.00062 U	0.0005 U
1,2,3-Trichlorobenzene	87-61-6	NS	NS	NS	NS	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
1,2,3-Trichloropropane	96-18-4	NS	NS	NS	NS	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
1,2,4,5-Tetramethylbenzene	95-93-2	NS	NS	NS	NS	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
1,2,4-Trichlorobenzene	120-82-1	NS	NS	NS	NS	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
1,2,4-Trimethylbenzene	95-63-6	3.6	47	52	190	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
1,2-Dibromo-3-chloropropane	96-12-8	NS	NS	NS	NS	0.0032 U	0.005 U	0.0036 U	0.0037 U	0.003 U
1,2-Dibromoethane	106-93-4	S	NS	NS	NS	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
1,2-Dichlorobenzene	95-50-1	1.1	100	100	500	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
1,2-Dichloroethane	107-06-2	0.02	2.3	3.1	30	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
1,2-Dichloroethene, Total	540-59-0	NS	NS	NS	NS	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
1,2-Dichloropropane	78-87-5	NS	NS	NS	NS	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
1,3,5-Trimethylbenzene	108-67-8	8.4	47	52	190	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
1,3-Dichlorobenzene	541-73-1	2.4	17	49	280	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
1,3-Dichloropropane	142-28-9	NS	NS	NS	NS	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
1,3-Dichloropropene, Total	542-75-6	NS	NS	NS	NS	0.00053 U	0.00083 U	0.0006 U	0.00062 U	0.0005 U
1,4-Dichlorobenzene	106-46-7	1.8	9.8	13	130	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
1,4-Dioxane	123-91-1	0.1	9.8	13	130	0.085 U	0.13 U	0.096 U	0.099 U	0.08 U
2,2-Dichloropropane	594-20-7	NS	NS	NS	NS	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
2-Butanone	78-93-3	0.12	100	100	500	0.011 U	0.017 U	0.012 U	0.012 U	0.01 U
2-Hexanone	591-78-6	NS	NS	NS	NS	0.011 U	0.017 U	0.012 U	0.012 U	0.01 U
4-Methyl-2-pentanone	108-10-1	NS	NS	NS	NS	0.011 U	0.017 U	0.012 U	0.012 U	0.01 U
Acetone	67-64-1	0.05	100	100	500	0.011 U	0.009 U	0.012 U	0.012 U	0.01 U
Acrylonitrile	107-13-1	NS	NS	NS	NS	0.0043 U	0.0066 U	0.0048 U	0.005 U	0.004 U
Benzene	71-43-2	0.06	2.9	4.8	44	0.00053 U	0.00083 U	0.0006 U	0.00062 U	0.0005 U
Bromobenzene	108-86-1	NS	NS	NS	NS	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
Bromochloromethane	74-97-5	NS	NS	NS	NS	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
Bromodichloromethane	75-27-4	NS	NS	NS	NS	0.00053 U	0.00083 U	0.0006 U	0.00062 U	0.0005 U
Bromoform	75-25-2	NS	NS	NS	NS	0.0043 U	0.0066 U	0.0048 U	0.005 U	0.004 U
Bromomethane	74-83-9	NS	NS	NS	NS	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
Carbon disulfide	75-15-0	NS	NS	NS	NS	0.011 U	0.017 U	0.012 U	0.012 U	0.01 U
Carbon tetrachloride	56-23-5	0.76	1.4	2.4	22	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
Chlorobenzene	108-90-7	1.1	100	100	500	0.00053 U	0.00083 U	0.0006 U	0.00062 U	0.0005 U
Chloroethane	75-00-3	NS	NS	NS	NS	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
Chloroform	67-66-3	0.37	10	49	350	0.0016 U	0.0025 U	0.0018 U	0.0018 U	0.0015 U
Chloromethane	74-87-3	NS	NS	NS	NS	0.0043 U	0.0066 U	0.0048 U	0.005 U	0.004 U
cis-1,2-Dichloroethene	156-59-2	0.25	59	100	500	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
cis-1,3-Dichloropropene	10061-01-5	NS	NS	NS	NS	0.00053 U	0.00083 U	0.0006 U	0.00062 U	0.0005 U
Dibromochloromethane	124-48-1	NS	NS	NS	NS	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
Dibromomethane	74-95-3	NS	NS	NS	NS	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
Dichlorodifluoromethane	75-71-8	NS	NS	NS	NS	0.011 U	0.017 U	0.012 U	0.012 U	0.01 U
Ethyl ether	60-29-7	NS	NS	NS	NS	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
Ethylbenzene	100-41-4	1	30	41	390	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
Hexachlorobutadiene	87-68-3	NS	NS	NS	NS	0.0043 U	0.0066 U	0.0048 U	0.005 U	0.004 U
Isopropylbenzene	98-82-8	NS	NS	NS	NS	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
Methyl tert butyl ether	1634-04-4	0.93	62	100	500	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
Methylene chloride	75-09-2	0.05	51	100	500	0.0053 U	0.0083 U	0.006 U	0.0062 U	0.005 U
n-Butylbenzene	104-51-8	12	100	100	500	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
n-Propylbenzene	103-65-1	3.9	100	100	500	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
Naphthalene	91-20-3	12	100	100	500	0.0043 U	0.0066 U	0.0048 U	0.005 U	0.004 U
o-Chlorotoluene	95-49-8	NS	NS	NS	NS	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
o-Xylene	95-47-6	NS	NS	NS	NS	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
p-Chlorotoluene	106-43-4	NS	NS	NS	NS	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
p-Diethylbenzene	105-05-5	NS	NS	NS	NS	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
p-Ethyltoluene	622-96-8	NS	NS	NS	NS	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
p-Isopropyltoluene	99-87-6	NS	NS	NS	NS	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
p/m-Xylene	179601-23-1	NS	NS	NS	NS	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
sec-Butylbenzene	135-98-8	11	100	100	500	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
Styrene	100-42-5	NS	NS	NS	NS	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
tert-Butylbenzene	98-06-6	5.9	100	100	500	0.0021 U	0.0033 U	0.0024 U	0.0025 U	0.002 U
Tetrachloroethene	127-18-4	1.3	5.5	19	150	0.00053 U	0.00083 U	0.0006 U	0.00062 U	0.0005 U
Toluene	108-88-3	0.7	100	100	500	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
trans-1,2-Dichloroethene	156-60-5	0.19	100	100	500	0.0016 U	0.0025 U	0.0018 U	0.0018 U	0.0015 U
trans-1,3-Dichloropropene	10061-02-6	NS	NS	NS	NS	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
trans-1,4-Dichloro-2-butene	110-57-6	NS	NS	NS	NS	0.0053 U	0.0083 U	0.006 U	0.0062 U	0.005 U
Trichloroethene	79-01-6	0.47	10	21	200	0.00053 U	0.00083 U	0.0006 U	0.00062 U	0.0005 U
Trichlorofluoromethane	75-69-4	NS	NS	NS	NS	0.0043 U	0.0066 U	0.0048 U	0.005 U	0.004 U
Vinyl acetate	108-05-4	NS	NS	NS	NS	0.011 U	0.017 U	0.012 U	0.012 U	0.01 U
Vinyl chloride	75-01-4	0.02	0.21	0.9	13	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U
Xylenes, Total	1330-20-7	0.26	100	100	500	0.0011 U	0.0017 U	0.0012 U	0.0012 U	0.001 U

Notes:  
(1) - NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective Decemr  
(2) - NY-RESR: New York NYCRR Part 375 Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective  
(3) - NY-RESRR: New York NYCRR Part 375 Restricted-Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Program  
(4) - NY-RESC: New York NYCRR Part 375 Commercial Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective  
NS - No Standard  
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.  
U - Indicates the analyte was analyzed for but not detected.

E - The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.

Highlighted text denotes concentrations exceeding the NYSDEC Unrestricted Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Residential Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Restricted-Residential Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Commercial Use SCO

Table 1  
VOC Soil Analytical Data  
2359 Bedford Avenue and 2307 Beverly Road, Brooklyn, New York

Sample ID: Sample Date: Lab Sample ID:	CasNum	NY-UNRES <sup>1</sup>	NY-RESR <sup>2</sup>	NY-RESRR <sup>3</sup>	NY-RESC <sup>4</sup>	SB-11 1/28/2022 L2204927-02	SB-12 2/1/2022 L2205287-10	SB-13 2/1/2022 L2205390-01	SB-14 1/28/2022 L2204927-03	SB-15 1/28/2022 L2204927-04	SB-16 1/28/2022 L2204927-05
Volatile Organics by EPA 5035 in mg/kg											
1,1,1,2-Tetrachloroethane	630-20-6	NS	NS	NS	NS	0.00058 U	0.00056 U	0.00054 U	0.00075 U	0.00074 U	0.00036 U
1,1,1-Trichloroethane	71-55-6	0.68	100	100	500	0.00058 U	0.00056 U	0.00054 U	0.00075 U	0.00074 U	0.00036 U
1,1,2,2-Tetrachloroethane	79-34-5	NS	NS	NS	NS	0.00058 U	0.00056 U	0.00054 U	0.00075 U	0.00074 U	0.00036 U
1,1,2-Trichloroethane	79-00-5	NS	NS	NS	NS	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00072 U
1,1-Dichloroethane	75-34-3	0.27	19	26	240	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00072 U
1,1-Dichloroethene	75-35-4	0.33	100	100	500	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00072 U
1,1-Dichloropropene	563-58-6	NS	NS	NS	NS	0.00058 U	0.00056 U	0.00054 U	0.00075 U	0.00074 U	0.00036 U
1,2,3-Trichlorobenzene	87-61-6	NS	NS	NS	NS	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
1,2,3-Trichloropropane	96-18-4	NS	NS	NS	NS	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
1,2,4,5-Tetramethylbenzene	95-93-2	NS	NS	NS	NS	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.00027 J
1,2,4-Trichlorobenzene	120-82-1	NS	NS	NS	NS	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
1,2,4-Trimethylbenzene	95-63-6	3.6	47	52	190	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.00027 J
1,2-Dibromo-3-chloropropane	96-12-8	NS	NS	NS	NS	0.0035 U	0.0034 U	0.0032 U	0.0045 U	0.0045 U	0.0022 U
1,2-Dibromoethane	106-93-4	S	NS	NS	NS	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00072 U
1,2-Dichlorobenzene	95-50-1	1.1	100	100	500	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
1,2-Dichloroethane	107-06-2	0.02	2.3	3.1	30	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00072 U
1,2-Dichloroethene, Total	540-59-0	NS	NS	NS	NS	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00072 U
1,2-Dichloropropane	78-87-5	NS	NS	NS	NS	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00072 U
1,3,5-Trimethylbenzene	108-67-8	8.4	47	52	190	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
1,3-Dichlorobenzene	541-73-1	2.4	17	49	280	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
1,3-Dichloropropane	142-28-9	NS	NS	NS	NS	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
1,3-Dichloropropene, Total	542-75-6	NS	NS	NS	NS	0.00058 U	0.00056 U	0.00054 U	0.00075 U	0.00074 U	0.00036 U
1,4-Dichlorobenzene	106-46-7	1.8	9.8	13	130	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
1,4-Dioxane	123-91-1	0.1	9.8	13	130	0.093 U	0.089 U	0.086 U	0.12 U	0.12 U	0.058 U
2,2-Dichloropropane	594-20-7	NS	NS	NS	NS	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
2-Butanone	78-93-3	0.12	100	100	500	0.012 U	0.011 U	0.011 U	0.015 U	0.015 U	0.0072 U
2-Hexanone	591-78-6	NS	NS	NS	NS	0.012 U	0.011 U	0.011 U	0.015 U	0.015 U	0.0072 U
4-Methyl-2-pentanone	108-10-1	NS	NS	NS	NS	0.012 U	0.011 U	0.011 U	0.015 U	0.015 U	0.0072 U
Acetone	67-64-1	0.05	100	100	500	0.012 U	0.011 U	0.011 U	0.015 U	0.015 U	0.0072 U
Acrylonitrile	107-13-1	NS	NS	NS	NS	0.0046 U	0.0045 U	0.0043 U	0.006 U	0.0059 U	0.0029 U
Benzene	71-43-2	0.06	2.9	4.8	44	0.00058 U	0.00056 U	0.00054 U	0.00075 U	0.00074 U	0.00036 U
Bromobenzene	108-86-1	NS	NS	NS	NS	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
Bromochloromethane	74-97-5	NS	NS	NS	NS	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
Bromodichloromethane	75-27-4	NS	NS	NS	NS	0.00058 U	0.00056 U	0.00054 U	0.00075 U	0.00074 U	0.00036 U
Bromoform	75-25-2	NS	NS	NS	NS	0.0046 U	0.0045 U	0.0043 U	0.006 U	0.0059 U	0.0029 U
Bromomethane	74-83-9	NS	NS	NS	NS	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
Carbon disulfide	75-15-0	NS	NS	NS	NS	0.012 U	0.011 U	0.011 U	0.015 U	0.015 U	0.0072 U
Carbon tetrachloride	56-23-5	0.76	1.4	2.4	22	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00072 U
Chlorobenzene	108-90-7	1.1	100	100	500	0.00058 U	0.00056 U	0.00054 U	0.00075 U	0.00074 U	0.00036 U
Chloroethane	75-00-3	NS	NS	NS	NS	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
Chloroform	67-66-3	0.37	10	49	350	0.0017 U	0.0017 U	0.0016 U	0.0022 U	0.0022 U	0.0011 U
Chloromethane	74-87-3	NS	NS	NS	NS	0.0046 U	0.0045 U	0.0043 U	0.006 U	0.0059 U	0.0029 U
cis-1,2-Dichloroethene	156-59-2	0.25	59	100	500	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00072 U
cis-1,3-Dichloropropene	10061-01-5	NS	NS	NS	NS	0.00058 U	0.00056 U	0.00054 U	0.00075 U	0.00074 U	0.00036 U
Dibromochloromethane	124-48-1	NS	NS	NS	NS	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00072 U
Dibromomethane	74-95-3	NS	NS	NS	NS	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
Dichlorodifluoromethane	75-71-8	NS	NS	NS	NS	0.012 U	0.011 U	0.011 U	0.015 U	0.015 U	0.0072 U
Ethyl ether	60-29-7	NS	NS	NS	NS	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
Ethylbenzene	100-41-4	1	30	41	390	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00011 J
Hexachlorobutadiene	87-68-3	NS	NS	NS	NS	0.0046 U	0.0045 U	0.0043 U	0.006 U	0.0059 U	0.0029 U
Isopropylbenzene	98-82-8	NS	NS	NS	NS	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00072 U
Methyl tert butyl ether	1634-04-4	0.93	62	100	500	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
Methylene chloride	75-09-2	0.05	51	100	500	0.0058 U	0.0056 U	0.0054 U	0.0075 U	0.0074 U	0.0036 U
n-Butylbenzene	104-51-8	12	100	100	500	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00072 U
n-Propylbenzene	103-65-1	3.9	100	100	500	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00017 J
Naphthalene	91-20-3	12	100	100	500	0.0046 U	0.0045 U	0.0043 U	0.006 U	0.0059 U	0.00097 J
o-Chlorotoluene	95-49-8	NS	NS	NS	NS	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
o-Xylene	95-47-6	NS	NS	NS	NS	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00072 U
p-Chlorotoluene	106-43-4	NS	NS	NS	NS	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
p-Diethylbenzene	105-05-5	NS	NS	NS	NS	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0002 J
p-Ethyltoluene	622-96-8	NS	NS	NS	NS	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
p-Isopropyltoluene	99-87-6	NS	NS	NS	NS	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00072 U
p/m-Xylene	179601-23-1	NS	NS	NS	NS	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
sec-Butylbenzene	135-98-8	11	100	100	500	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00072 U
Styrene	100-42-5	NS	NS	NS	NS	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00072 U
tert-Butylbenzene	98-06-6	5.9	100	100	500	0.0023 U	0.0022 U	0.0021 U	0.003 U	0.003 U	0.0014 U
Tetrachloroethene	127-18-4	1.3	5.5	19	150	0.00058 U	0.00056 U	0.00054 U	0.00075 U	0.00074 U	0.00036 U
Toluene	108-88-3	0.7	100	100	500	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00063 J
trans-1,2-Dichloroethene	156-60-5	0.19	100	100	500	0.0017 U	0.0017 U	0.0016 U	0.0022 U	0.0022 U	0.0011 U
trans-1,3-Dichloropropene	10061-02-6	NS	NS	NS	NS	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00072 U
trans-1,4-Dichloro-2-butene	110-57-6	NS	NS	NS	NS	0.0058 U	0.0056 U	0.0054 U	0.0075 U	0.0074 U	0.0036 U
Trichloroethene	79-01-6	0.47	10	21	200	0.00058 U	0.00056 U	0.00054 U	0.00075 U	0.00074 U	0.00036 U
Trichlorofluoromethane	75-69-4	NS	NS	NS	NS	0.0046 U	0.0045 U	0.0043 U	0.006 U	0.0059 U	0.0029 U
Vinyl acetate	108-05-4	NS	NS	NS	NS	0.012 U	0.011 U	0.011 U	0.015 U	0.015 U	0.0072 U
Vinyl chloride	75-01-4	0.02	0.21	0.9	13	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00072 U
Xylenes, Total	1330-20-7	0.26	100	100	500	0.0012 U	0.0011 U	0.0011 U	0.0015 U	0.0015 U	0.00072 U

Notes:

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- (2) - NY-RESR: New York NYCRR Part 375 Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective
- (3) - NY-RESRR: New York NYCRR Part 375 Restricted-Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Program
- (4) - NY-RESC: New York NYCRR Part 375 Commercial Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective

NS - No Standard

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U - Indicates the analyte was analyzed for but not detected.

E - The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.

Highlighted text denotes concentrations exceeding the NYSDEC Unrestricted Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Residential Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Restricted-Residential Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Commercial Use SCO

Table 2  
SVOC Soil Analytical Data  
2359 Bedford Avenue and 2307 Beverly Road, Brooklyn, New York

Sample ID: Sample Date: Lab Sample ID:	CasNum	NY-UNRES <sup>1</sup>	NY-RESR <sup>2</sup>	NY-RESRR <sup>3</sup>	NY-RESC <sup>4</sup>	SB-1 1/27/2022 L2204699-01	SB-2 1/27/2022 L2204699-02	SB-3 2/1/2022 L2205287-01	SB-4 2/1/2022 L2205287-02	SB-5 2/1/2022 L2205287-08
<b>Semivolatile Organics by GC/MS in mg/kg</b>										
1,2,4,5-Tetrachlorobenzene	83-32-9	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
1,2,4-Trichlorobenzene	208-96-8	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
1,2-Dichlorobenzene	120-12-7	1.1	100	100	500	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
1,3-Dichlorobenzene	56-55-3	2.4	17	49	280	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
1,4-Dichlorobenzene	50-32-8	1.8	9.8	13	130	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
1,4-Dioxane	205-99-2	0.1	9.8	13	130	0.025 U	0.026 U	0.026 U	0.14 U	0.027 U
2,4,5-Trichlorophenol	191-24-2	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
2,4,6-Trichlorophenol	207-08-9	NS	NS	NS	NS	0.1 U	0.1 U	0.1 U	0.56 U	0.11 U
2,4-Dichlorophenol	218-01-9	NS	NS	NS	NS	0.15 U	0.16 U	0.16 U	0.85 U	0.16 U
2,4-Dimethylphenol	53-70-3	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
2,4-Dinitrophenol	206-44-0	NS	NS	NS	NS	0.81 U	0.84 U	0.83 U	4.5 U	0.87 U
2,4-Dinitrotoluene	86-73-7	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
2,6-Dinitrotoluene	193-39-5	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
2-Chloronaphthalene	91-20-3	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
2-Chlorophenol	85-01-8	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
2-Methylnaphthalene	129-00-0	NS	NS	NS	NS	0.2 U	0.21 U	0.21 U	1.1 U	0.22 U
2-Methylphenol	83-32-9	0.33	100	100	500	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
2-Nitroaniline	208-96-8	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
2-Nitrophenol	120-12-7	NS	NS	NS	NS	0.36 U	0.38 U	0.37 U	2 U	0.39 U
3,3'-Dichlorobenzidine	56-55-3	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
3-Methylphenol/4-Methylphenol	50-32-8	0.33	34	100	500	0.24 U	0.25 U	0.25 U	1.4 U	0.26 U
3-Nitroaniline	205-99-2	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
4,6-Dinitro-o-cresol	191-24-2	NS	NS	NS	NS	0.44 U	0.45 U	0.45 U	2.4 U	0.47 U
4-Bromophenyl phenyl ether	207-08-9	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
4-Chloroaniline	218-01-9	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
4-Chlorophenyl phenyl ether	53-70-3	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
4-Nitroaniline	206-44-0	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
4-Nitrophenol	86-73-7	NS	NS	NS	NS	0.24 U	0.24 U	0.24 U	1.3 U	0.25 U
Acenaphthene	193-39-5	20	100	100	500	0.13 U	0.14 U	0.14 U	0.75 U	0.14 U
Acenaphthylene	91-20-3	100	100	100	500	0.13 U	0.14 U	0.14 U	0.75 U	0.14 U
Acetophenone	85-01-8	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
Anthracene	129-00-0	100	100	100	500	0.1 U	0.1 U	0.1 U	0.56 U	0.11 U
Benzo(a)anthracene	205-99-2	1	1	1	5.6	0.1 U	0.1 U	0.1 U	0.56 U	0.11 U
Benzo(a)pyrene	191-24-2	1	1	1	5.6	0.13 U	0.14 U	0.14 U	0.75 U	0.14 U
Benzo(b)fluoranthene	207-08-9	1	1	1	5.6	0.1 U	0.1 U	0.1 U	0.56 U	0.11 U
Benzo(ghi)perylene	218-01-9	100	100	100	500	0.13 U	0.14 U	0.14 U	0.75 U	0.14 U
Benzo(k)fluoranthene	53-70-3	0.8	1	3.9	56	0.1 U	0.1 U	0.1 U	0.56 U	0.11 U
Benzoic Acid	206-44-0	NS	NS	NS	NS	0.54 U	0.56 U	0.56 U	3 U	0.59 U
Benzyl Alcohol	86-73-7	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
Biphenyl	193-39-5	NS	NS	NS	NS	0.38 U	0.4 U	0.39 U	2.1 U	0.41 U
Bis(2-chloroethoxy)methane	91-20-3	NS	NS	NS	NS	0.18 U	0.19 U	0.19 U	1 U	0.2 U
Bis(2-chloroethyl)ether	85-01-8	NS	NS	NS	NS	0.15 U	0.16 U	0.16 U	0.85 U	0.16 U
Bis(2-chloroisopropyl)ether	129-00-0	NS	NS	NS	NS	0.2 U	0.21 U	0.21 U	1.1 U	0.22 U
Bis(2-ethylhexyl)phthalate	83-32-9	NS	NS	NS	NS	0.062 J	0.068 J	0.17 U	0.94 U	0.18 U
Butyl benzyl phthalate	208-96-8	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
Carbazole	120-12-7	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
Chrysene	56-55-3	1	1	3.9	56	0.1 U	0.1 U	0.1 U	0.56 U	0.11 U
Di-n-butylphthalate	50-32-8	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
Di-n-octylphthalate	205-99-2	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
Dibenzo(a,h)anthracene	191-24-2	0.33	0.33	0.33	0.56	0.1 U	0.1 U	0.1 U	0.56 U	0.11 U
Dibenzofuran	207-08-9	7	14	59	350	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
Diethyl phthalate	218-01-9	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
Dimethyl phthalate	53-70-3	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
Fluoranthene	206-44-0	100	100	100	500	0.1 U	0.1 U	0.1 U	0.56 U	0.11 U
Fluorene	86-73-7	30	100	100	500	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
Hexachlorobenzene	193-39-5	0.33	0.33	1.2	6	0.1 U	0.1 U	0.1 U	0.56 U	0.11 U
Hexachlorobutadiene	91-20-3	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
Hexachlorocyclopentadiene	85-01-8	NS	NS	NS	NS	0.48 U	0.5 U	0.49 U	2.7 U	0.52 U
Hexachloroethane	129-00-0	NS	NS	NS	NS	0.13 U	0.14 U	0.14 U	0.75 U	0.14 U
Indeno(1,2,3-cd)pyrene	208-96-8	0.5	0.5	0.5	5.6	0.13 U	0.14 U	0.14 U	0.75 U	0.14 U
Isophorone	120-12-7	NS	NS	NS	NS	0.15 U	0.16 U	0.16 U	0.85 U	0.16 U
n-Nitrosodi-n-propylamine	56-55-3	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
Naphthalene	50-32-8	12	100	100	500	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
NDPA/DPA	205-99-2	NS	NS	NS	NS	0.13 U	0.14 U	0.14 U	0.75 U	0.14 U
Nitrobenzene	191-24-2	NS	NS	NS	NS	0.15 U	0.16 U	0.16 U	0.85 U	0.16 U
p-Chloro-m-cresol	207-08-9	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
Pentachlorophenol	218-01-9	0.8	2.4	6.7	6.7	0.13 U	0.14 U	0.14 U	0.75 U	0.14 U
Phenanthrene	53-70-3	100	100	100	500	0.1 U	0.1 U	0.1 U	0.56 U	0.11 U
Phenol	206-44-0	0.33	100	100	500	0.17 U	0.17 U	0.17 U	0.94 U	0.18 U
Pyrene	86-73-7	100	100	100	500	0.1 U	0.1 U	0.1 U	0.56 U	0.11 U

Notes:

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Table 2  
SVOC Soil Analytical Data  
2359 Bedford Avenue and 2307 Beverly Road, Brooklyn, New York

Sample ID: Sample Date: Lab Sample ID:	CasNum	NY-UNRES <sup>1</sup>	NY-RESR <sup>2</sup>	NY-RESRR <sup>3</sup>	NY-RESC <sup>4</sup>	SB-6 2/1/2022 L2205287-07	SB-7 2/1/2022 L2205287-03	SB-8 2/1/2022 L2205287-04	SB-9 2/1/2022 L2205287-09	SB-10 1/28/2022 L2204927-01
<b>Semivolatile Organics by GC/MS in mg/kg</b>										
1,2,4,5-Tetrachlorobenzene	83-32-9	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
1,2,4-Trichlorobenzene	208-96-8	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
1,2-Dichlorobenzene	120-12-7	1.1	100	100	500	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
1,3-Dichlorobenzene	56-55-3	2.4	17	49	280	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
1,4-Dichlorobenzene	50-32-8	1.8	9.8	13	130	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
1,4-Dioxane	205-99-2	0.1	9.8	13	130	0.027 U	0.026 U	0.027 U	0.026 U	0.025 U
2,4,5-Trichlorophenol	191-24-2	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
2,4,6-Trichlorophenol	207-08-9	NS	NS	NS	NS	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U
2,4-Dichlorophenol	218-01-9	NS	NS	NS	NS	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U
2,4-Dimethylphenol	53-70-3	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
2,4-Dinitrophenol	206-44-0	NS	NS	NS	NS	0.85 U	0.83 U	0.86 U	0.83 U	0.81 U
2,4-Dinitrotoluene	86-73-7	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
2,6-Dinitrotoluene	193-39-5	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
2-Chloronaphthalene	91-20-3	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
2-Chlorophenol	85-01-8	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
2-Methylnaphthalene	129-00-0	NS	NS	NS	NS	0.21 U	0.21 U	0.22 U	0.21 U	0.2 U
2-Methylphenol	83-32-9	0.33	100	100	500	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
2-Nitroaniline	208-96-8	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
2-Nitrophenol	120-12-7	NS	NS	NS	NS	0.38 U	0.37 U	0.39 U	0.37 U	0.36 U
3,3'-Dichlorobenzidine	56-55-3	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
3-Methylphenol/4-Methylphenol	50-32-8	0.33	34	100	500	0.26 U	0.25 U	0.26 U	0.25 U	0.24 U
3-Nitroaniline	205-99-2	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
4,6-Dinitro-o-cresol	191-24-2	NS	NS	NS	NS	0.46 U	0.45 U	0.47 U	0.45 U	0.44 U
4-Bromophenyl phenyl ether	207-08-9	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
4-Chloroaniline	218-01-9	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
4-Chlorophenyl phenyl ether	53-70-3	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
4-Nitroaniline	206-44-0	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
4-Nitrophenol	86-73-7	NS	NS	NS	NS	0.25 U	0.24 U	0.25 U	0.24 U	0.24 U
Acenaphthene	193-39-5	20	100	100	500	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Acenaphthylene	91-20-3	100	100	100	500	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Acetophenone	85-01-8	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
Anthracene	129-00-0	100	100	100	500	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U
Benzo(a)anthracene	205-99-2	1	1	1	5.6	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U
Benzo(a)pyrene	191-24-2	1	1	1	1	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Benzo(b)fluoranthene	207-08-9	1	1	1	5.6	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U
Benzo(ghi)perylene	218-01-9	100	100	100	500	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Benzo(k)fluoranthene	53-70-3	0.8	1	3.9	56	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U
Benzoic Acid	206-44-0	NS	NS	NS	NS	0.58 U	0.56 U	0.58 U	0.56 U	0.55 U
Benzyl Alcohol	86-73-7	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
Biphenyl	193-39-5	NS	NS	NS	NS	0.4 U	0.39 U	0.41 U	0.39 U	0.39 U
Bis(2-chloroethoxy)methane	91-20-3	NS	NS	NS	NS	0.19 U	0.19 U	0.19 U	0.19 U	0.18 U
Bis(2-chloroethyl)ether	85-01-8	NS	NS	NS	NS	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U
Bis(2-chloroisopropyl)ether	129-00-0	NS	NS	NS	NS	0.21 U	0.21 U	0.22 U	0.21 U	0.2 U
Bis(2-ethylhexyl)phthalate	83-32-9	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
Butyl benzyl phthalate	208-96-8	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
Carbazole	120-12-7	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
Chrysene	56-55-3	1	1	3.9	56	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U
Di-n-butylphthalate	50-32-8	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
Di-n-octylphthalate	205-99-2	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
Dibenzo(a,h)anthracene	191-24-2	0.33	0.33	0.33	0.56	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U
Dibenzofuran	207-08-9	7	14	59	350	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
Diethyl phthalate	218-01-9	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
Dimethyl phthalate	53-70-3	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
Fluoranthene	206-44-0	100	100	100	500	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U
Fluorene	86-73-7	30	100	100	500	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
Hexachlorobenzene	193-39-5	0.33	0.33	1.2	6	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U
Hexachlorobutadiene	91-20-3	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
Hexachlorocyclopentadiene	85-01-8	NS	NS	NS	NS	0.51 U	0.5 U	0.52 U	0.49 U	0.48 U
Hexachloroethane	129-00-0	NS	NS	NS	NS	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Indeno(1,2,3-cd)pyrene	208-96-8	0.5	0.5	0.5	5.6	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Isophorone	120-12-7	NS	NS	NS	NS	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U
n-Nitrosodi-n-propylamine	56-55-3	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
Naphthalene	50-32-8	12	100	100	500	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
NDPA/DPA	205-99-2	NS	NS	NS	NS	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Nitrobenzene	191-24-2	NS	NS	NS	NS	0.16 U	0.16 U	0.16 U	0.16 U	0.15 U
p-Chloro-m-cresol	207-08-9	NS	NS	NS	NS	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
Pentachlorophenol	218-01-9	0.8	2.4	6.7	6.7	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Phenanthrene	53-70-3	100	100	100	500	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U
Phenol	206-44-0	0.33	100	100	500	0.18 U	0.17 U	0.18 U	0.17 U	0.17 U
Pyrene	86-73-7	100	100	100	500	0.11 U	0.1 U	0.11 U	0.1 U	0.1 U

Notes:

- (1) - NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, eff
- (2) - NY-RESR: New York NYCRR Part 375 Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Progr
- (3) - NY-RESRR: New York NYCRR Part 375 Restricted-Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remec
- (4) - NY-RESC: New York NYCRR Part 375 Commercial Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Prog

NS - No Standard

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U - Indicates the analyte was analyzed for but not detected.

E - The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimat

Highlighted text denotes concentrations exceeding the NYSDEC Unrestricted Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Residential Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Restricted-Residential Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Commercial Use SCO

Table 2  
SVOC Soil Analytical Data  
2359 Bedford Avenue and 2307 Beverly Road, Brooklyn, New York

Sample ID: Sample Date: Lab Sample ID:	CasNum	NY-UNRES <sup>1</sup>	NY-RESR <sup>2</sup>	NY-RESRR <sup>3</sup>	NY-RESC <sup>4</sup>	SB-11 1/28/2022 L2204927-02	SB-12 2/1/2022 L2205287-10	SB-13 2/1/2022 L2205390-01	SB-14 1/28/2022 L2204927-03	SB-15 1/28/2022 L2204927-04	SB-16 1/28/2022 L2204927-05
<b>Semivolatile Organics by GC/MS in mg/kg</b>											
1,2,4,5-Tetrachlorobenzene	83-32-9	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
1,2,4-Trichlorobenzene	208-96-8	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
1,2-Dichlorobenzene	120-12-7	1.1	100	100	500	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
1,3-Dichlorobenzene	56-55-3	2.4	17	49	280	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
1,4-Dichlorobenzene	50-32-8	1.8	9.8	13	130	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
1,4-Dioxane	205-99-2	0.1	9.8	13	130	0.026 U	0.026 U	0.026 U	0.027 U	0.029 U	0.028 U
2,4,5-Trichlorophenol	191-24-2	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
2,4,6-Trichlorophenol	207-08-9	NS	NS	NS	NS	0.1 U	0.1 U	0.1 U	0.11 U	0.12 U	0.11 U
2,4-Dichlorophenol	218-01-9	NS	NS	NS	NS	0.15 U	0.15 U	0.15 U	0.16 U	0.17 U	0.16 U
2,4-Dimethylphenol	53-70-3	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
2,4-Dinitrophenol	206-44-0	NS	NS	NS	NS	0.82 U	0.82 U	0.82 U	0.85 U	0.93 U	0.88 U
2,4-Dinitrotoluene	86-73-7	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
2,6-Dinitrotoluene	193-39-5	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
2-Chloronaphthalene	91-20-3	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
2-Chlorophenol	85-01-8	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
2-Methylnaphthalene	129-00-0	NS	NS	NS	NS	0.21 U	0.2 U	0.2 U	0.21 U	0.23 U	0.22 U
2-Methylphenol	83-32-9	0.33	100	100	500	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
2-Nitroaniline	208-96-8	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
2-Nitrophenol	120-12-7	NS	NS	NS	NS	0.37 U	0.37 U	0.37 U	0.38 U	0.42 U	0.4 U
3,3'-Dichlorobenzidine	56-55-3	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
3-Methylphenol/4-Methylphenol	50-32-8	0.33	100	100	500	0.25 U	0.24 U	0.25 U	0.26 U	0.28 U	0.26 U
3-Nitroaniline	205-99-2	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
4,6-Dinitro-o-cresol	191-24-2	NS	NS	NS	NS	0.45 U	0.44 U	0.44 U	0.46 U	0.5 U	0.48 U
4-Bromophenyl phenyl ether	207-08-9	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
4-Chloroaniline	218-01-9	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
4-Chlorophenyl phenyl ether	53-70-3	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
4-Nitroaniline	206-44-0	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
4-Nitrophenol	86-73-7	NS	NS	NS	NS	0.24 U	0.24 U	0.24 U	0.25 U	0.27 U	0.26 U
Acenaphthene	193-39-5	20	100	100	500	0.14 U	0.14 U	0.14 U	0.14 U	0.16 U	0.15 U
Acenaphthylene	91-20-3	100	100	100	500	0.14 U	0.14 U	0.14 U	0.14 U	0.16 U	0.15 U
Acetophenone	85-01-8	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
Anthracene	129-00-0	100	100	100	500	0.1 U	0.1 U	0.1 U	0.11 U	0.12 U	0.11 U
Benzo(a)anthracene	205-99-2	1	1	1	5.6	0.1 U	0.1 U	0.1 U	0.11 U	0.12 U	0.11 U
Benzo(a)pyrene	191-24-2	1	1	1	5.6	0.14 U	0.14 U	0.14 U	0.14 U	0.16 U	0.15 U
Benzo(b)fluoranthene	207-08-9	1	1	1	5.6	0.1 U	0.1 U	0.1 U	0.11 U	0.12 U	0.11 U
Benzo(ghi)perylene	218-01-9	100	100	100	500	0.14 U	0.14 U	0.14 U	0.14 U	0.16 U	0.15 U
Benzo(k)fluoranthene	53-70-3	0.8	1	3.9	56	0.1 U	0.1 U	0.1 U	0.11 U	0.12 U	0.11 U
Benzoic Acid	206-44-0	NS	NS	NS	NS	0.56 U	0.55 U	0.55 U	0.57 U	0.63 U	0.6 U
Benzyl Alcohol	86-73-7	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
Biphenyl	193-39-5	NS	NS	NS	NS	0.39 U	0.39 U	0.39 U	0.4 U	0.44 U	0.42 U
Bis(2-chloroethoxy)methane	91-20-3	NS	NS	NS	NS	0.18 U	0.18 U	0.18 U	0.19 U	0.21 U	0.2 U
Bis(2-chloroethyl)ether	85-01-8	NS	NS	NS	NS	0.15 U	0.15 U	0.15 U	0.16 U	0.17 U	0.16 U
Bis(2-chloroisopropyl)ether	129-00-0	NS	NS	NS	NS	0.21 U	0.2 U	0.2 U	0.21 U	0.23 U	0.22 U
Bis(2-ethylhexyl)phthalate	83-32-9	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
Butyl benzyl phthalate	208-96-8	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
Carbazole	120-12-7	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
Chrysene	56-55-3	1	1	3.9	56	0.1 U	0.1 U	0.1 U	0.11 U	0.12 U	0.11 U
Di-n-butylphthalate	50-32-8	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
Di-n-octylphthalate	205-99-2	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
Dibenzo(a,h)anthracene	191-24-2	0.33	0.33	0.33	0.56	0.1 U	0.1 U	0.1 U	0.11 U	0.12 U	0.11 U
Dibenzofuran	207-08-9	7	14	59	350	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
Diethyl phthalate	218-01-9	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
Dimethyl phthalate	53-70-3	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
Fluoranthene	206-44-0	100	100	100	500	0.1 U	0.1 U	0.1 U	0.11 U	0.12 U	0.11 U
Fluorene	86-73-7	30	100	100	500	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
Hexachlorobenzene	193-39-5	0.33	0.33	1.2	6	0.1 U	0.1 U	0.1 U	0.11 U	0.12 U	0.11 U
Hexachlorobutadiene	91-20-3	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
Hexachlorocyclopentadiene	85-01-8	NS	NS	NS	NS	0.49 U	0.49 U	0.49 U	0.51 U	0.55 U	0.52 U
Hexachloroethane	129-00-0	NS	NS	NS	NS	0.14 U	0.14 U	0.14 U	0.14 U	0.16 U	0.15 U
Indeno(1,2,3-cd)pyrene	208-96-8	0.5	0.5	0.5	5.6	0.14 U	0.14 U	0.14 U	0.14 U	0.16 U	0.15 U
Isophorone	120-12-7	NS	NS	NS	NS	0.15 U	0.15 U	0.15 U	0.16 U	0.17 U	0.16 U
n-Nitrosodi-n-propylamine	56-55-3	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
Naphthalene	50-32-8	12	100	100	500	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
NDPA/DPA	205-99-2	NS	NS	NS	NS	0.14 U	0.14 U	0.14 U	0.14 U	0.16 U	0.15 U
Nitrobenzene	191-24-2	NS	NS	NS	NS	0.15 U	0.15 U	0.15 U	0.16 U	0.17 U	0.16 U
p-Chloro-m-cresol	207-08-9	NS	NS	NS	NS	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
Pentachlorophenol	218-01-9	0.8	2.4	6.7	6.7	0.14 U	0.14 U	0.14 U	0.14 U	0.16 U	0.15 U
Phenanthrene	53-70-3	100	100	100	500	0.1 U	0.1 U	0.1 U	0.11 U	0.12 U	0.11 U
Phenol	206-44-0	0.33	100	100	500	0.17 U	0.17 U	0.17 U	0.18 U	0.19 U	0.18 U
Pyrene	86-73-7	100	100	100	500	0.1 U	0.1 U	0.1 U	0.11 U	0.12 U	0.11 U

Notes:

- (1) - NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, eff
- (2) - NY-RESR: New York NYCRR Part 375 Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Progr
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Highlighted text denotes concentrations exceeding the NYSDEC Unrestricted Use SCO  
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Highlighted text denotes concentrations exceeding the NYSDEC Commercial Use SCO

Table 3  
Total Metals  
Soil Analytical Data  
2359 Bedford Avenue and 2307 Beverly Road, Brooklyn, New York

Sample ID: Sample Date: Lab Sample ID:	CasNum	NY-UNRES <sup>1</sup>	NY-RESR <sup>2</sup>	NY-RESRR <sup>3</sup>	NY-RESC <sup>4</sup>	SB-1 1/27/2022 L2204699-01	SB-2 1/27/2022 L2204699-02	SB-3 2/1/2022 L2205287-01	SB-4 2/1/2022 L2205287-02	SB-5 2/1/2022 L2205287-08	SB-6 2/1/2022 L2205287-07	SB-7 2/1/2022 L2205287-03	SB-8 2/1/2022 L2205287-04	SB-9 2/1/2022 L2205287-09	SB-10 1/28/2022 L2204927-01	SB-11 1/28/2022 L2204927-02	SB-12 2/1/2022 L2205287-10	SB-13 2/1/2022 L2205390-01	SB-14 1/28/2022 L2204927-03	SB-15 1/28/2022 L2204927-04	SB-16 1/28/2022 L2204927-05
<b>Total Metals in mg/kg</b>																					
Aluminum, Total	7429-90-5	NS	NS	NS	NS	2740	2710	2850	1920	2480	3330	2430	2630	2430	2950	2090	2480	2190	2150	2420	4270
Antimony, Total	7440-36-0	NS	NS	NS	NS	3.93 U	3.96 U	0.663 J	11.1 U	4.23 U	4.17 U	10 U	4.29 U	3.97 U	4.1 U	4.06 U	3.97 U	4.08 U	4.08 U	4.59 U	4.36 U
Arsenic, Total	7440-38-2	13	16	16	16	1.15	1.45	2.21	1.17 J	0.686 J	0.618 J	2 U	1.02	0.444 J	1.71	1.52	0.477 J	0.458 J	1.43	1.62	2.57
Barium, Total	7440-39-3	350	350	400	400	21	19.3	25.2	14.5	17	23.6	13.7	13	16.7	17.7	15.6	16.6	14.2	11.7	15.4	26.3
Beryllium, Total	7440-41-7	7.2	14	72	590	0.181 J	0.174 J	0.359 J	0.177 J	0.144 J	0.217 J	0.18 J	0.266 J	0.143 J	0.18 J	0.178 J	0.143 J	0.155 J	0.163 J	0.165 J	0.297 J
Cadmium, Total	7440-43-9	2.5	2.5	4.3	9.3	0.149 J	0.134 J	0.593 J	0.376 J	0.415 J	0.384 J	0.24 J	0.438 J	0.278 J	0.336 J	0.276 J	0.31 J	0.817 U	0.228 J	0.312 J	0.393 J
Calcium, Total	7440-70-2	NS	NS	NS	NS	451	643	1800	566	640	814	765	998	632	860	563	659	656	604	718	822
Chromium, Total	7440-47-3	NS	NS	NS	NS	7.8	7.12	7.97	9.77	6.91	8.45	6.98	7.39	5.6	9.59	6.76	6.39	6.52	7.31	7.5	13
Cobalt, Total	7440-48-4	NS	NS	NS	NS	4.06	3.6	3.58	5.54	4.38	4.61	6.06	4.45	3.46	4.11	4.06	3.74	3.82	4.25	4.79	7.82
Copper, Total	7440-50-8	50	270	270	270	6.93	6.73	22.2	9.52	8.68	11.2	9.94	16.7	7.25	10.3	8.06	7.18	6.93	7.97	12.6	15
Iron, Total	7439-89-6	NS	NS	NS	NS	7200	7790	8770	6670	10800	9840	7050	7620	7110	10300	7900	7350	6650	6800	8740	11200
Lead, Total	7439-92-1	63	400	400	1000	3.1 J	3.55 J	23.1	7.24 J	2.63 J	5	3.94 J	5.22	2.75 J	3.38 J	3.6 J	2.18 J	3.85 J	2.86 J	3.51 J	5.42
Magnesium, Total	7439-95-4	NS	NS	NS	NS	1290	1510	1560	1720	1300	2080	3340	2660	1540	1700	1310	1400	1490	2920	2330	2550
Manganese, Total	7439-96-5	1600	2000	2000	10000	203	185	192	88.8	205	212	186	99	171	229	209	228	192	146	205	322
Mercury, Total	7439-97-6	0.18	0.81	0.81	2.8	0.065 U	0.067 U	0.065 U	0.073 U	0.07 U	0.069 U	0.067 U	0.071 U	0.067 U	0.065 U	0.066 U	0.066 U	0.066 U	0.069 U	0.074 U	0.07 U
Nickel, Total	7440-02-0	30	140	310	310	22.2	24.2	26	47.5	19.6	30	55.3	35.2	23.6	24.5	22	23.1	26.8	43.9	44.1	47.7
Potassium, Total	7440-09-7	NS	NS	NS	NS	414	470	376	278 J	431	899	481 J	568	489	539	361	413	539	445	496	1220
Selenium, Total	7782-49-2	3.9	36	180	1500	1.57 U	1.58 U	1.56 U	4.43 U	1.69 U	0.467 J	4 U	1.72 U	0.278 J	1.64 U	1.62 U	1.59 U	1.63 U	1.63 U	1.84 U	1.74 U
Silver, Total	7440-22-4	2	36	180	1500	0.786 U	0.791 U	0.78 U	2.21 U	0.847 U	0.834 U	2 U	0.858 U	0.794 U	0.821 U	0.811 U	0.795 U	0.817 U	0.815 U	0.918 U	0.873 U
Sodium, Total	7440-23-5	NS	NS	NS	NS	55.9 J	64.5 J	138 J	104 J	79.1 J	116 J	79.2 J	76.5 J	80 J	92 J	65.9 J	102 J	88.8 J	54.1 J	86.8 J	84.2 J
Thallium, Total	7440-28-0	NS	NS	NS	NS	1.57 U	1.58 U	1.56 U	4.43 U	1.69 U	1.67 U	4 U	1.72 U	1.59 U	1.64 U	1.62 U	1.59 U	1.63 U	1.63 U	1.84 U	1.74 U
Vanadium, Total	7440-62-2	NS	NS	NS	NS	11.8	12.2	12.8	12.8	14.2	14	9.2	10.2	8.26	14	9.97	8.77	8.97	8.33	14	15.3
Zinc, Total	7440-66-6	109	2200	10000	10000	14.6	16.2	35	27	15.7	20.1	22.2	39.5	15.3	20.2	16.6	15.6	18	15.8	22.2	27.1

Notes:

- (1) - NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.
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J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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Highlighted text denotes concentrations exceeding the NYSDEC Unrestricted Use SCO

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Highlighted text denotes concentrations exceeding the NYSDEC Commercial Use SCO



Table 4  
Pesticides PCBs  
Soil Analytical Data  
2359 Bedford Avenue and 2307 Beverly Road, Brooklyn, New York

Sample ID: Sample Date: Lab Sample ID:	CasNum	NY-UNRES <sup>1</sup>	NY-RESR <sup>2</sup>	NY-RESRR <sup>3</sup>	NY-RESC <sup>4</sup>	SB-1 1/27/2022 L2204699-01	SB-2 1/27/2022 L2204699-02	SB-3 2/1/2022 L2205287-01	SB-4 2/1/2022 L2205287-02	SB-5 2/1/2022 L2205287-08	SB-6 2/1/2022 L2205287-07	SB-7 2/1/2022 L2205287-03	SB-8 2/1/2022 L2205287-04	SB-9 2/1/2022 L2205287-09
<b>Organochlorine Pesticides by GC in mg/kg</b>														
4,4'-DDD	72-54-8	0.0033	2.6	13	92	0.00158 U	0.00165 U	0.0161 U	0.0173 U	0.0017 U	0.00167 U	0.00162 U	0.00173 U	0.00161 U
4,4'-DDE	72-55-9	0.0033	1.8	8.9	62	0.00158 U	0.00165 U	0.0161 U	0.0173 U	0.0017 U	0.00167 U	0.00162 U	0.00173 U	0.00161 U
4,4'-DDT	50-29-3	0.0033	1.7	7.9	47	0.00297 U	0.00309 U	0.0302 U	0.0324 U	0.00318 U	0.00314 U	0.00305 U	0.00324 U	0.00301 U
Aldrin	309-00-2	0.005	0.019	0.097	0.68	0.00158 U	0.00165 U	0.0161 U	0.0173 U	0.0017 U	0.00167 U	0.00162 U	0.00173 U	0.00161 U
Alpha-BHC	319-84-6	0.02	0.097	0.48	3.4	0.00066 U	0.000687 U	0.0067 U	0.00721 U	0.000706 U	0.000697 U	0.000677 U	0.00072 U	0.00067 U
Beta-BHC	319-85-7	0.036	0.072	0.36	3	0.00158 U	0.00165 U	0.0161 U	0.0173 U	0.0017 U	0.00167 U	0.00162 U	0.00173 U	0.00161 U
Chlordane	57-74-9	NS	NS	NS	NS	0.0132 U	0.0137 U	0.134 U	0.144 U	0.0141 U	0.0139 U	0.0135 U	0.0144 U	0.0134 U
cis-Chlordane	5103-71-9	0.094	0.91	4.2	24	0.00198 U	0.00206 U	0.0201 U	0.0216 U	0.00212 U	0.00209 U	0.00203 U	0.00216 U	0.00201 U
Delta-BHC	319-86-8	0.04	100	100	500	0.00158 U	0.00165 U	0.0161 U	0.0173 U	0.0017 U	0.00167 U	0.00162 U	0.00173 U	0.00161 U
Dieldrin	60-57-1	0.005	0.039	0.2	1.4	0.000991 U	0.00103 U	0.01 U	0.0108 U	0.00106 U	0.00104 U	0.00102 U	0.00108 U	0.001 U
Endosulfan I	959-98-8	2.4	4.8	24	200	0.00158 U	0.00165 U	0.0161 U	0.0173 U	0.0017 U	0.00167 U	0.00162 U	0.00173 U	0.00161 U
Endosulfan II	33213-65-9	2.4	4.8	24	200	0.00158 U	0.00165 U	0.0161 U	0.0173 U	0.0017 U	0.00167 U	0.00162 U	0.00173 U	0.00161 U
Endosulfan sulfate	1031-07-8	2.4	4.8	24	200	0.00066 U	0.000687 U	0.0067 U	0.00721 U	0.000706 U	0.000697 U	0.000677 U	0.00072 U	0.00067 U
Endrin	72-20-8	0.014	2.2	11	89	0.00066 U	0.000687 U	0.0067 U	0.00721 U	0.000706 U	0.000697 U	0.000677 U	0.00072 U	0.00067 U
Endrin aldehyde	7421-93-4	NS	NS	NS	NS	0.00198 U	0.00206 U	0.0201 U	0.0216 U	0.00212 U	0.00209 U	0.00203 U	0.00216 U	0.00201 U
Endrin ketone	53494-70-5	NS	NS	NS	NS	0.00158 U	0.00165 U	0.0161 U	0.0173 U	0.0017 U	0.00167 U	0.00162 U	0.00173 U	0.00161 U
Heptachlor	76-44-8	0.042	0.42	2.1	15	0.000793 U	0.000824 U	0.00804 U	0.00865 U	0.000848 U	0.000836 U	0.000812 U	0.000864 U	0.000803 U
Heptachlor epoxide	1024-57-3	NS	NS	NS	NS	0.00297 U	0.00309 U	0.0302 U	0.0324 U	0.00318 U	0.00314 U	0.00305 U	0.00324 U	0.00301 U
Lindane	58-89-9	0.1	0.28	1.3	9.2	0.00066 U	0.000687 U	0.0067 U	0.00721 U	0.000706 U	0.000697 U	0.000677 U	0.00072 U	0.00067 U
Methoxychlor	72-43-5	NS	NS	NS	NS	0.00297 U	0.00309 U	0.0302 U	0.0324 U	0.00318 U	0.00314 U	0.00305 U	0.00324 U	0.00301 U
Toxaphene	8001-35-2	NS	NS	NS	NS	0.0297 U	0.0309 U	0.302 U	0.324 U	0.0318 U	0.0314 U	0.0305 U	0.0324 U	0.0301 U
trans-Chlordane	5103-74-2	NS	NS	NS	NS	0.00198 U	0.00206 U	0.0201 U	0.0216 U	0.00212 U	0.00209 U	0.00203 U	0.00216 U	0.00201 U
<b>Polychlorinated Biphenyls by GC in mg/kg</b>														
Aroclor 1016	33213-65-9	0.1	1	1	1	0.0333 U	0.0335 U	0.0337 U	0.0368 U	0.0354 U	0.0351 U	0.0343 U	0.0369 U	0.0342 U
Aroclor 1221	1031-07-8	0.1	1	1	1	0.0333 U	0.0335 U	0.0337 U	0.0368 U	0.0354 U	0.0351 U	0.0343 U	0.0369 U	0.0342 U
Aroclor 1232	72-20-8	0.1	1	1	1	0.0333 U	0.0335 U	0.0337 U	0.0368 U	0.0354 U	0.0351 U	0.0343 U	0.0369 U	0.0342 U
Aroclor 1242	7421-93-4	0.1	1	1	1	0.0333 U	0.0335 U	0.0337 U	0.0368 U	0.0354 U	0.0351 U	0.0343 U	0.0369 U	0.0342 U
Aroclor 1248	53494-70-5	0.1	1	1	1	0.0333 U	0.0335 U	0.0337 U	0.0368 U	0.0354 U	0.0351 U	0.0343 U	0.0369 U	0.0342 U
Aroclor 1254	76-44-8	0.1	1	1	1	0.0333 U	0.0335 U	0.0337 U	0.0368 U	0.0354 U	0.0351 U	0.0343 U	0.0369 U	0.0342 U
Aroclor 1260	1024-57-3	0.1	1	1	1	0.0333 U	0.0335 U	0.0337 U	0.0368 U	0.0354 U	0.0351 U	0.0343 U	0.0369 U	0.0342 U
Aroclor 1262	58-89-9	0.1	1	1	1	0.0333 U	0.0335 U	0.0337 U	0.0368 U	0.0354 U	0.0351 U	0.0343 U	0.0369 U	0.0342 U
Aroclor 1268	72-43-5	0.1	1	1	1	0.0333 U	0.0335 U	0.0337 U	0.0368 U	0.0354 U	0.0351 U	0.0343 U	0.0369 U	0.0342 U
PCBs, Total	8001-35-2	0.1	1	1	1	0.0333 U	0.0335 U	0.0337 U	0.0368 U	0.0354 U	0.0351 U	0.0343 U	0.0369 U	0.0342 U

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Table 4  
Pesticides PCBs  
Soil Analytical Data  
2359 Bedford Avenue and 2307 Beverly Road, Brooklyn, New York

Sample ID: Sample Date: Lab Sample ID:	CasNum	NY-UNRES <sup>1</sup>	NY-RESR <sup>2</sup>	NY-RESRR <sup>3</sup>	NY-RESC <sup>4</sup>	SB-10 1/28/2022 L2204927-01	SB-11 1/28/2022 L2204927-02	SB-12 2/1/2022 L2205287-10	SB-13 2/1/2022 L2205390-01	SB-14 1/28/2022 L2204927-03	SB-15 1/28/2022 L2204927-04	SB-16 1/28/2022 L2204927-05
<b>Organochlorine Pesticides by GC in mg/kg</b>												
4,4'-DDD	72-54-8	0.0033	2.6	13	92	0.00158 U	0.00162 U	0.00165 U	0.00167 U	0.00169 U	0.00184 U	0.00172 U
4,4'-DDE	72-55-9	0.0033	1.8	8.9	62	0.00158 U	0.0013 J	0.00165 U	0.00167 U	0.00169 U	0.00184 U	0.00172 U
4,4'-DDT	50-29-3	0.0033	1.7	7.9	47	0.00148 J	0.00241 J	0.00309 U	0.00312 U	0.00317 U	0.00345 U	0.00322 U
Aldrin	309-00-2	0.005	0.019	0.097	0.68	0.00158 U	0.00162 U	0.00165 U	0.00167 U	0.00169 U	0.00184 U	0.00172 U
Alpha-BHC	319-84-6	0.02	0.097	0.48	3.4	0.000659 U	0.000677 U	0.000687 U	0.000694 U	0.000705 U	0.000767 U	0.000715 U
Beta-BHC	319-85-7	0.036	0.072	0.36	3	0.00158 U	0.00162 U	0.00165 U	0.00167 U	0.00169 U	0.00184 U	0.00172 U
Chlordane	57-74-9	NS	NS	NS	NS	0.0132 U	0.0135 U	0.0137 U	0.0139 U	0.0141 U	0.0153 U	0.0143 U
cis-Chlordane	5103-71-9	0.094	0.91	4.2	24	0.00198 U	0.00203 U	0.00206 U	0.00208 U	0.00212 U	0.0023 U	0.00214 U
Delta-BHC	319-86-8	0.04	100	100	500	0.00158 U	0.00162 U	0.00165 U	0.00167 U	0.00169 U	0.00184 U	0.00172 U
Dieldrin	60-57-1	0.005	0.039	0.2	1.4	0.000988 U	0.00101 U	0.00103 U	0.00104 U	0.00106 U	0.00115 U	0.00107 U
Endosulfan I	959-98-8	2.4	4.8	24	200	0.00158 U	0.00162 U	0.00165 U	0.00167 U	0.00169 U	0.00184 U	0.00172 U
Endosulfan II	33213-65-9	2.4	4.8	24	200	0.00158 U	0.00162 U	0.00165 U	0.00167 U	0.00169 U	0.00184 U	0.00172 U
Endosulfan sulfate	1031-07-8	2.4	4.8	24	200	0.000659 U	0.000677 U	0.000687 U	0.000694 U	0.000705 U	0.000767 U	0.000715 U
Endrin	72-20-8	0.014	2.2	11	89	0.000659 U	0.000677 U	0.000687 U	0.000694 U	0.000705 U	0.000767 U	0.000715 U
Endrin aldehyde	7421-93-4	NS	NS	NS	NS	0.00198 U	0.00203 U	0.00206 U	0.00208 U	0.00212 U	0.0023 U	0.00214 U
Endrin ketone	53494-70-5	NS	NS	NS	NS	0.00158 U	0.00162 U	0.00165 U	0.00167 U	0.00169 U	0.00184 U	0.00172 U
Heptachlor	76-44-8	0.042	0.42	2.1	15	0.000791 U	0.000812 U	0.000824 U	0.000833 U	0.000846 U	0.000921 U	0.000858 U
Heptachlor epoxide	1024-57-3	NS	NS	NS	NS	0.00296 U	0.00304 U	0.00309 U	0.00312 U	0.00317 U	0.00345 U	0.00322 U
Lindane	58-89-9	0.1	0.28	1.3	9.2	0.000659 U	0.000677 U	0.000687 U	0.000694 U	0.000705 U	0.000767 U	0.000715 U
Methoxychlor	72-43-5	NS	NS	NS	NS	0.00296 U	0.00304 U	0.00309 U	0.00312 U	0.00317 U	0.00345 U	0.00322 U
Toxaphene	8001-35-2	NS	NS	NS	NS	0.0296 U	0.0304 U	0.0309 U	0.0312 U	0.0317 U	0.0345 U	0.0322 U
trans-Chlordane	5103-74-2	NS	NS	NS	NS	0.00198 U	0.00203 U	0.00206 U	0.00208 U	0.00212 U	0.0023 U	0.00214 U
<b>Polychlorinated Biphenyls by GC in mg/kg</b>												
Aroclor 1016	33213-65-9	0.1	1	1	1	0.0328 U	0.0338 U	0.0342 U	0.0339 U	0.0347 U	0.0382 U	0.0366 U
Aroclor 1221	1031-07-8	0.1	1	1	1	0.0328 U	0.0338 U	0.0342 U	0.0339 U	0.0347 U	0.0382 U	0.0366 U
Aroclor 1232	72-20-8	0.1	1	1	1	0.0328 U	0.0338 U	0.0342 U	0.0339 U	0.0347 U	0.0382 U	0.0366 U
Aroclor 1242	7421-93-4	0.1	1	1	1	0.0328 U	0.0338 U	0.0342 U	0.0339 U	0.0347 U	0.0382 U	0.0366 U
Aroclor 1248	53494-70-5	0.1	1	1	1	0.0328 U	0.0338 U	0.0342 U	0.0339 U	0.0347 U	0.0382 U	0.0366 U
Aroclor 1254	76-44-8	0.1	1	1	1	0.0328 U	0.0338 U	0.0342 U	0.0339 U	0.0347 U	0.0382 U	0.0366 U
Aroclor 1260	1024-57-3	0.1	1	1	1	0.0328 U	0.0338 U	0.0342 U	0.0339 U	0.0347 U	0.0382 U	0.0366 U
Aroclor 1262	58-89-9	0.1	1	1	1	0.0381 U	0.0787 U	0.0342 U	0.0339 U	0.0347 U	0.0382 U	0.0366 U
Aroclor 1268	72-43-5	0.1	1	1	1	0.0328 U	0.0338 U	0.0342 U	0.0339 U	0.0347 U	0.0382 U	0.0366 U
PCBs, Total	8001-35-2	0.1	1	1	1	0.0381 U	0.0787 U	0.0342 U	0.0339 U	0.0347 U	0.0382 U	0.0366 U

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- (4) - NY-RESC: New York NYCRR Part 375 Commercial Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation
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Table 5  
PFAS Soil Analytical Data  
2359 Bedford Avenue and 2307 Beverly Road, Brooklyn, New York

Sample ID: Sample Date: Lab Sample ID:	CasNum	NY-UNRES <sup>1</sup>	NY-RESR <sup>2</sup>	NY-RESRR <sup>3</sup>	NY-RESC <sup>4</sup>	SB-1 1/27/2022 L2204699-01	SB-2 1/27/2022 L2204699-02	SB-3 2/1/2022 L2205287-01	SB-4 2/1/2022 L2205287-02	SB-5 2/1/2022 L2205287-08	SB-6 2/1/2022 L2205287-07	SB-7 2/1/2022 L2205287-03	SB-8 2/1/2022 L2205287-04	SB-9 2/1/2022 L2205287-09
<b>Perfluorinated Alkyl Acids by Isotope Dilution in mg/kg</b>														
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	39108-34-4	NS	NS	NS	NS	0.000449 U	0.000486 U	0.000469 U	0.000532 U	0.000496 U	0.000505 U	0.000497 U	0.000488 U	0.000473 U
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	27619-97-2	NS	NS	NS	NS	0.000449 U	0.000486 U	0.000469 U	0.000532 U	0.000496 U	0.000505 U	0.000497 U	0.000488 U	0.000473 U
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	2991-50-6	NS	NS	NS	NS	0.000449 U	0.000486 U	0.000469 U	0.000532 U	0.000496 U	0.000505 U	0.000497 U	0.000488 U	0.000473 U
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2355-31-9	NS	NS	NS	NS	0.000449 U	0.000486 U	0.000469 U	0.000532 U	0.000496 U	0.000505 U	0.000497 U	0.000488 U	0.000473 U
Perfluorobutanesulfonic Acid (PFBS)	375-73-5	NS	NS	NS	NS	0.000225 U	0.000243 U	0.000235 U	0.000266 U	0.000248 U	0.000253 U	0.000248 U	0.000244 U	0.000237 U
Perfluorobutanoic Acid (PFBA)	375-22-4	NS	NS	NS	NS	0.000449 U	0.000486 U	0.000469 U	0.00031 J	0.000496 U	0.000505 U	0.000497 U	0.000488 U	0.000473 U
Perfluorodecanesulfonic Acid (PFDS)	335-77-3	NS	NS	NS	NS	0.000449 U	0.000486 U	0.000469 U	0.000532 U	0.000496 U	0.000505 U	0.000497 U	0.000488 U	0.000473 U
Perfluorodecanoic Acid (PFDA)	335-76-2	NS	NS	NS	NS	0.000225 U	0.000243 U	0.000235 U	0.000266 U	0.000248 U	0.000253 U	0.000248 U	0.000244 U	0.000237 U
Perfluorododecanoic Acid (PFDoA)	307-55-1	NS	NS	NS	NS	0.000449 U	0.000486 U	0.000469 U	0.000532 U	0.000496 U	0.000505 U	0.000497 U	0.000488 U	0.000473 U
Perfluoroheptanesulfonic Acid (PFHpS)	375-92-8	NS	NS	NS	NS	0.000449 U	0.000486 U	0.000469 U	0.000532 U	0.000496 U	0.000505 U	0.000497 U	0.000488 U	0.000473 U
Perfluoroheptanoic Acid (PFHpA)	375-85-9	NS	NS	NS	NS	0.000225 U	0.000243 U	0.000235 U	0.00083 J	0.000248 U	0.000253 U	0.000248 U	0.000244 U	0.000237 U
Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	NS	NS	NS	NS	0.000225 U	0.000243 U	0.000235 U	0.000266 U	0.000248 U	0.000253 U	0.000248 U	0.000244 U	0.000237 U
Perfluorohexanoic Acid (PFHxA)	307-24-4	NS	NS	NS	NS	0.000449 U	0.000486 U	0.000469 U	0.00083 J	0.000496 U	0.000505 U	0.000497 U	0.000488 U	0.000473 U
Perfluorononanoic Acid (PFNA)	375-95-1	NS	NS	NS	NS	0.000225 U	0.000243 U	0.000235 U	0.000266 U	0.000248 U	0.000253 U	0.000248 U	0.000244 U	0.000237 U
Perfluorooctanesulfonamide (FOSA)	754-91-6	NS	NS	NS	NS	0.000449 U	0.000486 U	0.000469 U	0.000532 U	0.000496 U	0.000505 U	0.000497 U	0.000488 U	0.000473 U
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	0.00088	0.0088	0.044	0.44	0.000126 J	0.000243 U	0.000235 U	0.000266 U	0.000248 U	0.000253 U	0.000248 U	0.000244 U	0.000237 U
Perfluorooctanoic Acid (PFOA)	335-67-1	0.00066	0.0066	0.033	0.5	0.000225 U	0.000243 U	0.000235 U	0.000094 J	0.000248 U	0.000253 U	0.000047 J	0.000244 U	0.000237 U
Perfluoropentanoic Acid (PFPeA)	2706-90-3	NS	NS	NS	NS	0.000449 U	0.000486 U	0.000469 U	0.0001 J	0.000496 U	0.000505 U	0.000497 U	0.000488 U	0.000473 U
Perfluorotetradecanoic Acid (PFTA)	376-06-7	NS	NS	NS	NS	0.000107 J	0.000143 J	0.000071 JF	0.000072 J	0.00008 JF	0.000059 J	0.000069 JF	0.000055 J	0.000055 J
Perfluorotridecanoic Acid (PFTTrDA)	72629-94-8	NS	NS	NS	NS	0.000449 U	0.000486 U	0.000469 U	0.000532 U	0.000496 U	0.000505 U	0.000497 U	0.000488 U	0.000473 U
Perfluoroundecanoic Acid (PFUNA)	2058-94-8	NS	NS	NS	NS	0.000449 U	0.000486 U	0.000469 U	0.000532 U	0.000496 U	0.000505 U	0.000497 U	0.000488 U	0.000473 U
PFOA/PFOS, Total		NS	NS	NS	NS	0.000126 J	0.000243 U	0.000235 U	0.000094 J	0.000248 U	0.000253 U	0.000047 J	0.000244 U	0.000237 U

Notes:

- (1) - NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.
- (2) - NY-RESR: New York NYCRR Part 375 Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.
- (3) - NY-RESRR: New York NYCRR Part 375 Restricted-Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.
- (4) - NY-RESC: New York NYCRR Part 375 Commercial Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

NS - No Standard

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U - Indicates the analyte was analyzed for but not detected.

E - The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.

Highlighted text denotes concentrations exceeding the NYSDEC Unrestricted Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Residential Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Restricted-Residential Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Commercial Use SCO

Table 5  
 PFAS Soil Analytical Data  
 2359 Bedford Avenue and 2307 Beverly Road, Brooklyn, New York

Sample ID:	CasNum	NY-UNRES <sup>1</sup>	NY-RESR <sup>2</sup>	NY-RESRR <sup>3</sup>	NY-RESC <sup>4</sup>	SB-10 1/28/2022 L2204927-01	SB-11 1/28/2022 L2204927-02	SB-12 2/1/2022 L2205287-10	SB-13 2/1/2022 L2205390-01	SB-14 1/28/2022 L2204927-03	SB-15 1/28/2022 L2204927-04	SB-16 1/28/2022 L2204927-05
Perfluorinated Alkyl Acids by Isotope Dilution in mg/kg												
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	39108-34-4	NS	NS	NS	NS	0.000481 U	0.00048 U	0.000485 U	0.000475 U	0.000514 U	0.000526 U	0.000517 U
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	27619-97-2	NS	NS	NS	NS	0.000481 U	0.00048 U	0.000485 U	0.000475 U	0.000514 U	0.000526 U	0.000517 U
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	2991-50-6	NS	NS	NS	NS	0.000481 U	0.00048 U	0.000485 U	0.000475 U	0.000514 U	0.000526 U	0.000517 U
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2355-31-9	NS	NS	NS	NS	0.000481 U	0.00048 U	0.000485 U	0.000475 U	0.000514 U	0.000526 U	0.000517 U
Perfluorobutanesulfonic Acid (PFBS)	375-73-5	NS	NS	NS	NS	0.000241 U	0.00024 U	0.000242 U	0.000237 U	0.000257 U	0.000263 U	0.000259 U
Perfluorobutanoic Acid (PFBA)	375-22-4	NS	NS	NS	NS	0.000481 U	0.00048 U	0.000485 U	0.000475 U	0.000514 U	0.000526 U	0.000517 U
Perfluorodecanesulfonic Acid (PFDS)	335-77-3	NS	NS	NS	NS	0.000481 U	0.00048 U	0.000485 U	0.000475 U	0.000514 U	0.000526 U	0.000517 U
Perfluorodecanoic Acid (PFDA)	335-76-2	NS	NS	NS	NS	0.000241 U	0.00024 U	0.000242 U	0.000237 U	0.000257 U	0.000263 U	0.000259 U
Perfluorododecanoic Acid (PFDoA)	307-55-1	NS	NS	NS	NS	0.000481 U	0.00048 U	0.000485 U	0.000475 U	0.000514 U	0.000526 U	0.000517 U
Perfluoroheptanesulfonic Acid (PFHpS)	375-92-8	NS	NS	NS	NS	0.000481 U	0.00048 U	0.000485 U	0.000475 U	0.000514 U	0.000526 U	0.000517 U
Perfluoroheptanoic Acid (PFHpA)	375-85-9	NS	NS	NS	NS	0.000241 U	0.00024 U	0.000242 U	0.000237 U	0.000257 U	0.000263 U	0.000259 U
Perfluorohexanesulfonic Acid (PFHxS)	355-46-4	NS	NS	NS	NS	0.000241 U	0.00024 U	0.000242 U	0.000237 U	0.000257 U	0.000263 U	0.000259 U
Perfluorohexanoic Acid (PFHxA)	307-24-4	NS	NS	NS	NS	0.000481 U	0.00048 U	0.000485 U	0.000475 U	0.000514 U	0.000526 U	0.000517 U
Perfluorononanoic Acid (PFNA)	375-95-1	NS	NS	NS	NS	0.000241 U	0.00024 U	0.000242 U	0.000237 U	0.000257 U	0.000263 U	0.000259 U
Perfluorooctanesulfonamide (FOSA)	754-91-6	NS	NS	NS	NS	0.000481 U	0.00048 U	0.000485 U	0.000475 U	0.000514 U	0.000526 U	0.000517 U
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	0.00088	0.0088	0.044	0.44	0.000241 U	0.00024 U	0.000242 U	0.000237 U	0.000257 U	0.000263 U	0.00064 F
Perfluorooctanoic Acid (PFOA)	335-67-1	0.00066	0.0066	0.033	0.5	0.000241 U	0.00024 U	0.000242 U	0.000237 U	0.00053 J	0.000263 U	0.000068 JF
Perfluoropentanoic Acid (PFPeA)	2706-90-3	NS	NS	NS	NS	0.000481 U	0.00048 U	0.000485 U	0.000475 U	0.000514 U	0.000526 U	0.000517 U
Perfluorotetradecanoic Acid (PFTA)	376-06-7	NS	NS	NS	NS	0.000079 JF	0.000065 J	0.00006 J	0.000475 U	0.000071 J	0.000057 J	0.000067 J
Perfluorotridecanoic Acid (PFTDA)	72629-94-8	NS	NS	NS	NS	0.000481 U	0.00048 U	0.000485 U	0.000475 U	0.000514 U	0.000526 U	0.000517 U
Perfluoroundecanoic Acid (PFUnA)	2058-94-8	NS	NS	NS	NS	0.000481 U	0.00048 U	0.000485 U	0.000475 U	0.000514 U	0.000526 U	0.000517 U
PFOA/PFOS, Total		NS	NS	NS	NS	0.000241 U	0.00024 U	0.000242 U	0.000237 U	0.00053 J	0.000263 U	0.000708 J

Notes:

- (1) - NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs.
- (2) - NY-RESR: New York NYCRR Part 375 Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Pr
- (3) - NY-RESRR: New York NYCRR Part 375 Restricted-Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Re
- (4) - NY-RESC: New York NYCRR Part 375 Commercial Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation F
- NS - No Standard

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U - Indicates the analyte was analyzed for but not detected.

E - The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an esti

Highlighted text denotes concentrations exceeding the NYSDEC Unrestricted Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Residential Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Restricted-Residential Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Commercial Use SCO

Table 6  
VOC Groundwater Analytical Data  
2359 Bedford Avenue and 2307 Beverly Road, Brooklyn, New York

Sample ID: Sampling Date: Lab Sample ID:	CasNum	NY-AWQS <sup>1</sup>	GW-1 2/1/2022 L2205287-05	GW-2 2/1/2022 L2205287-06	GW-3 1/28/2022 L2204927-6	GW-4 2/1/2022 L2205390-02
<b>Volatile Organics by GC/MS in µg/L</b>						
1,1,1,2-Tetrachloroethane	630-20-6	5	2.5 U	2.5 U	2.5 U	2.5 U
1,1,1-Trichloroethane	71-55-6	5	2.5 U	2.5 U	2.5 U	2.5 U
1,1,2,2-Tetrachloroethane	79-34-5	5	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	79-00-5	1	1.5 U	1.5 U	1.5 U	1.5 U
1,1-Dichloroethane	75-34-3	5	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	75-35-4	5	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	563-58-6	5	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichlorobenzene	87-61-6	5	2.5 U	2.5 U	2.5 U	2.5 U
1,2,3-Trichloropropane	96-18-4	0.04	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4,5-Tetramethylbenzene	95-93-2	5	2 U	2 U	0.9 J	2 U
1,2,4-Trichlorobenzene	120-82-1	5	2.5 U	2.5 U	2.5 U	2.5 U
1,2,4-Trimethylbenzene	95-63-6	5	2.5 U	2.5 U	0.96 J	2.5 U
1,2-Dibromo-3-chloropropane	96-12-8	0.04	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dibromoethane	106-93-4	0.0006	2 U	2 U	2 U	2 U
1,2-Dichlorobenzene	95-50-1	3	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	107-06-2	0.6	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethene, Total	540-59-0	NS	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloropropane	78-87-5	1	1 U	1 U	1 U	1 U
1,3,5-Trimethylbenzene	108-67-8	5	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichlorobenzene	541-73-1	3	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropane	142-28-9	5	2.5 U	2.5 U	2.5 U	2.5 U
1,3-Dichloropropene, Total	542-75-6	NS	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	106-46-7	3	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Dioxane	123-91-1	NS	250 U	250 U	250 U	250 U
2,2-Dichloropropane	594-20-7	5	2.5 U	2.5 U	2.5 U	2.5 U
2-Butanone	78-93-3	50	5 U	5 U	5 U	5 U
2-Hexanone	591-78-6	50	5 U	5 U	5 U	5 U
4-Methyl-2-pentanone	108-10-1	NS	5 U	5 U	5 U	5 U
Acetone	67-64-1	50	5 U	5 U	2.8 J	3.6 J
Acrylonitrile	107-13-1	5	5 U	5 U	5 U	5 U
Benzene	71-43-2	1	0.5 U	0.5 U	0.5 U	0.5 U
Bromobenzene	108-86-1	5	2.5 U	2.5 U	2.5 U	2.5 U
Bromochloromethane	74-97-5	5	2.5 U	2.5 U	2.5 U	2.5 U
Bromodichloromethane	75-27-4	50	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	75-25-2	50	2 U	2 U	2 U	2 U
Bromomethane	74-83-9	5	2.5 U	2.5 U	2.5 U	2.5 U
Carbon disulfide	75-15-0	60	5 U	5 U	5 U	5 U
Carbon tetrachloride	56-23-5	5	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	108-90-7	5	2.5 U	2.5 U	2.5 U	2.5 U
Chloroethane	75-00-3	5	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	67-66-3	7	8.8	2.5 U	2.5 U	2.2 J
Chloromethane	74-87-3	NS	2.5 U	2.5 U	2.5 U	2.5 U
cis-1,2-Dichloroethene	156-59-2	5	2.5 U	2.5 U	2.5 U	2.5 U
cis-1,3-Dichloropropene	10061-01-5	0.4	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	124-48-1	50	0.5 U	0.5 U	0.5 U	0.5 U
Dibromomethane	74-95-3	5	5 U	5 U	5 U	5 U
Dichlorodifluoromethane	75-71-8	5	5 U	5 U	5 U	5 U
Ethyl ether	60-29-7	NS	2.5 U	2.5 U	2.5 U	2.5 U
Ethylbenzene	100-41-4	5	2.5 U	2.5 U	2.5 U	2.5 U
Hexachlorobutadiene	87-68-3	0.5	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene	98-82-8	5	2.5 U	2.5 U	2.5 U	2.5 U
Methyl tert butyl ether	1634-04-4	10	2.5 U	2.5 U	2.5 U	2.5 U
Methylene chloride	75-09-2	5	2.5 U	2.5 U	2.5 U	2.5 U
n-Butylbenzene	104-51-8	5	2.5 U	2.5 U	0.91 J	2.5 U
n-Propylbenzene	103-65-1	5	2.5 U	2.5 U	2.5 U	2.5 U
Naphthalene	91-20-3	10	2.5 U	2.5 U	2.4 J	2.5 U
o-Chlorotoluene	95-49-8	5	2.5 U	2.5 U	2.5 U	2.5 U
o-Xylene	95-47-6	5	2.5 U	2.5 U	2.5 U	2.5 U
p-Chlorotoluene	106-43-4	5	2.5 U	2.5 U	2.5 U	2.5 U
p-Diethylbenzene	105-05-5	NS	2 U	2 U	1.7 J	2 U
p-Ethyltoluene	622-96-8	NS	2 U	2 U	2 U	2 U
p-Isopropyltoluene	99-87-6	5	2.5 U	2.5 U	2.5 U	2.5 U
p/m-Xylene	179601-23-1	5	2.5 U	2.5 U	2.5 U	2.5 U
sec-Butylbenzene	135-98-8	5	2.5 U	2.5 U	2.5 U	2.5 U
Styrene	100-42-5	5	2.5 U	2.5 U	2.5 U	2.5 U
tert-Butylbenzene	98-06-6	5	2.5 U	2.5 U	2.5 U	2.5 U
Tetrachloroethene	127-18-4	5	0.7 U	0.5 U	0.5 U	0.82 U
Toluene	108-88-3	5	2.5 U	2.5 U	2.5 U	2.5 U
trans-1,2-Dichloroethene	156-60-5	5	2.5 U	2.5 U	2.5 U	2.5 U
trans-1,3-Dichloropropene	10061-02-6	0.4	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,4-Dichloro-2-butene	110-57-6	5	2.5 U	2.5 U	2.5 U	2.5 U
Trichloroethene	79-01-6	5	0.5 U	0.5 U	0.5 U	0.5 U
Trichlorofluoromethane	75-69-4	5	2.5 U	2.5 U	2.5 U	2.5 U
Vinyl acetate	108-05-4	NS	5 U	5 U	5 U	5 U
Vinyl chloride	75-01-4	2	1 U	1 U	1 U	1 U
Xylenes, Total	1330-20-7	NS	2.5 U	2.5 U	2.5 U	2.5 U

Notes:

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

NS - No Standard

J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

U - Indicates the analyte was analyzed for but not detected.

Highlighted text denotes concentrations exceeding the NYSDEC AWQS

**Table 7**  
**SVOC Groundwater Analytical Data**  
**2359 Bedford Avenue and 2307 Beverly Road, Brooklyn, New York**

Sample ID: Sampling Date: Lab Sample ID:	CasNum	NY-AWQS <sup>1</sup>	GW-1 2/1/2022 L2205287-05	GW-2 2/1/2022 L2205287-06	GW-3 1/28/2022 L2204927-06	GW-4 2/1/2022 L2205390-02
<b>Semivolatile Organics by GC/MS-SIM in µg/L</b>						
1,2,4,5-Tetrachlorobenzene	95-94-3	5	10 U	10 U	0.2 U	10.0 U
1,2,4-Trichlorobenzene	120-82-1	5	5 U	5 U	7.2	5.0 U
1,2-Dichlorobenzene	95-50-1	3	2 U	2 U	0.76	2.0 U
1,3-Dichlorobenzene	541-73-1	3	2 U	2 U	0.09 J	2.0 U
1,4-Dichlorobenzene	106-46-7	3	2 U	2 U	0.08 J	2.0 U
2,4,5-Trichlorophenol	95-95-4	NS	5 U	5 U	0.1 U	5.0 U
2,4,6-Trichlorophenol	88-06-2	NS	5 U	5 U	0.1 U	5.0 U
2,4-Dichlorophenol	120-83-2	1	5 U	5 U	0.1 U	5.0 U
2,4-Dimethylphenol	105-67-9	50	5 U	5 U	0.1 U	5.0 U
2,4-Dinitrophenol	51-28-5	10	20 U	20 U	0.1 U	20.0 U
2,4-Dinitrotoluene	121-14-2	5	5 U	5 U	0.1 U	5.0 U
2,6-Dinitrotoluene	606-20-2	5	5 U	5 U	0.1 U	5.0 U
2-Chlorophenol	95-57-8	NS	2 U	2 U	0.05 J	2.0 U
2-Methylphenol	95-48-7	NS	5 U	5 U	0.77	5.0 U
2-Nitroaniline	88-74-4	5	5 U	5 U	0.8 U	5.0 U
2-Nitrophenol	88-75-5	NS	10 U	10 U	0.5 U	10.0 U
3,3'-Dichlorobenzidine	91-94-1	5	5 U	5 U	0.8 U	5.0 U
3-Methylphenol/4-Methylphenol	08-39-4/106-44	NS	5 U	5 U	0.1 U	5.0 U
3-Nitroaniline	99-09-2	5	5 U	5 U	2.2	5.0 U
4,6-Dinitro-o-cresol	534-52-1	NS	10 U	10 U	0.8 U	10.0 U
4-Bromophenyl phenyl ether	101-55-3	NS	2 U	2 U	0.49	2.0 U
4-Chloroaniline	106-47-8	5	5 U	5 U	0.49	5.0 U
4-Chlorophenyl phenyl ether	7005-72-3	NS	2 U	2 U	7.2	2.0 U
4-Nitroaniline	100-01-6	5	5 U	5 U	0.76	5.0 U
4-Nitrophenol	100-02-7	NS	10 U	10 U	0.09 J	10.0 U
Acetophenone	98-86-2	NS	5 U	5 U	0.08 J	5.0 U
Benzoic Acid	65-85-0	NS	50 U	50 U	0.1 U	50.0 U
Benzyl Alcohol	100-51-6	NS	2 U	2 U	0.1 U	2.0 U
Biphenyl	92-52-4	NS	2 U	2 U	0.1 U	2.0 U
Bis(2-chloroethoxy)methane	111-91-1	5	5 U	5 U	0.1 U	5.0 U
Bis(2-chloroethyl)ether	111-44-4	1	2 U	2 U	0.1 U	2.0 U
Bis(2-chloroisopropyl)ether	108-60-1	5	2 U	2 U	0.1 U	2.0 U
Bis(2-ethylhexyl)phthalate	117-81-7	5	3 U	3 U	0.1 U	3.0 U
Butyl benzyl phthalate	85-68-7	50	5 U	5 U	0.05 J	5.0 U
Carbazole	86-74-8	NS	2 U	2 U	0.77	2.0 U
Di-n-butylphthalate	84-74-2	50	5 U	5 U	0.8 U	5.0 U
Di-n-octylphthalate	117-84-0	50	5 U	5 U	0.5 U	5.0 U
Dibenzofuran	132-64-9	NS	2 U	2 U	0.8 U	2.0 U
Diethyl phthalate	84-66-2	50	5 U	0.49 J	0.1 U	5.0 U
Dimethyl phthalate	131-11-3	50	5 U	5 U	2.2	5.0 U
Hexachlorocyclopentadiene	77-47-4	5	20 U	20 U	0.8 U	20.0 U
Isophorone	78-59-1	50	5 U	5 U	0.49	5.0 U
n-Nitrosodi-n-propylamine	621-64-7	NS	5 U	5 U	0.49	5.0 U
NDPA/DPA	86-30-6	50	2 U	2 U	0.49	2.0 U
Nitrobenzene	98-95-3	0.4	2 U	2 U	0.49	2.0 U
p-Chloro-m-cresol	59-50-7	NS	2 U	2 U	0.49	2.0 U
Phenol	108-95-2	1	5 U	5 U	0.26	5.0 U
<b>Semivolatile Organics by GC/MS-SIM in µg/L</b>						
2-Chloronaphthalene	91-58-7	10	0.2 U	0.2 U	0.2 U	0.2 U
2-Methylnaphthalene	91-57-6	NS	0.1 U	0.52	7.2	0.06 J
Acenaphthene	83-32-9	20	0.1 U	0.16	0.76	0.1 U
Acenaphthylene	208-96-8	NS	0.1 U	0.1 U	0.09 J	0.1 U
Anthracene	120-12-7	50	0.1 U	0.03 J	0.08 J	0.03 J
Benzo(a)anthracene	56-55-3	0.002	0.05 J	0.03 J	0.1 U	0.03 J
Benzo(a)pyrene	50-32-8	0	0.05 J	0.1 U	0.1 U	0.02 J
Benzo(b)fluoranthene	205-99-2	0.002	0.09 J	0.03 J	0.1 U	0.03 J
Benzo(ghi)perylene	191-24-2	NS	0.09 J	0.01 J	0.1 U	0.03 J
Benzo(k)fluoranthene	207-08-9	0.002	0.03 J	0.01 J	0.1 U	0.02 J
Chrysene	218-01-9	0.002	0.05 J	0.02 J	0.1 U	0.03 J
Dibenzo(a,h)anthracene	53-70-3	NS	0.01 J	0.1 U	0.1 U	0.1 U
Fluoranthene	206-44-0	50	0.08 J	0.06 J	0.05 J	0.04 J
Fluorene	86-73-7	50	0.1 U	0.2	0.77	0.1 U
Hexachlorobenzene	118-74-1	0.04	0.8 U	0.8 U	0.8 U	0.8 U
Hexachlorobutadiene	87-68-3	0.5	0.5 U	0.5 U	0.5 U	0.5 U
Hexachloroethane	67-72-1	5	0.8 U	0.8 U	0.8 U	0.8 U
Indeno(1,2,3-cd)pyrene	193-39-5	0.002	0.07 J	0.02 J	0.1 U	0.03 J
Naphthalene	91-20-3	10	0.1 U	0.15	2.2	0.09 J
Pentachlorophenol	87-86-5	1	0.8 U	0.8 U	0.8 U	0.21 J
Phenanthrene	85-01-8	50	0.04 J	0.19	0.49	0.09 J
Pyrene	129-00-0	50	0.08 J	0.14	0.26	0.05 J

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

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U - Indicates the analyte was analyzed for but not detected.

Highlighted text denotes concentrations exceeding the NYSDEC AWQS

**Table 8**  
**Total Dissolved**  
**Groundwater Analytical Data**  
**2359 Bedford Avenue and 2307 Beverly Road, Brooklyn, New York**

Sample ID: Sampling Date: Lab Sample ID:	CasNum	NY-AWQS <sup>1</sup>	GW-1 2/1/2022 L2205287-05	GW-2 2/1/2022 L2205287-06	GW-3 1/28/2022 L2204927-06	GW-4 2/1/2022 L2205390-02
<b>Dissolved Metals in µg/L</b>						
Aluminum, Total	7429-90-5	NS	6 J	4 J	190	29
Antimony, Total	7440-36-0	3	4.00 U	2 J	4 U	1.23 J
Arsenic, Total	7440-38-2	25	0 J	0.50 U	0.37 J	0.35 J
Barium, Total	7440-39-3	1000	66.0	41	31	19.03
Beryllium, Total	7440-41-7	3	0.50 U	0.50 U	0.5 U	0.5 U
Cadmium, Total	7440-43-9	5	0.20 U	0.15 J	0.2 U	0.2 U
Calcium, Total	7440-70-2	NS	39,800	52,800	48,400	16700
Chromium, Total	7440-47-3	50	0.42 J	0.3 J	1	1.08
Cobalt, Total	7440-48-4	NS	0.50 U	1.7	0.51	0.5 U
Copper, Total	7440-50-8	200	0.9 J	0 J	1.81	0.91 J
Iron, Total	7439-89-6	300	50 U	50 U	354	25.6 J
Lead, Total	7439-92-1	25	1.0 U	1.0 U	0.45 J	1 U
Magnesium, Total	7439-95-4	35000	17,000	18,100	16,200	11400
Manganese, Total	7439-96-5	300	1 J	743.3	492.2	1.43
Mercury, Total	7439-97-6	0.7	0.20 U	0.20 U	0.2 U	0.2 U
Nickel, Total	7440-02-0	100	7.8	109.7	40	2.61
Potassium, Total	7440-09-7	NS	7,620	4,450	5,040	4500
Selenium, Total	7782-49-2	10	5.00 U	2.1 J	5 U	5 U
Silver, Total	7440-22-4	50	0.40 U	0.40 U	0.4 U	0.4 U
Sodium, Total	7440-23-5	20000	172,000	63,900	20,900	53900
Thallium, Total	7440-28-0	0.5	1.00 U	0.35 J	1 U	0.19 J
Vanadium, Total	7440-62-2	NS	5.00 U	5.0 U	5 U	5 U
Zinc, Total	7440-66-6	2000	10.0 U	10 U	10 U	10 U
<b>Total Metals in µg/L</b>						
Aluminum, Total	7429-90-5	NS	14,100	93,600	86,900	119000
Antimony, Total	7440-36-0	3	5.97	4 U	0.71 J	4 U
Arsenic, Total	7440-38-2	25	7	20.86	31.26	37.58
Barium, Total	7440-39-3	1000	238.9	2,871	2,452	8232
Beryllium, Total	7440-41-7	3	1.06	12.01	13.08	21.36
Cadmium, Total	7440-43-9	5	0.63	7.03	6.68	22.84
Calcium, Total	7440-70-2	NS	60,700	140,000	121,000	131000
Chromium, Total	7440-47-3	50	52.75	729.5	720.9	201.6
Cobalt, Total	7440-48-4	NS	39.63	431.7	413.8	259.3
Copper, Total	7440-50-8	200	178.5	796	640.8	658
Iron, Total	7439-89-6	300	36,900	185,000	200,000	163000
Lead, Total	7439-92-1	25	159.2	345.2	414.5	655.4
Magnesium, Total	7439-95-4	35000	36,300	186,000	102,000	139000
Manganese, Total	7439-96-5	300	2,240	40,060	33,430	33210
Mercury, Total	7439-97-6	0.7	0.17 J	0.39	0.2 U	0.48
Nickel, Total	7440-02-0	100	316.2	5,336	2,916	19300
Potassium, Total	7440-09-7	NS	12,200	25,800	23,400	41700
Selenium, Total	7782-49-2	10	6.26	53.6	64.6	116
Silver, Total	7440-22-4	50	0.72	0.44	0.22 J	1.78
Sodium, Total	7440-23-5	20000	119,000	47,500	15,300	36600
Thallium, Total	7440-28-0	0.5	0.54 J	1.08	3.49	1.21
Vanadium, Total	7440-62-2	NS	56.78	138.3	243.3	131.2
Zinc, Total	7440-66-6	2000	296.5	1,345	941	1416

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Highlighted text denotes concentrations exceeding the NYSDEC AWQS

Table 9  
Pesticides and PCBs Groundwater Analytical Data  
2359 Bedford Avenue and 2307 Beverly Road, Brooklyn, New York

Sample ID: Sample Date: Lab Sample ID:	CasNum	NY-AWQS <sup>1</sup>	GW-1 2/1/2022 L2205287-05	GW-2 2/1/2022 L2205287-06	GW-3 1/28/2022 L2204927-06	GW-4 2/1/2022 L2205390-02
<b>Organochlorine Pesticides by GC in µg/L</b>						
4,4'-DDD	72-54-8	0.3	0.029 U	0.029 U	0.029 U	0.029 U
4,4'-DDE	72-55-9	0.2	0.029 U	0.029 U	0.029 U	0.029 U
4,4'-DDT	50-29-3	0.2	0.029 U	0.029 U	0.012 J	0.029 U
Aldrin	309-00-2	0	0.014 U	0.014 U	0.014 U	0.014 U
Alpha-BHC	319-84-6	0.01	0.014 U	0.014 U	0.014 U	0.014 U
Beta-BHC	319-85-7	0.04	0.014 U	0.014 U	0.014 U	0.014 U
Chlordane	57-74-9	0.05	0.143 U	0.143 U	0.711	0.143 U
cis-Chlordane	5103-71-9	NS	0.014 U	0.014 U	0.1	0.014 U
Delta-BHC	319-86-8	0.04	0.014 U	0.014 U	0.014 U	0.014 U
Dieldrin	60-57-1	0.004	0.029 U	0.029 U	0.029 U	0.029 U
Endosulfan I	959-98-8	NS	0.014 U	0.014 U	0.014 U	0.014 U
Endosulfan II	33213-65-9	NS	0.029 U	0.029 U	0.029 U	0.029 U
Endosulfan sulfate	1031-07-8	NS	0.029 U	0.029 U	0.029 U	0.029 U
Endrin	72-20-8	0	0.029 U	0.029 U	0.029 U	0.029 U
Endrin aldehyde	7421-93-4	5	0.029 U	0.029 U	0.029 U	0.029 U
Endrin ketone	53494-70-5	5	0.029 U	0.029 U	0.029 U	0.029 U
Heptachlor	76-44-8	0.04	0.014 U	0.014 U	0.011 J	0.014 U
Heptachlor epoxide	1024-57-3	0.03	0.014 U	0.014 U	0.014 U	0.014 U
Lindane	58-89-9	0.05	0.014 U	0.014 U	0.014 U	0.014 U
Methoxychlor	72-43-5	35	0.143 U	0.143 U	0.143 U	0.143 U
Toxaphene	8001-35-2	0.06	0.143 U	0.143 U	0.143 U	0.143 U
trans-Chlordane	5103-74-2	NS	0.014 U	0.014 U	0.07 IP	0.014 U
<b>Polychlorinated Biphenyls by GC in µg/L</b>						
Aroclor 1016	12674-11-2	0.09	0.0333 U	0.0335 U	0.071 U	0.071 U
Aroclor 1221	11104-28-2	0.09	0.0333 U	0.0335 U	0.071 U	0.071 U
Aroclor 1232	11141-16-5	0.09	0.0333 U	0.0335 U	0.071 U	0.071 U
Aroclor 1242	53469-21-9	0.09	0.0333 U	0.0335 U	0.071 U	0.071 U
Aroclor 1248	12672-29-6	0.09	0.0333 U	0.0335 U	0.071 U	0.071 U
Aroclor 1254	11097-69-1	0.09	0.0333 U	0.0335 U	0.071 U	0.071 U
Aroclor 1260	11096-82-5	0.09	0.0333 U	0.0335 U	0.071 U	0.071 U
Aroclor 1262	37324-23-5	0.09	0.0333 U	0.0335 U	0.071 U	0.071 U
Aroclor 1268	11100-14-4	0.09	0.0333 U	0.0335 U	0.071 U	0.071 U
PCBs, Total	1336-36-3		0.0333 U	0.0335 U	0.071 U	0.071 U

Notes:

- (1) - NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.
- (2) - NY-RESR: New York NYCRR Part 375 Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.
- (3) - NY-RESRR: New York NYCRR Part 375 Restricted-Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.
- (4) - NY-RESC: New York NYCRR Part 375 Commercial Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

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Table 10  
PFAS Groundwater  
Analytical Data  
2359 Bedford Avenue and 2307 Beverly Road, Brooklyn, New York

Sample ID:	CasNum	NY-AWQS <sup>1</sup>	GW-1 2/1/2022 L2205287-05	GW-2 2/1/2022 L2205287-06	GW-3 1/28/2022 L2204927-06	GW-4 2/1/2022 L2205287-06
<b>Perfluorinated Alkyl Acids by Isotope Dilution in µg/L</b>						
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	39108-34-4		0.00191 U	0.00188 U	0.01 U	0.00196 U
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	27619-97-2		0.00191 U	0.00188 U	0.01 U	0.00196 U
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NETFOSAA)	2991-50-6		0.00191 U	0.00188 U	0.01 U	0.00196 U
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	2355-31-9		0.00191 U	0.00188 U	0.01 U	0.00196 U
Perfluorobutanesulfonic Acid (PFBS)	375-73-5		0.00305	0.00331	0.00384 J	0.00493
Perfluorobutanoic Acid (PFBA)	375-22-4		0.0107	0.00703	0.0125	0.0137
Perfluorodecanesulfonic Acid (PFDS)	335-77-3		0.00191 U	0.00188 U	0.01 U	0.00196 U
Perfluorodecanoic Acid (PFDA)	335-76-2		0.00169 JF	0.00379	0.0016 JF	0.0009 J
Perfluorododecanoic Acid (PFDoA)	307-55-1		0.000416 JF	0.00188 U	0.01 U	0.00196 U
Perfluoroheptanesulfonic Acid (PFHpS)	375-92-8		0.00191 U	0.000672 J	0.01 U	0.00196 U
Perfluoroheptanoic Acid (PFHpA)	375-85-9		0.0213	0.00859	0.0101	0.0175
Perfluorohexanesulfonic Acid (PFHxS)	355-46-4		0.00792	0.00408	0.0036 J	0.0032
Perfluorohexanoic Acid (PFHxA)	307-24-4		0.0118	0.0111	0.0157	0.022
Perfluorononanoic Acid (PFNA)	375-95-1		0.00293	0.00439	0.0078 J	0.00377
Perfluorooctanesulfonamide (FOSA)	754-91-6		0.00191 U	0.00188 U	0.01 U	0.00196 U
Perfluorooctanesulfonic Acid (PFOS)	1763-23-1	0.01	0.0253	0.0718	0.161	0.0431
Perfluorooctanoic Acid (PFOA)	335-67-1	0.01	0.041	0.0437	0.128	0.0823
Perfluoropentanoic Acid (PFPeA)	2706-90-3		0.0142	0.0128	0.024	0.0406
Perfluorotetradecanoic Acid (PFTA)	376-06-7		0.00191 U	0.00188 U	0.01 U	0.00196 U
Perfluorotridecanoic Acid (PFTrDA)	72629-94-8		0.00191 U	0.00188 U	0.01 U	0.00196 U
Perfluoroundecanoic Acid (PFUnA)	2058-94-8		0.00109 JF	0.00159 J	0.01 U	0.00196 U
PFOA/PFOS, Total			0.0663	0.116	0.289	0.125
<b>Perfluorinated Alkyl Acids by Isotope Dilution in µg/L</b>						
1,4-Dioxane	123-91-1		0.15 U	0.0398 J	0.156 U	0.15 U

Notes:

- (1) - NY-UNRES: New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.
- (2) - NY-RESR: New York NYCRR Part 375 Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.
- (3) - NY-RESRR: New York NYCRR Part 375 Restricted-Residential Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.
- (4) - NY-RESC: New York NYCRR Part 375 Commercial Criteria, New York Restricted use Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

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Highlighted text denotes concentrations exceeding the NYSDEC Unrestricted Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Residential Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Restricted-Residential Use SCO

Highlighted text denotes concentrations exceeding the NYSDEC Commercial Use SCO

Table 11  
VOC Soil Vapor Analytical Data  
2359 Bedford Avenue and 2307 Beverly Road, Brooklyn, New York

Sample ID:	CasNum	SS-1	SS-2	SS-3	SS-4	SV-1	SV-2
Sampling Date:		1/28/2022	1/28/2022	1/28/2022	1/28/2022	2/1/2022	2/1/2022
Lab Sample ID:		L2204894-01	L2204894-02	L2204894-03	L2204894-04	L2205356-03	L2205356-04
<b>Volatile Organics by GC/MS (UG/L)</b>							
1,1,1-Trichloroethane	71-55-6	1.09 U	1.09 U	1.33 U	1.3 U	1.09 U	1.09 U
1,1,2,2-Tetrachloroethane	79-34-5	1.37 U	1.37 U	1.68 U	1.63 U	1.37 U	1.37 U
1,1,2-Trichloroethane	79-00-5	1.09 U	1.09 U	1.33 U	1.3 U	1.09 U	1.09 U
1,1-Dichloroethane	75-34-3	0.809 U	0.809 U	0.988 U	0.963 U	0.809 U	0.809 U
1,1-Dichloroethene	75-35-4	0.793 U	0.793 U	0.967 U	0.944 U	0.793 U	0.793 U
1,2,4-Trichlorobenzene	120-82-1	1.48 U	1.48 U	1.81 U	1.77 U	1.48 U	1.48 U
1,2,4-Trimethylbenzene	95-63-6	3.07	1.7	2.26	3.11	2.42	3.3
1,2-Dibromoethane	106-93-4	1.54 U	1.54 U	1.88 U	1.83 U	1.54 U	1.54 U
1,2-Dichlorobenzene	95-50-1	1.2 U	1.2 U	1.47 U	1.43 U	1.2 U	1.2 U
1,2-Dichloroethane	107-06-2	0.809 U	0.809 U	0.988 U	0.963 U	0.809 U	0.809 U
1,2-Dichloropropane	78-87-5	0.924 U	0.924 U	1.13 U	1.1 U	0.924 U	0.924 U
1,3,5-Trimethylbenzene	108-67-8	0.983 U	0.983 U	1.2 U	1.17 U	0.983 U	0.983 U
1,3-Butadiene	106-99-0	0.442 U	0.442 U	2.65	4.11	2.01	2.94
1,3-Dichlorobenzene	541-73-1	1.2 U	1.2 U	1.47 U	1.43 U	1.2 U	1.2 U
1,4-Dichlorobenzene	106-46-7	1.2 U	1.2 U	1.47 U	1.43 U	1.2 U	1.2 U
1,4-Dioxane	123-91-1	0.721 U	0.721 U	0.879 U	0.858 U	0.721 U	0.721 U
2,2,4-Trimethylpentane	540-84-1	0.934 U	1.05	3.2	8.59	0.934 U	1.07
2-Butanone	78-93-3	10.1	4.98	2.87	8.14	11.8	8.49
2-Hexanone	591-78-6	0.82 U	0.82 U	1 U	0.975 U	2.91	4.51
3-Chloropropene	107-05-1	0.626 U	0.626 U	0.764 U	0.745 U	0.626 U	0.626 U
4-Ethyltoluene	622-96-8	0.983 U	0.983 U	1.2 U	1.17 U	0.983 U	0.983 U
4-Methyl-2-pentanone	108-10-1	2.05 U	2.05 U	12.7	15.4	2.05 U	2.05 U
Acetone	67-64-1	295	169	20.2	161	43.2	42.5
Benzene	71-43-2	1.69	2.44	5.88	15.5	4.15	5.69
Benzyl chloride	100-44-7	1.04 U	1.04 U	1.26 U	1.23 U	1.04 U	1.04 U
Bromodichloromethane	75-27-4	1.34 U	1.34 U	1.63 U	1.59 U	1.34 U	1.34 U
Bromoform	75-25-2	2.07 U	2.07 U	2.52 U	2.46 U	2.07 U	2.07 U
Bromomethane	74-83-9	0.777 U	0.777 U	0.947 U	0.924 U	0.777 U	0.777 U
Carbon disulfide	75-15-0	0.623 U	0.623 U	0.76 U	0.741 U	5.92	3.77
Carbon tetrachloride	56-23-5	1.26 U	1.26 U	1.53 U	1.5 U	1.26 U	1.26 U
Chlorobenzene	108-90-7	0.921 U	0.921 U	1.12 U	1.1 U	0.921 U	0.921 U
Chloroethane	75-00-3	0.528 U	0.528 U	0.644 U	0.628 U	7.42	1.34
Chloroform	67-66-3	4.47	0.977 U	1.19 U	1.16 U	0.977 U	0.977 U
Chloromethane	74-87-3	0.442	0.865	0.948	1.4	0.964	0.865
cis-1,2-Dichloroethene	156-59-2	0.793 U	0.793 U	0.967 U	0.944 U	0.793 U	0.793 U
cis-1,3-Dichloropropene	10061-01-5	0.908 U	0.908 U	1.11 U	1.08 U	0.908 U	0.908 U
Cyclohexane	110-82-7	0.709	0.74	1.87	3.24	1.3	1.53
Dibromochloromethane	124-48-1	1.7 U	1.7 U	2.08 U	2.03 U	1.7 U	1.7 U
Dichlorodifluoromethane	75-71-8	2.82	2.61	2.44	2.45	2.6	2.41
Ethanol	64-17-5	38.8	25.8	11.5 U	52.6	11.9	9.78
Ethyl Acetate	141-78-6	1.8 U	1.8 U	2.2 U	2.14 U	1.8 U	1.8 U
Ethylbenzene	100-41-4	8.73	14.3	6.95	118	3.75	4.95
Freon-113	76-13-1	1.53 U	1.53 U	1.87 U	1.82 U	1.53 U	1.53 U
Freon-114	76-14-2	1.4 U	1.4 U	1.71 U	1.66 U	1.4 U	1.4 U
Heptane	142-82-5	4.34	2.8	25	24.8	6.52	12.6
Hexachlorobutadiene	87-68-3	2.13 U	2.13 U	2.6 U	2.54 U	2.13 U	2.13 U
Isopropanol	67-63-0	7.79	10.8	1.5 U	4.47	4.01	2.24
Methyl tert butyl ether	1634-04-4	0.721 U	0.721 U	0.88 U	0.858 U	0.721 U	0.721 U
Methylene chloride	75-09-2	1.74 U	1.74 U	2.12 U	2.07 U	1.74 U	1.74 U
n-Hexane	110-54-3	19.1	7.26	116	83.9	10.2	21.9
o-Xylene	95-47-6	8.95	29.5	5.95	67.8	4.07	5.13
p/m-Xylene	179601-23-1	21.6	53.4	15.8	249	14.5	18.4
Styrene	100-42-5	0.852 U	0.852 U	1.04 U	1.01 U	0.852 U	0.852 U
Tertiary butyl Alcohol	75-65-0	27.9	3.97	1.85 U	1.8 U	1.52 U	1.52 U
Tetrachloroethene	127-18-4	2.39	3.8	11.8	2.05	1.36 U	1.36 U
Tetrahydrofuran	109-99-9	5.99	1.47 U	2.06	6.96	1.47 U	1.47 U
Toluene	108-88-3	6.75	18.8	28	67.1	16.8	20.2
trans-1,2-Dichloroethene	156-60-5	0.793 U	0.793 U	0.967 U	0.944 U	0.793 U	0.793 U
trans-1,3-Dichloropropene	10061-02-6	0.908 U	0.908 U	1.11 U	1.08 U	0.908 U	0.908 U
Trichloroethene	79-01-6	1.07 U	1.07 U	1.31 U	1.28 U	1.07 U	1.07 U
Trichlorofluoromethane	75-69-4	1.42	1.43	1.46	1.36	1.37	1.15
Vinyl bromide	593-60-2	0.874 U	0.874 U	1.07 U	1.04 U	0.874 U	0.874 U
Vinyl chloride	75-01-4	0.511 U	0.511 U	0.624 U	0.608 U	0.511 U	0.511 U

Notes:

U - Indicates the analyte was analyzed for but not detected.

Highlighted text denotes concentrations detected above laboratory detection limits

Table 11  
VOC Soil Vapor Analytical Data  
2359 Bedford Avenue and 2307 Beverly Road, Brooklyn, New York

Sample ID: Sampling Date: Lab Sample ID:	CasNum	SV-3 2/1/2022 L2205356-05	IA-1 1/28/2022 L2205356-03	IA-2 1/28/2022 L2205356-04	IA-3 1/28/2022 L2205356-05	OA-1 2/1/2022 L2205356-01	OA-2 2/1/2022 L2205356-02
<b>Volatile Organics by GC/MS (UG/L)</b>							
1,1,1-Trichloroethane	71-55-6	1.09 U	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U
1,1,2,2-Tetrachloroethane	79-34-5	1.37 U	1.37 U	1.37 U	1.37 U	1.37 U	1.37 U
1,1,2-Trichloroethane	79-00-5	1.09 U	1.09 U	1.09 U	1.09 U	1.09 U	1.09 U
1,1-Dichloroethane	75-34-3	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U
1,1-Dichloroethene	75-35-4	0.793 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U
1,2,4-Trichlorobenzene	120-82-1	1.48 U	1.48 U	1.48 U	1.48 U	1.48 U	1.48 U
1,2,4-Trimethylbenzene	95-63-6	2.5	0.983 U	3.65	0.983 U	0.983 U	0.983 U
1,2-Dibromoethane	106-93-4	1.54 U	1.54 U	1.54 U	1.54 U	1.54 U	1.54 U
1,2-Dichlorobenzene	95-50-1	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
1,2-Dichloroethane	107-06-2	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U	0.809 U
1,2-Dichloropropane	78-87-5	0.924 U	0.924 U	0.924 U	0.924 U	0.924 U	0.924 U
1,3,5-Trimethylbenzene	108-67-8	0.983 U	0.983 U	0.983 U	0.983 U	0.983 U	0.983 U
1,3-Butadiene	106-99-0	0.442 U	0.442 U	3.08	0.442 U	0.442 U	0.442 U
1,3-Dichlorobenzene	541-73-1	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
1,4-Dichlorobenzene	106-46-7	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
1,4-Dioxane	123-91-1	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U
2,2,4-Trimethylpentane	540-84-1	5.75	0.934 U	2.03	0.934 U	0.934 U	0.934 U
2-Butanone	78-93-3	1.51	1.47 U	1.47 U	1.47 U	1.47 U	1.47 U
2-Hexanone	591-78-6	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U	0.82 U
3-Chloropropene	107-05-1	0.626 U	0.626 U	0.626 U	0.626 U	0.626 U	0.626 U
4-Ethyltoluene	622-96-8	0.983 U	0.983 U	0.983 U	0.983 U	0.983 U	0.983 U
4-Methyl-2-pentanone	108-10-1	2.05 U	2.05 U	2.05 U	2.05 U	2.05 U	2.05 U
Acetone	67-64-1	62.5	7.93	5.87	9.48	6.34	6.1
Benzene	71-43-2	1.25	1.48	6.61	1.45	1.22	1.24
Benzyl chloride	100-44-7	1.04 U	1.04 U	1.04 U	1.04 U	1.04 U	1.04 U
Bromodichloromethane	75-27-4	1.34 U	1.34 U	1.34 U	1.34 U	1.34 U	1.34 U
Bromoform	75-25-2	2.07 U	2.07 U	2.07 U	2.07 U	2.07 U	2.07 U
Bromomethane	74-83-9	0.777 U	0.777 U	0.777 U	0.777 U	0.777 U	0.777 U
Carbon disulfide	75-15-0	0.623 U	0.623 U	0.623 U	0.623 U	0.623 U	0.623 U
Carbon tetrachloride	56-23-5	1.26 U	0.459	0.447	0.434	0.56	0.503
Chlorobenzene	108-90-7	0.921 U	0.921 U	0.921 U	0.921 U	0.921 U	0.921 U
Chloroethane	75-00-3	0.528 U	0.528 U	0.528 U	0.528 U	0.528 U	0.528 U
Chloroform	67-66-3	0.977 U	0.977 U	0.977 U	0.977 U	0.977 U	0.977 U
Chloromethane	74-87-3	1.36	1.11	1.07	1.25	1.51	1.41
cis-1,2-Dichloroethene	156-59-2	0.793 U	0.079 U	0.079 U	0.079 U	0.079 U	0.079 U
cis-1,3-Dichloropropene	10061-01-5	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U
Cyclohexane	110-82-7	0.688 U	0.688 U	0.926	0.688 U	0.688 U	0.688 U
Dibromochloromethane	124-48-1	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Dichlorodifluoromethane	75-71-8	2.55	2.66	2.63	2.52	2.86	2.67
Ethanol	64-17-5	24.5	28.8	30.5	31.1	21.5	16.6
Ethyl Acetate	141-78-6	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Ethylbenzene	100-41-4	0.969	0.869 U	1.93	0.869 U	0.869 U	0.869 U
Freon-113	76-13-1	1.53 U	1.53 U	1.53 U	1.53 U	1.53 U	1.53 U
Freon-114	76-14-2	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Heptane	142-82-5	0.82 U	0.82 U	1.9	0.82 U	0.82 U	0.82 U
Hexachlorobutadiene	87-68-3	2.13 U	2.13 U	2.13 U	2.13 U	2.13 U	2.13 U
Isopropanol	67-63-0	5.48	5.83	3.1	4.45	4.25	4.06
Methyl tert butyl ether	1634-04-4	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U	0.721 U
Methylene chloride	75-09-2	1.74 U	1.74 U	1.74 U	1.74 U	1.74 U	1.84
n-Hexane	110-54-3	1.1	0.92	3.18	0.856	0.705 U	0.705 U
o-Xylene	95-47-6	1.28	0.869 U	2.91	0.869 U	0.869 U	0.869 U
p/m-Xylene	179601-23-1	3.4	1.74 U	8.17	1.74 U	1.74 U	1.74 U
Styrene	100-42-5	0.852 U	0.852 U	0.852 U	0.852 U	0.852 U	0.852 U
Tertiary butyl Alcohol	75-65-0	1.52 U	1.52 U	1.52 U	1.52 U	1.52 U	1.52 U
Tetrachloroethene	127-18-4	1.36 U	0.448	0.312	0.481	0.298	0.305
Tetrahydrofuran	109-99-9	1.47 U	1.47 U	1.47 U	1.47 U	1.47 U	1.47 U
Toluene	108-88-3	3.43	2.07	11	1.88	2.77	2.61
trans-1,2-Dichloroethene	156-60-5	0.793 U	0.793 U	0.793 U	0.793 U	0.793 U	0.793 U
trans-1,3-Dichloropropene	10061-02-6	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U	0.908 U
Trichloroethene	79-01-6	1.07 U	0.107 U	0.107 U	0.107 U	0.107 U	0.107 U
Trichlorofluoromethane	75-69-4	1.42	1.42	1.37	1.28	1.3	1.31
Vinyl bromide	593-60-2	0.874 U	0.874 U	0.874 U	0.874 U	0.874 U	0.874 U
Vinyl chloride	75-01-4	0.511 U	0.051 U	0.051 U	0.051 U	0.051 U	0.051 U

Notes:

U - Indicates the analyte was analyzed for but not detected.

Highlighted text denotes concentrations detected above laboratory detection limits



# APPENDIX A

## GEOPHYSICAL SURVEY REPORT

ARC2202 – Phase II ESA

**P.W. GROSSER CONSULTING, INC.**  
P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, P.C.

PHONE: 631.589.6353 630 JOHNSON AVENUE, STE 7  
PWGROSSER.COM BOHEMIA, NY 11716

LONG ISLAND • MANHATTAN • SARATOGA SPRINGS • SYRACUSE • SEATTLE • SHELTON



3 Mystic Lane  
Malvern, PA 19355  
(610) 722-5500 (ph.)  
(610) 722-0250 (fax)

February 4, 2022  
AGS Ref#: 22-118-1

Mr. Usman Chaudry  
P.W. Grosser Consulting  
630 Johnson Avenue, Suite 7  
Bohemia, New York 11716

**Subject:** Geophysical Investigation Report  
2359 Bedford Ave. & 2307 Beverly Road  
Brooklyn, New York

Dear Mr. Chaudry,

Advanced Geological Services (AGS) is submitting this letter report to PW Grosser. detailing the methods and results of the geophysical investigation conducted at the above referenced site. The subject properties are former commercial properties with large buildings and paved parking areas. The geophysical investigation was completed on January 26, 2022.

The objective of the geophysical investigation was to clear numerous proposed drilling locations of underground utilities and other potential drilling hazards. To achieve the investigation objectives AGS utilized a combination of the ground penetrating radar (GPR) method and the radio frequency (RF) utility locating method, and the handheld electromagnetic metal detection (MD) method.

### ***Methods***

#### ***Ground Penetrating Radar (GPR) Method***

The ground penetrating radar (GPR) method was used to confirm locations of utilities detected using the RF method; and to search for non-metallic utilities, and other potential targets of interest. The GPR method is based upon the transmission of repetitive, radio frequency electromagnetic (EM) pulses into the subsurface. When the transmitted energy of the down-going wave contacts an interface of dissimilar electrical character, part of the energy is returned to the surface in the form of a reflected signal. This reflected signal is detected by a receiving transducer and is displayed on the screen of the GPR unit as well as being recorded on the internal hard-drive. The received GPR response remains constant as long as the electrical contrast between media is present and constant. Lateral or vertical changes in the electrical properties of the subsurface result in equivalent changes in the GPR responses. The

system records a continuous image of the subsurface by plotting two-way travel time of the reflected EM pulse versus distance traveled along the ground surface. Two-way travel time values are then converted to depth using known soil velocity functions.

A Geophysical Survey System SIR System 3000 and a 400 megahertz (MHz) antenna were used with a recording window of 60 nanoseconds (ns) to provide the required depth penetration and subsurface detail.

The GPR field procedures involved (1) instrument calibration, (2) test run completion, (3) production profile collection and recording. For this investigation GPR data was collected with a data density sufficient to identify potential underground utilities, and other targets of interest within the designated survey area. GPR data was analyzed closely for targets in real time.

#### *Radio Frequency (RF) Utility Locating Method*

A Radiodetection RD4000 utility locating instrument was used to search for utilities. This instrument consists of a receiver/tracer and a remote transmitter which operates at multiple radio-frequencies (RF) ranging from 8 kHz to 65 kHz. The receiver unit detects a transmitted RF signal, as well as standard 60 Hz electrical power lines and broad-band RF signals when operated in passive detection modes. This utility tracing instrument is an analog device which provides visual and audible feedback to the operator when a utility coupled with the transmitted signal is crossed. The transmitter produces a radio-frequency signal in the utility to be traced by either induction coupling or direct hook-up. The receiver output varies an audible pitch depending upon how far the utility is from the receiver. By carefully adjusting the gain of the receiver it is possible to determine the location of the utility and to separate it from adjacent utilities. The RF instrument is also capable of providing a depth estimate to the utility being traced based on the vertical gradient of the received RF signal strength.

Passive detection scanning techniques, and direct hook-up techniques were used during this investigation.

#### *Hand Held Metal Detection (MD) Method*

The area of investigation was scanned using a hand held metal detection (MD) instrument. This method uses the principle of electromagnetic induction to detect shallow buried metal objects such as USTs, metal utility conduits, manhole covers, and various metallic debris. This is done by carrying a hand-held radio transmitter-receiver unit above the ground and continuously scanning the surface. A primary coil broadcasts a radio signal from a transmitter. This primary radio signal induces secondary electrical currents in metal objects. These secondary currents in turn produce a magnetic field which is detected by the receiver.

The MD instrument used for this investigation was a Fisher TW-6 pipe and cable locator. This

instrument is expressly designed to detect metallic pipes, cables, USTs, manhole covers, and other buried metallic objects. The instrument produces an audible response and significant meter deflections when near a metal object. The peak instrument response usually occurs when the unit is directly over the object.

The MD method does not allow for data recording and was operated in search mode to identify potential metal targets.

### ***Results and Discussion***

AGS utilized a combination of the above detailed geophysical methods to complete the investigation objective. AGS cleared numerous proposed drilling locations of identifiable underground utilities and other potential drilling hazards. The proposed drilling locations are located on both of the subject properties, and inside and outside of the buildings.

AGS cleared numerous proposed drilling locations during the geophysical investigation. Several proposed drilling locations are associated with floor drains, identified and marked inside the buildings. Electric lines, storm drain lines, and unknown utilities were also identified in proximity to several proposed drilling locations. If a proposed drilling location was deemed to be too close to an identified utility, the location was relocated at the discretion of the PWG representative. Final cleared drilling locations and any identified utilities were marked on the ground using spray paint. Identified utilities were marked in accordance with the American Public Workers Association uniform color code. The locations of identified features were recorded as detailed field sketches.

### ***Summary and Closing***

In summary, AGS cleared numerous proposed drilling locations of underground utilities and other potential drilling hazards. The results of the geophysical investigation were discussed with the PWG representative at the completion of field work.

The data collection and interpretation methods used in this investigation are consistent with standard practices applied to similar geophysical investigations. The correlation of geophysical responses with probable subsurface features is based on past results of similar surveys, although it is possible that some variation could exist at this site. Due to the nature of geophysical data, no guarantees can be made or implied regarding the presence or absence of additional buried materials, and other potential targets of interest beyond those identified.

If you have any questions, please contact me by phone 610-722-5500 or via email. It was a pleasure working with you on this project, and we look forward to conducting geophysical investigations for you in the future.

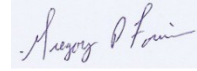
Sincerely,

Mr. Usman Chaudry

February 4, 2022

22-118-1

Page 4


A handwritten signature in blue ink, appearing to read "Gregory D Fournier", is enclosed in a light blue rectangular box.

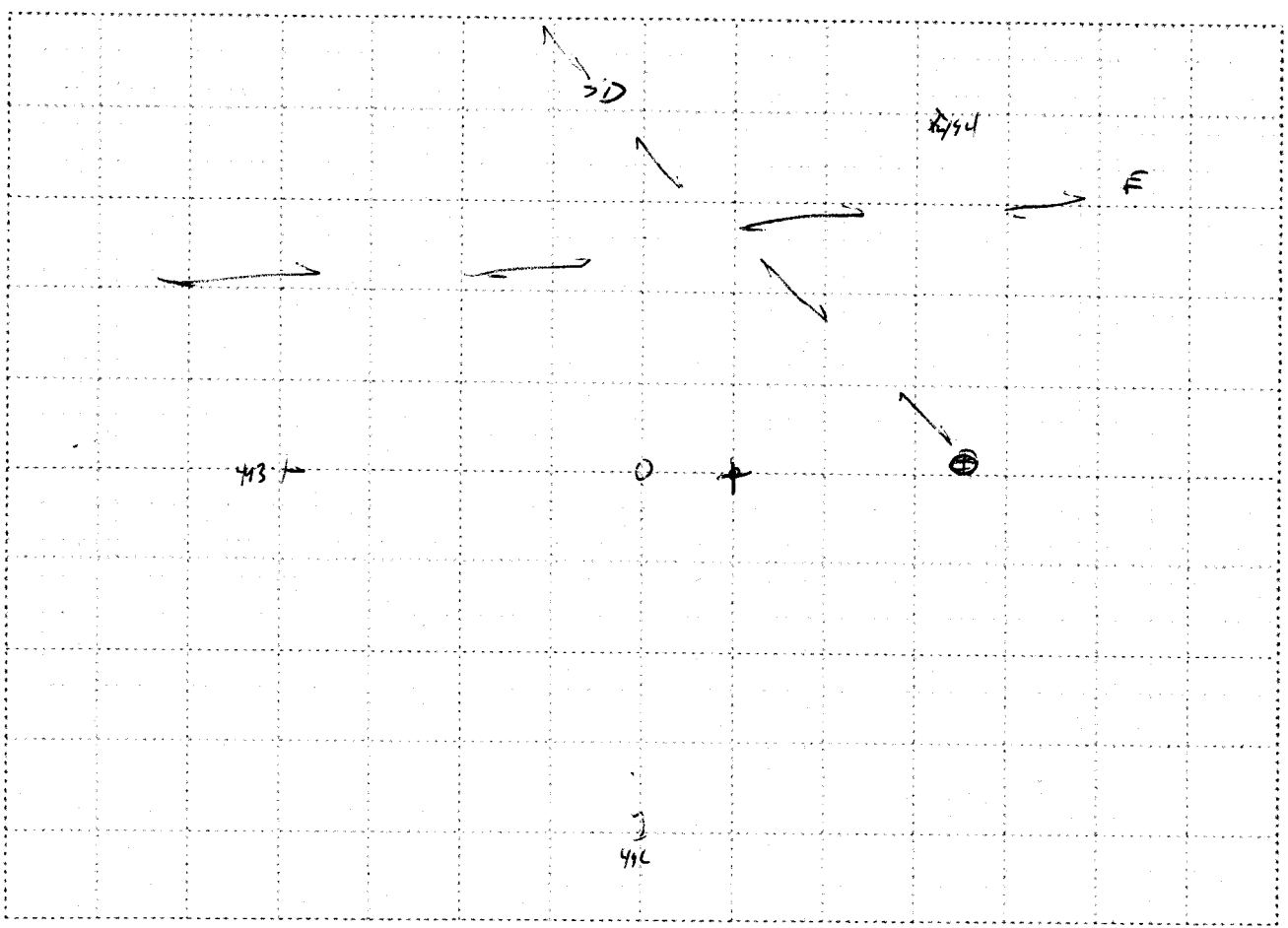
Greg Fournier

Project Geophysicist

Enclosed: Field Sketches




CLIENT: PWC	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION:		DATE:
Scars		AGS REF #:
BORING: S#1		MISC:

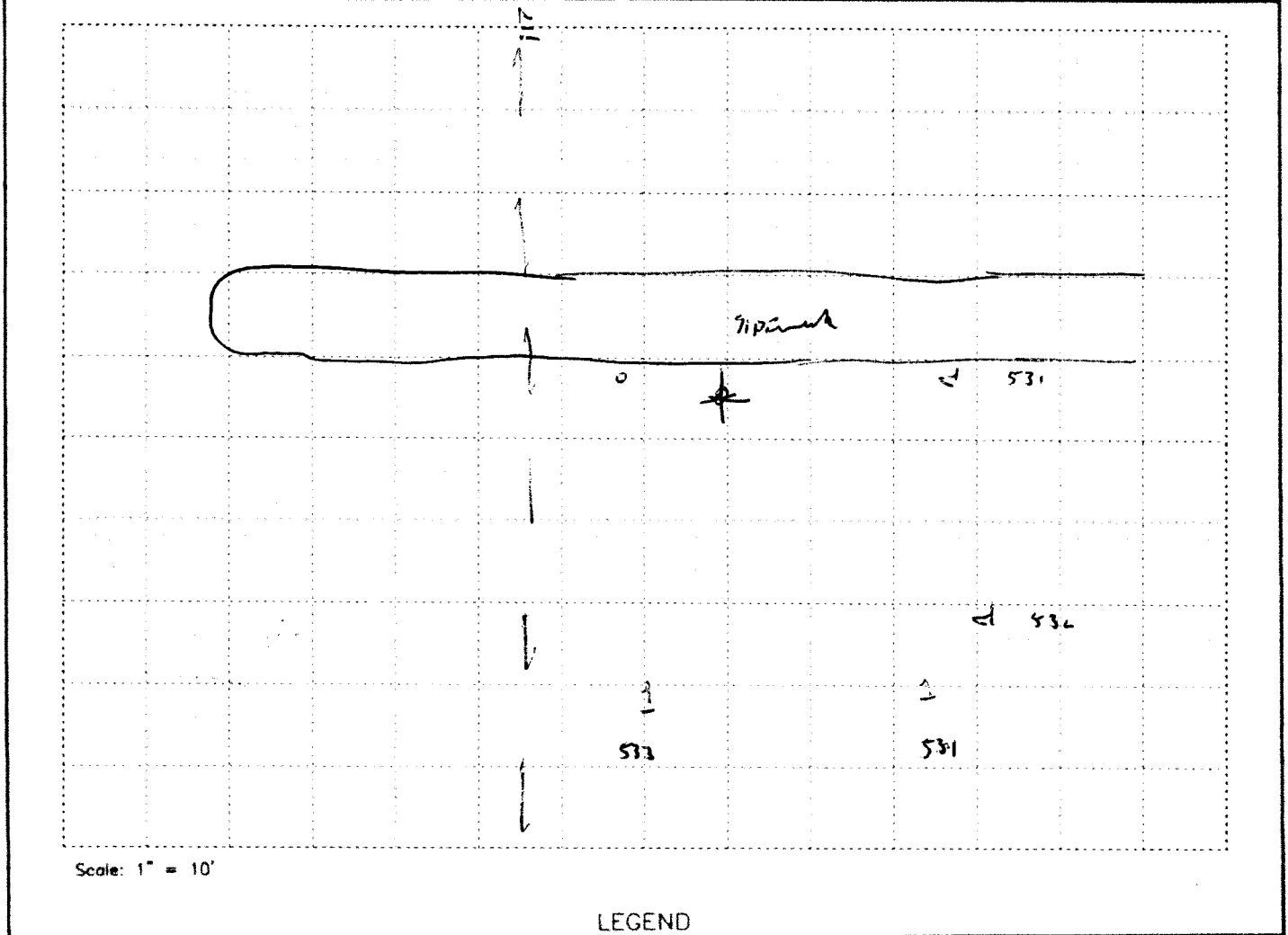


**LEGEND**

<u>Detected Utilities</u>	<u>Equipment/Procedure</u>	<u>Ground Conditions</u>	<u>Boring/GPR/Utility/Misc. Information</u>
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Faint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>--- Utility Alignment</li> <li>— GPR Traverse</li> <li>→ Localized GPR Anomaly</li> </ul>

NOTES:


CLIENT: <i>fwg-</i>	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION:  <i>Leas</i>		DATE:
BORING: <i>SV4</i>		AGS REF #:
		MISC:

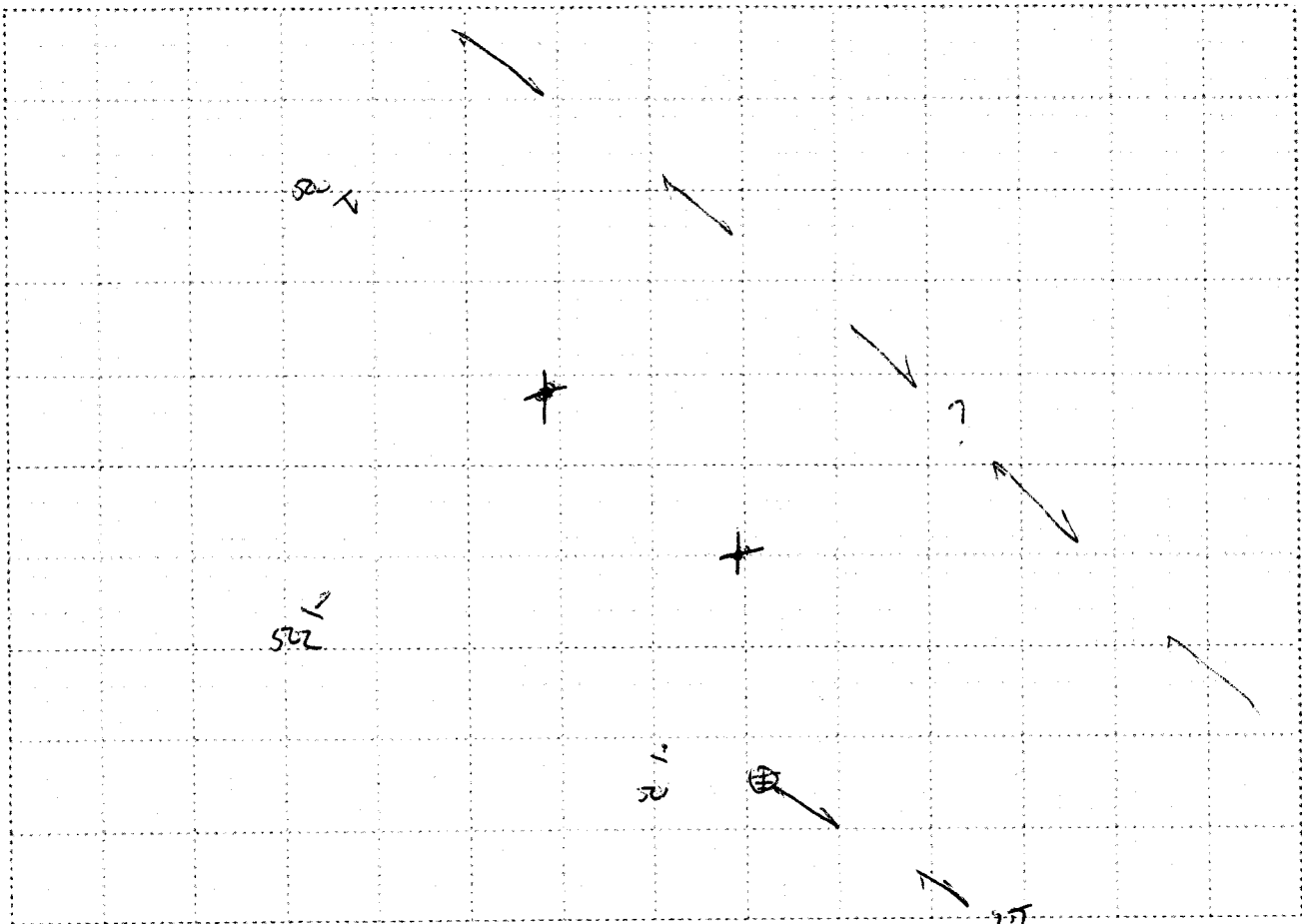


**LEGEND**

<u>Detected Utilities</u>	<u>Equipment/Procedure</u>	<u>Ground Conditions</u>	<u>Boring/GPR/Utility/Misc. Information</u>
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Faint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>--- Utility Alignment</li> <li>— GPR Traverse</li> <li>↔ Localized GPR Anomaly</li> </ul>

NOTES:

CLIENT: <i>PWG</i>	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION:  <i>SUBS</i>		DATE:
BORING: <i>SU2, SBI</i>		AGS REF #:
		MISC:



Scale: 1" = 10'

**LEGEND**

<u>Detected Utilities</u>	<u>Equipment/Procedure</u>	<u>Ground Conditions</u>	<u>Boring/GPR/Utility/Misc. Information</u>
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Faint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>--- Utility Alignment</li> <li>— GPR Traverse</li> <li>→ Localized GPR Anomaly</li> </ul>

NOTES:

CLIENT: DWG

SITE LOCATION:

Sears

BORING: SB2 SV3



ADVANCED  
GEOLOGICAL  
SERVICES

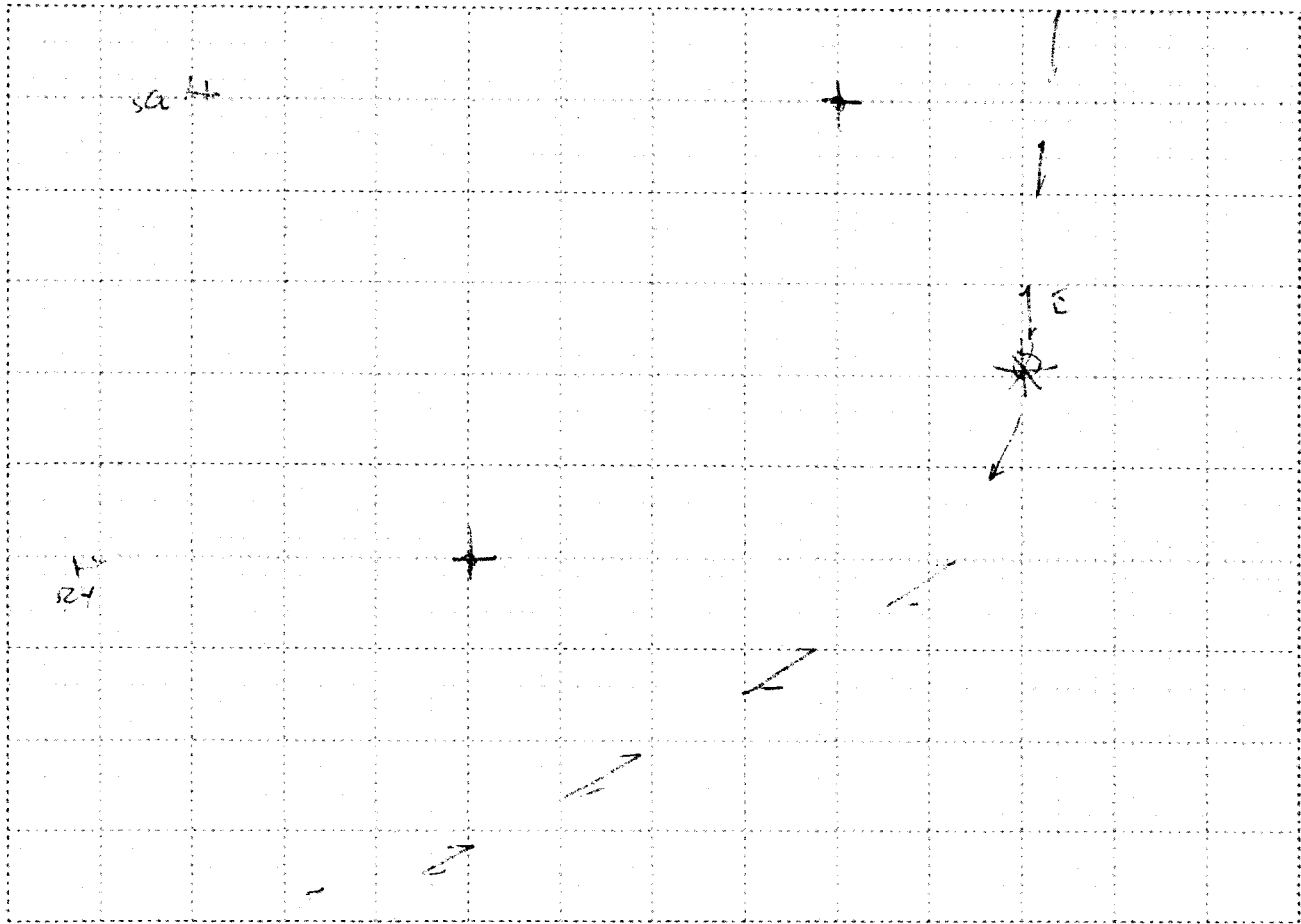
3 Mystic Lane  
Malvern, PA 19355  
(800) 250-3402  
www.advancedgeo.com

PERSONNEL:

DATE:

AGS REF #:

MISC:



Scale: 1" = 10'

LEGEND

Detected Utilities

- T (Telephone, Comm.)
- E (Electric)
- NG (Natural Gas)
- UU (Utility-Unknown Type)
- SS (Sanitary Sewer)
- SD (Storm Drain)
- W (Water)
- FS (Fire Suppression)
- STM (Steam)
- CA (Compressed Air)
- ? (Suspected Utility Based on Faint/Ambiguous Response)

Equipment/Procedure

- Radio Freq. (RD4000)
  - Ambient
  - Direct Connect
  - Induction
- GPR (Radar)
- Metal Pipe and Cable Locator (M-Scope)
- Other


Ground Conditions

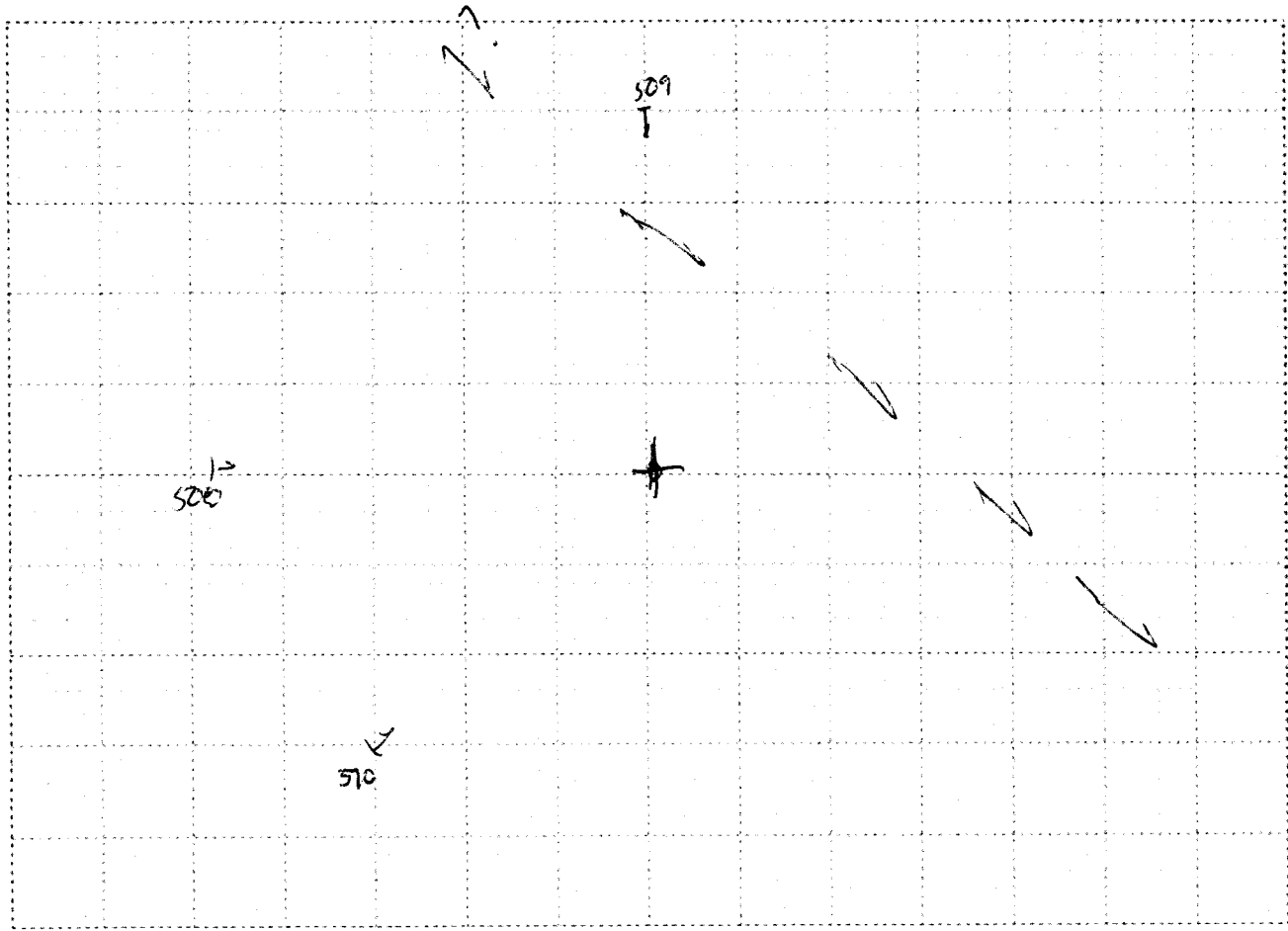
- RC (Reinforced Concrete)
- A (Asphalt)
- C (Concrete)
- Soil
- Gravel
- Grass
- Wet
- Dry
- Other

Boring/GPR/Utility/Misc. Information

- Proposed Boring Location (Per Client)
- Final Boring Location (Per AGS)
- Utility Alignment
- GPR Traverse
- Localized GPR Anomaly

NOTES:

CLIENT: <i>PWG</i>	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION:  <i>Sears</i>		DATE:
BORING: <i>SB3</i>		AGS REF #:
		MISC:




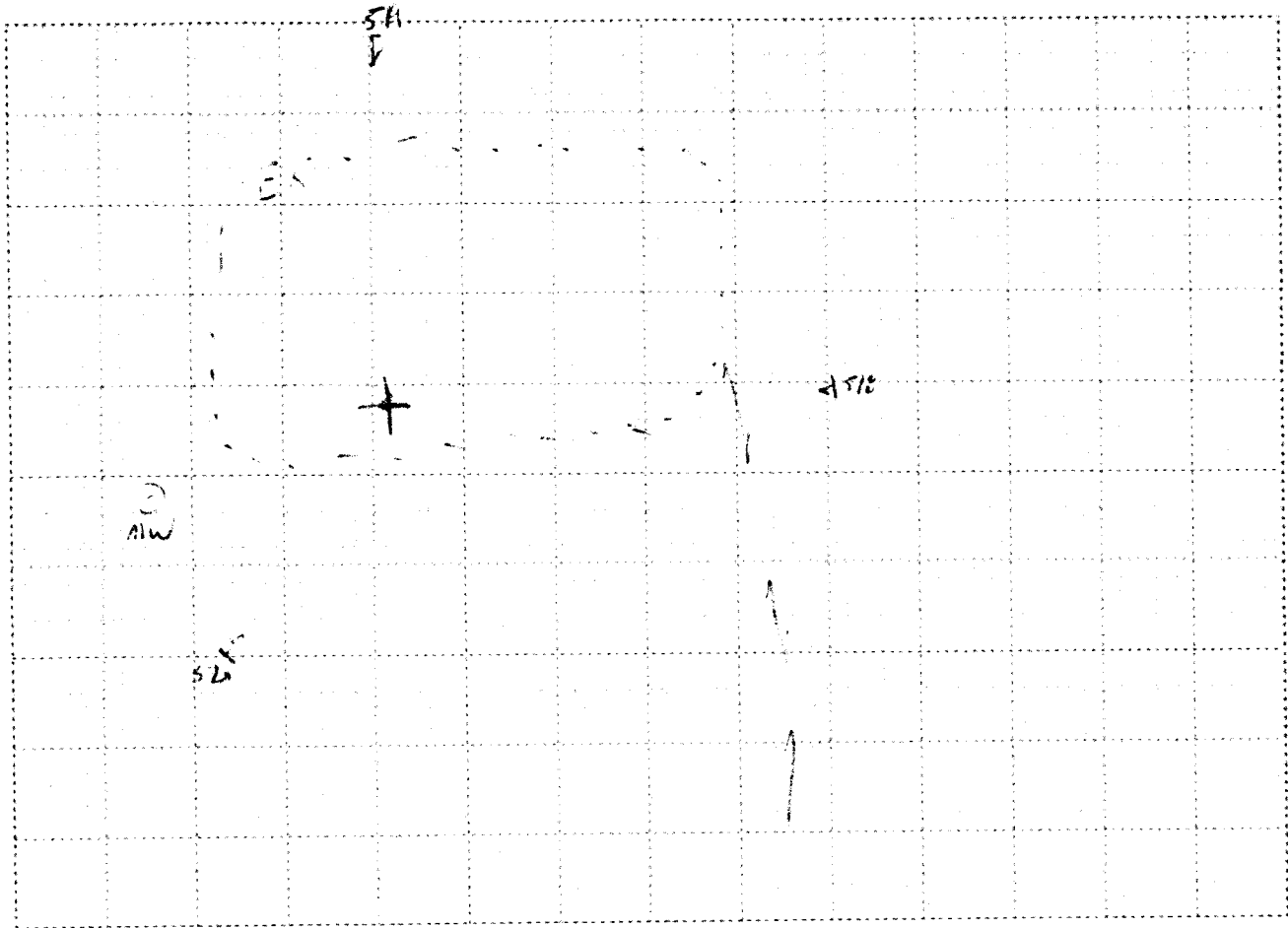
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**LEGEND**

<u>Detected Utilities</u>	<u>Equipment/Procedure</u>	<u>Ground Conditions</u>	<u>Boring/GPR/Utility/Misc. Information</u>
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Faint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>- - - Utility Alignment</li> <li>— GPR Traverse</li> <li>→ Localized GPR Anomaly</li> </ul>

NOTES:


CLIENT: <u>PWC</u>	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION: <u>S. C.</u>		DATE:
BORING: <u>SB4</u>		AGS REF #:
		MISC:

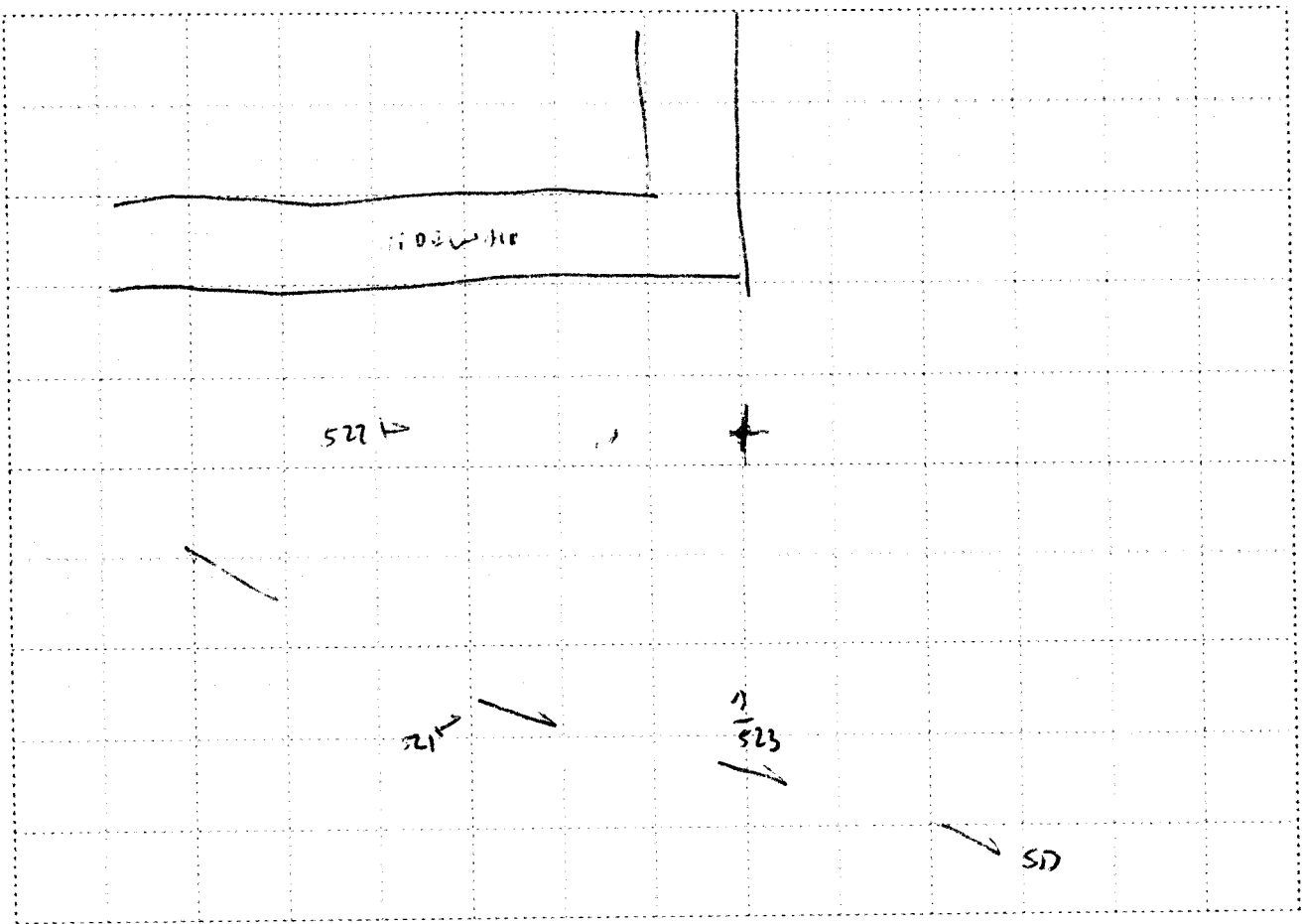


**LEGEND**

<u>Detected Utilities</u>	<u>Equipment/Procedure</u>	<u>Ground Conditions</u>	<u>Boring/GPR/Utility/Misc. Information</u>
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Faint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>- - - - Utility Alignment</li> <li>— GPR Traverse</li> <li>— Localized GPR Anomaly</li> </ul>

NOTES:

CLIENT:	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION:		DATE:
BORING: 524		AGS REF #:
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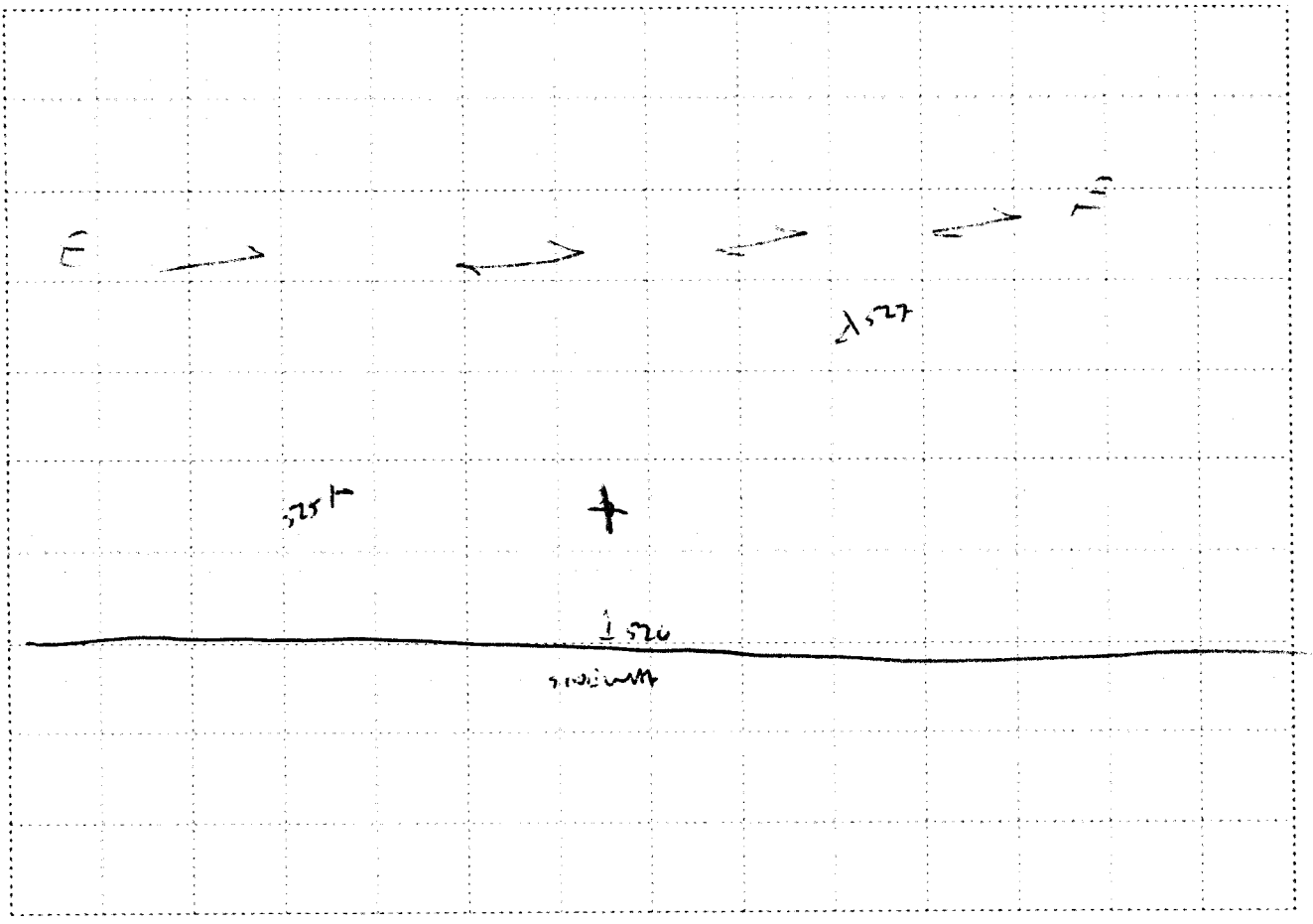
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LEGEND

Detected Utilities	Equipment/Procedure	Ground Conditions	Boring/GPR/Utility/Misc. Information
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Faint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>--- Utility Alignment</li> <li>— GPR Traverse</li> <li>→ Localized GPR Anomaly</li> </ul>

NOTES:

CLIENT: <b>FWG</b>	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION:  <b>GRAB</b>		DATE:
BORING: <b>SB5</b>		AGS REF #:
		MISC:




Scale: 1" = 10'

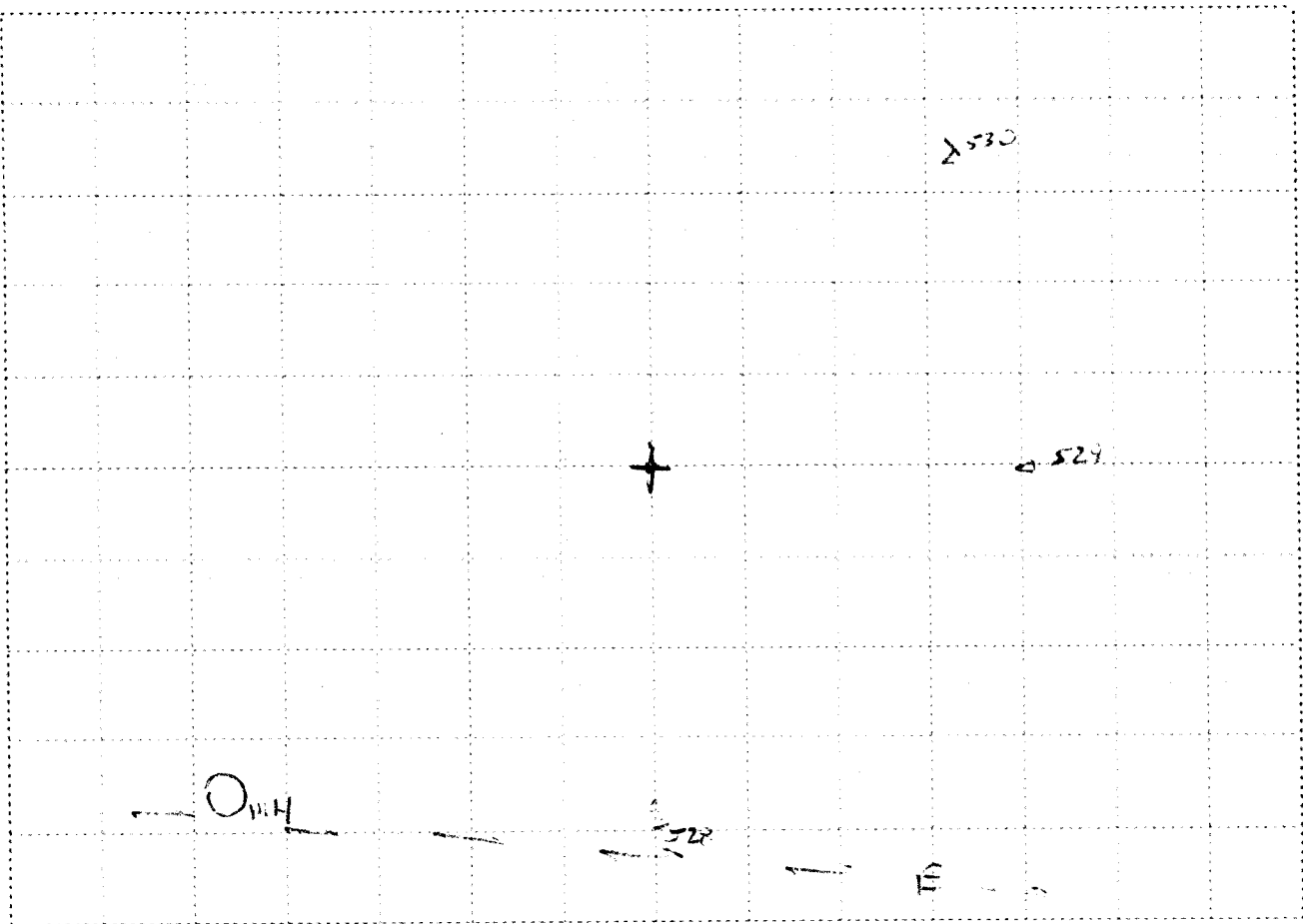
LEGEND

<u>Detected Utilities</u>	<u>Equipment/Procedure</u>	<u>Ground Conditions</u>	<u>Boring/GPR/Utility/Misc. Information</u>
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Faint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>--- Utility Alignment</li> <li>— GPR Traverse</li> <li>→ Localized GPR Anomaly</li> </ul>

NOTES:



CLIENT: <i>FWS</i>	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION:  <i>Sears</i>		DATE:
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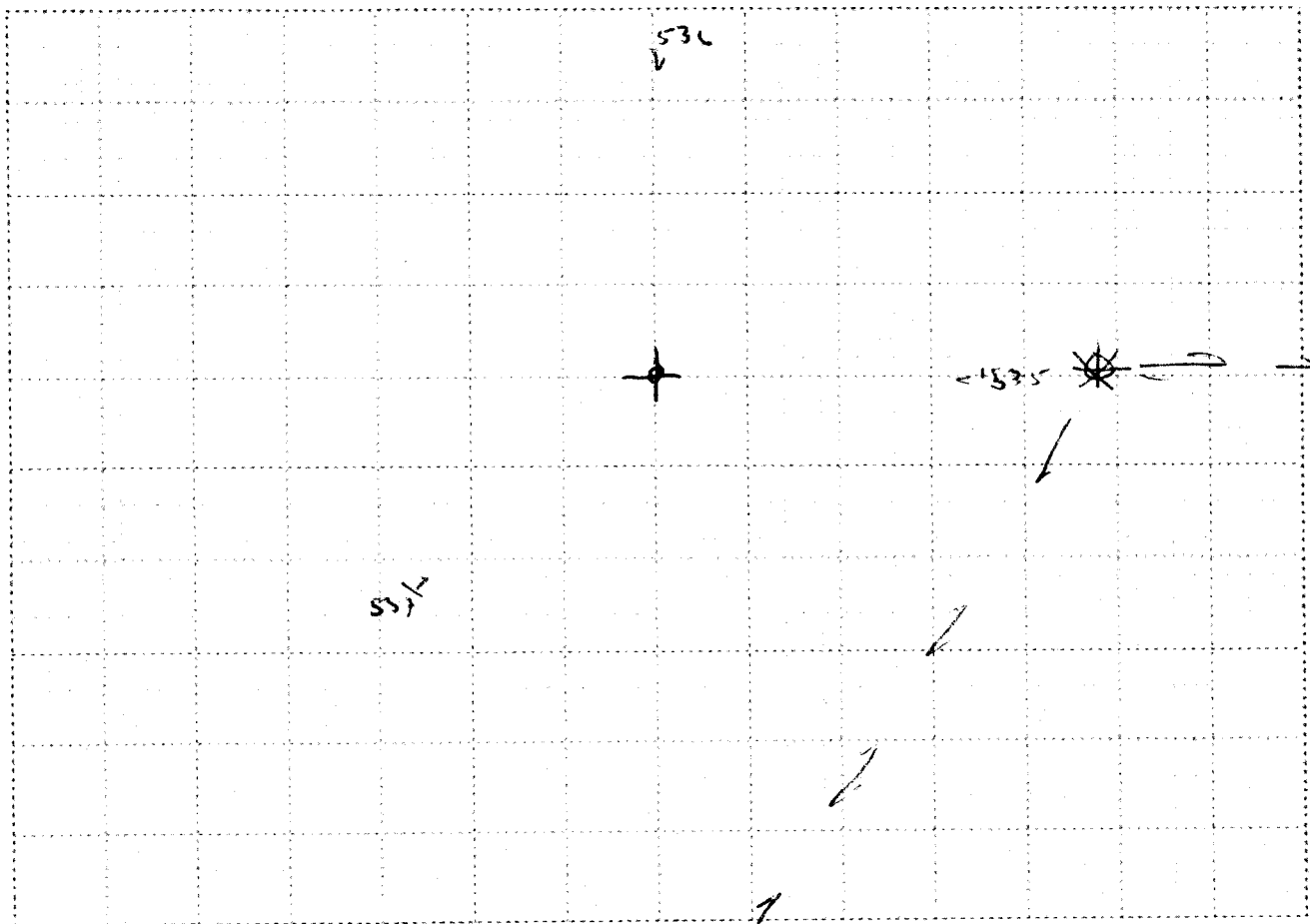
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**LEGEND**

<u>Detected Utilities</u>	<u>Equipment/Procedure</u>	<u>Ground Conditions</u>	<u>Boring/GPR/Utility/Misc. Information</u>
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Faint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>- - - Utility Alignment</li> <li>— — — GPR Traverse</li> <li>— Localized GPR Anomaly</li> </ul>

NOTES:

CLIENT:	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION:  Sears		DATE:
BORING: S37		AGS REF #:
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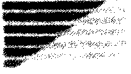


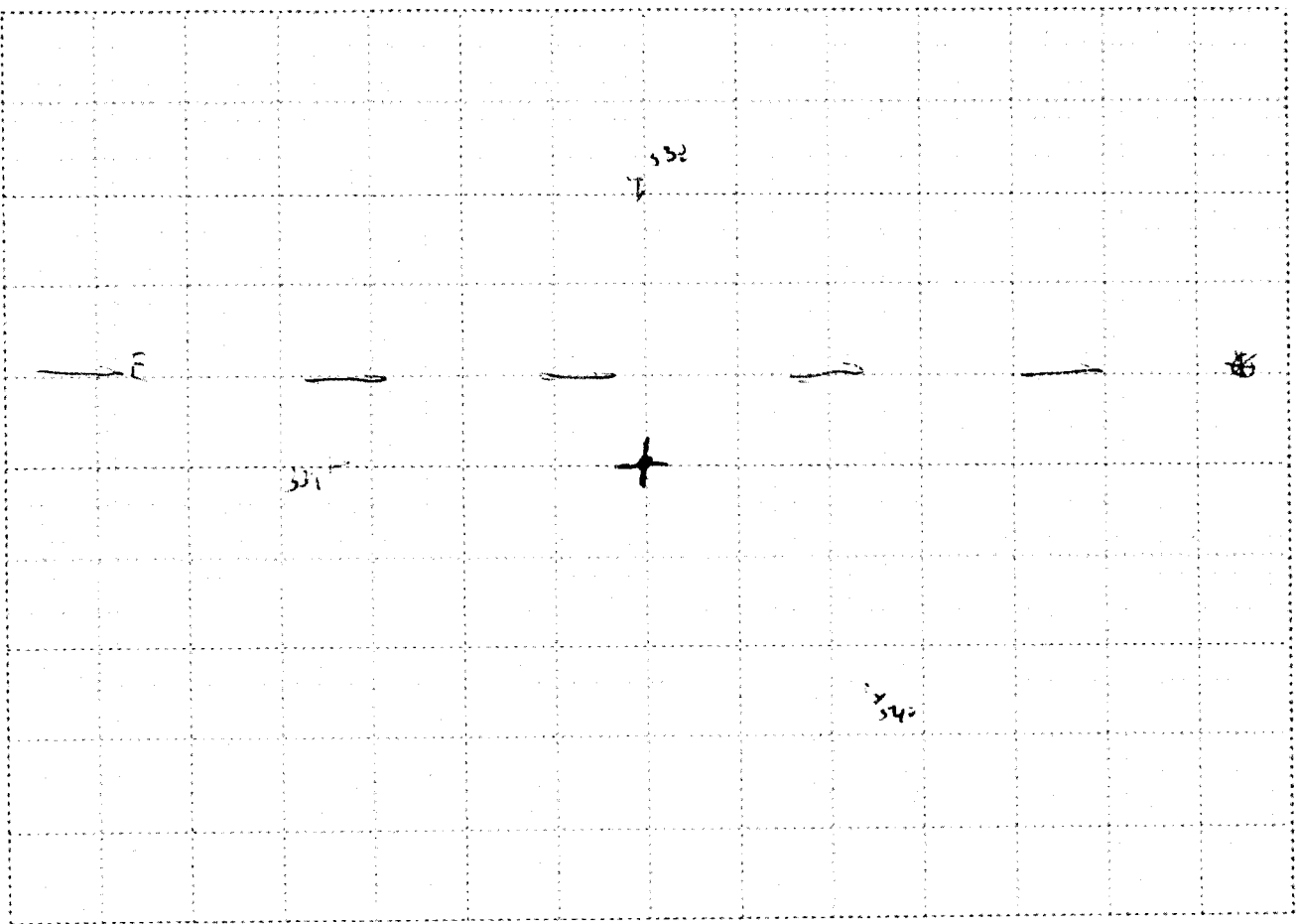
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LEGEND

<u>Detected Utilities</u>	<u>Equipment/Procedure</u>	<u>Ground Conditions</u>	<u>Boring/GPR/Utility/Misc. Information</u>
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Faint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>- - - Utility Alignment</li> <li>— GPR Traverse</li> <li>★ Localized GPR Anomaly</li> </ul>

NOTES:

CLIENT: jwg	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION:  Sears		DATE:
BORING: S38		AGS REF #:
		MISC:




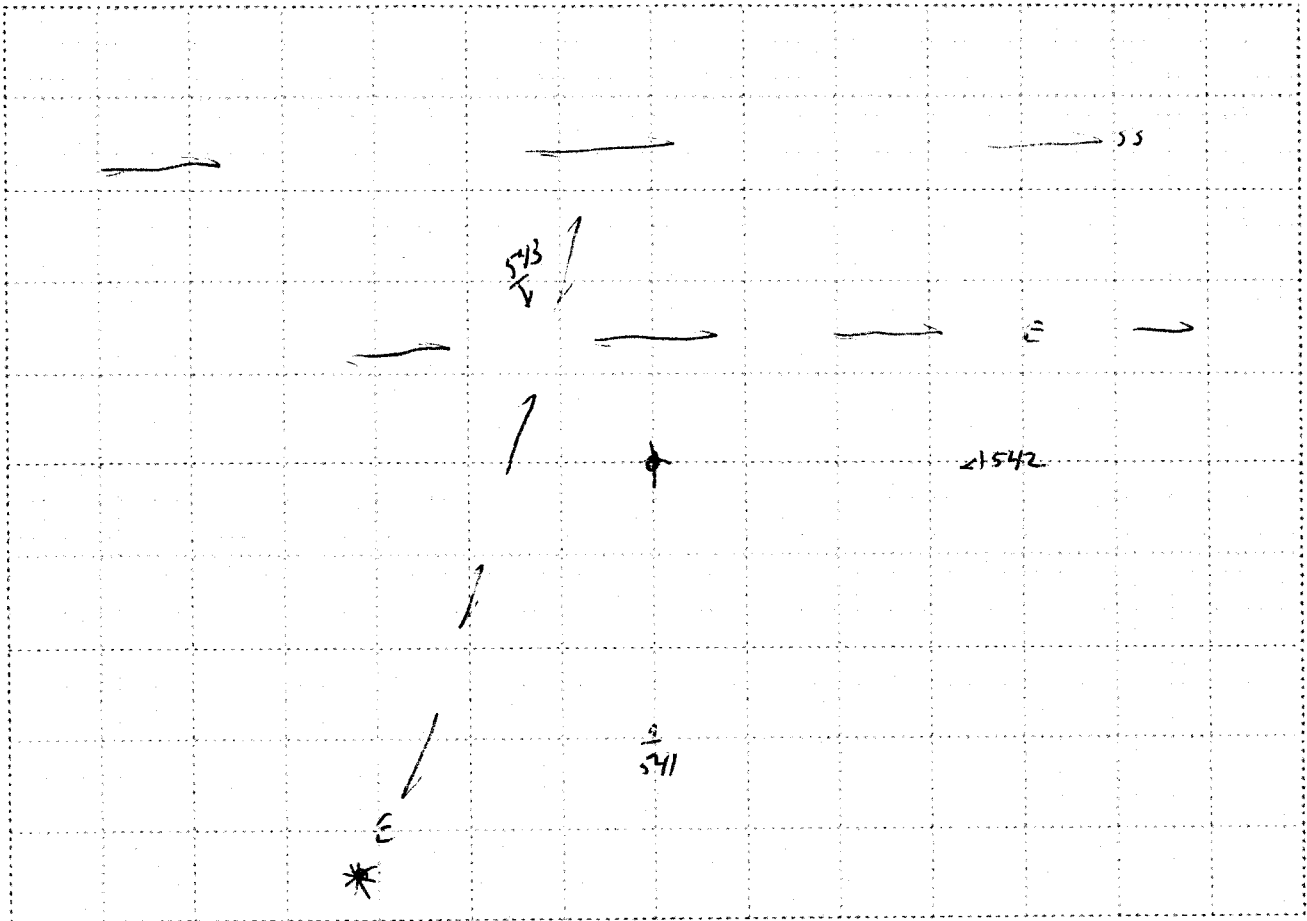
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LEGEND

<u>Detected Utilities</u>	<u>Equipment/Procedure</u>	<u>Ground Conditions</u>	<u>Boring/GPR/Utility/Misc. Information</u>
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Feint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>--- Utility Alignment</li> <li>— GPR Traverse</li> <li>→ Localized GPR Anomaly</li> </ul>

NOTES:

CLIENT:	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION:		DATE:
BORING: SV5		AGS REF #:
		MISC:

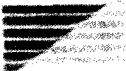


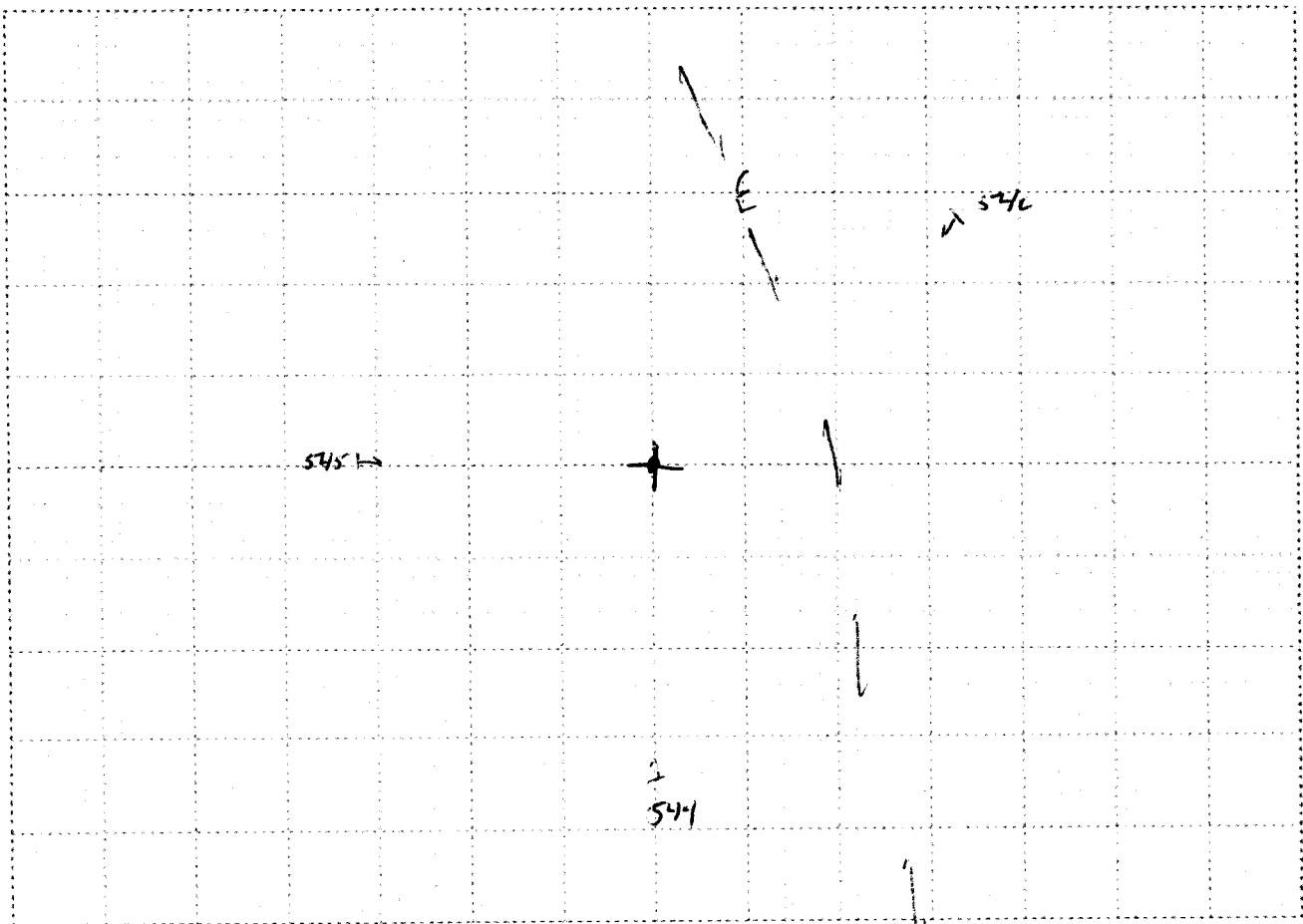
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**LEGEND**

<u>Detected Utilities</u>	<u>Equipment/Procedure</u>	<u>Ground Conditions</u>	<u>Boring/GPR/Utility/Misc. Information</u>
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Feint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>--- Utility Alignment</li> <li>— GPR Traverse</li> <li>→ Localized GPR Anomaly</li> </ul>

NOTES:

CLIENT:	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION:  <i>SEARS</i>		DATE:
BORING: <i>SB9</i>		AGS REF #:
		MISC:




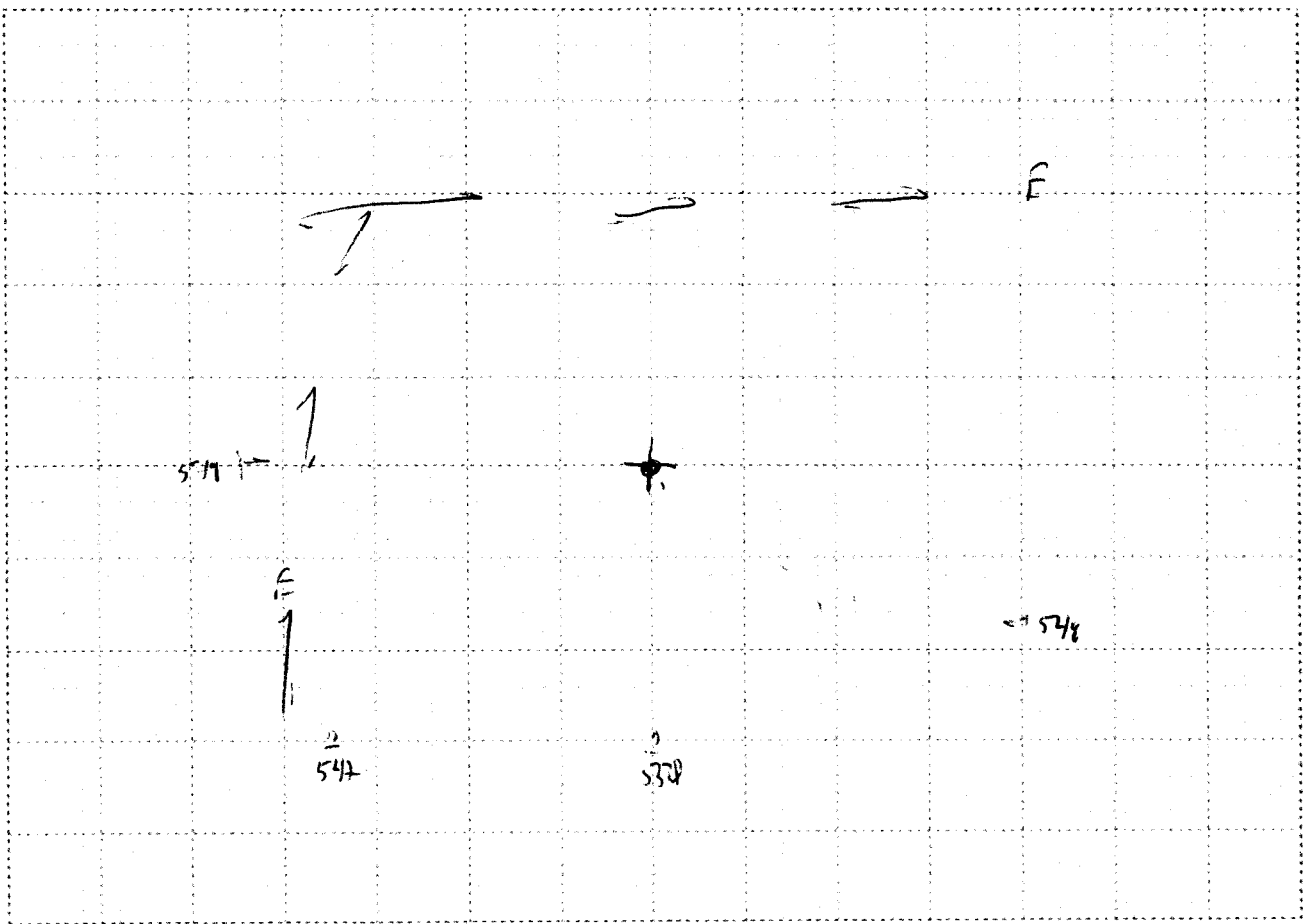
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LEGEND

<u>Detected Utilities</u>	<u>Equipment/Procedure</u>	<u>Ground Conditions</u>	<u>Boring/GPR/Utility/Misc. Information</u>
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Faint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>- - - Utility Alignment</li> <li>— — — GPR Traverse</li> <li>— Localized GPR Anomaly</li> </ul>

NOTES:

CLIENT:	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION:		DATE:
BORING: <i>5810</i>		AGS REF #:
		MISC:




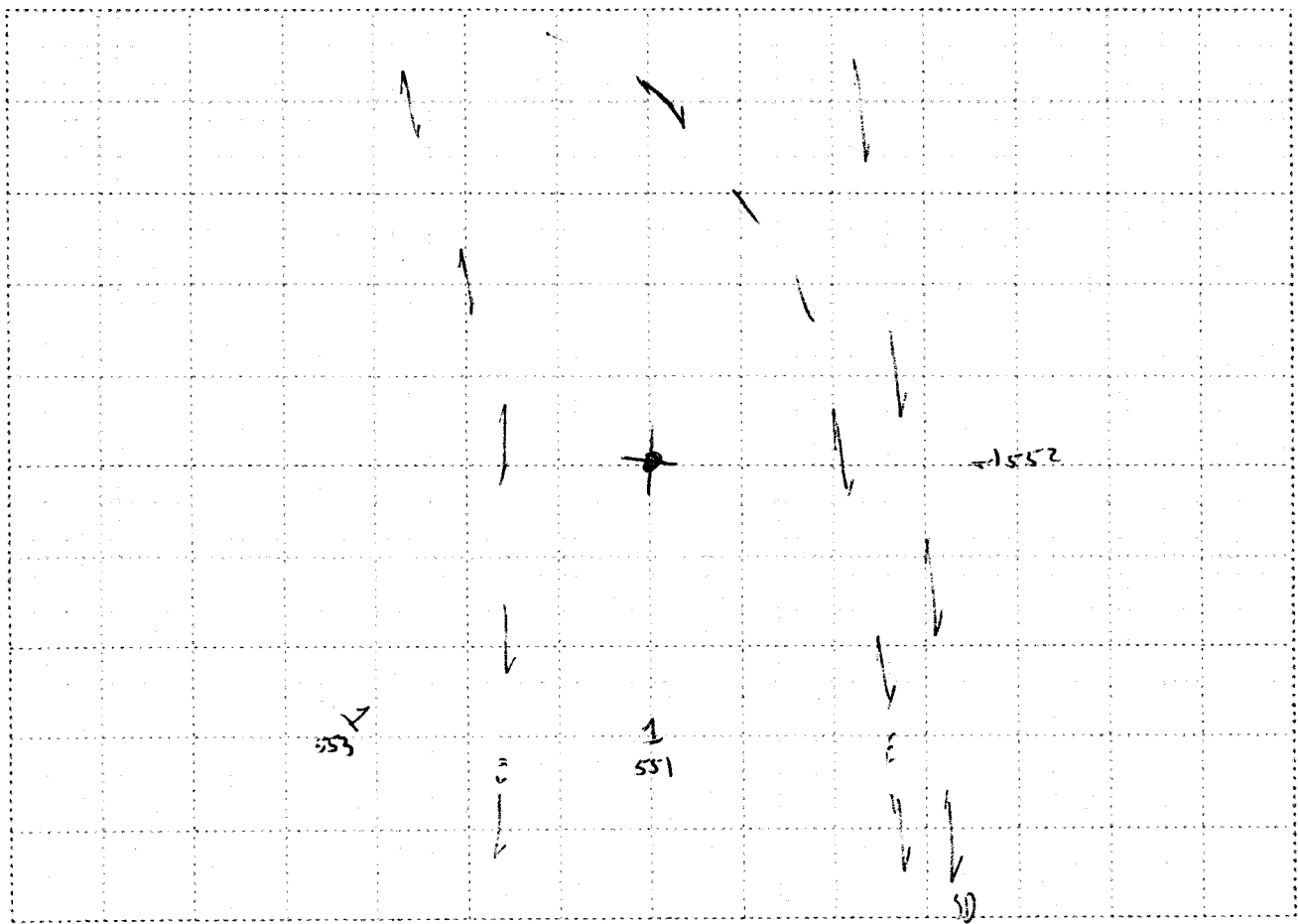
Scale: 1" = 10'

LEGEND

<u>Detected Utilities</u>	<u>Equipment/Procedure</u>	<u>Ground Conditions</u>	<u>Boring/GPR/Utility/Misc. Information</u>
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Faint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>--- Utility Alignment</li> <li>— GPR Traverse</li> <li>— Localized GPR Anomaly</li> </ul>

NOTES:

CLIENT:	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION:		DATE:
BORING: <i>Sears</i>		AGS REF #:
BORING: <i>500</i>		MISC:




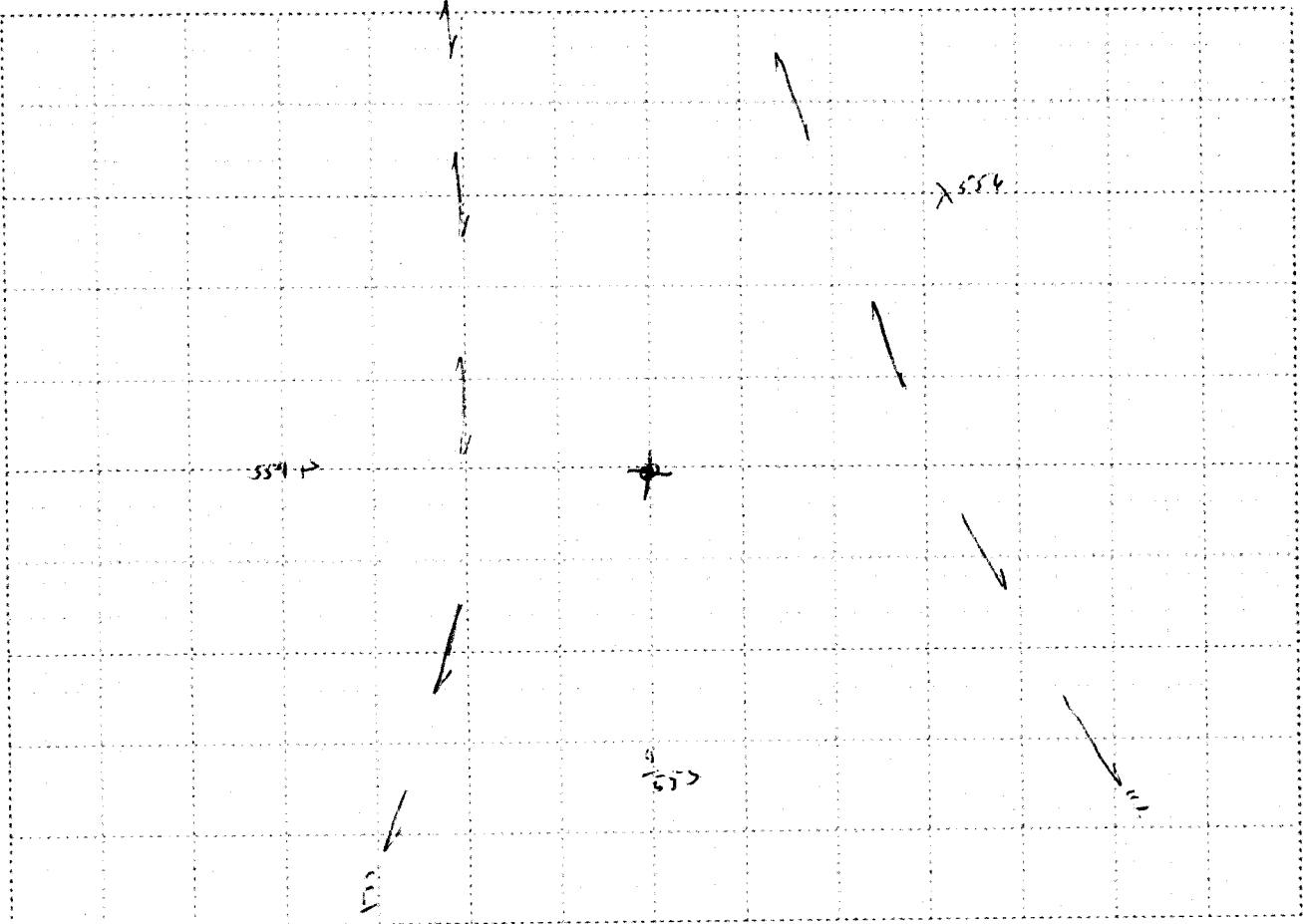
Scale: 1" = 10'

**LEGEND**

<u>Detected Utilities</u>	<u>Equipment/Procedure</u>	<u>Ground Conditions</u>	<u>Boring/GPR/Utility/Misc. Information</u>
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Faint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>- - - Utility Alignment</li> <li>— GPR Traverse</li> <li>— Localized GPR Anomaly</li> </ul>

NOTES:

CLIENT:	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION:  Sears		DATE:
BORING: S311		AGS REF #:
		MISC:




Scale: 1" = 10'

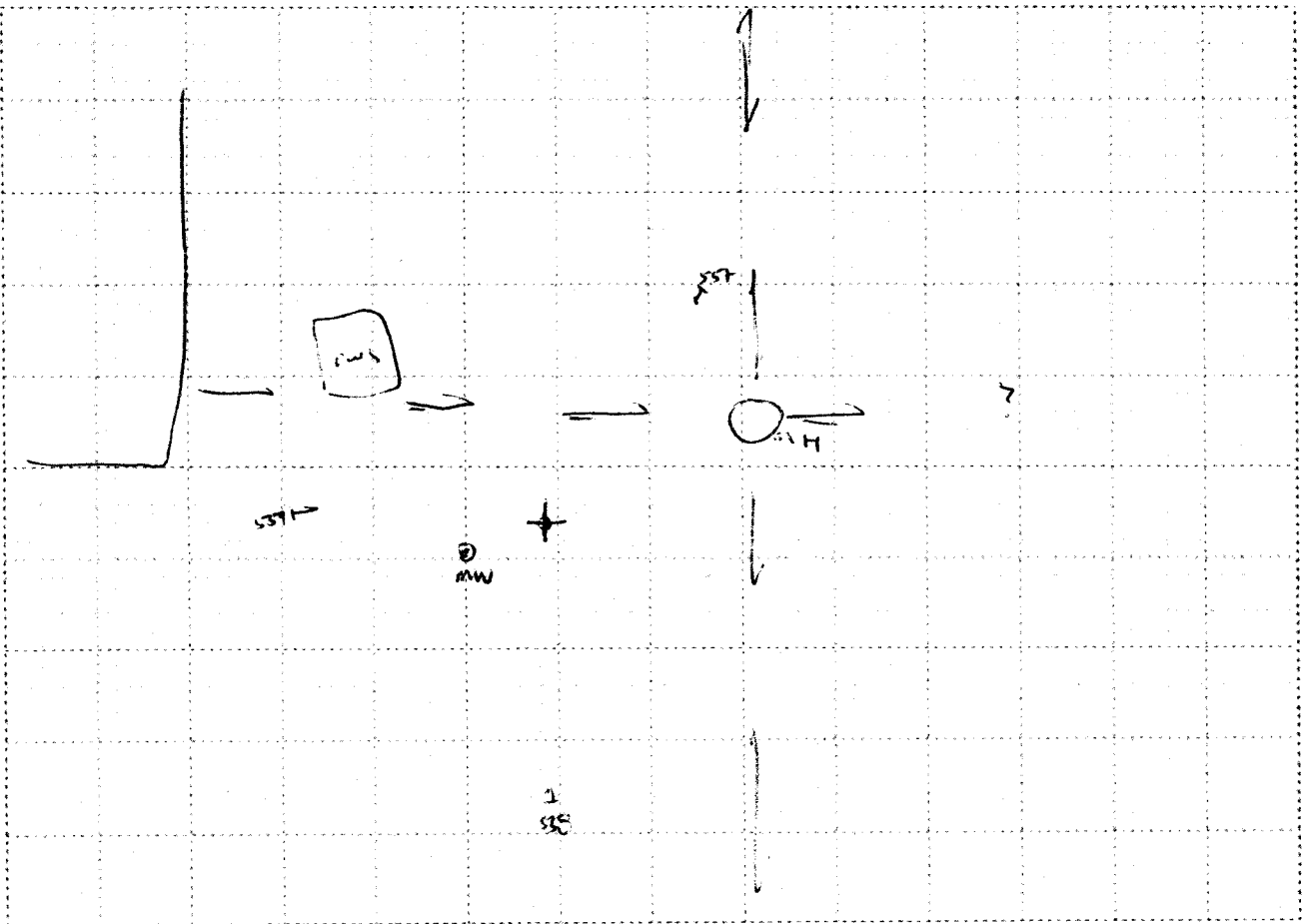
LEGEND

<u>Detected Utilities</u>	<u>Equipment/Procedure</u>	<u>Ground Conditions</u>	<u>Boring/GPR/Utility/Misc. Information</u>
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Faint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>--- Utility Alignment</li> <li>— GPR Traverse</li> <li>↔ Localized GPR Anomaly</li> </ul>

NOTES:



CLIENT:	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION:		DATE:
BORING: <i>S3 12</i>		AGS REF #:
		MISC:




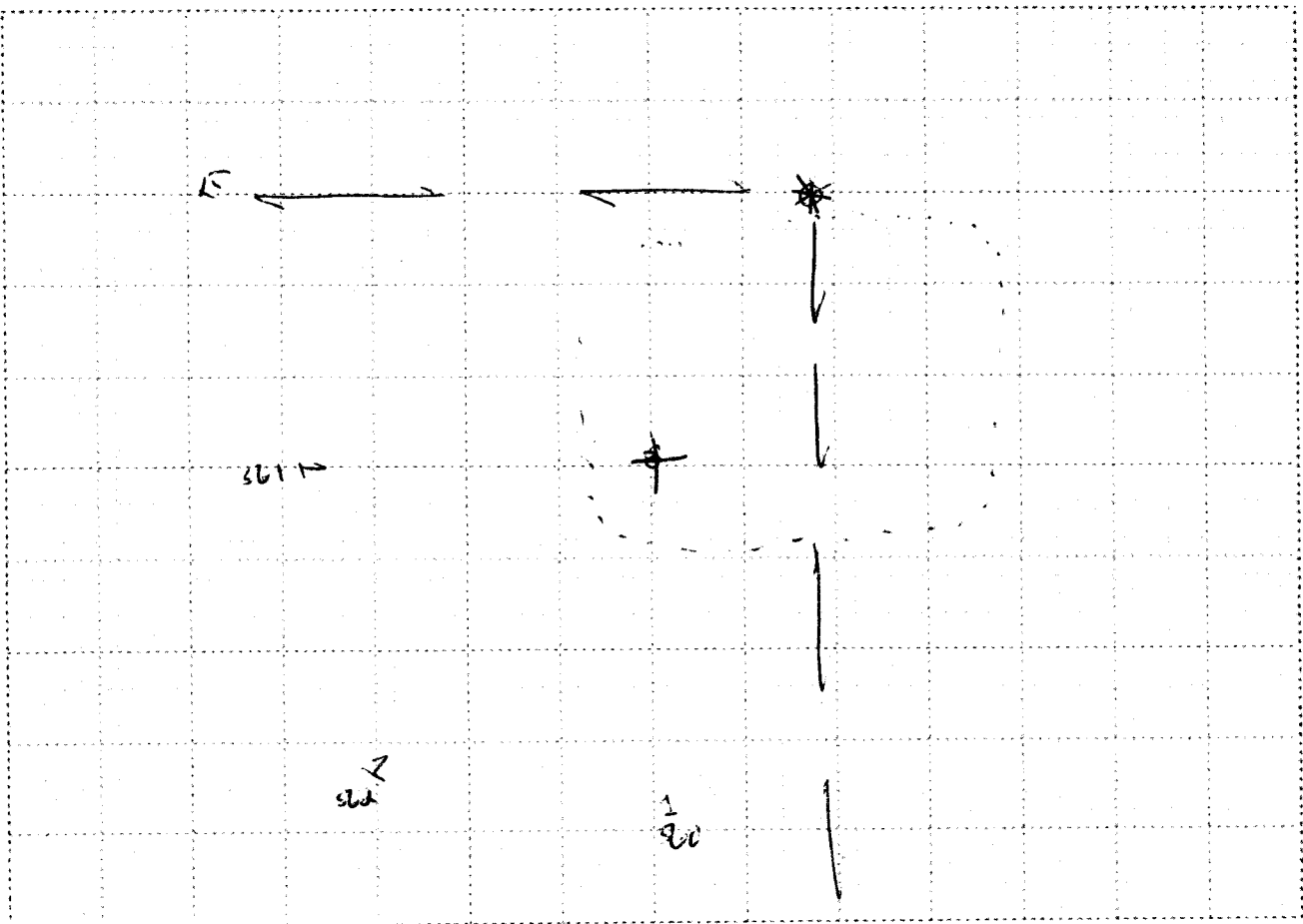
Scale: 1" = 10'

LEGEND

<u>Detected Utilities</u>	<u>Equipment/Procedure</u>	<u>Ground Conditions</u>	<u>Boring/GPR/Utility/Misc. Information</u>
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Faint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>--- Utility Alignment</li> <li>— GPR Traverse</li> <li>— Localized GPR Anomaly</li> </ul>

NOTES:

CLIENT:	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION:  SEARS		DATE:
BORING: SB12		AGS REF #:
		MISC:




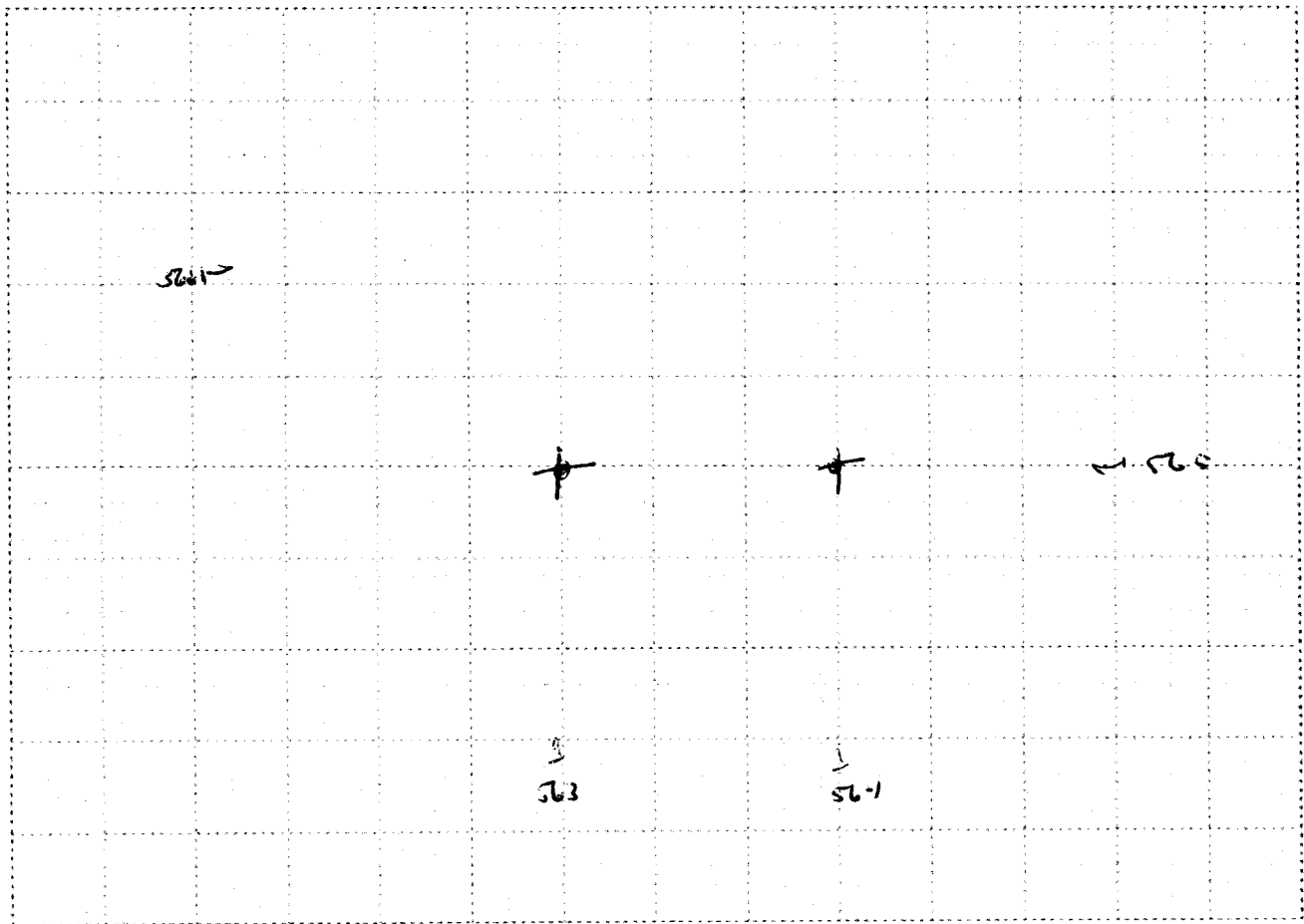
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LEGEND

<u>Detected Utilities</u>	<u>Equipment/Procedure</u>	<u>Ground Conditions</u>	<u>Boring/GPR/Utility/Misc. Information</u>
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Faint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>- - - Utility Alignment</li> <li>← GPR Traverse</li> <li>★ Localized GPR Anomaly</li> </ul>

NOTES:


CLIENT:	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION:  S 2223		DATE:
BORING: SB 14 SV 7		AGS REF #:
		MISC:

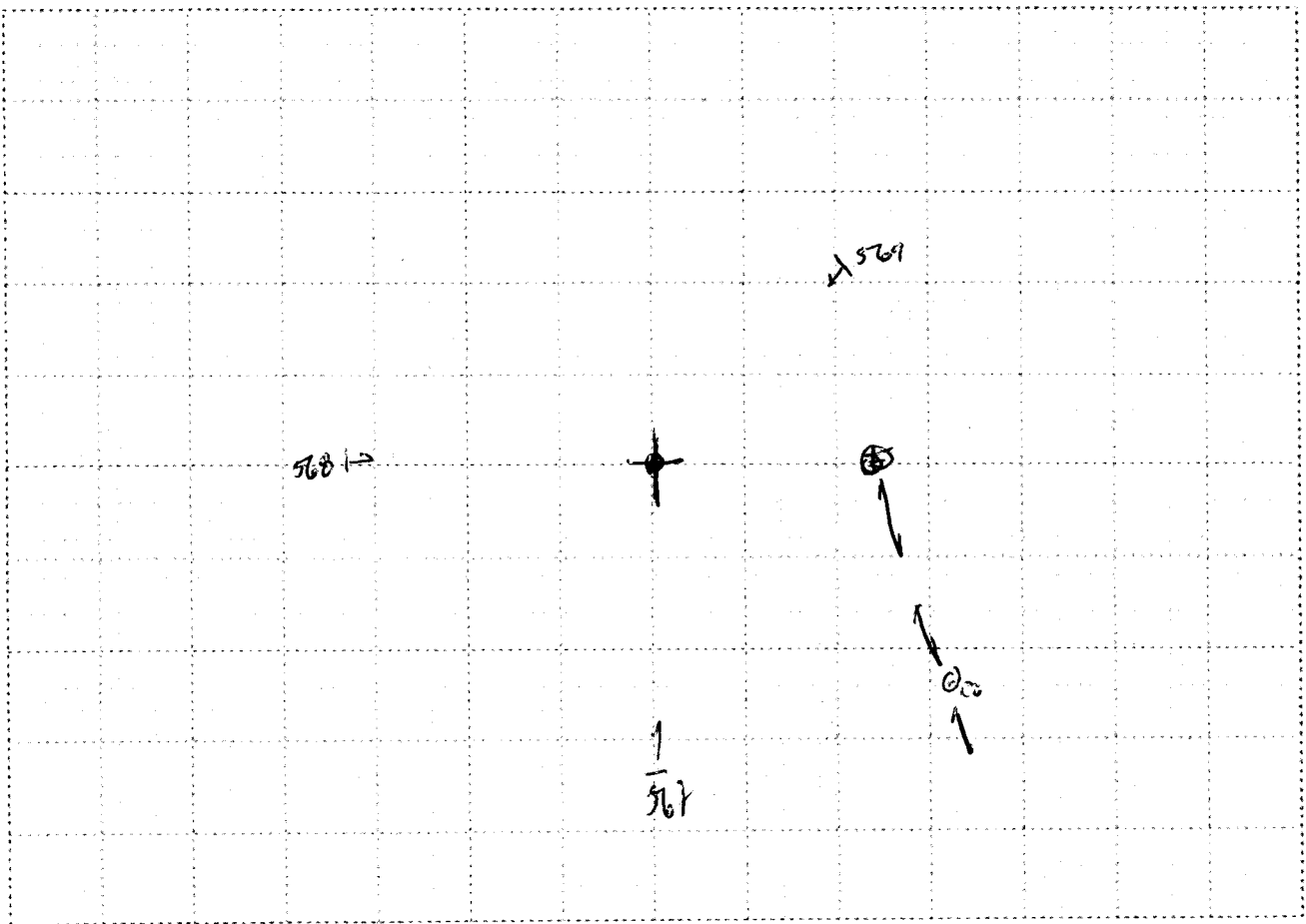


**LEGEND**

<u>Detected Utilities</u>	<u>Equipment/Procedure</u>	<u>Ground Conditions</u>	<u>Boring/GPR/Utility/Misc. Information</u>
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Faint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>--- Utility Alignment</li> <li>— GPR Traverse</li> <li>— Localized GPR Anomaly</li> </ul>

NOTES:

CLIENT:	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION:  Sears		DATE:
BORING: SB 15		AGS REF #:
		MISC:




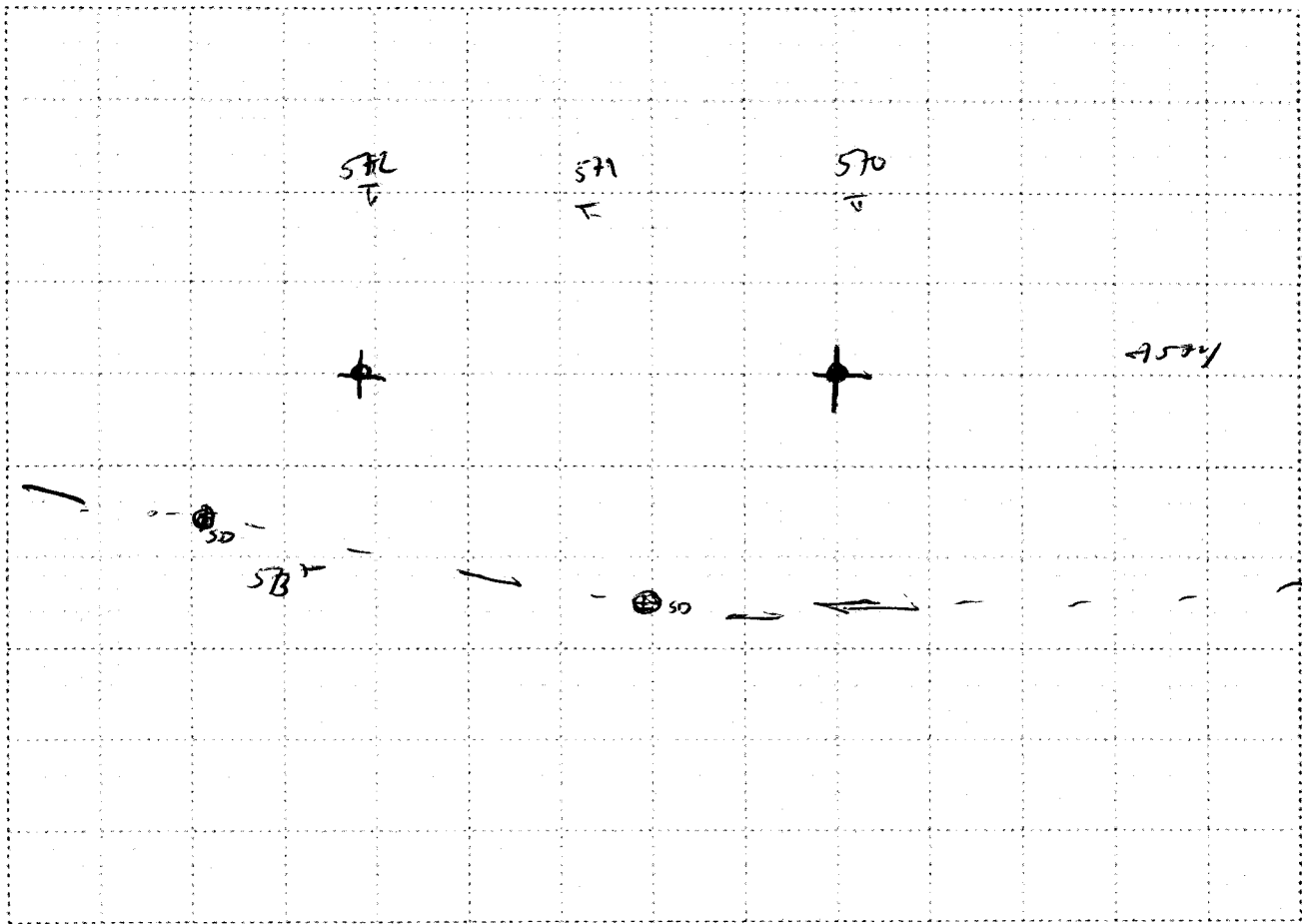
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LEGEND

Detected Utilities	Equipment/Procedure	Ground Conditions	Boring/GPR/Utility/Misc. Information
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Faint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>- - - Utility Alignment</li> <li>— — — GPR Traverse</li> <li>→ Localized GPR Anomaly</li> </ul>

NOTES:

CLIENT:	 <b>ADVANCED GEOLOGICAL SERVICES</b>  3 Mystic Lane Malvern, PA 19355 (800) 250-3402 www.advancedgeo.com	PERSONNEL:
SITE LOCATION:  Sears		DATE:
BORING:		AGS REF #:
		MISC:



Scale: 1" = 10'

LEGEND

<u>Detected Utilities</u>	<u>Equipment/Procedure</u>	<u>Ground Conditions</u>	<u>Boring/GPR/Utility/Misc. Information</u>
<ul style="list-style-type: none"> <li>- T (Telephone, Comm.)</li> <li>- E (Electric)</li> <li>- NG (Natural Gas)</li> <li>- UU (Utility-Unknown Type)</li> <li>- SS (Sanitary Sewer)</li> <li>- SD (Storm Drain)</li> <li>- W (Water)</li> <li>- FS (Fire Suppression)</li> <li>- STM (Steam)</li> <li>- CA (Compressed Air)</li> <li>- ? (Suspected Utility Based on Faint/Ambiguous Response)</li> </ul>	<ul style="list-style-type: none"> <li>- Radio Freq. (RD4000)               <ul style="list-style-type: none"> <li>- Ambient</li> <li>- Direct Connect</li> <li>- Induction</li> </ul> </li> <li>- GPR (Radar)</li> <li>- Metal Pipe and Cable Locator (M-Scope)</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>- RC (Reinforced Concrete)</li> <li>- A (Asphalt)</li> <li>- C (Concrete)</li> <li>- Soil</li> <li>- Gravel</li> <li>- Grass</li> <li>- Wet</li> <li>- Dry</li> <li>- Other</li> </ul>	<ul style="list-style-type: none"> <li>○ Proposed Boring Location (Per Client)</li> <li>● Final Boring Location (Per AGS)</li> <li>- - - Utility Alignment</li> <li>— GPR Traverse</li> <li>— Localized GPR Anomaly</li> </ul>

NOTES:



## APPENDIX B SOIL BORING LOGS

PROJECT #:	ARC2202
SITE ADDRESS:	2359 Bedford Ave/2307 Beverly Rd Brooklyn
BORING ID:	SB-1
WELL ID:	N/A
DRILLING CONTRACTOR:	Associated Environmental
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 420M
SAMPLING METHOD:	Macrocore - Dual Tube



BORING DEPTH (FT):	12	CORE LENGTH (FT):	3
BORING DIAMETER (IN):	2	WELL DIAMETER (IN):	N/A
DATE STARTED:	01/27/2022	DATE FINISHED:	01/27/2022
TIME STARTED:	10:30	TIME FINISHED:	11:40
LATITUDE:	N/A	LONGITUDE:	N/A
PROJECT MANAGER:	Usman Chaudhry	LOGGED BY:	AM

DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0.0						0.0	
1.0			0	WELL GRADED SAND (SW): Brown coarse sand with some gravel, dry	0	1.0	
2.0			5			2.0	
3.0						3.0	
4.0			0	WELL GRADED SAND (SW): Brown coarse sand with some gravel, few cobbles, dry	0	4.0	
5.0			7			5.0	
6.0			5			6.0	
7.0				WELL GRADED SAND (SW): Brown fine sand with some gravel, dry	0	7.0	
8.0			2			8.0	
9.0			5	WELL GRADED SAND (SW): Dark brown fine sand with few gravel, dry	0	9.0	
10.0						10.0	
11.0			3	WELL GRADED SAND (SW): Brown coarse sand with some gravel, dry	0	11.0	SB-1 collected at 10:25
12.0						12.0	


PROJECT #:	ARC2202
SITE ADDRESS:	2359 Bedford Ave/2307 Beverly Rd Brooklyn
BORING ID:	SB-2
WELL ID:	N/A
DRILLING CONTRACTOR:	Associated Environmental
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 420M
SAMPLING METHOD:	Macrocore - Dual Tube




BORING DEPTH (FT):	15	CORE LENGTH (FT):	3
BORING DIAMETER (IN):	2	WELL DIAMETER (IN):	N/A
DATE STARTED:	01/27/2022	DATE FINISHED:	01/27/2022
TIME STARTED:	11:20	TIME FINISHED:	12:00
LATITUDE:	N/A	LONGITUDE:	N/A
PROJECT MANAGER:	Usman Chaudhry	LOGGED BY:	AM

DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0.0				Curshed concrete	0	0.0	
1.0			2			1.0	
2.0				WELL GRADED SAND (SW): Light brown coarse sand with some gravel, dry	0	2.0	
3.0						3.0	
4.0			0			4.0	
5.0			7	WELL GRADED SAND (SW): Light brown fine sand with some gravel and few cobbles, dry	0	5.0	
6.0						6.0	
7.0			1			7.0	
8.0			2	WELL GRADED SAND (SW): Light brown coarse sand with some gravel, dry	0	8.0	
9.0			5			9.0	
10.0			2	WELL GRADED SAND (SW): Light brown fine sand with few gravel, dry	0	10.0	
11.0			9			11.0	
12.0				WELL GRADED SAND (SW): Medium brown coarse sand with few gravel, dry	0	12.0	
13.0						13.0	
14.0			2	WELL GRADED SAND (SW): Medium brown fine sand with few gravel, dry	0	14.0	
15.0			8			15.0	
16.0				WELL GRADED SAND (SW): Medium brown coarse sand with few gravel, dry	0	16.0	
17.0						17.0	
18.0			1	POORLY GRADED SAND (SP): Dark brown coarse sand, moist	0	18.0	SB-2 collected at 12:00



PROJECT #:	ARC2202		
SITE ADDRESS:	2359 Bedford Ave/2307 Beverly Rd Brooklyn		
BORING ID:	SB-3	BORING DEPTH (FT): 25	CORE LENGTH (FT): 5
WELL ID:	N/A	BORING DIAMETER (IN): 2	WELL DIAMETER (IN): N/A
DRILLING CONTRACTOR:	Associated Environmental	DATE STARTED: 02/01/2022	DATE FINISHED: 02/01/2022
DRILLING METHOD:	Direct Push	TIME STARTED: 09:20	TIME FINISHED: 10:00
DRILLING EQUIPMENT:	Geoprobe 7822DT	LATITUDE: N/A	LONGITUDE: N/A
SAMPLING METHOD:	Macrocore - Dual Tube	PROJECT MANAGER: Usman Chaudhry	LOGGED BY: AM

DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0.0				Crushed asphalt	0	0.0	
2.0			2 5	SILTY SAND (SM): Brown silty sand with some gravel, moist	0	2.0	
4.0						4.0	
6.0			4	WELL GRADED SAND (SW): Brown coarse sand with few gravel, moist	0	6.0	
8.0						8.0	
10.0						10.0	
12.0			2 7 5	SILTY SAND (SM): Brown silty sand with few gravel, moist	0	12.0	
14.0						14.0	
16.0			2 7 5	POORLY GRADED SAND (SP): Brown coarse sand, moist	0	16.0	
18.0						18.0	
20.0						20.0	
22.0			2 7 5	WELL GRADED SAND (SW): Brown coarse sand with few gravel, wet	0	22.0	SB-3 collected at 10:30
24.0						24.0	
26.0						26.0	

PROJECT #:	ARC2202		
SITE ADDRESS:	2359 Bedford Ave/2307 Beverly Rd Brooklyn		
BORING ID:	SB-4	BORING DEPTH (FT): 25	CORE LENGTH (FT): 5
WELL ID:	N/A	BORING DIAMETER (IN): 2	WELL DIAMETER (IN): N/A
DRILLING CONTRACTOR:	Associated Environmental	DATE STARTED: 02/01/2022	DATE FINISHED: 02/01/2022
DRILLING METHOD:	Direct Push	TIME STARTED: 08:15	TIME FINISHED: 09:00
DRILLING EQUIPMENT:	Geoprobe 7822DT	LATITUDE: N/A	LONGITUDE: N/A
SAMPLING METHOD:	Macrocore - Dual Tube	PROJECT MANAGER: Usman Chaudhry	LOGGED BY: AM

DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0.0						0.0	
2.0			3	WELL GRADED SAND (SW): Brown sand and gravel, moist	0	2.0	
			5			4.0	
4.0						4.0	
6.0			3	WELL GRADED SAND (SW): Brown coarse sand with some gravel, moist	0	6.0	
			5			8.0	
8.0						8.0	
10.0			0	WELL GRADED SAND (SW): Dark brown coarse sand and gravel, moist	0	10.0	
			7			12.0	
12.0			5			12.0	
14.0						14.0	
16.0			4	WELL GRADED SAND (SW): Dark brown coarse sand and gravel, moist	0	16.0	
			5			18.0	
18.0						18.0	
20.0						20.0	
22.0			4	SILTY SAND (SM): Dark brown silty sand, wet	0	22.0	SB-4 collected at 08:55 & GW-1 collected at 09:50
						24.0	
24.0						24.0	
26.0						26.0	

PROJECT #:	ARC2202
SITE ADDRESS:	2359 Bedford Ave/2307 Beverly Rd Brooklyn
BORING ID:	SB-5
WELL ID:	N/A
DRILLING CONTRACTOR:	Associated Environmental
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 7822DT
SAMPLING METHOD:	Macrocore - Dual Tube



BORING DEPTH (FT):	27	CORE LENGTH (FT):	5
BORING DIAMETER (IN):	2	WELL DIAMETER (IN):	N/A
DATE STARTED:	02/01/2022	DATE FINISHED:	02/01/2022
TIME STARTED:	13:35	TIME FINISHED:	13:55
LATITUDE:	N/A	LONGITUDE:	N/A
PROJECT MANAGER:	Usman Chaudhry	LOGGED BY:	AM

DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0.0				Crushed asphalt	0	0.0	
2.0			3	WELL GRADED SAND (SW): Dark brown fine sand with some gravel, dry	0	2.0	
4.0			5	SILTY SAND (SM): Brown silty sand, moist	0	4.0	
6.0				POORLY GRADED SAND (SP): Brown fine sand, dry	0	6.0	
8.0			3	WELL GRADED SAND (SW): Brown coarse sand with some gravel, dry	0	8.0	
10.0			7	WELL GRADED SAND (SW): Brown sand with few gravel, dry	0	10.0	
12.0			5	WELL GRADED SAND (SW): Brown coarse sand with few gravel, dry	0	12.0	
14.0				WELL GRADED SAND (SW): Brown coarse sand and gravel	0	14.0	
16.0			4	POORLY GRADED SAND (SP): Brown fine sand, dry	0	16.0	
18.0			7	WELL GRADED SAND (SW): Brown coarse sand with few gravel, moist	0	18.0	
20.0			5	WELL GRADED SAND (SW): Brown coarse sand with few gravel, moist	0	20.0	
22.0				WELL GRADED SAND (SW): Brown coarse sand with few gravel, wet	0	22.0	
24.0						24.0	
26.0						26.0	SB-5 collected at 14:00
28.0						28.0	

PROJECT #:	ARC2202
SITE ADDRESS:	2359 Bedford Ave/2307 Beverly Rd Brooklyn
BORING ID:	SB-6
WELL ID:	N/A
DRILLING CONTRACTOR:	Associated Environmental
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 7822DT
SAMPLING METHOD:	Macrocore - Dual Tube



BORING DEPTH (FT):	27	CORE LENGTH (FT):	5
BORING DIAMETER (IN):	2	WELL DIAMETER (IN):	N/A
DATE STARTED:	02/01/2022	DATE FINISHED:	02/01/2022
TIME STARTED:	14:00	TIME FINISHED:	14:30
LATITUDE:	N/A	LONGITUDE:	N/A
PROJECT MANAGER:	Usman Chaudhry	LOGGED BY:	AM

DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0.0				Crushed asphalt	0	0.0	
2.0			3	SILTY SAND (SM): Brown silty sand	0	2.0	
4.0						4.0	
6.0			4	WELL GRADED SAND (SW): Brown gravel and sand, dry	0	6.0	
8.0			7	WELL GRADED SAND (SW): Brown coarse sand with some gravel, dry	0	8.0	
10.0			5			10.0	
12.0			4	WELL GRADED SAND (SW): Brown coarse sand with few gravel, dry	0	12.0	
14.0			2			14.0	
16.0			5			16.0	
18.0			4	WELL GRADED SAND (SW): Brown coarse sand with few gravel, dry	0	18.0	
20.0			5			20.0	
22.0			7	POORLY GRADED SAND (SP): Brown coarse sand, dry	0	22.0	
24.0						24.0	
26.0				WELL GRADED SAND (SW): Brown coarse sand and gravel, wet	0	26.0	SB-6 collected at 13:30
28.0						28.0	

PROJECT #:	ARC2202
SITE ADDRESS:	2359 Bedford Ave/2307 Beverly Rd Brooklyn
BORING ID:	SB-7
WELL ID:	N/A
DRILLING CONTRACTOR:	Associated Environmental
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 7822DT
SAMPLING METHOD:	Macrocore - Dual Tube



BORING DEPTH (FT):	30	CORE LENGTH (FT):	5
BORING DIAMETER (IN):	2	WELL DIAMETER (IN):	N/A
DATE STARTED:	02/01/2022	DATE FINISHED:	02/01/2022
TIME STARTED:	12:00	TIME FINISHED:	12:15
LATITUDE:	N/A	LONGITUDE:	N/A
PROJECT MANAGER:	Usman Chaudhry	LOGGED BY:	AM

DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0.0				Crushed asphalt	0	0.0	
				Urban fill	0		
2.0			3	SILTY SAND (SM): Brown silty sand, moist	0	2.0	
4.0				WELL GRADED SAND (SW): Brown sand and gravel, dry	0	4.0	
6.0			3	WELL GRADED SAND (SW): Brown coarse sand with some gravel, dry	0	6.0	
8.0						8.0	
10.0			3	WELL GRADED SAND (SW): Brown coarse sand with few gravel, dry	0	10.0	
12.0						12.0	
14.0						14.0	
16.0			4			16.0	
18.0						18.0	
20.0			4	POORLY GRADED SAND (SP): Brown coarse sand, moist	0	20.0	
22.0			2			22.0	
24.0			5			24.0	
26.0			4			26.0	
28.0			4	WELL GRADED SAND (SW): Brown coarse sand and gravel, wet	0	28.0	SB-7 collected at 12:15 & GW-2 collected at 12:30
30.0						30.0	

PROJECT #:	ARC2202
SITE ADDRESS:	2359 Bedford Ave/2307 Beverly Rd Brooklyn
BORING ID:	SB-8
WELL ID:	N/A
DRILLING CONTRACTOR:	Associated Environmental
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 7822DT
SAMPLING METHOD:	Macrocore - Dual Tube



BORING DEPTH (FT):	30	CORE LENGTH (FT):	5
BORING DIAMETER (IN):	2	WELL DIAMETER (IN):	N/A
DATE STARTED:	02/01/2022	DATE FINISHED:	02/01/2022
TIME STARTED:	10:30	TIME FINISHED:	10:45
LATITUDE:	N/A	LONGITUDE:	N/A
PROJECT MANAGER:	Usman Chaudhry	LOGGED BY:	AM

DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0.0				Crushed asphalt	0	0.0	
2.0			4 5	POORLY GRADED SAND (SP): Tan fine sand, dry	0	2.0	
4.0						4.0	
6.0			1	Urban fill	0	6.0	
8.0			5	WELL GRADED SAND (SW): Dark brown sand and gravel	0	8.0	
10.0						10.0	
12.0			3 5	WELL GRADED SAND (SW): Brown sand with some gravel, moist	0	12.0	
14.0						14.0	
16.0			3 5	WELL GRADED SAND (SW): Brown coarse sand with some gravel, moist	0	16.0	
18.0			7 5			18.0	
20.0						20.0	
22.0			3 5	WELL GRADED SAND (SW): Brown coarse sand with some gravel, moist	0	22.0	
24.0			7 5			24.0	
26.0			2	POORLY GRADED SAND (SP): Brown coarse sand, moist	0	26.0	SB-8 collected at 11:00
28.0			5	WELL GRADED SAND (SW): Coarse sand and gravel, wet	0	28.0	
30.0						30.0	

PROJECT #:	ARC2202
SITE ADDRESS:	2359 Bedford Ave/2307 Beverly Rd Brooklyn
BORING ID:	SB-9
WELL ID:	N/A
DRILLING CONTRACTOR:	Associated Environmental
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 7822DT
SAMPLING METHOD:	Macrocore - Dual Tube



BORING DEPTH (FT):	27	CORE LENGTH (FT):	5
BORING DIAMETER (IN):	2	WELL DIAMETER (IN):	N/A
DATE STARTED:	02/01/2022	DATE FINISHED:	02/01/2022
TIME STARTED:	10:50	TIME FINISHED:	11:00
LATITUDE:	N/A	LONGITUDE:	N/A
PROJECT MANAGER:	Usman Chaudhry	LOGGED BY:	AM

DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0.0				Crushed asphalt	0	0.0	
2.0			3	WELL GRADED SAND (SW): Dark brown silty sand with some gravel, moist	0	2.0	
			5			4.0	
4.0				WELL GRADED SAND (SW): Brown coarse sand and gravel, dry	0	4.0	
6.0			0	WELL GRADED SAND (SW): Brown coarse sand and gravel, dry	0	6.0	
8.0			5			8.0	
10.0				WELL GRADED SAND (SW): Brown coarse sand with few gravel, dry	0	10.0	
12.0			3			12.0	
14.0			5			14.0	
16.0				POORLY GRADED SAND (SP): Brown fine sand, moist	0	16.0	
18.0			4	WELL GRADED SAND (SW): Brown coarse sand with few gravel, dry	0	18.0	
			5			20.0	
20.0				POORLY GRADED SAND (SP): Brown coarse sand, dry	0	20.0	
22.0			1	POORLY GRADED SAND (SP): Brown coarse sand, wet	0	22.0	
24.0						24.0	
26.0						26.0	SB-9 collected at 14:30
28.0						28.0	

PROJECT #:	ARC2202
SITE ADDRESS:	2359 Bedford Ave/2307 Beverly Rd Brooklyn
BORING ID:	SB-10
WELL ID:	N/A
DRILLING CONTRACTOR:	Associated Environmental
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 420M
SAMPLING METHOD:	Macrocore - Dual Tube



BORING DEPTH (FT):	15	CORE LENGTH (FT):	3
BORING DIAMETER (IN):	2	WELL DIAMETER (IN):	N/A
DATE STARTED:	01/28/2022	DATE FINISHED:	01/28/2022
TIME STARTED:	07:45	TIME FINISHED:	08:15
LATITUDE:	N/A	LONGITUDE:	N/A
PROJECT MANAGER:	Usman Chaudhry	LOGGED BY:	AM

DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0.0				WELL GRADED SAND (SW): Tan fine sand with some gravel, dry	0.2	0.0	
1.0			3	WELL GRADED SAND (SW): Dark brown coarse sand with few gravel, dry	0.2	1.0	
2.0			7	WELL GRADED SAND (SW): Medium brown fine sand with few gravel, dry	0.2	2.0	
3.0			5	WELL GRADED SAND (SW): Medium brown coarse sand with few gravel, dry	0.3	3.0	
4.0			4	WELL GRADED SAND (SW): Medium brown coarse sand with little gravel, dry	0.3	4.0	
5.0						5.0	
6.0						6.0	
7.0						7.0	
8.0						8.0	
9.0						9.0	
10.0			2			10.0	
11.0			5			11.0	
12.0						12.0	
13.0			1	POORLY GRADED SAND (SP): Medium brown coarse sand, dry	0.2	13.0	
14.0						14.0	SB-10 collected at 08:25
15.0						15.0	



PROJECT #:	ARC2202
SITE ADDRESS:	2359 Bedford Ave/2307 Beverly Rd Brooklyn
BORING ID:	SB-11
WELL ID:	N/A
DRILLING CONTRACTOR:	Associated Environmental
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 420M
SAMPLING METHOD:	Macrocore - Dual Tube



BORING DEPTH (FT):	15	CORE LENGTH (FT):	3
BORING DIAMETER (IN):	2	WELL DIAMETER (IN):	N/A
DATE STARTED:	01/28/2022	DATE FINISHED:	01/28/2022
TIME STARTED:	08:35	TIME FINISHED:	08:45
LATITUDE:	N/A	LONGITUDE:	N/A
PROJECT MANAGER:	Usman Chaudhry	LOGGED BY:	AM

DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0.0				Crushed concrete		0.0	
1.0			1			1.0	
2.0			5	WELL GRADED SAND (SW): Brown fine sand with some gravel, dry		2.0	
3.0						3.0	
4.0			1	WELL GRADED SAND (SW): Light brown fine sand with some gravel		4.0	
5.0			5			5.0	
6.0						6.0	
7.0			2			7.0	
8.0			1			8.0	
9.0				POORLY GRADED SAND (SP): Light brown coarse sand, dry		9.0	
10.0			2			10.0	
11.0			4			11.0	
12.0						12.0	
13.0			2	POORLY GRADED SAND (SP): Dark brown coarse sand, dry		13.0	
14.0			7			14.0	SB-11 collected at 08:55
15.0				WELL GRADED SAND (SW): Medium brown and orange coarse sand with few gravel, dry		15.0	

PROJECT #:	ARC2202
SITE ADDRESS:	2359 Bedford Ave/2307 Beverly Rd Brooklyn
BORING ID:	SB-12
WELL ID:	N/A
DRILLING CONTRACTOR:	Associated Environmental
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 7822DT
SAMPLING METHOD:	Macrocore - Dual Tube



BORING DEPTH (FT):	27	CORE LENGTH (FT):	5
BORING DIAMETER (IN):	2	WELL DIAMETER (IN):	N/A
DATE STARTED:	02/01/2022	DATE FINISHED:	02/01/2022
TIME STARTED:	15:10	TIME FINISHED:	15:20
LATITUDE:	N/A	LONGITUDE:	N/A
PROJECT MANAGER:	Usman Chaudhry	LOGGED BY:	AM

DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0.0				Crushed asphalt		0.0	
2.0			2			2.0	
5.0			5	CLAYEY SAND (SC): Brown clayey sand, moist		4.0	
6.0			4	WELL GRADED SAND (SW): Brown coarse sand and gravel, moist		6.0	
7.5			5	POORLY GRADED SAND (SP): Brown fine sand, moist		8.0	
10.0			2	WELL GRADED SAND (SW): Dark brown coarse sand with some gravel		10.0	
12.0			2			12.0	
14.0			5	POORLY GRADED SAND (SP): Brown coarse sand, moist		14.0	
16.0			4			16.0	
18.0			4			18.0	
20.0			5	WELL GRADED SAND (SW): Brown sand with few gravel, moist		20.0	
22.0			5			22.0	
24.0			5			24.0	
26.0				WELL GRADED SAND (SW): Brown gravel with sand, wet		26.0	SB-12 collected at 15:20
28.0						28.0	

PROJECT #:	ARC2202
SITE ADDRESS:	2359 Bedford Ave/2307 Beverly Rd Brooklyn
BORING ID:	SB-13
WELL ID:	N/A
DRILLING CONTRACTOR:	Associated Environmental
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 7822DT
SAMPLING METHOD:	Macrocore - Dual Tube



BORING DEPTH (FT):	27	CORE LENGTH (FT):	5
BORING DIAMETER (IN):	2	WELL DIAMETER (IN):	N/A
DATE STARTED:	02/01/2022	DATE FINISHED:	02/01/2022
TIME STARTED:	15:25	TIME FINISHED:	15:30
LATITUDE:	N/A	LONGITUDE:	N/A
PROJECT MANAGER:	Usman Chaudhry	LOGGED BY:	AM

DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0.0				Crushed asphalt	0	0.0	
2.0			2	SILTY SAND (SM): Brown silty sand with few gravel, moist	0	2.0	
4.0						4.0	
6.0			0	POORLY GRADED SAND (SP): Dark brown coarse sand, dry	0	6.0	
8.0			5	SILTY SAND (SM): Brown silty sand, moist	0	8.0	
10.0						10.0	
12.0			1	WELL GRADED SAND (SW): Brown sand with gravel and cobbles, moist	0	12.0	
14.0				POORLY GRADED SAND (SP): Brown fine sand, dry	0	14.0	
16.0			2	WELL GRADED SAND (SW): Brown sand with gravel, dry	0	16.0	
18.0			5			18.0	
20.0						20.0	
22.0			5	WELL GRADED SAND (SW): Brown sand with few gravel, moist	0	22.0	
24.0						24.0	
26.0				WELL GRADED SAND (SW): Brown sand with some gravel, wet	0	26.0	SB-13 collected at 15:30
28.0						28.0	

PROJECT #:	ARC2202
SITE ADDRESS:	2359 Bedford Ave/2307 Beverly Rd Brooklyn
BORING ID:	SB-14
WELL ID:	N/A
DRILLING CONTRACTOR:	Associated Environmental
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 7822DT
SAMPLING METHOD:	Macrocore - Dual Tube



BORING DEPTH (FT):	30	CORE LENGTH (FT):	5
BORING DIAMETER (IN):	2	WELL DIAMETER (IN):	N/A
DATE STARTED:	01/28/2022	DATE FINISHED:	01/28/2022
TIME STARTED:	10:50	TIME FINISHED:	11:20
LATITUDE:	N/A	LONGITUDE:	N/A
PROJECT MANAGER:	Usman Chaudhry	LOGGED BY:	AM

DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0.0				Crushed asphalt	0	0.0	
2.0			2	SILTY SAND (SM): Brown silty sand with some gravel, moist	0	2.0	
4.0			5			4.0	
6.0			3	WELL GRADED SAND (SW): Brown and tan coarse sand and gravel, moist	0	6.0	
8.0			7			8.0	
10.0			3	WELL GRADED SAND (SW): Brown coarse sand with few gravel, moist	0	10.0	
12.0			7			12.0	
14.0			5			14.0	
16.0			3	WELL GRADED SAND (SW): Brown coarse sand with some gravel and crushed stone, moist	0	16.0	
18.0			7			18.0	
20.0			5			20.0	
22.0			4	WELL GRADED GRAVEL (GW): Brown gravel with some sand, moist	0	22.0	
24.0						24.0	
26.0			3	WELL GRADED SAND (SW): Brown coarse sand with few gravel, moist	0	26.0	
28.0			7			28.0	
30.0			5	WELL GRADED GRAVEL (GW): Brown gravel with some sand, wet	0	30.0	

SB-14 collected at 11:25 &  
GW-3 collected at 11:55

PROJECT #:	ARC2202
SITE ADDRESS:	2359 Bedford Ave/2307 Beverly Rd Brooklyn
BORING ID:	SB-15
WELL ID:	N/A
DRILLING CONTRACTOR:	Associated Environmental
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 7822DT
SAMPLING METHOD:	Macrocore - Dual Tube



BORING DEPTH (FT):	30	CORE LENGTH (FT):	5
BORING DIAMETER (IN):	2	WELL DIAMETER (IN):	N/A
DATE STARTED:	01/28/2022	DATE FINISHED:	01/28/2022
TIME STARTED:	12:00	TIME FINISHED:	12:40
LATITUDE:	N/A	LONGITUDE:	N/A
PROJECT MANAGER:	Usman Chaudhry	LOGGED BY:	AM

DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0.0				Crushed asphalt	0	0.0	
2.0			0	POORLY GRADED SAND (SP): Brown coarse sand, moist	0	2.0	
4.0			5			4.0	
6.0				Crushed asphalt	0.1	6.0	
8.0			0	WELL GRADED SAND (SW): Brown coarse sand with some gravel, moist		8.0	
10.0			5			10.0	
12.0			0	No core obtained; rock hindering push.	0	12.0	
14.0						14.0	
16.0			1	POORLY GRADED SAND (SP): Brown coarse sand, moist	0	16.0	
18.0			2			18.0	
20.0			5			20.0	
22.0			3			22.0	
24.0						24.0	
26.0			3			26.0	
28.0			7	POORLY GRADED SAND (SP): Brown coarse sand, wet	0	28.0	SB-15 collected at 12:45
30.0			5			30.0	

PROJECT #:	ARC2202
SITE ADDRESS:	2359 Bedford Ave/2307 Beverly Rd Brooklyn
BORING ID:	SB-16
WELL ID:	N/A
DRILLING CONTRACTOR:	Associated Environmental
DRILLING METHOD:	Direct Push
DRILLING EQUIPMENT:	Geoprobe 7822DT
SAMPLING METHOD:	Macrocore - Dual Tube



BORING DEPTH (FT):	30	CORE LENGTH (FT):	5
BORING DIAMETER (IN):	2	WELL DIAMETER (IN):	N/A
DATE STARTED:	01/28/2022	DATE FINISHED:	01/28/2022
TIME STARTED:	13:25	TIME FINISHED:	13:50
LATITUDE:	N/A	LONGITUDE:	N/A
PROJECT MANAGER:	Usman Chaudhry	LOGGED BY:	AM

DEPTH (feet)	SAMPLE INTERVAL	USCS KEY	RECOVERY (feet)	DESCRIPTION NAME (USCS): color, moist, plasticity, gravel, odor	PID Reading (ppm)	DEPTH (feet)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0.0				Crushed asphalt	0	0.0	
				POORLY GRADED SAND (SP): Brown fine sand, dry	0		
2.0			2	Urban fill	0	2.0	
4.0			5	SILTY SAND (SM): Brown silt with some sand, moist	0	4.0	
6.0				CLAYEY SAND (SC): Brown clayey sand with some gravel, moist	0	6.0	
8.0			3	CLAYEY SAND (SC): Orange to brown clayey sand, moist	0	8.0	
10.0						10.0	
12.0			3			12.0	
14.0			7			14.0	
16.0			5	WELL GRADED SAND (SW): Brown coarse sand with some gravel, dry	0	16.0	
18.0			4			18.0	
20.0						20.0	
22.0			4			22.0	
24.0			5	WELL GRADED SAND (SW): Brown coarse sand with few gravel, dry	0	24.0	
26.0						26.0	
28.0			3			28.0	SB-16 collected at 14:00
				WELL GRADED SAND (SW): Brown coarse sand and gravel, wet	0		
30.0						30.0	



## APPENDIX C SOIL VAPOR/AIR SAMPLE LOGS

ARC2202 – Phase II ESA

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LONG ISLAND • MANHATTAN • SARATOGA SPRINGS • SYRACUSE • SEATTLE • SHELTON

**APPENDIX C**  
**2359 Bedford Avenue and 2307 Beverly Road**  
**Brooklyn, NY**  
**TO-15 Sampling Log**

Sample ID	Date	Start Time	End Time	Initial Vacuum in/Hg	Final Vacuum in/Hg	Canister ID	Regulator ID	Location
SS-1	1/28/2022	10:14	12:08	-27.50	-4.91	3321	0623	South Side of Retail Center
SS-2	1/28/2022	10:25	12:14	-30.92	-9.17	2293	0732	North Side of Retail Center
SS-3	1/28/2022	9:56	11:38	-30.70	-9.59	3081	01547	South Side of Auto Center
SS-4	1/28/2022	10:00	12:00	-30.26	-5.52	3303	01794	Northwest Side of Auto Center
IA-1	1/28/2022	10:12	12:24	-29.24	-0.04	2568	01603	North Side of Retail Center
IA-2	1/28/2022	9:40	11:35	-30.87	-6.55	3125	01828	Northwest Side of Auto Center
IA-3	1/28/2022	9:51	12:02	-30.85	-0.97	2885	02102	South Side of Auto Center
OA-1	2/1/2022	17:26	19:12	-31.09	-7.22	3313	01085	Southeast Side of Retail Center Parking Lot
OA-2	2/1/2022	17:23	19:05	-30.99	-6.92	1969	01442	West Side of Auto Center Parking Lot
SV-1	2/1/2022	17:35	19:19	-30.97	-10.55	1633	02136	Southwest Side of Retail Center Parking Lot
SV-2	2/1/2022	17:15	19:26	-31.12	-9.89	3609	01749	North Side of Retail Center Parking Lot
SV-3	2/1/2022	17:18	19:10	-30.07	-12.99	3606	0647	Northeast Side of Auto Center Parking Lot





## APPENDIX D LABORATORY ANALYTICAL REPORTS



## ANALYTICAL REPORT

Lab Number:	L2204699
Client:	P. W. Grosser 630 Johnson Avenue Suite 7 Bohemia, NY 11716
ATTN:	Usman Chaudhry
Phone:	(631) 589-8705
Project Name:	ARC2202
Project Number:	ARC2202
Report Date:	02/15/22

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

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

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



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204699  
**Report Date:** 02/15/22

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2204699-01	SB-1	SOIL	2359 BEDFORD AVE., BROOKLYN	01/27/22 10:25	01/27/22
L2204699-02	SB-2	SOIL	2359 BEDFORD AVE., BROOKLYN	01/27/22 12:00	01/27/22

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204699  
**Report Date:** 02/15/22

### Case Narrative

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

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

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

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

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

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

---

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204699  
**Report Date:** 02/15/22

### Case Narrative (continued)

#### Report Submission

February 15, 2022: This final report includes the results of all requested analyses.

February 10, 2022: This preliminary report includes the results of the Total Metals analysis performed on L2204699-01 and -02.

February 09, 2022: This is a preliminary report.

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

#### Sample Receipt

The project name and number were specified by the client.

#### Semivolatile Organics

The WG1603095-2/-3 LCS/LCSD recoveries, associated with L2204699-01 and -02, are below the acceptance criteria for benzoic acid (0%/0%); however, it has been identified as a "difficult" analyte. The results of the associated samples are reported.

#### Perfluorinated Alkyl Acids by Isotope Dilution

L2204699-01: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

L2204699-01: The MeOH fraction of the extraction is reported for perfluorooctanesulfonamide (fosa) due to better extraction efficiency of the perfluoro[13c8]octanesulfonamide (m8fosa) Extracted Internal Standard.

#### Total Metals

L2204699-01 and -02: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

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

Authorized Signature:

 Caitlin Walukevich

Title: Technical Director/Representative

Date: 02/15/22

# ORGANICS

# VOLATILES

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-01  
 Client ID: SB-1  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN

Date Collected: 01/27/22 10:25  
 Date Received: 01/27/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 02/03/22 16:24  
 Analyst: AJK  
 Percent Solids: 98%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	6.6	3.0	1
1,1-Dichloroethane	ND		ug/kg	1.3	0.19	1
Chloroform	ND		ug/kg	2.0	0.19	1
Carbon tetrachloride	ND		ug/kg	1.3	0.31	1
1,2-Dichloropropane	ND		ug/kg	1.3	0.17	1
Dibromochloromethane	ND		ug/kg	1.3	0.19	1
1,1,2-Trichloroethane	ND		ug/kg	1.3	0.36	1
Tetrachloroethene	ND		ug/kg	0.66	0.26	1
Chlorobenzene	ND		ug/kg	0.66	0.17	1
Trichlorofluoromethane	ND		ug/kg	5.3	0.92	1
1,2-Dichloroethane	ND		ug/kg	1.3	0.34	1
1,1,1-Trichloroethane	ND		ug/kg	0.66	0.22	1
Bromodichloromethane	ND		ug/kg	0.66	0.14	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	0.36	1
cis-1,3-Dichloropropene	ND		ug/kg	0.66	0.21	1
1,3-Dichloropropene, Total	ND		ug/kg	0.66	0.21	1
1,1-Dichloropropene	ND		ug/kg	0.66	0.21	1
Bromoform	ND		ug/kg	5.3	0.33	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.66	0.22	1
Benzene	ND		ug/kg	0.66	0.22	1
Toluene	ND		ug/kg	1.3	0.72	1
Ethylbenzene	ND		ug/kg	1.3	0.19	1
Chloromethane	ND		ug/kg	5.3	1.2	1
Bromomethane	ND		ug/kg	2.7	0.77	1
Vinyl chloride	ND		ug/kg	1.3	0.45	1
Chloroethane	ND		ug/kg	2.7	0.60	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.32	1
trans-1,2-Dichloroethene	ND		ug/kg	2.0	0.18	1



Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-01

Date Collected: 01/27/22 10:25

Client ID: SB-1

Date Received: 01/27/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.66	0.18	1
1,2-Dichlorobenzene	ND		ug/kg	2.7	0.19	1
1,3-Dichlorobenzene	ND		ug/kg	2.7	0.20	1
1,4-Dichlorobenzene	ND		ug/kg	2.7	0.23	1
Methyl tert butyl ether	ND		ug/kg	2.7	0.27	1
p/m-Xylene	ND		ug/kg	2.7	0.74	1
o-Xylene	ND		ug/kg	1.3	0.39	1
Xylenes, Total	ND		ug/kg	1.3	0.39	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.23	1
1,2-Dichloroethene, Total	ND		ug/kg	1.3	0.18	1
Dibromomethane	ND		ug/kg	2.7	0.32	1
Styrene	ND		ug/kg	1.3	0.26	1
Dichlorodifluoromethane	ND		ug/kg	13	1.2	1
Acetone	7.2	J	ug/kg	13	6.4	1
Carbon disulfide	ND		ug/kg	13	6.0	1
2-Butanone	ND		ug/kg	13	3.0	1
Vinyl acetate	ND		ug/kg	13	2.9	1
4-Methyl-2-pentanone	ND		ug/kg	13	1.7	1
1,2,3-Trichloropropane	ND		ug/kg	2.7	0.17	1
2-Hexanone	ND		ug/kg	13	1.6	1
Bromochloromethane	ND		ug/kg	2.7	0.27	1
2,2-Dichloropropane	ND		ug/kg	2.7	0.27	1
1,2-Dibromoethane	ND		ug/kg	1.3	0.37	1
1,3-Dichloropropane	ND		ug/kg	2.7	0.22	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.66	0.18	1
Bromobenzene	ND		ug/kg	2.7	0.19	1
n-Butylbenzene	ND		ug/kg	1.3	0.22	1
sec-Butylbenzene	ND		ug/kg	1.3	0.19	1
tert-Butylbenzene	ND		ug/kg	2.7	0.16	1
o-Chlorotoluene	ND		ug/kg	2.7	0.25	1
p-Chlorotoluene	ND		ug/kg	2.7	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.0	1.3	1
Hexachlorobutadiene	ND		ug/kg	5.3	0.22	1
Isopropylbenzene	ND		ug/kg	1.3	0.14	1
p-Isopropyltoluene	ND		ug/kg	1.3	0.14	1
Naphthalene	ND		ug/kg	5.3	0.86	1
Acrylonitrile	ND		ug/kg	5.3	1.5	1

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-01

Date Collected: 01/27/22 10:25

Client ID: SB-1

Date Received: 01/27/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.3	0.23	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.7	0.43	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.7	0.36	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.7	0.26	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.7	0.44	1
1,4-Dioxane	ND		ug/kg	110	47.	1
p-Diethylbenzene	ND		ug/kg	2.7	0.24	1
p-Ethyltoluene	ND		ug/kg	2.7	0.51	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.7	0.25	1
Ethyl ether	ND		ug/kg	2.7	0.45	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.6	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	100		70-130

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-02  
 Client ID: SB-2  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN

Date Collected: 01/27/22 12:00  
 Date Received: 01/27/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 02/03/22 16:51  
 Analyst: AJK  
 Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	7.6	3.5	1
1,1-Dichloroethane	ND		ug/kg	1.5	0.22	1
Chloroform	ND		ug/kg	2.3	0.21	1
Carbon tetrachloride	ND		ug/kg	1.5	0.35	1
1,2-Dichloropropane	ND		ug/kg	1.5	0.19	1
Dibromochloromethane	ND		ug/kg	1.5	0.21	1
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.40	1
Tetrachloroethene	ND		ug/kg	0.76	0.30	1
Chlorobenzene	ND		ug/kg	0.76	0.19	1
Trichlorofluoromethane	ND		ug/kg	6.0	1.0	1
1,2-Dichloroethane	ND		ug/kg	1.5	0.39	1
1,1,1-Trichloroethane	ND		ug/kg	0.76	0.25	1
Bromodichloromethane	ND		ug/kg	0.76	0.16	1
trans-1,3-Dichloropropene	ND		ug/kg	1.5	0.41	1
cis-1,3-Dichloropropene	ND		ug/kg	0.76	0.24	1
1,3-Dichloropropene, Total	ND		ug/kg	0.76	0.24	1
1,1-Dichloropropene	ND		ug/kg	0.76	0.24	1
Bromoform	ND		ug/kg	6.0	0.37	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.76	0.25	1
Benzene	ND		ug/kg	0.76	0.25	1
Toluene	ND		ug/kg	1.5	0.82	1
Ethylbenzene	ND		ug/kg	1.5	0.21	1
Chloromethane	ND		ug/kg	6.0	1.4	1
Bromomethane	ND		ug/kg	3.0	0.88	1
Vinyl chloride	ND		ug/kg	1.5	0.51	1
Chloroethane	ND		ug/kg	3.0	0.68	1
1,1-Dichloroethene	ND		ug/kg	1.5	0.36	1
trans-1,2-Dichloroethene	ND		ug/kg	2.3	0.21	1

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-02  
 Client ID: SB-2  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN

Date Collected: 01/27/22 12:00  
 Date Received: 01/27/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.76	0.21	1
1,2-Dichlorobenzene	ND		ug/kg	3.0	0.22	1
1,3-Dichlorobenzene	ND		ug/kg	3.0	0.22	1
1,4-Dichlorobenzene	ND		ug/kg	3.0	0.26	1
Methyl tert butyl ether	ND		ug/kg	3.0	0.30	1
p/m-Xylene	ND		ug/kg	3.0	0.85	1
o-Xylene	ND		ug/kg	1.5	0.44	1
Xylenes, Total	ND		ug/kg	1.5	0.44	1
cis-1,2-Dichloroethene	ND		ug/kg	1.5	0.26	1
1,2-Dichloroethene, Total	ND		ug/kg	1.5	0.21	1
Dibromomethane	ND		ug/kg	3.0	0.36	1
Styrene	ND		ug/kg	1.5	0.30	1
Dichlorodifluoromethane	ND		ug/kg	15	1.4	1
Acetone	ND		ug/kg	15	7.3	1
Carbon disulfide	ND		ug/kg	15	6.9	1
2-Butanone	ND		ug/kg	15	3.4	1
Vinyl acetate	ND		ug/kg	15	3.2	1
4-Methyl-2-pentanone	ND		ug/kg	15	1.9	1
1,2,3-Trichloropropane	ND		ug/kg	3.0	0.19	1
2-Hexanone	ND		ug/kg	15	1.8	1
Bromochloromethane	ND		ug/kg	3.0	0.31	1
2,2-Dichloropropane	ND		ug/kg	3.0	0.30	1
1,2-Dibromoethane	ND		ug/kg	1.5	0.42	1
1,3-Dichloropropane	ND		ug/kg	3.0	0.25	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.76	0.20	1
Bromobenzene	ND		ug/kg	3.0	0.22	1
n-Butylbenzene	ND		ug/kg	1.5	0.25	1
sec-Butylbenzene	ND		ug/kg	1.5	0.22	1
tert-Butylbenzene	ND		ug/kg	3.0	0.18	1
o-Chlorotoluene	ND		ug/kg	3.0	0.29	1
p-Chlorotoluene	ND		ug/kg	3.0	0.16	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.5	1.5	1
Hexachlorobutadiene	ND		ug/kg	6.0	0.26	1
Isopropylbenzene	ND		ug/kg	1.5	0.16	1
p-Isopropyltoluene	ND		ug/kg	1.5	0.16	1
Naphthalene	ND		ug/kg	6.0	0.98	1
Acrylonitrile	ND		ug/kg	6.0	1.7	1

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-02  
 Client ID: SB-2  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN

Date Collected: 01/27/22 12:00  
 Date Received: 01/27/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.5	0.26	1
1,2,3-Trichlorobenzene	ND		ug/kg	3.0	0.49	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.0	0.41	1
1,3,5-Trimethylbenzene	ND		ug/kg	3.0	0.29	1
1,2,4-Trimethylbenzene	ND		ug/kg	3.0	0.50	1
1,4-Dioxane	ND		ug/kg	120	53.	1
p-Diethylbenzene	ND		ug/kg	3.0	0.27	1
p-Ethyltoluene	ND		ug/kg	3.0	0.58	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	3.0	0.29	1
Ethyl ether	ND		ug/kg	3.0	0.52	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	7.6	2.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	101		70-130

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/03/22 09:09  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-02 Batch: WG1601349-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/03/22 09:09  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-02 Batch: WG1601349-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/03/22 09:09  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-02 Batch: WG1601349-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	100		70-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02 Batch: WG1601349-3 WG1601349-4								
Methylene chloride	89		89		70-130	0		30
1,1-Dichloroethane	92		94		70-130	2		30
Chloroform	89		89		70-130	0		30
Carbon tetrachloride	88		87		70-130	1		30
1,2-Dichloropropane	99		100		70-130	1		30
Dibromochloromethane	96		97		70-130	1		30
1,1,2-Trichloroethane	102		102		70-130	0		30
Tetrachloroethene	91		91		70-130	0		30
Chlorobenzene	93		92		70-130	1		30
Trichlorofluoromethane	84		83		70-139	1		30
1,2-Dichloroethane	93		94		70-130	1		30
1,1,1-Trichloroethane	87		87		70-130	0		30
Bromodichloromethane	91		92		70-130	1		30
trans-1,3-Dichloropropene	101		102		70-130	1		30
cis-1,3-Dichloropropene	98		98		70-130	0		30
1,1-Dichloropropene	94		95		70-130	1		30
Bromoform	99		98		70-130	1		30
1,1,2,2-Tetrachloroethane	118		117		70-130	1		30
Benzene	95		96		70-130	1		30
Toluene	93		94		70-130	1		30
Ethylbenzene	91		94		70-130	3		30
Chloromethane	92		91		52-130	1		30
Bromomethane	84		81		57-147	4		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02 Batch: WG1601349-3 WG1601349-4								
Vinyl chloride	91		90		67-130	1		30
Chloroethane	90		88		50-151	2		30
1,1-Dichloroethene	83		82		65-135	1		30
trans-1,2-Dichloroethene	92		90		70-130	2		30
Trichloroethene	90		90		70-130	0		30
1,2-Dichlorobenzene	93		93		70-130	0		30
1,3-Dichlorobenzene	93		92		70-130	1		30
1,4-Dichlorobenzene	93		92		70-130	1		30
Methyl tert butyl ether	96		96		66-130	0		30
p/m-Xylene	94		95		70-130	1		30
o-Xylene	92		93		70-130	1		30
cis-1,2-Dichloroethene	89		90		70-130	1		30
Dibromomethane	98		96		70-130	2		30
Styrene	94		94		70-130	0		30
Dichlorodifluoromethane	86		88		30-146	2		30
Acetone	133		129		54-140	3		30
Carbon disulfide	84		83		59-130	1		30
2-Butanone	129		127		70-130	2		30
Vinyl acetate	117		118		70-130	1		30
4-Methyl-2-pentanone	130		132	Q	70-130	2		30
1,2,3-Trichloropropane	112		112		68-130	0		30
2-Hexanone	125		126		70-130	1		30
Bromochloromethane	94		94		70-130	0		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02 Batch: WG1601349-3 WG1601349-4								
2,2-Dichloropropane	90		90		70-130	0		30
1,2-Dibromoethane	103		103		70-130	0		30
1,3-Dichloropropane	103		104		69-130	1		30
1,1,1,2-Tetrachloroethane	91		91		70-130	0		30
Bromobenzene	90		90		70-130	0		30
n-Butylbenzene	100		99		70-130	1		30
sec-Butylbenzene	94		94		70-130	0		30
tert-Butylbenzene	90		90		70-130	0		30
o-Chlorotoluene	93		93		70-130	0		30
p-Chlorotoluene	94		94		70-130	0		30
1,2-Dibromo-3-chloropropane	114		114		68-130	0		30
Hexachlorobutadiene	84		84		67-130	0		30
Isopropylbenzene	91		92		70-130	1		30
p-Isopropyltoluene	93		93		70-130	0		30
Naphthalene	104		104		70-130	0		30
Acrylonitrile	122		119		70-130	2		30
n-Propylbenzene	94		95		70-130	1		30
1,2,3-Trichlorobenzene	93		91		70-130	2		30
1,2,4-Trichlorobenzene	93		92		70-130	1		30
1,3,5-Trimethylbenzene	92		92		70-130	0		30
1,2,4-Trimethylbenzene	91		91		70-130	0		30
1,4-Dioxane	127		130		65-136	2		30
p-Diethylbenzene	92		91		70-130	1		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204699

Report Date: 02/15/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-02 Batch: WG1601349-3 WG1601349-4								
p-Ethyltoluene	91		91		70-130	0		30
1,2,4,5-Tetramethylbenzene	90		90		70-130	0		30
Ethyl ether	89		88		67-130	1		30
trans-1,4-Dichloro-2-butene	113		114		70-130	1		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	103		103		70-130
Toluene-d8	100		99		70-130
4-Bromofluorobenzene	101		99		70-130
Dibromofluoromethane	97		95		70-130

# SEMIVOLATILES

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-01  
 Client ID: SB-1  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN

Date Collected: 01/27/22 10:25  
 Date Received: 01/27/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 02/10/22 13:14  
 Analyst: IM  
 Percent Solids: 98%

Extraction Method: EPA 3546  
 Extraction Date: 02/09/22 12:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	130	17.	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	19.	1
Hexachlorobenzene	ND		ug/kg	100	19.	1
Bis(2-chloroethyl)ether	ND		ug/kg	150	23.	1
2-Chloronaphthalene	ND		ug/kg	170	17.	1
1,2-Dichlorobenzene	ND		ug/kg	170	30.	1
1,3-Dichlorobenzene	ND		ug/kg	170	29.	1
1,4-Dichlorobenzene	ND		ug/kg	170	29.	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	45.	1
2,4-Dinitrotoluene	ND		ug/kg	170	34.	1
2,6-Dinitrotoluene	ND		ug/kg	170	29.	1
Fluoranthene	ND		ug/kg	100	19.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	18.	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	26.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	29.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	180	17.	1
Hexachlorobutadiene	ND		ug/kg	170	25.	1
Hexachlorocyclopentadiene	ND		ug/kg	480	150	1
Hexachloroethane	ND		ug/kg	130	27.	1
Isophorone	ND		ug/kg	150	22.	1
Naphthalene	ND		ug/kg	170	20.	1
Nitrobenzene	ND		ug/kg	150	25.	1
NDPA/DPA	ND		ug/kg	130	19.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	26.	1
Bis(2-ethylhexyl)phthalate	62	J	ug/kg	170	58.	1
Butyl benzyl phthalate	ND		ug/kg	170	42.	1
Di-n-butylphthalate	ND		ug/kg	170	32.	1
Di-n-octylphthalate	ND		ug/kg	170	57.	1

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-01

Date Collected: 01/27/22 10:25

Client ID: SB-1

Date Received: 01/27/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	170	16.	1
Dimethyl phthalate	ND		ug/kg	170	35.	1
Benzo(a)anthracene	ND		ug/kg	100	19.	1
Benzo(a)pyrene	ND		ug/kg	130	41.	1
Benzo(b)fluoranthene	ND		ug/kg	100	28.	1
Benzo(k)fluoranthene	ND		ug/kg	100	27.	1
Chrysene	ND		ug/kg	100	17.	1
Acenaphthylene	ND		ug/kg	130	26.	1
Anthracene	ND		ug/kg	100	33.	1
Benzo(ghi)perylene	ND		ug/kg	130	20.	1
Fluorene	ND		ug/kg	170	16.	1
Phenanthrene	ND		ug/kg	100	20.	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	19.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.	1
Pyrene	ND		ug/kg	100	17.	1
Biphenyl	ND		ug/kg	380	22.	1
4-Chloroaniline	ND		ug/kg	170	30.	1
2-Nitroaniline	ND		ug/kg	170	32.	1
3-Nitroaniline	ND		ug/kg	170	32.	1
4-Nitroaniline	ND		ug/kg	170	70.	1
Dibenzofuran	ND		ug/kg	170	16.	1
2-Methylnaphthalene	ND		ug/kg	200	20.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	18.	1
Acetophenone	ND		ug/kg	170	21.	1
2,4,6-Trichlorophenol	ND		ug/kg	100	32.	1
p-Chloro-m-cresol	ND		ug/kg	170	25.	1
2-Chlorophenol	ND		ug/kg	170	20.	1
2,4-Dichlorophenol	ND		ug/kg	150	27.	1
2,4-Dimethylphenol	ND		ug/kg	170	55.	1
2-Nitrophenol	ND		ug/kg	360	63.	1
4-Nitrophenol	ND		ug/kg	240	68.	1
2,4-Dinitrophenol	ND		ug/kg	810	78.	1
4,6-Dinitro-o-cresol	ND		ug/kg	440	81.	1
Pentachlorophenol	ND		ug/kg	130	37.	1
Phenol	ND		ug/kg	170	25.	1
2-Methylphenol	ND		ug/kg	170	26.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.	1

**Project Name:** ARC2202**Lab Number:** L2204699**Project Number:** ARC2202**Report Date:** 02/15/22**SAMPLE RESULTS**

Lab ID: L2204699-01

Date Collected: 01/27/22 10:25

Client ID: SB-1

Date Received: 01/27/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	170	32.	1
Benzoic Acid	ND		ug/kg	540	170	1
Benzyl Alcohol	ND		ug/kg	170	51.	1
Carbazole	ND		ug/kg	170	16.	1
1,4-Dioxane	ND		ug/kg	25	7.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		25-120
Phenol-d6	56		10-120
Nitrobenzene-d5	53		23-120
2-Fluorobiphenyl	56		30-120
2,4,6-Tribromophenol	62		10-136
4-Terphenyl-d14	55		18-120



Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-01  
 Client ID: SB-1  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN

Date Collected: 01/27/22 10:25  
 Date Received: 01/27/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 01/31/22 22:41  
 Analyst: RS  
 Percent Solids: 98%

Extraction Method: ALPHA 23528  
 Extraction Date: 01/31/22 08:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.449	0.020	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.449	0.041	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.225	0.035	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.449	0.047	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.225	0.041	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.225	0.054	1
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.225	0.038	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.449	0.161	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.449	0.123	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.225	0.067	1
Perfluorooctanesulfonic Acid (PFOS)	0.126	J	ng/g	0.225	0.117	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.225	0.060	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.449	0.258	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.449	0.181	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.449	0.042	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.449	0.138	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.449	0.076	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.449	0.063	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.449	0.184	1
Perfluorotetradecanoic Acid (PFTTA)	0.107	J	ng/g	0.449	0.049	1
PFOA/PFOS, Total	0.126	J	ng/g	0.225	0.038	1

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-01

Date Collected: 01/27/22 10:25

Client ID: SB-1

Date Received: 01/27/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	28	Q	61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	35	Q	58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	89		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	44	Q	66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	51	Q	71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	84		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	55	Q	75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	75		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	59	Q	72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	80		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	58	Q	75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	75		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	14	Q	31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	59	Q	61-155
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	17	Q	34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	50	Q	54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	35		24-159

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

**SAMPLE RESULTS**

Lab ID: L2204699-01  
 Client ID: SB-1  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN

Date Collected: 01/27/22 10:25  
 Date Received: 01/27/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/01/22 12:14  
 Analyst: RS  
 Percent Solids: 98%

Extraction Method: ALPHA 23528  
 Extraction Date: 01/31/22 08:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.449	0.088	1
<b>Surrogate (Extracted Internal Standard)</b>			<b>% Recovery</b>	<b>Qualifier</b>	<b>Acceptance Criteria</b>	
Perfluoro[13C8]Octanesulfonamide (M8FOSA)			92		10-117	

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-02  
 Client ID: SB-2  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN

Date Collected: 01/27/22 12:00  
 Date Received: 01/27/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 02/10/22 13:38  
 Analyst: IM  
 Percent Solids: 95%

Extraction Method: EPA 3546  
 Extraction Date: 02/09/22 12:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	140	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	20.	1
Hexachlorobenzene	ND		ug/kg	100	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	24.	1
2-Chloronaphthalene	ND		ug/kg	170	17.	1
1,2-Dichlorobenzene	ND		ug/kg	170	31.	1
1,3-Dichlorobenzene	ND		ug/kg	170	30.	1
1,4-Dichlorobenzene	ND		ug/kg	170	30.	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	46.	1
2,4-Dinitrotoluene	ND		ug/kg	170	35.	1
2,6-Dinitrotoluene	ND		ug/kg	170	30.	1
Fluoranthene	ND		ug/kg	100	20.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	26.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	30.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	17.	1
Hexachlorobutadiene	ND		ug/kg	170	26.	1
Hexachlorocyclopentadiene	ND		ug/kg	500	160	1
Hexachloroethane	ND		ug/kg	140	28.	1
Isophorone	ND		ug/kg	160	23.	1
Naphthalene	ND		ug/kg	170	21.	1
Nitrobenzene	ND		ug/kg	160	26.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	27.	1
Bis(2-ethylhexyl)phthalate	68	J	ug/kg	170	60.	1
Butyl benzyl phthalate	ND		ug/kg	170	44.	1
Di-n-butylphthalate	ND		ug/kg	170	33.	1
Di-n-octylphthalate	ND		ug/kg	170	59.	1

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-02  
 Client ID: SB-2  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN

Date Collected: 01/27/22 12:00  
 Date Received: 01/27/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	170	16.	1
Dimethyl phthalate	ND		ug/kg	170	36.	1
Benzo(a)anthracene	ND		ug/kg	100	20.	1
Benzo(a)pyrene	ND		ug/kg	140	42.	1
Benzo(b)fluoranthene	ND		ug/kg	100	29.	1
Benzo(k)fluoranthene	ND		ug/kg	100	28.	1
Chrysene	ND		ug/kg	100	18.	1
Acenaphthylene	ND		ug/kg	140	27.	1
Anthracene	ND		ug/kg	100	34.	1
Benzo(ghi)perylene	ND		ug/kg	140	20.	1
Fluorene	ND		ug/kg	170	17.	1
Phenanthrene	ND		ug/kg	100	21.	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	24.	1
Pyrene	ND		ug/kg	100	17.	1
Biphenyl	ND		ug/kg	400	23.	1
4-Chloroaniline	ND		ug/kg	170	32.	1
2-Nitroaniline	ND		ug/kg	170	34.	1
3-Nitroaniline	ND		ug/kg	170	33.	1
4-Nitroaniline	ND		ug/kg	170	72.	1
Dibenzofuran	ND		ug/kg	170	16.	1
2-Methylnaphthalene	ND		ug/kg	210	21.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	18.	1
Acetophenone	ND		ug/kg	170	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	100	33.	1
p-Chloro-m-cresol	ND		ug/kg	170	26.	1
2-Chlorophenol	ND		ug/kg	170	20.	1
2,4-Dichlorophenol	ND		ug/kg	160	28.	1
2,4-Dimethylphenol	ND		ug/kg	170	58.	1
2-Nitrophenol	ND		ug/kg	380	66.	1
4-Nitrophenol	ND		ug/kg	240	71.	1
2,4-Dinitrophenol	ND		ug/kg	840	81.	1
4,6-Dinitro-o-cresol	ND		ug/kg	450	84.	1
Pentachlorophenol	ND		ug/kg	140	38.	1
Phenol	ND		ug/kg	170	26.	1
2-Methylphenol	ND		ug/kg	170	27.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	27.	1

**Project Name:** ARC2202**Lab Number:** L2204699**Project Number:** ARC2202**Report Date:** 02/15/22**SAMPLE RESULTS**

Lab ID: L2204699-02

Date Collected: 01/27/22 12:00

Client ID: SB-2

Date Received: 01/27/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	170	33.	1
Benzoic Acid	ND		ug/kg	560	180	1
Benzyl Alcohol	ND		ug/kg	170	53.	1
Carbazole	ND		ug/kg	170	17.	1
1,4-Dioxane	ND		ug/kg	26	8.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		25-120
Phenol-d6	61		10-120
Nitrobenzene-d5	56		23-120
2-Fluorobiphenyl	64		30-120
2,4,6-Tribromophenol	71		10-136
4-Terphenyl-d14	65		18-120

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-02  
 Client ID: SB-2  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN

Date Collected: 01/27/22 12:00  
 Date Received: 01/27/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 01/31/22 22:58  
 Analyst: RS  
 Percent Solids: 95%

Extraction Method: ALPHA 23528  
 Extraction Date: 01/31/22 08:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.486	0.022	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.486	0.045	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.243	0.038	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.486	0.051	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.243	0.044	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.243	0.059	1
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.243	0.041	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.486	0.174	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.486	0.133	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.243	0.073	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.243	0.126	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.243	0.065	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.486	0.279	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.486	0.196	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.486	0.046	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.486	0.149	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.486	0.095	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.486	0.082	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.486	0.068	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.486	0.199	1
Perfluorotetradecanoic Acid (PFTA)	0.143	J	ng/g	0.486	0.053	1
PFOA/PFOS, Total	ND		ng/g	0.243	0.041	1

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-02

Date Collected: 01/27/22 12:00

Client ID: SB-2

Date Received: 01/27/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	101		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	104		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	123		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	109		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	108		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	116		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	105		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	109		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	103		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	108		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	103		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	116		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	51		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	102		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	26		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	62		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	89		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	63		24-159



Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 01/31/22 17:27  
 Analyst: RS

Extraction Method: ALPHA 23528  
 Extraction Date: 01/31/22 08:58

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1599570-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.500	0.023
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.500	0.046
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.250	0.039
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.500	0.053
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.250	0.045
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.250	0.061
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.250	0.042
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.500	0.180
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.500	0.136
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.250	0.075
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.250	0.130
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.250	0.067
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.500	0.287
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.500	0.202
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.500	0.047
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.500	0.153
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.500	0.098
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.500	0.085
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.500	0.070
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.500	0.204
Perfluorotetradecanoic Acid (PFTA)	0.122	J	ng/g	0.500	0.054
PFOA/PFOS, Total	ND		ng/g	0.250	0.042

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204699  
**Report Date:** 02/15/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID  
Analytical Date: 01/31/22 17:27  
Analyst: RS

Extraction Method: ALPHA 23528  
Extraction Date: 01/31/22 08:58

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1599570-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	94		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	103		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	120		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	107		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	107		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	114		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	100		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	104		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	100		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	105		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	99		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	104		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	64		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	95		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	24		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	68		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	88		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	67		24-159

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204699  
**Report Date:** 02/15/22

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

Analytical Method: 134,LCMSMS-ID  
Analytical Date: 02/01/22 11:37  
Analyst: RS

Extraction Method: ALPHA 23528  
Extraction Date: 01/31/22 08:58

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02 Batch: WG1599570-1					
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.500	0.098

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	99		10-117

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/10/22 09:14  
 Analyst: WR

Extraction Method: EPA 3546  
 Extraction Date: 02/09/22 12:15

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1603095-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	98	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	29.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	28.
3,3'-Dichlorobenzidine	ND		ug/kg	160	43.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	98	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	17.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	18.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	110	J	ug/kg	160	56.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204699  
**Report Date:** 02/15/22

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

Analytical Method: 1,8270D  
Analytical Date: 02/10/22 09:14  
Analyst: WR

Extraction Method: EPA 3546  
Extraction Date: 02/09/22 12:15

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1603095-1					
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	27.
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.
Biphenyl	ND		ug/kg	370	21.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	31.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	15.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	98	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	350	61.

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204699  
**Report Date:** 02/15/22

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

Analytical Method: 1,8270D  
Analytical Date: 02/10/22 09:14  
Analyst: WR

Extraction Method: EPA 3546  
Extraction Date: 02/09/22 12:15

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1603095-1					
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	780	76.
4,6-Dinitro-o-cresol	ND		ug/kg	420	78.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	31.
Benzoic Acid	ND		ug/kg	530	160
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.
1,4-Dioxane	ND		ug/kg	24	7.5

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		25-120
Phenol-d6	60		10-120
Nitrobenzene-d5	56		23-120
2-Fluorobiphenyl	60		30-120
2,4,6-Tribromophenol	64		10-136
4-Terphenyl-d14	60		18-120

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1599570-2								
Perfluorobutanoic Acid (PFBA)	87		-		71-135	-		30
Perfluoropentanoic Acid (PFPeA)	88		-		69-132	-		30
Perfluorobutanesulfonic Acid (PFBS)	87		-		72-128	-		30
Perfluorohexanoic Acid (PFHxA)	85		-		70-132	-		30
Perfluoroheptanoic Acid (PFHpA)	86		-		71-131	-		30
Perfluorohexanesulfonic Acid (PFHxS)	89		-		67-130	-		30
Perfluorooctanoic Acid (PFOA)	86		-		69-133	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	105		-		64-140	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	87		-		70-132	-		30
Perfluorononanoic Acid (PFNA)	82		-		72-129	-		30
Perfluorooctanesulfonic Acid (PFOS)	94		-		68-136	-		30
Perfluorodecanoic Acid (PFDA)	83		-		69-133	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	114		-		65-137	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	106		-		63-144	-		30
Perfluoroundecanoic Acid (PFUnA)	86		-		64-136	-		30
Perfluorodecanesulfonic Acid (PFDS)	87		-		59-134	-		30
Perfluorooctanesulfonamide (FOSA)	86		-		67-137	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	97		-		61-139	-		30
Perfluorododecanoic Acid (PFDoA)	92		-		69-135	-		30
Perfluorotridecanoic Acid (PFTrDA)	93		-		66-139	-		30
Perfluorotetradecanoic Acid (PFTA)	85		-		69-133	-		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual		Limits	
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1599570-2									

Surrogate (Extracted Internal Standard)	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
Perfluoro[13C4]Butanoic Acid (MPFBA)	89				61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	95				58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	116				74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	101				66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	100				71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	111				78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	96				75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	105				20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	98				72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	104				79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	96				75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	98				19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	68				31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	93				61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	31				10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	59				34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	83				54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	68				24-159



### Lab Control Sample Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204699  
**Report Date:** 02/15/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 Batch: WG1599570-2								
Perfluorooctanesulfonamide (FOSA)	114		-		67-137	-		30

<b>Surrogate (Extracted Internal Standard)</b>	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	97				10-117

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1603095-2 WG1603095-3								
Acenaphthene	62		63		31-137	2		50
1,2,4-Trichlorobenzene	57		57		38-107	0		50
Hexachlorobenzene	65		64		40-140	2		50
Bis(2-chloroethyl)ether	57		56		40-140	2		50
2-Chloronaphthalene	62		62		40-140	0		50
1,2-Dichlorobenzene	57		55		40-140	4		50
1,3-Dichlorobenzene	57		55		40-140	4		50
1,4-Dichlorobenzene	55		55		28-104	0		50
3,3'-Dichlorobenzidine	49		41		40-140	18		50
2,4-Dinitrotoluene	63		63		40-132	0		50
2,6-Dinitrotoluene	66		63		40-140	5		50
Fluoranthene	64		64		40-140	0		50
4-Chlorophenyl phenyl ether	62		62		40-140	0		50
4-Bromophenyl phenyl ether	66		66		40-140	0		50
Bis(2-chloroisopropyl)ether	60		59		40-140	2		50
Bis(2-chloroethoxy)methane	61		60		40-117	2		50
Hexachlorobutadiene	59		60		40-140	2		50
Hexachlorocyclopentadiene	55		58		40-140	5		50
Hexachloroethane	55		55		40-140	0		50
Isophorone	59		58		40-140	2		50
Naphthalene	58		58		40-140	0		50
Nitrobenzene	59		58		40-140	2		50
NDPA/DPA	65		65		36-157	0		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1603095-2 WG1603095-3								
n-Nitrosodi-n-propylamine	59		59		32-121	0		50
Bis(2-ethylhexyl)phthalate	88		77		40-140	13		50
Butyl benzyl phthalate	66		63		40-140	5		50
Di-n-butylphthalate	68		67		40-140	1		50
Di-n-octylphthalate	74		71		40-140	4		50
Diethyl phthalate	64		64		40-140	0		50
Dimethyl phthalate	63		63		40-140	0		50
Benzo(a)anthracene	63		63		40-140	0		50
Benzo(a)pyrene	62		62		40-140	0		50
Benzo(b)fluoranthene	62		62		40-140	0		50
Benzo(k)fluoranthene	62		62		40-140	0		50
Chrysene	61		62		40-140	2		50
Acenaphthylene	64		64		40-140	0		50
Anthracene	65		64		40-140	2		50
Benzo(ghi)perylene	62		63		40-140	2		50
Fluorene	64		64		40-140	0		50
Phenanthrene	64		62		40-140	3		50
Dibenzo(a,h)anthracene	65		64		40-140	2		50
Indeno(1,2,3-cd)pyrene	70		71		40-140	1		50
Pyrene	64		63		35-142	2		50
Biphenyl	61		62		37-127	2		50
4-Chloroaniline	56		50		40-140	11		50
2-Nitroaniline	64		62		47-134	3		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1603095-2 WG1603095-3								
3-Nitroaniline	50		36		26-129	33		50
4-Nitroaniline	61		58		41-125	5		50
Dibenzofuran	63		64		40-140	2		50
2-Methylnaphthalene	61		62		40-140	2		50
1,2,4,5-Tetrachlorobenzene	61		62		40-117	2		50
Acetophenone	59		58		14-144	2		50
2,4,6-Trichlorophenol	65		64		30-130	2		50
p-Chloro-m-cresol	67		66		26-103	2		50
2-Chlorophenol	60		61		25-102	2		50
2,4-Dichlorophenol	66		64		30-130	3		50
2,4-Dimethylphenol	61		61		30-130	0		50
2-Nitrophenol	57		57		30-130	0		50
4-Nitrophenol	70		71		11-114	1		50
2,4-Dinitrophenol	39		43		4-130	10		50
4,6-Dinitro-o-cresol	58		60		10-130	3		50
Pentachlorophenol	53		55		17-109	4		50
Phenol	62		62		26-90	0		50
2-Methylphenol	63		64		30-130	2		50
3-Methylphenol/4-Methylphenol	69		66		30-130	4		50
2,4,5-Trichlorophenol	67		66		30-130	2		50
Benzoic Acid	0	Q	0	Q	10-110	NC		50
Benzyl Alcohol	62		63		40-140	2		50
Carbazole	63		64		54-128	2		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1603095-2 WG1603095-3								
1,4-Dioxane	44		42		40-140	5		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	59		57		25-120
Phenol-d6	61		60		10-120
Nitrobenzene-d5	57		56		23-120
2-Fluorobiphenyl	59		60		30-120
2,4,6-Tribromophenol	66		66		10-136
4-Terphenyl-d14	60		60		18-120

## Matrix Spike Analysis

### Batch Quality Control

**Project Name:** ARC2202

**Lab Number:** L2204699

**Project Number:** ARC2202

**Report Date:** 02/15/22

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1599570-3 QC Sample: L2204605-01 Client ID: MS Sample												
Perfluorobutanoic Acid (PFBA)	ND	6.29	5.53	88		-	-		71-135	-		30
Perfluoropentanoic Acid (PFPeA)	ND	6.29	5.62	89		-	-		69-132	-		30
Perfluorobutanesulfonic Acid (PFBS)	ND	5.59	5.12	92		-	-		72-128	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	5.89	5.35	91		-	-		62-145	-		30
Perfluorohexanoic Acid (PFHxA)	ND	6.29	5.64	90		-	-		70-132	-		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	5.92	8.64	146	Q	-	-		73-123	-		30
Perfluoroheptanoic Acid (PFHpA)	0.115J	6.29	5.58	87		-	-		71-131	-		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	5.75	6.14	107		-	-		67-130	-		30
Perfluorooctanoic Acid (PFOA)	0.374	6.29	5.73	85		-	-		69-133	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	5.99	6.48	108		-	-		64-140	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	5.99	4.23	71		-	-		70-132	-		30
Perfluorononanoic Acid (PFNA)	ND	6.29	5.42	86		-	-		72-129	-		30
Perfluorooctanesulfonic Acid (PFOS)	ND	5.84	5.85	100		-	-		68-136	-		30
Perfluorodecanoic Acid (PFDA)	ND	6.29	5.52	88		-	-		69-133	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	6.04	6.40	106		-	-		65-137	-		30
Perfluorononanesulfonic Acid (PFNS)	ND	6.05	5.37	89		-	-		69-125	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	6.29	6.04	96		-	-		63-144	-		30
Perfluoroundecanoic Acid (PFUnA)	ND	6.29	5.54	88		-	-		64-136	-		30
Perfluorodecanesulfonic Acid (PFDS)	ND	6.07	5.19	86		-	-		59-134	-		30
Perfluorooctanesulfonamide (FOSA)	ND	6.29	5.37	85		-	-		67-137	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	6.29	6.21	99		-	-		61-139	-		30
Perfluorododecanoic Acid (PFDoA)	ND	6.29	5.72	91		-	-		69-135	-		30

## Matrix Spike Analysis

Batch Quality Control

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1599570-3 QC Sample: L2204605-01 Client ID: MS Sample												
Perfluorotridecanoic Acid (PFTTrDA)	ND	6.29	5.35	85		-	-		66-139	-		30
Perfluorotetradecanoic Acid (PFTTA)	0.173J	6.29	5.43	84		-	-		69-133	-		30

Surrogate (Extracted Internal Standard)	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	133				19-175
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	63				14-167
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	59				20-154
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	100				34-137
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	96				31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	113				61-155
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	98				75-130
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	104				66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	137	Q			71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	71	Q			78-139
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	105				54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	91				24-159
Perfluoro[13C4]Butanoic Acid (MPFBA)	101				61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	107				58-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	57				10-117
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	112				79-136
Perfluoro[13C8]Octanoic Acid (M8PFOA)	107				75-130
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	141	Q			72-140
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	122				74-139

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204699

Report Date: 02/15/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1599570-4 QC Sample: L2204605-03 Client ID: DUP Sample						
Perfluorobutanoic Acid (PFBA)	ND	ND	ng/g	NC		30
Perfluoropentanoic Acid (PFPeA)	ND	ND	ng/g	NC		30
Perfluorobutanesulfonic Acid (PFBS)	ND	ND	ng/g	NC		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	ND	ng/g	NC		30
Perfluorohexanoic Acid (PFHxA)	ND	ND	ng/g	NC		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	ND	ng/g	NC		30
Perfluoroheptanoic Acid (PFHpA)	ND	ND	ng/g	NC		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	ND	ng/g	NC		30
Perfluorooctanoic Acid (PFOA)	0.070J	0.082J	ng/g	NC		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	ND	ng/g	NC		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	ND	ng/g	NC		30
Perfluorononanoic Acid (PFNA)	ND	ND	ng/g	NC		30
Perfluorooctanesulfonic Acid (PFOS)	ND	ND	ng/g	NC		30
Perfluorodecanoic Acid (PFDA)	ND	ND	ng/g	NC		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	ND	ng/g	NC		30
Perfluorononanesulfonic Acid (PFNS)	ND	ND	ng/g	NC		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	ND	ng/g	NC		30
Perfluoroundecanoic Acid (PFUnA)	ND	ND	ng/g	NC		30
Perfluorodecanesulfonic Acid (PFDS)	ND	ND	ng/g	NC		30
Perfluorooctanesulfonamide (FOSA)	ND	ND	ng/g	NC		30



## Lab Duplicate Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204699

Report Date: 02/15/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1599570-4 QC Sample: L2204605-03 Client ID: DUP Sample						
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	ND	ng/g	NC		30
Perfluorododecanoic Acid (PFDoA)	ND	ND	ng/g	NC		30
Perfluorotridecanoic Acid (PFTTrDA)	ND	ND	ng/g	NC		30
Perfluorotetradecanoic Acid (PFTA)	0.150J	0.129J	ng/g	NC		30

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	106		104		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	111		108		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	132		121		74-139
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	141		139		14-167
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	110		105		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	111		108		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	125		118		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	110		107		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	149		153		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	117		111		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	121		113		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	110		108		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	<b>192</b>	Q	<b>195</b>	Q	19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	91		91		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	112		109		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	26		32		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	111		108		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	105		100		54-150

## Lab Duplicate Analysis

Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204699

Report Date: 02/15/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1599570-4 QC Sample: L2204605-03 Client ID: DUP Sample						

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	83		84		24-159

# PCBS

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-01  
 Client ID: SB-1  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN

Date Collected: 01/27/22 10:25  
 Date Received: 01/27/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 02/12/22 10:38  
 Analyst: WR  
 Percent Solids: 98%

Extraction Method: EPA 3546  
 Extraction Date: 02/10/22 19:45  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/11/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/12/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	33.3	2.96	1	A
Aroclor 1221	ND		ug/kg	33.3	3.34	1	A
Aroclor 1232	ND		ug/kg	33.3	7.06	1	A
Aroclor 1242	ND		ug/kg	33.3	4.49	1	A
Aroclor 1248	ND		ug/kg	33.3	5.00	1	A
Aroclor 1254	ND		ug/kg	33.3	3.65	1	A
Aroclor 1260	ND		ug/kg	33.3	6.16	1	A
Aroclor 1262	ND		ug/kg	33.3	4.23	1	A
Aroclor 1268	ND		ug/kg	33.3	3.45	1	A
PCBs, Total	ND		ug/kg	33.3	2.96	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	A
Decachlorobiphenyl	55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	61		30-150	B

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-02  
 Client ID: SB-2  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN

Date Collected: 01/27/22 12:00  
 Date Received: 01/27/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 02/12/22 10:45  
 Analyst: WR  
 Percent Solids: 95%

Extraction Method: EPA 3546  
 Extraction Date: 02/10/22 19:45  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/11/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/12/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	33.5	2.97	1	A
Aroclor 1221	ND		ug/kg	33.5	3.35	1	A
Aroclor 1232	ND		ug/kg	33.5	7.10	1	A
Aroclor 1242	ND		ug/kg	33.5	4.51	1	A
Aroclor 1248	ND		ug/kg	33.5	5.02	1	A
Aroclor 1254	ND		ug/kg	33.5	3.66	1	A
Aroclor 1260	ND		ug/kg	33.5	6.19	1	A
Aroclor 1262	ND		ug/kg	33.5	4.25	1	A
Aroclor 1268	ND		ug/kg	33.5	3.47	1	A
PCBs, Total	ND		ug/kg	33.5	2.97	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	88		30-150	A
Decachlorobiphenyl	62		30-150	A
2,4,5,6-Tetrachloro-m-xylene	89		30-150	B
Decachlorobiphenyl	67		30-150	B

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204699  
**Report Date:** 02/15/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8082A  
Analytical Date: 02/11/22 01:07  
Analyst: JM

Extraction Method: EPA 3546  
Extraction Date: 02/10/22 11:33  
Cleanup Method: EPA 3665A  
Cleanup Date: 02/10/22  
Cleanup Method: EPA 3660B  
Cleanup Date: 02/10/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-02 Batch: WG1603571-1						
Aroclor 1016	ND		ug/kg	32.3	2.87	A
Aroclor 1221	ND		ug/kg	32.3	3.24	A
Aroclor 1232	ND		ug/kg	32.3	6.85	A
Aroclor 1242	ND		ug/kg	32.3	4.35	A
Aroclor 1248	ND		ug/kg	32.3	4.84	A
Aroclor 1254	ND		ug/kg	32.3	3.53	A
Aroclor 1260	ND		ug/kg	32.3	5.97	A
Aroclor 1262	ND		ug/kg	32.3	4.10	A
Aroclor 1268	ND		ug/kg	32.3	3.35	A
PCBs, Total	ND		ug/kg	32.3	2.87	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	60		30-150	B

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204699  
**Report Date:** 02/15/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG1603571-2 WG1603571-3									
Aroclor 1016	63		64		40-140	2		50	A
Aroclor 1260	57		58		40-140	2		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		66		30-150	A
Decachlorobiphenyl	60		56		30-150	A
2,4,5,6-Tetrachloro-m-xylene	92		71		30-150	B
Decachlorobiphenyl	60		56		30-150	B

# PESTICIDES



Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-01  
 Client ID: SB-1  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN

Date Collected: 01/27/22 10:25  
 Date Received: 01/27/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 02/10/22 13:56  
 Analyst: EJL  
 Percent Solids: 98%

Extraction Method: EPA 3546  
 Extraction Date: 02/09/22 13:15  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/10/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.58	0.310	1	A
Lindane	ND		ug/kg	0.660	0.295	1	A
Alpha-BHC	ND		ug/kg	0.660	0.188	1	A
Beta-BHC	ND		ug/kg	1.58	0.601	1	A
Heptachlor	ND		ug/kg	0.793	0.355	1	A
Aldrin	ND		ug/kg	1.58	0.558	1	A
Heptachlor epoxide	ND		ug/kg	2.97	0.892	1	A
Endrin	ND		ug/kg	0.660	0.271	1	A
Endrin aldehyde	ND		ug/kg	1.98	0.694	1	A
Endrin ketone	ND		ug/kg	1.58	0.408	1	A
Dieldrin	ND		ug/kg	0.991	0.495	1	A
4,4'-DDE	ND		ug/kg	1.58	0.366	1	A
4,4'-DDD	ND		ug/kg	1.58	0.565	1	A
4,4'-DDT	ND		ug/kg	2.97	1.27	1	A
Endosulfan I	ND		ug/kg	1.58	0.374	1	A
Endosulfan II	ND		ug/kg	1.58	0.530	1	A
Endosulfan sulfate	ND		ug/kg	0.660	0.314	1	A
Methoxychlor	ND		ug/kg	2.97	0.925	1	A
Toxaphene	ND		ug/kg	29.7	8.32	1	A
cis-Chlordane	ND		ug/kg	1.98	0.552	1	A
trans-Chlordane	ND		ug/kg	1.98	0.523	1	A
Chlordane	ND		ug/kg	13.2	5.25	1	A

**Project Name:** ARC2202**Lab Number:** L2204699**Project Number:** ARC2202**Report Date:** 02/15/22**SAMPLE RESULTS**

Lab ID: L2204699-01

Date Collected: 01/27/22 10:25

Client ID: SB-1

Date Received: 01/27/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	76		30-150	A
2,4,5,6-Tetrachloro-m-xylene	72		30-150	B
Decachlorobiphenyl	71		30-150	B

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-02  
 Client ID: SB-2  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN

Date Collected: 01/27/22 12:00  
 Date Received: 01/27/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 02/10/22 14:06  
 Analyst: EJJ  
 Percent Solids: 95%

Extraction Method: EPA 3546  
 Extraction Date: 02/09/22 13:15  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/10/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.65	0.323	1	A
Lindane	ND		ug/kg	0.687	0.307	1	A
Alpha-BHC	ND		ug/kg	0.687	0.195	1	A
Beta-BHC	ND		ug/kg	1.65	0.625	1	A
Heptachlor	ND		ug/kg	0.824	0.370	1	A
Aldrin	ND		ug/kg	1.65	0.580	1	A
Heptachlor epoxide	ND		ug/kg	3.09	0.928	1	A
Endrin	ND		ug/kg	0.687	0.282	1	A
Endrin aldehyde	ND		ug/kg	2.06	0.721	1	A
Endrin ketone	ND		ug/kg	1.65	0.425	1	A
Dieldrin	ND		ug/kg	1.03	0.515	1	A
4,4'-DDE	ND		ug/kg	1.65	0.381	1	A
4,4'-DDD	ND		ug/kg	1.65	0.588	1	A
4,4'-DDT	ND		ug/kg	3.09	1.33	1	A
Endosulfan I	ND		ug/kg	1.65	0.390	1	A
Endosulfan II	ND		ug/kg	1.65	0.551	1	A
Endosulfan sulfate	ND		ug/kg	0.687	0.327	1	A
Methoxychlor	ND		ug/kg	3.09	0.962	1	A
Toxaphene	ND		ug/kg	30.9	8.66	1	A
cis-Chlordane	ND		ug/kg	2.06	0.574	1	A
trans-Chlordane	ND		ug/kg	2.06	0.544	1	A
Chlordane	ND		ug/kg	13.7	5.46	1	A

**Project Name:** ARC2202**Lab Number:** L2204699**Project Number:** ARC2202**Report Date:** 02/15/22**SAMPLE RESULTS**

Lab ID: L2204699-02

Date Collected: 01/27/22 12:00

Client ID: SB-2

Date Received: 01/27/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	75		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	71		30-150	B

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204699  
**Report Date:** 02/15/22

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

Analytical Method: 1,8081B  
Analytical Date: 02/10/22 11:19  
Analyst: EJL

Extraction Method: EPA 3546  
Extraction Date: 02/09/22 13:15  
Cleanup Method: EPA 3620B  
Cleanup Date: 02/10/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-02 Batch: WG1603122-1						
Delta-BHC	ND		ug/kg	1.59	0.311	A
Lindane	ND		ug/kg	0.661	0.296	A
Alpha-BHC	ND		ug/kg	0.661	0.188	A
Beta-BHC	ND		ug/kg	1.59	0.602	A
Heptachlor	ND		ug/kg	0.794	0.356	A
Aldrin	ND		ug/kg	1.59	0.559	A
Heptachlor epoxide	ND		ug/kg	2.98	0.893	A
Endrin	ND		ug/kg	0.661	0.271	A
Endrin aldehyde	ND		ug/kg	1.98	0.694	A
Endrin ketone	ND		ug/kg	1.59	0.409	A
Dieldrin	ND		ug/kg	0.992	0.496	A
4,4'-DDE	ND		ug/kg	1.59	0.367	A
4,4'-DDD	ND		ug/kg	1.59	0.566	A
4,4'-DDT	ND		ug/kg	2.98	1.28	A
Endosulfan I	ND		ug/kg	1.59	0.375	A
Endosulfan II	ND		ug/kg	1.59	0.530	A
Endosulfan sulfate	ND		ug/kg	0.661	0.315	A
Methoxychlor	ND		ug/kg	2.98	0.926	A
Toxaphene	ND		ug/kg	29.8	8.33	A
cis-Chlordane	ND		ug/kg	1.98	0.553	A
trans-Chlordane	ND		ug/kg	1.98	0.524	A
Chlordane	ND		ug/kg	13.2	5.26	A

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204699  
**Report Date:** 02/15/22

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

Analytical Method: 1,8081B  
Analytical Date: 02/10/22 11:19  
Analyst: EJL

Extraction Method: EPA 3546  
Extraction Date: 02/09/22 13:15  
Cleanup Method: EPA 3620B  
Cleanup Date: 02/10/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-02 Batch: WG1603122-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		30-150	A
Decachlorobiphenyl	78		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	72		30-150	B

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG1603122-2 WG1603122-3									
Delta-BHC	74		70		30-150	6		30	A
Lindane	72		70		30-150	3		30	A
Alpha-BHC	75		73		30-150	3		30	A
Beta-BHC	67		65		30-150	3		30	A
Heptachlor	68		64		30-150	6		30	A
Aldrin	70		67		30-150	4		30	A
Heptachlor epoxide	56		53		30-150	6		30	A
Endrin	70		67		30-150	4		30	A
Endrin aldehyde	56		52		30-150	7		30	A
Endrin ketone	62		60		30-150	3		30	A
Dieldrin	72		69		30-150	4		30	A
4,4'-DDE	68		64		30-150	6		30	A
4,4'-DDD	74		70		30-150	6		30	A
4,4'-DDT	72		66		30-150	9		30	A
Endosulfan I	63		60		30-150	5		30	A
Endosulfan II	68		65		30-150	5		30	A
Endosulfan sulfate	49		45		30-150	9		30	A
Methoxychlor	69		67		30-150	3		30	A
cis-Chlordane	61		58		30-150	5		30	A
trans-Chlordane	76		75		30-150	1		30	A

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204699  
**Report Date:** 02/15/22

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG1603122-2 WG1603122-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	64		61		30-150	A
Decachlorobiphenyl	77		76		30-150	A
2,4,5,6-Tetrachloro-m-xylene	72		67		30-150	B
Decachlorobiphenyl	77		72		30-150	B



# METALS

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-01

Date Collected: 01/27/22 10:25

Client ID: SB-1

Date Received: 01/27/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 98%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	2740		mg/kg	7.86	2.12	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Antimony, Total	ND		mg/kg	3.93	0.299	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Arsenic, Total	1.15		mg/kg	0.786	0.164	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Barium, Total	21.0		mg/kg	0.786	0.137	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Beryllium, Total	0.181	J	mg/kg	0.393	0.026	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Cadmium, Total	0.149	J	mg/kg	0.786	0.077	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Calcium, Total	451		mg/kg	7.86	2.75	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Chromium, Total	7.80		mg/kg	0.786	0.076	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Cobalt, Total	4.06		mg/kg	1.57	0.130	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Copper, Total	6.93		mg/kg	0.786	0.203	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Iron, Total	7200		mg/kg	3.93	0.710	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Lead, Total	3.10	J	mg/kg	3.93	0.211	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Magnesium, Total	1290		mg/kg	7.86	1.21	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Manganese, Total	203		mg/kg	0.786	0.125	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Mercury, Total	ND		mg/kg	0.065	0.042	1	02/03/22 07:50	02/09/22 14:07	EPA 7471B	1,7471B	AC
Nickel, Total	22.2		mg/kg	1.97	0.190	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Potassium, Total	414		mg/kg	197	11.3	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Selenium, Total	ND		mg/kg	1.57	0.203	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Silver, Total	ND		mg/kg	0.786	0.222	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Sodium, Total	55.9	J	mg/kg	157	2.48	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Thallium, Total	ND		mg/kg	1.57	0.248	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Vanadium, Total	11.8		mg/kg	0.786	0.160	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL
Zinc, Total	14.6		mg/kg	3.93	0.230	2	02/03/22 06:45	02/09/22 16:56	EPA 3050B	1,6010D	DL



Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-02

Date Collected: 01/27/22 12:00

Client ID: SB-2

Date Received: 01/27/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	2710		mg/kg	7.91	2.14	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Antimony, Total	ND		mg/kg	3.96	0.301	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Arsenic, Total	1.45		mg/kg	0.791	0.165	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Barium, Total	19.3		mg/kg	0.791	0.138	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Beryllium, Total	0.174	J	mg/kg	0.396	0.026	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Cadmium, Total	0.134	J	mg/kg	0.791	0.078	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Calcium, Total	643		mg/kg	7.91	2.77	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Chromium, Total	7.12		mg/kg	0.791	0.076	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Cobalt, Total	3.60		mg/kg	1.58	0.131	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Copper, Total	6.73		mg/kg	0.791	0.204	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Iron, Total	7790		mg/kg	3.96	0.715	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Lead, Total	3.55	J	mg/kg	3.96	0.212	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Magnesium, Total	1510		mg/kg	7.91	1.22	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Manganese, Total	185		mg/kg	0.791	0.126	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Mercury, Total	ND		mg/kg	0.067	0.044	1	02/03/22 07:50	02/09/22 14:10	EPA 7471B	1,7471B	AC
Nickel, Total	24.2		mg/kg	1.98	0.192	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Potassium, Total	470		mg/kg	198	11.4	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Selenium, Total	ND		mg/kg	1.58	0.204	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Silver, Total	ND		mg/kg	0.791	0.224	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Sodium, Total	64.5	J	mg/kg	158	2.49	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Thallium, Total	ND		mg/kg	1.58	0.249	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Vanadium, Total	12.2		mg/kg	0.791	0.161	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL
Zinc, Total	16.2		mg/kg	3.96	0.232	2	02/03/22 06:45	02/09/22 17:01	EPA 3050B	1,6010D	DL



Project Name: ARC2202  
Project Number: ARC2202

Lab Number: L2204699  
Report Date: 02/15/22

## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1600675-1										
Aluminum, Total	ND		mg/kg	4.00	1.08	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Antimony, Total	ND		mg/kg	2.00	0.152	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Arsenic, Total	ND		mg/kg	0.400	0.083	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Barium, Total	ND		mg/kg	0.400	0.070	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Beryllium, Total	ND		mg/kg	0.200	0.013	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Cadmium, Total	ND		mg/kg	0.400	0.039	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Calcium, Total	ND		mg/kg	4.00	1.40	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Chromium, Total	ND		mg/kg	0.400	0.038	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Cobalt, Total	ND		mg/kg	0.800	0.066	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Copper, Total	ND		mg/kg	0.400	0.103	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Iron, Total	0.584	J	mg/kg	2.00	0.361	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Lead, Total	ND		mg/kg	2.00	0.107	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Magnesium, Total	ND		mg/kg	4.00	0.616	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Manganese, Total	ND		mg/kg	0.400	0.064	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Nickel, Total	ND		mg/kg	1.00	0.097	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Potassium, Total	ND		mg/kg	100	5.76	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Selenium, Total	ND		mg/kg	0.800	0.103	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Silver, Total	ND		mg/kg	0.400	0.113	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Sodium, Total	7.19	J	mg/kg	80.0	1.26	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Thallium, Total	ND		mg/kg	0.800	0.126	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Vanadium, Total	ND		mg/kg	0.400	0.081	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL
Zinc, Total	ND		mg/kg	2.00	0.117	1	02/03/22 06:45	02/09/22 15:21	1,6010D	DL

### Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1600677-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	02/03/22 07:50	02/09/22 12:45	1,7471B	AC



**Project Name:** ARC2202

**Lab Number:** L2204699

**Project Number:** ARC2202

**Report Date:** 02/15/22

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

### **Prep Information**

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Digestion Method: EPA 7471B

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204699

Report Date: 02/15/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1600675-2 SRM Lot Number: D113-540								
Aluminum, Total	75		-		51-149	-		
Antimony, Total	127		-		20-250	-		
Arsenic, Total	95		-		70-130	-		
Barium, Total	94		-		75-125	-		
Beryllium, Total	90		-		75-125	-		
Cadmium, Total	90		-		75-125	-		
Calcium, Total	93		-		73-128	-		
Chromium, Total	93		-		70-130	-		
Cobalt, Total	94		-		75-125	-		
Copper, Total	93		-		75-125	-		
Iron, Total	94		-		36-164	-		
Lead, Total	92		-		72-128	-		
Magnesium, Total	90		-		63-138	-		
Manganese, Total	91		-		77-123	-		
Nickel, Total	91		-		70-130	-		
Potassium, Total	93		-		59-141	-		
Selenium, Total	93		-		66-134	-		
Silver, Total	100		-		70-131	-		
Sodium, Total	102		-		35-164	-		
Thallium, Total	90		-		70-130	-		
Vanadium, Total	96		-		74-126	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204699

Report Date: 02/15/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1600675-2 SRM Lot Number: D113-540					
Zinc, Total	92	-	70-130	-	
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1600677-2 SRM Lot Number: D113-540					
Mercury, Total	98	-	60-140	-	

### Matrix Spike Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204699  
**Report Date:** 02/15/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02    QC Batch ID: WG1600675-3 WG1600675-4    QC Sample: L2204608-01    Client ID: MS Sample												
Aluminum, Total	2130	184	2510	206	Q	2420	157	Q	75-125	4		20
Antimony, Total	ND	46.1	35.8	78		35.3	76		75-125	1		20
Arsenic, Total	2.64	11	12.1	86		12.7	91		75-125	5		20
Barium, Total	17.7	184	188	92		192	94		75-125	2		20
Beryllium, Total	0.185J	4.61	4.42	96		4.43	96		75-125	0		20
Cadmium, Total	0.141J	4.88	4.40	90		4.36	89		75-125	1		20
Calcium, Total	6180	922	7280	119		7820	178	Q	75-125	7		20
Chromium, Total	5.86	18.4	21.5	85		21.4	84		75-125	0		20
Cobalt, Total	3.13	46.1	41.3	83		40.9	82		75-125	1		20
Copper, Total	15.1	23	30.1	65	Q	32.0	73	Q	75-125	6		20
Iron, Total	6700	92.2	6660	0	Q	6700	0	Q	75-125	1		20
Lead, Total	7.11	48.8	47.0	82		47.9	83		75-125	2		20
Magnesium, Total	1460	922	2430	105		2380	100		75-125	2		20
Manganese, Total	118	46.1	155	80		155	80		75-125	0		20
Nickel, Total	5.49	46.1	43.8	83		43.0	81		75-125	2		20
Potassium, Total	396	922	1410	110		1360	104		75-125	4		20
Selenium, Total	ND	11	9.90	90		9.66	87		75-125	2		20
Silver, Total	ND	27.6	26.5	96		26.4	95		75-125	0		20
Sodium, Total	125J	922	1050	114		1050	114		75-125	0		20
Thallium, Total	ND	11	9.19	83		8.94	81		75-125	3		20
Vanadium, Total	9.18	46.1	50.1	89		49.7	88		75-125	1		20



**Matrix Spike Analysis**  
Batch Quality Control

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1600675-3 WG1600675-4 QC Sample: L2204608-01 Client ID: MS Sample									
Zinc, Total	15.5	46.1	52.2	80	52.6	80	75-125	1	20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1600677-3 WG1600677-4 QC Sample: L2204608-01 Client ID: MS Sample									
Mercury, Total	ND	0.147	0.163	111	0.164	112	80-120	1	20

Project Name: ARC2202

Project Number: ARC2202

**Lab Serial Dilution  
Analysis  
Batch Quality Control**

Lab Number: L2204699

Report Date: 02/15/22

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1600675-6 QC Sample: L2204608-01 Client ID: DUP Sample						
Aluminum, Total	2130	2450	mg/kg	15		20
Calcium, Total	6180	6920	mg/kg	12		20
Iron, Total	6700	7600	mg/kg	13		20
Magnesium, Total	1460	1730	mg/kg	18		20
Manganese, Total	118	136	mg/kg	15		20

# **INORGANICS & MISCELLANEOUS**

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

**SAMPLE RESULTS**

Lab ID: L2204699-01

Date Collected: 01/27/22 10:25

Client ID: SB-1

Date Received: 01/27/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	97.8		%	0.100	NA	1	-	01/28/22 12:25	121,2540G	RI



Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

## SAMPLE RESULTS

Lab ID: L2204699-02

Date Collected: 01/27/22 12:00

Client ID: SB-2

Date Received: 01/27/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	95.0		%	0.100	NA	1	-	01/28/22 12:25	121,2540G	RI



**Lab Duplicate Analysis**  
*Batch Quality Control*

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204699

Report Date: 02/15/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1599175-1 QC Sample: L2204585-01 Client ID: DUP Sample						
Solids, Total	80.8	80.8	%	0		20

Project Name: ARC2202

Lab Number: L2204699

Project Number: ARC2202

Report Date: 02/15/22

**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

Cooler	Custody Seal
A	Absent

**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2204699-01A	Vial MeOH preserved	A	NA		2.2	Y	Absent		NYTCL-8260HLW(14)
L2204699-01B	Vial water preserved	A	NA		2.2	Y	Absent	28-JAN-22 07:42	NYTCL-8260HLW(14)
L2204699-01C	Vial water preserved	A	NA		2.2	Y	Absent	28-JAN-22 07:42	NYTCL-8260HLW(14)
L2204699-01D	Plastic 2oz unpreserved for TS	A	NA		2.2	Y	Absent		TS(7)
L2204699-01E	Plastic 120ml unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),TL-TI(180),CR-TI(180),NI-TI(180),CU-TI(180),SE-TI(180),PB-TI(180),SB-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),MG-TI(180),FE-TI(180),MN-TI(180),HG-T(28),K-TI(180),CA-TI(180),NA-TI(180),CD-TI(180)
L2204699-01F	Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)
L2204699-01G	Plastic 8oz unpreserved	A	NA		2.2	Y	Absent		A2-NY-537-ISOTOPE(14)
L2204699-01H	Glass 250ml/8oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)
L2204699-02A	Vial MeOH preserved	A	NA		2.2	Y	Absent		NYTCL-8260HLW(14)
L2204699-02B	Vial water preserved	A	NA		2.2	Y	Absent	28-JAN-22 07:42	NYTCL-8260HLW(14)
L2204699-02C	Vial water preserved	A	NA		2.2	Y	Absent	28-JAN-22 07:42	NYTCL-8260HLW(14)
L2204699-02D	Plastic 2oz unpreserved for TS	A	NA		2.2	Y	Absent		TS(7)
L2204699-02E	Plastic 120ml unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),AL-TI(180),SE-TI(180),PB-TI(180),ZN-TI(180),CU-TI(180),SB-TI(180),CO-TI(180),V-TI(180),HG-T(28),MG-TI(180),MN-TI(180),FE-TI(180),K-TI(180),NA-TI(180),CA-TI(180),CD-TI(180)
L2204699-02F	Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)
L2204699-02G	Plastic 8oz unpreserved	A	NA		2.2	Y	Absent		A2-NY-537-ISOTOPE(14)
L2204699-02H	Glass 250ml/8oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)

Project Name: ARC2202

Project Number: ARC2202

Serial\_No:02152213:55  
Lab Number: L2204699

Report Date: 02/15/22

## PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
<b>PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)</b>		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
<b>PERFLUOROALKYL SULFONIC ACIDS (PFSAs)</b>		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
<b>FLUOROTELOMERS</b>		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
<b>PERFLUOROALKANE SULFONAMIDES (FASAs)</b>		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
<b>PERFLUOROALKANE SULFONYL SUBSTANCES</b>		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
<b>PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS</b>		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
<b>CHLORO-PERFLUOROALKYL SULFONIC ACIDS</b>		
11-Chloroeicosafuoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
<b>PERFLUOROETHER SULFONIC ACIDS (PFESAs)</b>		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEEESA	113507-82-7
<b>PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)</b>		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204699  
**Report Date:** 02/15/22

## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204699  
**Report Date:** 02/15/22

#### Footnotes

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

#### Terms

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

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

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

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

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

**PAH Total:** With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

#### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204699  
**Report Date:** 02/15/22

**Data Qualifiers**

- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** ARC2202**Lab Number:** L2204699**Project Number:** ARC2202**Report Date:** 02/15/22

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

## LIMITATION OF LIABILITIES

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

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



## Certification Information

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

### Westborough Facility

**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene

**EPA 625/625.1:** alpha-Terpineol

**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

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

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

**EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LCHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

**SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

**EPA 624.1:** Volatile Halocarbons & Aromatics,

**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

**EPA 522, EPA 537.1.**

#### Non-Potable Water


**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

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

 <b>ALPHA ENVIRONMENTAL</b>	<b>NEW YORK CHAIN OF CUSTODY</b>	<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page   of	Date Rec'd in Lab 1/28/22	ALPHA Job # L 2204099			
		Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288					
Project Information		Project Name: <u>ARC2201</u>		Deliverables				
Project Location: <u>2359 Bedford Ave Brooklyn</u>		Project #		<input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other				
Client Information		Project Manager: <u>USMAN CHAUDHRY</u>		Regulatory Requirement				
Client: <u>DW GROSSER</u>		ALPHAQuote #:		<input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge				
Address: <u>630 JOHNSON AVE S#7</u>		Turn-Around Time		Disposal Site Information				
Bohemia NY 11787		Standard <input checked="" type="checkbox"/> Due Date:		Please identify below location of applicable disposal facilities.				
Phone: <u>631 689 0353</u>		Rush (only if pre approved) <input type="checkbox"/> # of Days:		Disposal Facility:				
Fax:				<input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:				
Email: <u>Uchaudhry@pwgrosser.com</u>				ANALYSIS				
These samples have been previously analyzed by Alpha <input type="checkbox"/>				Sample Filtration				
Other project specific requirements/comments:				<input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)				
Please specify Metals or TAL.				Total Bottles				
*pesticides/PCBS except Cr <sup>6+</sup> , Cr <sup>3+</sup> , herbicides & total cyanide				VOCs (EPA 8260)      SVOCs (8270)      Metals (EPA 601.1)      Pesticides/PCBs*      PFAS 1-4 Dioxin				
Please specify Metals or TAL.				Sample Specific Comments				
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials			
		Date	Time					
<u>01699-01</u>	<u>SB-1</u>	<u>1/27/22</u>	<u>10:25</u>	<u>S</u>	<u>AM</u>	<u>X</u>	<u>X</u>	<u>X</u>
<u>-02</u>	<u>SB-2</u>	<u>1/27/22</u>	<u>12:00</u>	<u>S</u>	<u>AM</u>	<u>X</u>	<u>X</u>	<u>X</u>
Preservative Code:		Container Code		Westboro: Certification No: MA935		Container Type		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)
A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other		P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Mansfield: Certification No: MA015		Preservative		
Relinquished By:		Date/Time		Received By:		Date/Time		
<u>J. Sherry Monti</u>		<u>1/27/22 7:45</u>		<u>USMAN CHAUDHRY</u>		<u>1/27/22 17:50</u>		
<u>Erin...</u>		<u>1/27/22 19:30</u>		<u>Johanna...</u>		<u>1/27/22 20:00</u>		
<u>Johanna...</u>		<u>1/27/22</u>		<u>J...</u>		<u>1/27/22 22:30</u>		
<u>...</u>		<u>1/28/22 0:25</u>		<u>...</u>		<u>1/28/22 0:25</u>		



## ANALYTICAL REPORT

Lab Number:	L2204894
Client:	P. W. Grosser 630 Johnson Avenue Suite 7 Bohemia, NY 11716
ATTN:	Usman Chaudhry
Phone:	(631) 589-8705
Project Name:	ARC2202
Project Number:	ARC2202
Report Date:	02/22/22

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

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

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



**Project Name:** ARC2202**Project Number:** ARC2202**Lab Number:** L2204894**Report Date:** 02/22/22

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2204894-01	SS-1	SOIL_VAPOR	2359 BEDFORD AVE BKLYN	01/28/22 12:08	01/28/22
L2204894-02	SS-2	SOIL_VAPOR	2359 BEDFORD AVE BKLYN	01/28/22 12:14	01/28/22
L2204894-03	SS-3	SOIL_VAPOR	2359 BEDFORD AVE BKLYN	01/28/22 11:38	01/28/22
L2204894-04	SS-4	SOIL_VAPOR	2359 BEDFORD AVE BKLYN	01/28/22 12:00	01/28/22
L2204894-05	IA-1	AIR	2359 BEDFORD AVE BKLYN	01/28/22 12:24	01/28/22
L2204894-06	IA-2	AIR	2359 BEDFORD AVE BKLYN	01/28/22 11:35	01/28/22
L2204894-07	IA-3	AIR	2359 BEDFORD AVE BKLYN	01/28/22 12:02	01/28/22



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204894  
**Report Date:** 02/22/22

### Case Narrative

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

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

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

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

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

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

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**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204894  
**Report Date:** 02/22/22

### Case Narrative (continued)

#### Report Revision

February 22, 2022 the report has been amended to change the project number at the request of the client. A revised COC was not provided.

#### Volatile Organics in Air

Canisters were released from the laboratory on January 27, 2022. The canister certification results are provided as an addendum.

L2204894-03D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

L2204894-04D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

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

Authorized Signature:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 02/22/22

**AIR**

**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-01  
 Client ID: SS-1  
 Sample Location: 2359 BEDFORD AVE BKLYN

Date Collected: 01/28/22 12:08  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/11/22 06:43  
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.570	0.200	--	2.82	0.989	--		1
Chloromethane	0.214	0.200	--	0.442	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	20.6	5.00	--	38.8	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	124	1.00	--	295	2.38	--		1
Trichlorofluoromethane	0.252	0.200	--	1.42	1.12	--		1
Isopropanol	3.17	0.500	--	7.79	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	9.21	0.500	--	27.9	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	3.41	0.500	--	10.1	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-01  
 Client ID: SS-1  
 Sample Location: 2359 BEDFORD AVE BKLYN

Date Collected: 01/28/22 12:08  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	0.915	0.200	--	4.47	0.977	--		1
Tetrahydrofuran	2.03	0.500	--	5.99	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	5.41	0.200	--	19.1	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.530	0.200	--	1.69	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.206	0.200	--	0.709	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	1.06	0.200	--	4.34	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	1.79	0.200	--	6.75	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	0.352	0.200	--	2.39	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	2.01	0.200	--	8.73	0.869	--		1



**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-01  
 Client ID: SS-1  
 Sample Location: 2359 BEDFORD AVE BKLYN

Date Collected: 01/28/22 12:08  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
p/m-Xylene	4.97	0.400	--	21.6	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	2.06	0.200	--	8.95	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	0.624	0.200	--	3.07	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	98		60-140



**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-02  
 Client ID: SS-2  
 Sample Location: 2359 BEDFORD AVE BKLYN

Date Collected: 01/28/22 12:14  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/11/22 07:22  
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.528	0.200	--	2.61	0.989	--		1
Chloromethane	0.419	0.200	--	0.865	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	13.7	5.00	--	25.8	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	71.3	1.00	--	169	2.38	--		1
Trichlorofluoromethane	0.255	0.200	--	1.43	1.12	--		1
Isopropanol	4.40	0.500	--	10.8	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	1.31	0.500	--	3.97	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	1.69	0.500	--	4.98	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204894  
**Report Date:** 02/22/22

### SAMPLE RESULTS

Lab ID: L2204894-02  
 Client ID: SS-2  
 Sample Location: 2359 BEDFORD AVE BKLYN

Date Collected: 01/28/22 12:14  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	2.06	0.200	--	7.26	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.763	0.200	--	2.44	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.215	0.200	--	0.740	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	0.224	0.200	--	1.05	0.934	--		1
Heptane	0.684	0.200	--	2.80	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	4.98	0.200	--	18.8	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	0.560	0.200	--	3.80	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	3.30	0.200	--	14.3	0.869	--		1





**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-02

Date Collected: 01/28/22 12:14

Client ID: SS-2

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
p/m-Xylene	12.3	0.400	--	53.4	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	6.80	0.200	--	29.5	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	0.346	0.200	--	1.70	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	97		60-140



**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-03 D  
 Client ID: SS-3  
 Sample Location: 2359 BEDFORD AVE BKLYN

Date Collected: 01/28/22 11:38  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/11/22 08:01  
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.493	0.244	--	2.44	1.21	--		1.22
Chloromethane	0.459	0.244	--	0.948	0.504	--		1.22
Freon-114	ND	0.244	--	ND	1.71	--		1.22
Vinyl chloride	ND	0.244	--	ND	0.624	--		1.22
1,3-Butadiene	1.20	0.244	--	2.65	0.540	--		1.22
Bromomethane	ND	0.244	--	ND	0.947	--		1.22
Chloroethane	ND	0.244	--	ND	0.644	--		1.22
Ethanol	ND	6.10	--	ND	11.5	--		1.22
Vinyl bromide	ND	0.244	--	ND	1.07	--		1.22
Acetone	8.51	1.22	--	20.2	2.90	--		1.22
Trichlorofluoromethane	0.260	0.244	--	1.46	1.37	--		1.22
Isopropanol	ND	0.610	--	ND	1.50	--		1.22
1,1-Dichloroethene	ND	0.244	--	ND	0.967	--		1.22
Tertiary butyl Alcohol	ND	0.610	--	ND	1.85	--		1.22
Methylene chloride	ND	0.610	--	ND	2.12	--		1.22
3-Chloropropene	ND	0.244	--	ND	0.764	--		1.22
Carbon disulfide	ND	0.244	--	ND	0.760	--		1.22
Freon-113	ND	0.244	--	ND	1.87	--		1.22
trans-1,2-Dichloroethene	ND	0.244	--	ND	0.967	--		1.22
1,1-Dichloroethane	ND	0.244	--	ND	0.988	--		1.22
Methyl tert butyl ether	ND	0.244	--	ND	0.880	--		1.22
2-Butanone	0.974	0.610	--	2.87	1.80	--		1.22
cis-1,2-Dichloroethene	ND	0.244	--	ND	0.967	--		1.22



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204894  
**Report Date:** 02/22/22

### SAMPLE RESULTS

Lab ID: L2204894-03 D  
 Client ID: SS-3  
 Sample Location: 2359 BEDFORD AVE BKLYN

Date Collected: 01/28/22 11:38  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	0.610	--	ND	2.20	--		1.22
Chloroform	ND	0.244	--	ND	1.19	--		1.22
Tetrahydrofuran	0.700	0.610	--	2.06	1.80	--		1.22
1,2-Dichloroethane	ND	0.244	--	ND	0.988	--		1.22
n-Hexane	32.9	0.244	--	116	0.860	--		1.22
1,1,1-Trichloroethane	ND	0.244	--	ND	1.33	--		1.22
Benzene	1.84	0.244	--	5.88	0.780	--		1.22
Carbon tetrachloride	ND	0.244	--	ND	1.53	--		1.22
Cyclohexane	0.542	0.244	--	1.87	0.840	--		1.22
1,2-Dichloropropane	ND	0.244	--	ND	1.13	--		1.22
Bromodichloromethane	ND	0.244	--	ND	1.63	--		1.22
1,4-Dioxane	ND	0.244	--	ND	0.879	--		1.22
Trichloroethene	ND	0.244	--	ND	1.31	--		1.22
2,2,4-Trimethylpentane	0.686	0.244	--	3.20	1.14	--		1.22
Heptane	6.10	0.244	--	25.0	1.00	--		1.22
cis-1,3-Dichloropropene	ND	0.244	--	ND	1.11	--		1.22
4-Methyl-2-pentanone	3.11	0.610	--	12.7	2.50	--		1.22
trans-1,3-Dichloropropene	ND	0.244	--	ND	1.11	--		1.22
1,1,2-Trichloroethane	ND	0.244	--	ND	1.33	--		1.22
Toluene	7.42	0.244	--	28.0	0.920	--		1.22
2-Hexanone	ND	0.244	--	ND	1.00	--		1.22
Dibromochloromethane	ND	0.244	--	ND	2.08	--		1.22
1,2-Dibromoethane	ND	0.244	--	ND	1.88	--		1.22
Tetrachloroethene	1.74	0.244	--	11.8	1.65	--		1.22
Chlorobenzene	ND	0.244	--	ND	1.12	--		1.22
Ethylbenzene	1.60	0.244	--	6.95	1.06	--		1.22



**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-03 D  
 Client ID: SS-3  
 Sample Location: 2359 BEDFORD AVE BKLYN

Date Collected: 01/28/22 11:38  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
p/m-Xylene	3.63	0.488	--	15.8	2.12	--		1.22
Bromoform	ND	0.244	--	ND	2.52	--		1.22
Styrene	ND	0.244	--	ND	1.04	--		1.22
1,1,2,2-Tetrachloroethane	ND	0.244	--	ND	1.68	--		1.22
o-Xylene	1.37	0.244	--	5.95	1.06	--		1.22
4-Ethyltoluene	ND	0.244	--	ND	1.20	--		1.22
1,3,5-Trimethylbenzene	ND	0.244	--	ND	1.20	--		1.22
1,2,4-Trimethylbenzene	0.459	0.244	--	2.26	1.20	--		1.22
Benzyl chloride	ND	0.244	--	ND	1.26	--		1.22
1,3-Dichlorobenzene	ND	0.244	--	ND	1.47	--		1.22
1,4-Dichlorobenzene	ND	0.244	--	ND	1.47	--		1.22
1,2-Dichlorobenzene	ND	0.244	--	ND	1.47	--		1.22
1,2,4-Trichlorobenzene	ND	0.244	--	ND	1.81	--		1.22
Hexachlorobutadiene	ND	0.244	--	ND	2.60	--		1.22

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	103		60-140



**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-04 D  
 Client ID: SS-4  
 Sample Location: 2359 BEDFORD AVE BKLYN

Date Collected: 01/28/22 12:00  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/11/22 08:39  
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.496	0.238	--	2.45	1.18	--		1.19
Chloromethane	0.677	0.238	--	1.40	0.491	--		1.19
Freon-114	ND	0.238	--	ND	1.66	--		1.19
Vinyl chloride	ND	0.238	--	ND	0.608	--		1.19
1,3-Butadiene	1.86	0.238	--	4.11	0.527	--		1.19
Bromomethane	ND	0.238	--	ND	0.924	--		1.19
Chloroethane	ND	0.238	--	ND	0.628	--		1.19
Ethanol	27.9	5.95	--	52.6	11.2	--		1.19
Vinyl bromide	ND	0.238	--	ND	1.04	--		1.19
Acetone	67.6	1.19	--	161	2.83	--		1.19
Trichlorofluoromethane	0.242	0.238	--	1.36	1.34	--		1.19
Isopropanol	1.82	0.595	--	4.47	1.46	--		1.19
1,1-Dichloroethene	ND	0.238	--	ND	0.944	--		1.19
Tertiary butyl Alcohol	ND	0.595	--	ND	1.80	--		1.19
Methylene chloride	ND	0.595	--	ND	2.07	--		1.19
3-Chloropropene	ND	0.238	--	ND	0.745	--		1.19
Carbon disulfide	ND	0.238	--	ND	0.741	--		1.19
Freon-113	ND	0.238	--	ND	1.82	--		1.19
trans-1,2-Dichloroethene	ND	0.238	--	ND	0.944	--		1.19
1,1-Dichloroethane	ND	0.238	--	ND	0.963	--		1.19
Methyl tert butyl ether	ND	0.238	--	ND	0.858	--		1.19
2-Butanone	2.76	0.595	--	8.14	1.75	--		1.19
cis-1,2-Dichloroethene	ND	0.238	--	ND	0.944	--		1.19



**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-04 D  
 Client ID: SS-4  
 Sample Location: 2359 BEDFORD AVE BKLYN

Date Collected: 01/28/22 12:00  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethyl Acetate	ND	0.595	--	ND	2.14	--		1.19
Chloroform	ND	0.238	--	ND	1.16	--		1.19
Tetrahydrofuran	2.36	0.595	--	6.96	1.75	--		1.19
1,2-Dichloroethane	ND	0.238	--	ND	0.963	--		1.19
n-Hexane	23.8	0.238	--	83.9	0.839	--		1.19
1,1,1-Trichloroethane	ND	0.238	--	ND	1.30	--		1.19
Benzene	4.85	0.238	--	15.5	0.760	--		1.19
Carbon tetrachloride	ND	0.238	--	ND	1.50	--		1.19
Cyclohexane	0.940	0.238	--	3.24	0.819	--		1.19
1,2-Dichloropropane	ND	0.238	--	ND	1.10	--		1.19
Bromodichloromethane	ND	0.238	--	ND	1.59	--		1.19
1,4-Dioxane	ND	0.238	--	ND	0.858	--		1.19
Trichloroethene	ND	0.238	--	ND	1.28	--		1.19
2,2,4-Trimethylpentane	1.84	0.238	--	8.59	1.11	--		1.19
Heptane	6.05	0.238	--	24.8	0.975	--		1.19
cis-1,3-Dichloropropene	ND	0.238	--	ND	1.08	--		1.19
4-Methyl-2-pentanone	3.76	0.595	--	15.4	2.44	--		1.19
trans-1,3-Dichloropropene	ND	0.238	--	ND	1.08	--		1.19
1,1,2-Trichloroethane	ND	0.238	--	ND	1.30	--		1.19
Toluene	17.8	0.238	--	67.1	0.897	--		1.19
2-Hexanone	ND	0.238	--	ND	0.975	--		1.19
Dibromochloromethane	ND	0.238	--	ND	2.03	--		1.19
1,2-Dibromoethane	ND	0.238	--	ND	1.83	--		1.19
Tetrachloroethene	0.303	0.238	--	2.05	1.61	--		1.19
Chlorobenzene	ND	0.238	--	ND	1.10	--		1.19
Ethylbenzene	27.2	0.238	--	118	1.03	--		1.19



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204894  
**Report Date:** 02/22/22

### SAMPLE RESULTS

Lab ID: L2204894-04 D  
 Client ID: SS-4  
 Sample Location: 2359 BEDFORD AVE BKLYN

Date Collected: 01/28/22 12:00  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
p/m-Xylene	57.3	0.476	--	249	2.07	--		1.19
Bromoform	ND	0.238	--	ND	2.46	--		1.19
Styrene	ND	0.238	--	ND	1.01	--		1.19
1,1,2,2-Tetrachloroethane	ND	0.238	--	ND	1.63	--		1.19
o-Xylene	15.6	0.238	--	67.8	1.03	--		1.19
4-Ethyltoluene	ND	0.238	--	ND	1.17	--		1.19
1,3,5-Trimethylbenzene	ND	0.238	--	ND	1.17	--		1.19
1,2,4-Trimethylbenzene	0.632	0.238	--	3.11	1.17	--		1.19
Benzyl chloride	ND	0.238	--	ND	1.23	--		1.19
1,3-Dichlorobenzene	ND	0.238	--	ND	1.43	--		1.19
1,4-Dichlorobenzene	ND	0.238	--	ND	1.43	--		1.19
1,2-Dichlorobenzene	ND	0.238	--	ND	1.43	--		1.19
1,2,4-Trichlorobenzene	ND	0.238	--	ND	1.77	--		1.19
Hexachlorobutadiene	ND	0.238	--	ND	2.54	--		1.19

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	101		60-140



**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-05  
 Client ID: IA-1  
 Sample Location: 2359 BEDFORD AVE BKLYN

Date Collected: 01/28/22 12:24  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/11/22 04:46  
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.537	0.200	--	2.66	0.989	--		1
Chloromethane	0.539	0.200	--	1.11	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	15.3	5.00	--	28.8	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	3.34	1.00	--	7.93	2.38	--		1
Trichlorofluoromethane	0.252	0.200	--	1.42	1.12	--		1
Isopropanol	2.37	0.500	--	5.83	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1





**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-05

Date Collected: 01/28/22 12:24

Client ID: IA-1

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.261	0.200	--	0.920	0.705	--		1
Benzene	0.464	0.200	--	1.48	0.639	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.548	0.200	--	2.07	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1



**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-05

Date Collected: 01/28/22 12:24

Client ID: IA-1

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

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



**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-05  
 Client ID: IA-1  
 Sample Location: 2359 BEDFORD AVE BKLYN

Date Collected: 01/28/22 12:24  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 02/11/22 04:46  
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air by SIM - Mansfield Lab</b>								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.073	0.020	--	0.459	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.066	0.020	--	0.448	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	97		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	99		60-140



**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-06  
 Client ID: IA-2  
 Sample Location: 2359 BEDFORD AVE BKLYN

Date Collected: 01/28/22 11:35  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/11/22 05:25  
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.531	0.200	--	2.63	0.989	--		1
Chloromethane	0.518	0.200	--	1.07	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	1.39	0.200	--	3.08	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	16.2	5.00	--	30.5	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	2.47	1.00	--	5.87	2.38	--		1
Trichlorofluoromethane	0.244	0.200	--	1.37	1.12	--		1
Isopropanol	1.26	0.500	--	3.10	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1



**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-06  
 Client ID: IA-2  
 Sample Location: 2359 BEDFORD AVE BKLYN

Date Collected: 01/28/22 11:35  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.903	0.200	--	3.18	0.705	--		1
Benzene	2.07	0.200	--	6.61	0.639	--		1
Cyclohexane	0.269	0.200	--	0.926	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	0.434	0.200	--	2.03	0.934	--		1
Heptane	0.463	0.200	--	1.90	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	2.92	0.200	--	11.0	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.445	0.200	--	1.93	0.869	--		1
p/m-Xylene	1.88	0.400	--	8.17	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.671	0.200	--	2.91	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1



**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-06

Date Collected: 01/28/22 11:35

Client ID: IA-2

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
1,2,4-Trimethylbenzene	0.742	0.200	--	3.65	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	99		60-140



**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-06  
 Client ID: IA-2  
 Sample Location: 2359 BEDFORD AVE BKLYN

Date Collected: 01/28/22 11:35  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 02/11/22 05:25  
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air by SIM - Mansfield Lab</b>								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.071	0.020	--	0.447	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.046	0.020	--	0.312	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	97		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	98		60-140



**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-07  
 Client ID: IA-3  
 Sample Location: 2359 BEDFORD AVE BKLYN

Date Collected: 01/28/22 12:02  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/11/22 06:04  
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.509	0.200	--	2.52	0.989	--		1
Chloromethane	0.603	0.200	--	1.25	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	16.5	5.00	--	31.1	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	3.99	1.00	--	9.48	2.38	--		1
Trichlorofluoromethane	0.227	0.200	--	1.28	1.12	--		1
Isopropanol	1.81	0.500	--	4.45	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1





**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-07

Date Collected: 01/28/22 12:02

Client ID: IA-3

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.243	0.200	--	0.856	0.705	--		1
Benzene	0.454	0.200	--	1.45	0.639	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.500	0.200	--	1.88	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1



**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-07

Date Collected: 01/28/22 12:02

Client ID: IA-3

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

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



**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**SAMPLE RESULTS**

Lab ID: L2204894-07  
 Client ID: IA-3  
 Sample Location: 2359 BEDFORD AVE BKLYN

Date Collected: 01/28/22 12:02  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 02/11/22 06:04  
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air by SIM - Mansfield Lab</b>								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.069	0.020	--	0.434	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.071	0.020	--	0.481	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	97		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	97		60-140



Project Name: ARC2202

Lab Number: L2204894

Project Number: ARC2202

Report Date: 02/22/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/10/22 16:35

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-07 Batch: WG1603753-4								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1



Project Name: ARC2202

Lab Number: L2204894

Project Number: ARC2202

Report Date: 02/22/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/10/22 16:35

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-07 Batch: WG1603753-4								
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1

Project Name: ARC2202

Lab Number: L2204894

Project Number: ARC2202

Report Date: 02/22/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/10/22 16:35

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-07 Batch: WG1603753-4								
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: ARC2202

Lab Number: L2204894

Project Number: ARC2202

Report Date: 02/22/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 02/10/22 17:13

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 05-07 Batch: WG1603754-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204894

Project Number: ARC2202

Report Date: 02/22/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1603753-3								
Dichlorodifluoromethane	94		-		70-130	-		
Chloromethane	90		-		70-130	-		
Freon-114	93		-		70-130	-		
Vinyl chloride	81		-		70-130	-		
1,3-Butadiene	87		-		70-130	-		
Bromomethane	81		-		70-130	-		
Chloroethane	84		-		70-130	-		
Ethanol	86		-		40-160	-		
Vinyl bromide	91		-		70-130	-		
Acetone	113		-		40-160	-		
Trichlorofluoromethane	99		-		70-130	-		
Isopropanol	104		-		40-160	-		
1,1-Dichloroethene	88		-		70-130	-		
Tertiary butyl Alcohol	94		-		70-130	-		
Methylene chloride	110		-		70-130	-		
3-Chloropropene	116		-		70-130	-		
Carbon disulfide	116		-		70-130	-		
Freon-113	113		-		70-130	-		
trans-1,2-Dichloroethene	92		-		70-130	-		
1,1-Dichloroethane	103		-		70-130	-		
Methyl tert butyl ether	100		-		70-130	-		
2-Butanone	99		-		70-130	-		
cis-1,2-Dichloroethene	96		-		70-130	-		



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204894

Project Number: ARC2202

Report Date: 02/22/22

Parameter	LCS	Qual	LCS	Qual	%Recovery	RPD	Qual	RPD
	%Recovery		%Recovery		Limits			Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1603753-3								
Ethyl Acetate	98		-		70-130	-		
Chloroform	94		-		70-130	-		
Tetrahydrofuran	95		-		70-130	-		
1,2-Dichloroethane	104		-		70-130	-		
n-Hexane	85		-		70-130	-		
1,1,1-Trichloroethane	108		-		70-130	-		
Benzene	82		-		70-130	-		
Carbon tetrachloride	106		-		70-130	-		
Cyclohexane	84		-		70-130	-		
1,2-Dichloropropane	95		-		70-130	-		
Bromodichloromethane	97		-		70-130	-		
1,4-Dioxane	86		-		70-130	-		
Trichloroethene	89		-		70-130	-		
2,2,4-Trimethylpentane	88		-		70-130	-		
Heptane	96		-		70-130	-		
cis-1,3-Dichloropropene	101		-		70-130	-		
4-Methyl-2-pentanone	98		-		70-130	-		
trans-1,3-Dichloropropene	90		-		70-130	-		
1,1,2-Trichloroethane	98		-		70-130	-		
Toluene	86		-		70-130	-		
2-Hexanone	99		-		70-130	-		
Dibromochloromethane	108		-		70-130	-		
1,2-Dibromoethane	104		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204894

Report Date: 02/22/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-07 Batch: WG1603753-3								
Tetrachloroethene	91		-		70-130	-		
Chlorobenzene	99		-		70-130	-		
Ethylbenzene	96		-		70-130	-		
p/m-Xylene	98		-		70-130	-		
Bromoform	112		-		70-130	-		
Styrene	105		-		70-130	-		
1,1,2,2-Tetrachloroethane	92		-		70-130	-		
o-Xylene	101		-		70-130	-		
4-Ethyltoluene	107		-		70-130	-		
1,3,5-Trimethylbenzene	107		-		70-130	-		
1,2,4-Trimethylbenzene	110		-		70-130	-		
Benzyl chloride	101		-		70-130	-		
1,3-Dichlorobenzene	108		-		70-130	-		
1,4-Dichlorobenzene	106		-		70-130	-		
1,2-Dichlorobenzene	106		-		70-130	-		
1,2,4-Trichlorobenzene	103		-		70-130	-		
Hexachlorobutadiene	99		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204894

Report Date: 02/22/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 05-07 Batch: WG1603754-3								
Vinyl chloride	77		-		70-130	-		25
1,1-Dichloroethene	83		-		70-130	-		25
cis-1,2-Dichloroethene	90		-		70-130	-		25
1,1,1-Trichloroethane	100		-		70-130	-		25
Carbon tetrachloride	95		-		70-130	-		25
Trichloroethene	85		-		70-130	-		25
Tetrachloroethene	86		-		70-130	-		25

Project Name: ARC2202

Project Number: ARC2202

Serial\_No:02222213:35  
Lab Number: L2204894

Report Date: 02/22/22

### Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2204894-01	SS-1	3321	6.0L Can	01/27/22	377422	L2202595-08	Pass	-29.6	-4.6	-	-	-	-
L2204894-02	SS-2	0732	Flow 2	01/27/22	377422		-	-	-	Pass	40.0	39.8	1
L2204894-02	SS-2	2293	6.0L Can	01/27/22	377422	L2202595-08	Pass	-29.7	-7.1	-	-	-	-
L2204894-03	SS-3	01547	Flow 1	01/27/22	377422		-	-	-	Pass	40.0	40.9	2
L2204894-03	SS-3	3081	6.0L Can	01/27/22	377422	L2202595-09	Pass	-29.6	-7.9	-	-	-	-
L2204894-04	SS-4	01794	Flow 2	01/27/22	377422		-	-	-	Pass	40.0	40.7	2
L2204894-04	SS-4	3303	6.0L Can	01/27/22	377422	L2202595-09	Pass	-29.3	-4.5	-	-	-	-
L2204894-05	IA-1	01603	Flow 4	01/27/22	377422		-	-	-	Pass	40.0	37.0	8
L2204894-05	IA-1	2568	6.0L Can	01/27/22	377422	L2202595-09	Pass	-29.6	-1.4	-	-	-	-
L2204894-06	IA-2	01828	Flow 2	01/27/22	377422		-	-	-	Pass	40.0	40.5	1
L2204894-06	IA-2	3124	6.0L Can	01/27/22	377422	L2202595-10	Pass	-29.7	0.0	-	-	-	-
L2204894-07	IA-3	02102	Flow 2	01/27/22	377422		-	-	-	Pass	40.0	42.8	7
L2204894-07	IA-3	2885	6.0L Can	01/27/22	377422	L2202595-09	Pass	-29.2	+1.6	-	-	-	-

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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-08  
 Client ID: CAN 762 SHELF 61  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 01/20/22 21:49  
 Analyst: TS

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



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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-08  
 Client ID: CAN 762 SHELF 61  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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



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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-08  
 Client ID: CAN 762 SHELF 61  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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



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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-08  
 Client ID: CAN 762 SHELF 61  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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





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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-08  
 Client ID: CAN 762 SHELF 61  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	102		60-140
Bromochloromethane	101		60-140
chlorobenzene-d5	100		60-140

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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-08  
 Client ID: CAN 762 SHELF 61  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 01/20/22 21:49  
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1



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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-08  
 Client ID: CAN 762 SHELF 61  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-08  
 Client ID: CAN 762 SHELF 61  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	100		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	98		60-140

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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-09  
 Client ID: CAN 2274 SHELF 62  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 01/20/22 22:28  
 Analyst: TS

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

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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-09  
 Client ID: CAN 2274 SHELF 62  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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



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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-09  
 Client ID: CAN 2274 SHELF 62  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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



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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-09  
 Client ID: CAN 2274 SHELF 62  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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





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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-09  
 Client ID: CAN 2274 SHELF 62  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	105		60-140
Bromochloromethane	103		60-140
chlorobenzene-d5	102		60-140



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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-09  
 Client ID: CAN 2274 SHELF 62  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 01/20/22 22:28  
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1



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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-09  
 Client ID: CAN 2274 SHELF 62  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-09  
 Client ID: CAN 2274 SHELF 62  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	102		60-140
bromochloromethane	102		60-140
chlorobenzene-d5	100		60-140

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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-10  
 Client ID: CAN 632 SHELF 63  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 01/20/22 23:08  
 Analyst: TS

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



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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-10  
 Client ID: CAN 632 SHELF 63  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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



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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-10  
 Client ID: CAN 632 SHELF 63  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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



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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-10  
 Client ID: CAN 632 SHELF 63  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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





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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-10  
 Client ID: CAN 632 SHELF 63  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	104		60-140
Bromochloromethane	102		60-140
chlorobenzene-d5	101		60-140



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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-10  
 Client ID: CAN 632 SHELF 63  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 01/20/22 23:08  
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1



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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-10  
 Client ID: CAN 632 SHELF 63  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



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

**Lab Number:** L2202595  
**Report Date:** 02/22/22

### Air Canister Certification Results

Lab ID: L2202595-10  
 Client ID: CAN 632 SHELF 63  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	99		60-140

**Project Name:** ARC2202**Lab Number:** L2204894**Project Number:** ARC2202**Report Date:** 02/22/22**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

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

NA                                      Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2204894-01A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30)
L2204894-02A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30)
L2204894-03A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30)
L2204894-04A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30)
L2204894-05A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2204894-06A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2204894-07A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204894  
**Report Date:** 02/22/22

## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204894  
**Report Date:** 02/22/22

### Footnotes

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

### Terms

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

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

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

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

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

**PAH Total:** With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: Data Usability Report



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204894  
**Report Date:** 02/22/22

**Data Qualifiers**

the identification is based on a mass spectral library search.

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204894  
**Report Date:** 02/22/22

## REFERENCES

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

## LIMITATION OF LIABILITIES

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

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



## Certification Information

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

### Westborough Facility

**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene

**EPA 625/625.1:** alpha-Terpineol

**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

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

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

**EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LCHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

**SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

**EPA 624.1:** Volatile Halocarbons & Aromatics,

**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

**EPA 522, EPA 537.1.**

#### Non-Potable Water

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

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



# AIR ANALYSIS

PAGE 1 OF 1

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

### Client Information

Client: PNGIC  
 Address: 630 Johnson Ave Ste 7  
Bohemia NY 11757  
 Phone: 631 589 6353  
 Fax:  
 Email: vchaudhry@pngasser.com

### Project Information

Project Name: ARC2201  
 Project Location: 2359 Bedford Ave Bklyn  
 Project #: ARC2201  
 Project Manager:  
 ALPHA Quote #:

### Turn-Around Time

Standard  RUSH (only confirmed if pre-approved)  
 Date Due: Time:

Date Rec'd in Lab: 11/31/22

### Report Information - Data Deliverables

FAX  
 ADEX  
 Criteria Checker:  
 (Default based on Regulatory Criteria Indicated)  
 Other Formats:  
 EMAIL (standard pdf report)  
 Additional Deliverables:  
 Report to: (if different than Project Manager)

ALPHA Job #: L2204894

### Billing Information

Same as Client info PO #:

### Regulatory Requirements/Report Limits

State/Fed Program Res / Comm

These samples have been previously analyzed by Alpha  
 Other Project Specific Requirements/Comments:  
 Project-Specific Target Compound List:

### All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION						Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15 TO-15 SIM APH (abstract Non-petroleum HCs) Fixed Gases Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum								
<u>04894-01</u>	<u>SS-1</u>	<u>11/28/22</u>	<u>10:14</u>	<u>12:08</u>	<u>-27.5</u>	<u>-4.91</u>	<u>Sub Slab</u>	<u>AM</u>	<u>2.7</u>	<u>3321</u>	<u>0636</u>			
<u>02</u>	<u>SS-2</u>		<u>10:25</u>	<u>12:14</u>	<u>-30.92</u>	<u>-9.17</u>				<u>2293</u>	<u>0732</u>			
<u>03</u>	<u>SS-3</u>		<u>09:56</u>	<u>11:38</u>	<u>-30.70</u>	<u>-9.59</u>				<u>3081</u>	<u>0454</u>			
<u>04</u>	<u>SS-4</u>		<u>10:00</u>	<u>12:00</u>	<u>-30.26</u>	<u>-5.52</u>				<u>3303</u>	<u>01794</u>			
<u>05</u>	<u>IA-1</u>		<u>10:12</u>	<u>12:24</u>	<u>-29.24</u>	<u>-0.04</u>	<u>indoor</u>			<u>2508</u>	<u>01603</u>			
<u>06</u>	<u>IA-2</u>		<u>09:40</u>	<u>11:35</u>	<u>-30.87</u>	<u>-6.55</u>				<u>3124</u>	<u>01828</u>			
<u>07</u>	<u>IA-3</u>		<u>09:51</u>	<u>09:51</u> <u>1202</u>	<u>-30.85</u>	<u>-0.97</u>				<u>2865</u>	<u>02102</u>			

### \*SAMPLE MATRIX CODES

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

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:

Date/Time

Received By:

Date/Time

Ashey Math  
1/28/22 15:15  
1/28/22 17:40  
1/28/22  
1/28/22 23:45  
Wendy Monahan  
1/28/22 18:13  
1/28/22 17:00  
1/28/22 20:00  
1/28/22 23:45

11/31/22 12:10  
 1/31/22  
 1/31/22 10:10  
 1/31/22 10:10



## ANALYTICAL REPORT

Lab Number:	L2204927
Client:	P. W. Grosser 630 Johnson Avenue Suite 7 Bohemia, NY 11716
ATTN:	Usman Chaudhry
Phone:	(631) 589-8705
Project Name:	ARC2202
Project Number:	ARC2202
Report Date:	02/17/22

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

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

---

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



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2204927-01	SB-10	SOIL	2359 BEDFORD AVE BROOKLYN	01/28/22 08:25	01/28/22
L2204927-02	SB-11	SOIL	2359 BEDFORD AVE BROOKLYN	01/28/22 08:55	01/28/22
L2204927-03	SB-14	SOIL	2359 BEDFORD AVE BROOKLYN	01/28/22 11:25	01/28/22
L2204927-04	SB-15	SOIL	2359 BEDFORD AVE BROOKLYN	01/28/22 12:45	01/28/22
L2204927-05	SB-16	SOIL	2359 BEDFORD AVE BROOKLYN	01/28/22 14:00	01/28/22
L2204927-06	GW-3	WATER	2359 BEDFORD AVE BROOKLYN	01/28/22 11:55	01/28/22

**Project Name:** ARC2202**Lab Number:** L2204927**Project Number:** ARC2202**Report Date:** 02/17/22

### Case Narrative

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

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

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

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

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

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

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**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

### Case Narrative (continued)

#### Report Revision

February 17, 2022: The Client IDs were amended on L2204927-01 and -02.

#### Report Submission

February 15, 2022: This final report includes the results of all requested analyses.

February 14, 2022: This is a preliminary report.

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

#### Semivolatile Organics

The WG1603312-2/-3 LCS/LCSD recoveries, associated with L2204927-01 through -05, are below the acceptance criteria for 2,4-dinitrophenol (LCSD 0%) and benzoic acid (0%/0%); however, they have been identified as "difficult" analytes. The results of the associated samples are reported.

#### Perfluorinated Alkyl Acids by Isotope Dilution

L2204927-01, -03, and -04: The MeOH fraction of the extraction is reported for perfluorooctanesulfonamide (fosa) due to better extraction efficiency of the perfluoro[13c8]octanesulfonamide (m8fosa) Extracted Internal Standard.

L2204927-01, -02, -03, -04, -05, WG1600507-2, WG1600507-3, and WG1600507-4: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

L2204927-06: The sample was centrifuged and decanted prior to extraction due to sample matrix.

The WG1600343-1 Method Blank, associated with L2204927-06, has a concentration above the reporting limit for PFOS. Since the associated sample concentration is either greater than 10x the blank concentration or non-detect to the RL for this target analyte, no corrective action is required. Any results detected below the reporting limit are qualified with a "B".

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

### Case Narrative (continued)

#### Total Metals

L2204927-01 through -05: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

The WG1601260-3 MS recoveries for aluminum (316%) and iron (0%), performed on L2204927-01, do not apply because the sample concentrations are greater than four times the spike amounts added.

The WG1601260-3 MS recovery, performed on L2204927-01, is outside the acceptance criteria for antimony (74%). A post digestion spike was performed and was within acceptance criteria.

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

Authorized Signature:

 Caitlin Walukevich

Title: Technical Director/Representative

Date: 02/17/22



# ORGANICS

# VOLATILES

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-01  
 Client ID: SB-10  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 08:25  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 02/04/22 16:52  
 Analyst: AJK  
 Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.0	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.14	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.23	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.12	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27	1
Tetrachloroethene	ND		ug/kg	0.50	0.20	1
Chlorobenzene	ND		ug/kg	0.50	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.0	0.70	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17	1
Bromodichloromethane	ND		ug/kg	0.50	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16	1
1,1-Dichloropropene	ND		ug/kg	0.50	0.16	1
Bromoform	ND		ug/kg	4.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17	1
Benzene	ND		ug/kg	0.50	0.17	1
Toluene	ND		ug/kg	1.0	0.54	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Chloromethane	ND		ug/kg	4.0	0.94	1
Bromomethane	ND		ug/kg	2.0	0.58	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
Chloroethane	ND		ug/kg	2.0	0.45	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-01  
 Client ID: SB-10  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 08:25  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.50	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.56	1
o-Xylene	ND		ug/kg	1.0	0.29	1
Xylenes, Total	ND		ug/kg	1.0	0.29	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1
Dibromomethane	ND		ug/kg	2.0	0.24	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.92	1
Acetone	ND		ug/kg	10	4.8	1
Carbon disulfide	ND		ug/kg	10	4.6	1
2-Butanone	ND		ug/kg	10	2.2	1
Vinyl acetate	ND		ug/kg	10	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.21	1
2,2-Dichloropropane	ND		ug/kg	2.0	0.20	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.28	1
1,3-Dichloropropane	ND		ug/kg	2.0	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13	1
Bromobenzene	ND		ug/kg	2.0	0.14	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
o-Chlorotoluene	ND		ug/kg	2.0	0.19	1
p-Chlorotoluene	ND		ug/kg	2.0	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0	1
Hexachlorobutadiene	ND		ug/kg	4.0	0.17	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.0	0.65	1
Acrylonitrile	ND		ug/kg	4.0	1.2	1

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

**SAMPLE RESULTS**

Lab ID: L2204927-01  
 Client ID: SB-10  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 08:25  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.0	0.17	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.34	1
1,4-Dioxane	ND		ug/kg	80	35.	1
p-Diethylbenzene	ND		ug/kg	2.0	0.18	1
p-Ethyltoluene	ND		ug/kg	2.0	0.38	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19	1
Ethyl ether	ND		ug/kg	2.0	0.34	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	97		70-130

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-02  
 Client ID: SB-11  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 08:55  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 02/04/22 17:30  
 Analyst: AJK  
 Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.8	2.6	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.14	1
Dibromochloromethane	ND		ug/kg	1.2	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.31	1
Tetrachloroethene	ND		ug/kg	0.58	0.23	1
Chlorobenzene	ND		ug/kg	0.58	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.6	0.80	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.58	0.19	1
Bromodichloromethane	ND		ug/kg	0.58	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.58	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.58	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.58	0.18	1
Bromoform	ND		ug/kg	4.6	0.28	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.58	0.19	1
Benzene	ND		ug/kg	0.58	0.19	1
Toluene	ND		ug/kg	1.2	0.63	1
Ethylbenzene	ND		ug/kg	1.2	0.16	1
Chloromethane	ND		ug/kg	4.6	1.1	1
Bromomethane	ND		ug/kg	2.3	0.67	1
Vinyl chloride	ND		ug/kg	1.2	0.39	1
Chloroethane	ND		ug/kg	2.3	0.52	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.16	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-02  
 Client ID: SB-11  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 08:55  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.58	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.23	1
p/m-Xylene	ND		ug/kg	2.3	0.65	1
o-Xylene	ND		ug/kg	1.2	0.34	1
Xylenes, Total	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	2.3	0.28	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	ND		ug/kg	12	5.6	1
Carbon disulfide	ND		ug/kg	12	5.3	1
2-Butanone	ND		ug/kg	12	2.6	1
Vinyl acetate	ND		ug/kg	12	2.5	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
1,2,3-Trichloropropane	ND		ug/kg	2.3	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.3	0.24	1
2,2-Dichloropropane	ND		ug/kg	2.3	0.23	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.32	1
1,3-Dichloropropane	ND		ug/kg	2.3	0.19	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.58	0.15	1
Bromobenzene	ND		ug/kg	2.3	0.17	1
n-Butylbenzene	ND		ug/kg	1.2	0.19	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
tert-Butylbenzene	ND		ug/kg	2.3	0.14	1
o-Chlorotoluene	ND		ug/kg	2.3	0.22	1
p-Chlorotoluene	ND		ug/kg	2.3	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.5	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.6	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	ND		ug/kg	4.6	0.75	1
Acrylonitrile	ND		ug/kg	4.6	1.3	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-02  
 Client ID: SB-11  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 08:55  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	0.37	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	0.32	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	0.39	1
1,4-Dioxane	ND		ug/kg	93	41.	1
p-Diethylbenzene	ND		ug/kg	2.3	0.20	1
p-Ethyltoluene	ND		ug/kg	2.3	0.44	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.3	0.22	1
Ethyl ether	ND		ug/kg	2.3	0.40	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.8	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	96		70-130



Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-03  
 Client ID: SB-14  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 11:25  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 02/04/22 18:08  
 Analyst: AJK  
 Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	7.5	3.4	1
1,1-Dichloroethane	ND		ug/kg	1.5	0.22	1
Chloroform	ND		ug/kg	2.2	0.21	1
Carbon tetrachloride	ND		ug/kg	1.5	0.34	1
1,2-Dichloropropane	ND		ug/kg	1.5	0.19	1
Dibromochloromethane	ND		ug/kg	1.5	0.21	1
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.40	1
Tetrachloroethene	ND		ug/kg	0.75	0.29	1
Chlorobenzene	ND		ug/kg	0.75	0.19	1
Trichlorofluoromethane	ND		ug/kg	6.0	1.0	1
1,2-Dichloroethane	ND		ug/kg	1.5	0.38	1
1,1,1-Trichloroethane	ND		ug/kg	0.75	0.25	1
Bromodichloromethane	ND		ug/kg	0.75	0.16	1
trans-1,3-Dichloropropene	ND		ug/kg	1.5	0.41	1
cis-1,3-Dichloropropene	ND		ug/kg	0.75	0.24	1
1,3-Dichloropropene, Total	ND		ug/kg	0.75	0.24	1
1,1-Dichloropropene	ND		ug/kg	0.75	0.24	1
Bromoform	ND		ug/kg	6.0	0.37	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.75	0.25	1
Benzene	ND		ug/kg	0.75	0.25	1
Toluene	ND		ug/kg	1.5	0.81	1
Ethylbenzene	ND		ug/kg	1.5	0.21	1
Chloromethane	ND		ug/kg	6.0	1.4	1
Bromomethane	ND		ug/kg	3.0	0.87	1
Vinyl chloride	ND		ug/kg	1.5	0.50	1
Chloroethane	ND		ug/kg	3.0	0.68	1
1,1-Dichloroethene	ND		ug/kg	1.5	0.36	1
trans-1,2-Dichloroethene	ND		ug/kg	2.2	0.20	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-03  
 Client ID: SB-14  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 11:25  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.75	0.20	1
1,2-Dichlorobenzene	ND		ug/kg	3.0	0.22	1
1,3-Dichlorobenzene	ND		ug/kg	3.0	0.22	1
1,4-Dichlorobenzene	ND		ug/kg	3.0	0.26	1
Methyl tert butyl ether	ND		ug/kg	3.0	0.30	1
p/m-Xylene	ND		ug/kg	3.0	0.84	1
o-Xylene	ND		ug/kg	1.5	0.44	1
Xylenes, Total	ND		ug/kg	1.5	0.44	1
cis-1,2-Dichloroethene	ND		ug/kg	1.5	0.26	1
1,2-Dichloroethene, Total	ND		ug/kg	1.5	0.20	1
Dibromomethane	ND		ug/kg	3.0	0.36	1
Styrene	ND		ug/kg	1.5	0.29	1
Dichlorodifluoromethane	ND		ug/kg	15	1.4	1
Acetone	ND		ug/kg	15	7.2	1
Carbon disulfide	ND		ug/kg	15	6.8	1
2-Butanone	ND		ug/kg	15	3.3	1
Vinyl acetate	ND		ug/kg	15	3.2	1
4-Methyl-2-pentanone	ND		ug/kg	15	1.9	1
1,2,3-Trichloropropane	ND		ug/kg	3.0	0.19	1
2-Hexanone	ND		ug/kg	15	1.8	1
Bromochloromethane	ND		ug/kg	3.0	0.31	1
2,2-Dichloropropane	ND		ug/kg	3.0	0.30	1
1,2-Dibromoethane	ND		ug/kg	1.5	0.42	1
1,3-Dichloropropane	ND		ug/kg	3.0	0.25	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.75	0.20	1
Bromobenzene	ND		ug/kg	3.0	0.22	1
n-Butylbenzene	ND		ug/kg	1.5	0.25	1
sec-Butylbenzene	ND		ug/kg	1.5	0.22	1
tert-Butylbenzene	ND		ug/kg	3.0	0.18	1
o-Chlorotoluene	ND		ug/kg	3.0	0.28	1
p-Chlorotoluene	ND		ug/kg	3.0	0.16	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.5	1.5	1
Hexachlorobutadiene	ND		ug/kg	6.0	0.25	1
Isopropylbenzene	ND		ug/kg	1.5	0.16	1
p-Isopropyltoluene	ND		ug/kg	1.5	0.16	1
Naphthalene	ND		ug/kg	6.0	0.97	1
Acrylonitrile	ND		ug/kg	6.0	1.7	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-03  
 Client ID: SB-14  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 11:25  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.5	0.26	1
1,2,3-Trichlorobenzene	ND		ug/kg	3.0	0.48	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.0	0.41	1
1,3,5-Trimethylbenzene	ND		ug/kg	3.0	0.29	1
1,2,4-Trimethylbenzene	ND		ug/kg	3.0	0.50	1
1,4-Dioxane	ND		ug/kg	120	52.	1
p-Diethylbenzene	ND		ug/kg	3.0	0.26	1
p-Ethyltoluene	ND		ug/kg	3.0	0.57	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	3.0	0.28	1
Ethyl ether	ND		ug/kg	3.0	0.51	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	7.5	2.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	95		70-130

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-04  
 Client ID: SB-15  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 12:45  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 02/07/22 12:35  
 Analyst: MKS  
 Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	7.4	3.4	1
1,1-Dichloroethane	ND		ug/kg	1.5	0.22	1
Chloroform	ND		ug/kg	2.2	0.21	1
Carbon tetrachloride	ND		ug/kg	1.5	0.34	1
1,2-Dichloropropane	ND		ug/kg	1.5	0.18	1
Dibromochloromethane	ND		ug/kg	1.5	0.21	1
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.40	1
Tetrachloroethene	ND		ug/kg	0.74	0.29	1
Chlorobenzene	ND		ug/kg	0.74	0.19	1
Trichlorofluoromethane	ND		ug/kg	5.9	1.0	1
1,2-Dichloroethane	ND		ug/kg	1.5	0.38	1
1,1,1-Trichloroethane	ND		ug/kg	0.74	0.25	1
Bromodichloromethane	ND		ug/kg	0.74	0.16	1
trans-1,3-Dichloropropene	ND		ug/kg	1.5	0.41	1
cis-1,3-Dichloropropene	ND		ug/kg	0.74	0.23	1
1,3-Dichloropropene, Total	ND		ug/kg	0.74	0.23	1
1,1-Dichloropropene	ND		ug/kg	0.74	0.24	1
Bromoform	ND		ug/kg	5.9	0.36	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.74	0.25	1
Benzene	ND		ug/kg	0.74	0.25	1
Toluene	ND		ug/kg	1.5	0.81	1
Ethylbenzene	ND		ug/kg	1.5	0.21	1
Chloromethane	ND		ug/kg	5.9	1.4	1
Bromomethane	ND		ug/kg	3.0	0.86	1
Vinyl chloride	ND		ug/kg	1.5	0.50	1
Chloroethane	ND		ug/kg	3.0	0.67	1
1,1-Dichloroethene	ND		ug/kg	1.5	0.35	1
trans-1,2-Dichloroethene	ND		ug/kg	2.2	0.20	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-04  
 Client ID: SB-15  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 12:45  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.74	0.20	1
1,2-Dichlorobenzene	ND		ug/kg	3.0	0.21	1
1,3-Dichlorobenzene	ND		ug/kg	3.0	0.22	1
1,4-Dichlorobenzene	ND		ug/kg	3.0	0.25	1
Methyl tert butyl ether	ND		ug/kg	3.0	0.30	1
p/m-Xylene	ND		ug/kg	3.0	0.83	1
o-Xylene	ND		ug/kg	1.5	0.43	1
Xylenes, Total	ND		ug/kg	1.5	0.43	1
cis-1,2-Dichloroethene	ND		ug/kg	1.5	0.26	1
1,2-Dichloroethene, Total	ND		ug/kg	1.5	0.20	1
Dibromomethane	ND		ug/kg	3.0	0.35	1
Styrene	ND		ug/kg	1.5	0.29	1
Dichlorodifluoromethane	ND		ug/kg	15	1.4	1
Acetone	ND		ug/kg	15	7.2	1
Carbon disulfide	ND		ug/kg	15	6.8	1
2-Butanone	ND		ug/kg	15	3.3	1
Vinyl acetate	ND		ug/kg	15	3.2	1
4-Methyl-2-pentanone	ND		ug/kg	15	1.9	1
1,2,3-Trichloropropane	ND		ug/kg	3.0	0.19	1
2-Hexanone	ND		ug/kg	15	1.8	1
Bromochloromethane	ND		ug/kg	3.0	0.30	1
2,2-Dichloropropane	ND		ug/kg	3.0	0.30	1
1,2-Dibromoethane	ND		ug/kg	1.5	0.41	1
1,3-Dichloropropane	ND		ug/kg	3.0	0.25	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.74	0.20	1
Bromobenzene	ND		ug/kg	3.0	0.22	1
n-Butylbenzene	ND		ug/kg	1.5	0.25	1
sec-Butylbenzene	ND		ug/kg	1.5	0.22	1
tert-Butylbenzene	ND		ug/kg	3.0	0.18	1
o-Chlorotoluene	ND		ug/kg	3.0	0.28	1
p-Chlorotoluene	ND		ug/kg	3.0	0.16	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.5	1.5	1
Hexachlorobutadiene	ND		ug/kg	5.9	0.25	1
Isopropylbenzene	ND		ug/kg	1.5	0.16	1
p-Isopropyltoluene	ND		ug/kg	1.5	0.16	1
Naphthalene	ND		ug/kg	5.9	0.97	1
Acrylonitrile	ND		ug/kg	5.9	1.7	1

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

**SAMPLE RESULTS**

Lab ID: L2204927-04  
 Client ID: SB-15  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 12:45  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.5	0.25	1
1,2,3-Trichlorobenzene	ND		ug/kg	3.0	0.48	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.0	0.40	1
1,3,5-Trimethylbenzene	ND		ug/kg	3.0	0.29	1
1,2,4-Trimethylbenzene	ND		ug/kg	3.0	0.50	1
1,4-Dioxane	ND		ug/kg	120	52.	1
p-Diethylbenzene	ND		ug/kg	3.0	0.26	1
p-Ethyltoluene	ND		ug/kg	3.0	0.57	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	3.0	0.28	1
Ethyl ether	ND		ug/kg	3.0	0.51	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	7.4	2.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	111		70-130

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-05  
 Client ID: SB-16  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 14:00  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 02/08/22 14:20  
 Analyst: KTD  
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	3.6	1.7	1
1,1-Dichloroethane	ND		ug/kg	0.72	0.10	1
Chloroform	ND		ug/kg	1.1	0.10	1
Carbon tetrachloride	ND		ug/kg	0.72	0.17	1
1,2-Dichloropropane	ND		ug/kg	0.72	0.09	1
Dibromochloromethane	ND		ug/kg	0.72	0.10	1
1,1,2-Trichloroethane	ND		ug/kg	0.72	0.19	1
Tetrachloroethene	ND		ug/kg	0.36	0.14	1
Chlorobenzene	ND		ug/kg	0.36	0.09	1
Trichlorofluoromethane	ND		ug/kg	2.9	0.50	1
1,2-Dichloroethane	ND		ug/kg	0.72	0.19	1
1,1,1-Trichloroethane	ND		ug/kg	0.36	0.12	1
Bromodichloromethane	ND		ug/kg	0.36	0.08	1
trans-1,3-Dichloropropene	ND		ug/kg	0.72	0.20	1
cis-1,3-Dichloropropene	ND		ug/kg	0.36	0.11	1
1,3-Dichloropropene, Total	ND		ug/kg	0.36	0.11	1
1,1-Dichloropropene	ND		ug/kg	0.36	0.12	1
Bromoform	ND		ug/kg	2.9	0.18	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.36	0.12	1
Benzene	ND		ug/kg	0.36	0.12	1
Toluene	0.63	J	ug/kg	0.72	0.39	1
Ethylbenzene	0.11	J	ug/kg	0.72	0.10	1
Chloromethane	ND		ug/kg	2.9	0.68	1
Bromomethane	ND		ug/kg	1.4	0.42	1
Vinyl chloride	ND		ug/kg	0.72	0.24	1
Chloroethane	ND		ug/kg	1.4	0.33	1
1,1-Dichloroethene	ND		ug/kg	0.72	0.17	1
trans-1,2-Dichloroethene	ND		ug/kg	1.1	0.10	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-05  
 Client ID: SB-16  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 14:00  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.36	0.10	1
1,2-Dichlorobenzene	ND		ug/kg	1.4	0.10	1
1,3-Dichlorobenzene	ND		ug/kg	1.4	0.11	1
1,4-Dichlorobenzene	ND		ug/kg	1.4	0.12	1
Methyl tert butyl ether	ND		ug/kg	1.4	0.14	1
p/m-Xylene	ND		ug/kg	1.4	0.41	1
o-Xylene	ND		ug/kg	0.72	0.21	1
Xylenes, Total	ND		ug/kg	0.72	0.21	1
cis-1,2-Dichloroethene	ND		ug/kg	0.72	0.13	1
1,2-Dichloroethene, Total	ND		ug/kg	0.72	0.10	1
Dibromomethane	ND		ug/kg	1.4	0.17	1
Styrene	ND		ug/kg	0.72	0.14	1
Dichlorodifluoromethane	ND		ug/kg	7.2	0.66	1
Acetone	ND		ug/kg	7.2	3.5	1
Carbon disulfide	ND		ug/kg	7.2	3.3	1
2-Butanone	ND		ug/kg	7.2	1.6	1
Vinyl acetate	ND		ug/kg	7.2	1.6	1
4-Methyl-2-pentanone	ND		ug/kg	7.2	0.93	1
1,2,3-Trichloropropane	ND		ug/kg	1.4	0.09	1
2-Hexanone	ND		ug/kg	7.2	0.86	1
Bromochloromethane	ND		ug/kg	1.4	0.15	1
2,2-Dichloropropane	ND		ug/kg	1.4	0.15	1
1,2-Dibromoethane	ND		ug/kg	0.72	0.20	1
1,3-Dichloropropane	ND		ug/kg	1.4	0.12	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.36	0.10	1
Bromobenzene	ND		ug/kg	1.4	0.10	1
n-Butylbenzene	ND		ug/kg	0.72	0.12	1
sec-Butylbenzene	ND		ug/kg	0.72	0.10	1
tert-Butylbenzene	ND		ug/kg	1.4	0.09	1
o-Chlorotoluene	ND		ug/kg	1.4	0.14	1
p-Chlorotoluene	ND		ug/kg	1.4	0.08	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.2	0.72	1
Hexachlorobutadiene	ND		ug/kg	2.9	0.12	1
Isopropylbenzene	ND		ug/kg	0.72	0.08	1
p-Isopropyltoluene	ND		ug/kg	0.72	0.08	1
Naphthalene	0.97	J	ug/kg	2.9	0.47	1
Acrylonitrile	ND		ug/kg	2.9	0.83	1



Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-05  
 Client ID: SB-16  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 14:00  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	0.17	J	ug/kg	0.72	0.12	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.4	0.23	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.4	0.20	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.4	0.14	1
1,2,4-Trimethylbenzene	0.27	J	ug/kg	1.4	0.24	1
1,4-Dioxane	ND		ug/kg	58	25.	1
p-Diethylbenzene	0.20	J	ug/kg	1.4	0.13	1
p-Ethyltoluene	ND		ug/kg	1.4	0.28	1
1,2,4,5-Tetramethylbenzene	0.27	J	ug/kg	1.4	0.14	1
Ethyl ether	ND		ug/kg	1.4	0.25	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	3.6	1.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	109		70-130

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-06  
 Client ID: GW-3  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 11:55  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 02/03/22 15:03  
 Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-06  
 Client ID: GW-3  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 11:55  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.8	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	0.91	J	ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	2.4	J	ug/l	2.5	0.70	1

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

**SAMPLE RESULTS**

Lab ID: L2204927-06  
 Client ID: GW-3  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 11:55  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	0.96	J	ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	1.7	J	ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	0.90	J	ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	112		70-130

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/03/22 08:18  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06 Batch: WG1601265-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/03/22 08:18  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06 Batch: WG1601265-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/03/22 08:18  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06 Batch: WG1601265-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	105		70-130

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/04/22 14:19  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1602209-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	1.3	J	ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14



Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/04/22 14:19  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1602209-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 02/04/22 14:19  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG1602209-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	95		70-130

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/07/22 08:58  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 04 Batch: WG1602556-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/07/22 08:58  
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 04 Batch: WG1602556-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
Analytical Date: 02/07/22 08:58  
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 04 Batch: WG1602556-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	110		70-130

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/08/22 08:54  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 05 Batch: WG1603001-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/08/22 08:54  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 05 Batch: WG1603001-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8260C  
Analytical Date: 02/08/22 08:54  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 05 Batch: WG1603001-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	112		70-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1601265-3 WG1601265-4								
Methylene chloride	110		110		70-130	0		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	110		110		63-132	0		20
1,2-Dichloropropane	99		99		70-130	0		20
Dibromochloromethane	93		98		63-130	5		20
1,1,2-Trichloroethane	100		100		70-130	0		20
Tetrachloroethene	120		120		70-130	0		20
Chlorobenzene	110		100		75-130	10		20
Trichlorofluoromethane	95		95		62-150	0		20
1,2-Dichloroethane	92		96		70-130	4		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	94		98		67-130	4		20
trans-1,3-Dichloropropene	96		98		70-130	2		20
cis-1,3-Dichloropropene	94		95		70-130	1		20
1,1-Dichloropropene	110		110		70-130	0		20
Bromoform	100		110		54-136	10		20
1,1,2,2-Tetrachloroethane	99		100		67-130	1		20
Benzene	110		110		70-130	0		20
Toluene	110		100		70-130	10		20
Ethylbenzene	110		110		70-130	0		20
Chloromethane	84		85		64-130	1		20
Bromomethane	68		70		39-139	3		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1601265-3 WG1601265-4								
Vinyl chloride	99		95		55-140	4		20
Chloroethane	92		100		55-138	8		20
1,1-Dichloroethene	130		140		61-145	7		20
trans-1,2-Dichloroethene	120		110		70-130	9		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	110		110		70-130	0		20
1,4-Dichlorobenzene	110		100		70-130	10		20
Methyl tert butyl ether	96		100		63-130	4		20
p/m-Xylene	110		110		70-130	0		20
o-Xylene	105		105		70-130	0		20
cis-1,2-Dichloroethene	100		110		70-130	10		20
Dibromomethane	98		99		70-130	1		20
1,2,3-Trichloropropane	95		100		64-130	5		20
Acrylonitrile	96		94		70-130	2		20
Styrene	110		110		70-130	0		20
Dichlorodifluoromethane	72		71		36-147	1		20
Acetone	120		120		58-148	0		20
Carbon disulfide	130		120		51-130	8		20
2-Butanone	75		84		63-138	11		20
Vinyl acetate	96		100		70-130	4		20
4-Methyl-2-pentanone	89		94		59-130	5		20
2-Hexanone	89		94		57-130	5		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1601265-3 WG1601265-4								
Bromochloromethane	110		120		70-130	9		20
2,2-Dichloropropane	100		94		63-133	6		20
1,2-Dibromoethane	97		100		70-130	3		20
1,3-Dichloropropane	95		100		70-130	5		20
1,1,1,2-Tetrachloroethane	100		100		64-130	0		20
Bromobenzene	110		110		70-130	0		20
n-Butylbenzene	98		93		53-136	5		20
sec-Butylbenzene	110		100		70-130	10		20
tert-Butylbenzene	110		100		70-130	10		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	110		100		70-130	10		20
1,2-Dibromo-3-chloropropane	100		110		41-144	10		20
Hexachlorobutadiene	100		96		63-130	4		20
Isopropylbenzene	110		110		70-130	0		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	97		100		70-130	3		20
n-Propylbenzene	110		100		69-130	10		20
1,2,3-Trichlorobenzene	100		100		70-130	0		20
1,2,4-Trichlorobenzene	110		110		70-130	0		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
1,4-Dioxane	170	Q	168	Q	56-162	1		20
p-Diethylbenzene	100		97		70-130	3		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1601265-3 WG1601265-4								
p-Ethyltoluene	110		100		70-130	10		20
1,2,4,5-Tetramethylbenzene	99		96		70-130	3		20
Ethyl ether	110		120		59-134	9		20
trans-1,4-Dichloro-2-butene	100		83		70-130	19		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	87		91		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	98		97		70-130
Dibromofluoromethane	99		101		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1602209-3 WG1602209-4								
Methylene chloride	93		92		70-130	1		30
1,1-Dichloroethane	99		99		70-130	0		30
Chloroform	102		103		70-130	1		30
Carbon tetrachloride	97		98		70-130	1		30
1,2-Dichloropropane	96		96		70-130	0		30
Dibromochloromethane	97		98		70-130	1		30
1,1,2-Trichloroethane	102		102		70-130	0		30
Tetrachloroethene	109		108		70-130	1		30
Chlorobenzene	107		106		70-130	1		30
Trichlorofluoromethane	102		101		70-139	1		30
1,2-Dichloroethane	96		97		70-130	1		30
1,1,1-Trichloroethane	103		103		70-130	0		30
Bromodichloromethane	100		101		70-130	1		30
trans-1,3-Dichloropropene	104		104		70-130	0		30
cis-1,3-Dichloropropene	101		102		70-130	1		30
1,1-Dichloropropene	108		107		70-130	1		30
Bromoform	94		96		70-130	2		30
1,1,2,2-Tetrachloroethane	101		101		70-130	0		30
Benzene	104		103		70-130	1		30
Toluene	109		107		70-130	2		30
Ethylbenzene	114		112		70-130	2		30
Chloromethane	76		74		52-130	3		30
Bromomethane	114		113		57-147	1		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1602209-3 WG1602209-4								
Vinyl chloride	97		96		67-130	1		30
Chloroethane	94		90		50-151	4		30
1,1-Dichloroethene	100		100		65-135	0		30
trans-1,2-Dichloroethene	104		103		70-130	1		30
Trichloroethene	107		105		70-130	2		30
1,2-Dichlorobenzene	107		105		70-130	2		30
1,3-Dichlorobenzene	112		110		70-130	2		30
1,4-Dichlorobenzene	110		108		70-130	2		30
Methyl tert butyl ether	97		98		66-130	1		30
p/m-Xylene	112		110		70-130	2		30
o-Xylene	110		110		70-130	0		30
cis-1,2-Dichloroethene	103		100		70-130	3		30
Dibromomethane	97		97		70-130	0		30
Styrene	111		110		70-130	1		30
Dichlorodifluoromethane	76		75		30-146	1		30
Acetone	98		95		54-140	3		30
Carbon disulfide	92		92		59-130	0		30
2-Butanone	82		84		70-130	2		30
Vinyl acetate	83		86		70-130	4		30
4-Methyl-2-pentanone	91		92		70-130	1		30
1,2,3-Trichloropropane	101		101		68-130	0		30
2-Hexanone	83		84		70-130	1		30
Bromochloromethane	93		93		70-130	0		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1602209-3 WG1602209-4								
2,2-Dichloropropane	103		103		70-130	0		30
1,2-Dibromoethane	101		101		70-130	0		30
1,3-Dichloropropane	104		103		69-130	1		30
1,1,1,2-Tetrachloroethane	99		100		70-130	1		30
Bromobenzene	104		103		70-130	1		30
n-Butylbenzene	127		123		70-130	3		30
sec-Butylbenzene	118		115		70-130	3		30
tert-Butylbenzene	112		109		70-130	3		30
o-Chlorotoluene	117		114		70-130	3		30
p-Chlorotoluene	118		115		70-130	3		30
1,2-Dibromo-3-chloropropane	92		94		68-130	2		30
Hexachlorobutadiene	116		112		67-130	4		30
Isopropylbenzene	116		113		70-130	3		30
p-Isopropyltoluene	118		116		70-130	2		30
Naphthalene	99		101		70-130	2		30
Acrylonitrile	81		82		70-130	1		30
n-Propylbenzene	120		117		70-130	3		30
1,2,3-Trichlorobenzene	108		108		70-130	0		30
1,2,4-Trichlorobenzene	117		115		70-130	2		30
1,3,5-Trimethylbenzene	118		116		70-130	2		30
1,2,4-Trimethylbenzene	118		115		70-130	3		30
1,4-Dioxane	86		84		65-136	2		30
p-Diethylbenzene	121		118		70-130	3		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG1602209-3 WG1602209-4								
p-Ethyltoluene	119		116		70-130	3		30
1,2,4,5-Tetramethylbenzene	121		118		70-130	3		30
Ethyl ether	98		97		67-130	1		30
trans-1,4-Dichloro-2-butene	93		93		70-130	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		98		70-130
Toluene-d8	105		103		70-130
4-Bromofluorobenzene	104		103		70-130
Dibromofluoromethane	97		98		70-130



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 04 Batch: WG1602556-3 WG1602556-4								
Methylene chloride	92		87		70-130	6		30
1,1-Dichloroethane	88		84		70-130	5		30
Chloroform	91		88		70-130	3		30
Carbon tetrachloride	87		90		70-130	3		30
1,2-Dichloropropane	92		89		70-130	3		30
Dibromochloromethane	92		94		70-130	2		30
1,1,2-Trichloroethane	92		89		70-130	3		30
Tetrachloroethene	102		98		70-130	4		30
Chlorobenzene	95		92		70-130	3		30
Trichlorofluoromethane	91		86		70-139	6		30
1,2-Dichloroethane	90		88		70-130	2		30
1,1,1-Trichloroethane	91		89		70-130	2		30
Bromodichloromethane	88		88		70-130	0		30
trans-1,3-Dichloropropene	86		85		70-130	1		30
cis-1,3-Dichloropropene	93		90		70-130	3		30
1,1-Dichloropropene	90		86		70-130	5		30
Bromoform	88		91		70-130	3		30
1,1,2,2-Tetrachloroethane	97		95		70-130	2		30
Benzene	93		89		70-130	4		30
Toluene	88		84		70-130	5		30
Ethylbenzene	86		83		70-130	4		30
Chloromethane	84		79		52-130	6		30
Bromomethane	82		79		57-147	4		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 04 Batch: WG1602556-3 WG1602556-4								
Vinyl chloride	83		78		67-130	6		30
Chloroethane	81		77		50-151	5		30
1,1-Dichloroethene	86		82		65-135	5		30
trans-1,2-Dichloroethene	96		90		70-130	6		30
Trichloroethene	94		91		70-130	3		30
1,2-Dichlorobenzene	96		93		70-130	3		30
1,3-Dichlorobenzene	96		93		70-130	3		30
1,4-Dichlorobenzene	95		92		70-130	3		30
Methyl tert butyl ether	91		89		66-130	2		30
p/m-Xylene	92		89		70-130	3		30
o-Xylene	91		87		70-130	4		30
cis-1,2-Dichloroethene	94		90		70-130	4		30
Dibromomethane	100		99		70-130	1		30
Styrene	91		88		70-130	3		30
Dichlorodifluoromethane	88		84		30-146	5		30
Acetone	124		116		54-140	7		30
Carbon disulfide	81		77		59-130	5		30
2-Butanone	124		116		70-130	7		30
Vinyl acetate	103		105		70-130	2		30
4-Methyl-2-pentanone	106		100		70-130	6		30
1,2,3-Trichloropropane	89		89		68-130	0		30
2-Hexanone	109		104		70-130	5		30
Bromochloromethane	112		108		70-130	4		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 04 Batch: WG1602556-3 WG1602556-4								
2,2-Dichloropropane	91		87		70-130	4		30
1,2-Dibromoethane	101		98		70-130	3		30
1,3-Dichloropropane	91		87		69-130	4		30
1,1,1,2-Tetrachloroethane	93		92		70-130	1		30
Bromobenzene	95		92		70-130	3		30
n-Butylbenzene	86		83		70-130	4		30
sec-Butylbenzene	87		84		70-130	4		30
tert-Butylbenzene	88		86		70-130	2		30
o-Chlorotoluene	82		79		70-130	4		30
p-Chlorotoluene	83		80		70-130	4		30
1,2-Dibromo-3-chloropropane	107		111		68-130	4		30
Hexachlorobutadiene	94		90		67-130	4		30
Isopropylbenzene	85		83		70-130	2		30
p-Isopropyltoluene	90		88		70-130	2		30
Naphthalene	104		102		70-130	2		30
Acrylonitrile	111		109		70-130	2		30
n-Propylbenzene	82		80		70-130	2		30
1,2,3-Trichlorobenzene	101		99		70-130	2		30
1,2,4-Trichlorobenzene	102		99		70-130	3		30
1,3,5-Trimethylbenzene	84		82		70-130	2		30
1,2,4-Trimethylbenzene	84		81		70-130	4		30
1,4-Dioxane	119		116		65-136	3		30
p-Diethylbenzene	90		86		70-130	5		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 04 Batch: WG1602556-3 WG1602556-4								
p-Ethyltoluene	85		82		70-130	4		30
1,2,4,5-Tetramethylbenzene	87		86		70-130	1		30
Ethyl ether	81		78		67-130	4		30
trans-1,4-Dichloro-2-butene	88		88		70-130	0		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	97		97		70-130
Toluene-d8	93		93		70-130
4-Bromofluorobenzene	87		88		70-130
Dibromofluoromethane	104		104		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 05 Batch: WG1603001-3 WG1603001-4								
Methylene chloride	87		86		70-130	1		30
1,1-Dichloroethane	85		84		70-130	1		30
Chloroform	89		87		70-130	2		30
Carbon tetrachloride	91		91		70-130	0		30
1,2-Dichloropropane	88		88		70-130	0		30
Dibromochloromethane	93		95		70-130	2		30
1,1,2-Trichloroethane	90		88		70-130	2		30
Tetrachloroethene	98		96		70-130	2		30
Chlorobenzene	92		91		70-130	1		30
Trichlorofluoromethane	89		86		70-139	3		30
1,2-Dichloroethane	88		87		70-130	1		30
1,1,1-Trichloroethane	91		88		70-130	3		30
Bromodichloromethane	89		88		70-130	1		30
trans-1,3-Dichloropropene	84		83		70-130	1		30
cis-1,3-Dichloropropene	90		89		70-130	1		30
1,1-Dichloropropene	88		86		70-130	2		30
Bromoform	93		93		70-130	0		30
1,1,2,2-Tetrachloroethane	99		94		70-130	5		30
Benzene	90		88		70-130	2		30
Toluene	83		84		70-130	1		30
Ethylbenzene	82		82		70-130	0		30
Chloromethane	81		78		52-130	4		30
Bromomethane	79		77		57-147	3		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 05 Batch: WG1603001-3 WG1603001-4								
Vinyl chloride	79		76		67-130	4		30
Chloroethane	78		77		50-151	1		30
1,1-Dichloroethene	84		81		65-135	4		30
trans-1,2-Dichloroethene	93		90		70-130	3		30
Trichloroethene	92		90		70-130	2		30
1,2-Dichlorobenzene	92		89		70-130	3		30
1,3-Dichlorobenzene	93		89		70-130	4		30
1,4-Dichlorobenzene	93		89		70-130	4		30
Methyl tert butyl ether	90		88		66-130	2		30
p/m-Xylene	88		88		70-130	0		30
o-Xylene	87		86		70-130	1		30
cis-1,2-Dichloroethene	92		89		70-130	3		30
Dibromomethane	100		98		70-130	2		30
Styrene	88		87		70-130	1		30
Dichlorodifluoromethane	85		82		30-146	4		30
Acetone	127		119		54-140	7		30
Carbon disulfide	77		76		59-130	1		30
2-Butanone	129		121		70-130	6		30
Vinyl acetate	108		106		70-130	2		30
4-Methyl-2-pentanone	109		103		70-130	6		30
1,2,3-Trichloropropane	89		86		68-130	3		30
2-Hexanone	110		105		70-130	5		30
Bromochloromethane	110		107		70-130	3		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 05 Batch: WG1603001-3 WG1603001-4								
2,2-Dichloropropane	89		85		70-130	5		30
1,2-Dibromoethane	100		98		70-130	2		30
1,3-Dichloropropane	88		86		69-130	2		30
1,1,1,2-Tetrachloroethane	94		94		70-130	0		30
Bromobenzene	91		88		70-130	3		30
n-Butylbenzene	83		81		70-130	2		30
sec-Butylbenzene	84		82		70-130	2		30
tert-Butylbenzene	85		83		70-130	2		30
o-Chlorotoluene	78		77		70-130	1		30
p-Chlorotoluene	80		78		70-130	3		30
1,2-Dibromo-3-chloropropane	118		110		68-130	7		30
Hexachlorobutadiene	90		88		67-130	2		30
Isopropylbenzene	82		80		70-130	2		30
p-Isopropyltoluene	87		85		70-130	2		30
Naphthalene	102		100		70-130	2		30
Acrylonitrile	117		112		70-130	4		30
n-Propylbenzene	80		77		70-130	4		30
1,2,3-Trichlorobenzene	97		95		70-130	2		30
1,2,4-Trichlorobenzene	98		94		70-130	4		30
1,3,5-Trimethylbenzene	83		81		70-130	2		30
1,2,4-Trimethylbenzene	82		79		70-130	4		30
1,4-Dioxane	132		130		65-136	2		30
p-Diethylbenzene	86		84		70-130	2		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 05 Batch: WG1603001-3 WG1603001-4								
p-Ethyltoluene	82		80		70-130	2		30
1,2,4,5-Tetramethylbenzene	84		82		70-130	2		30
Ethyl ether	81		78		67-130	4		30
trans-1,4-Dichloro-2-butene	90		88		70-130	2		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	98		99		70-130
Toluene-d8	92		92		70-130
4-Bromofluorobenzene	87		87		70-130
Dibromofluoromethane	106		107		70-130



# SEMIVOLATILES

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-01  
 Client ID: SB-10  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 08:25  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 02/11/22 21:23  
 Analyst: SZ  
 Percent Solids: 96%

Extraction Method: EPA 3546  
 Extraction Date: 02/10/22 00:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	140	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	19.	1
Hexachlorobenzene	ND		ug/kg	100	19.	1
Bis(2-chloroethyl)ether	ND		ug/kg	150	23.	1
2-Chloronaphthalene	ND		ug/kg	170	17.	1
1,2-Dichlorobenzene	ND		ug/kg	170	30.	1
1,3-Dichlorobenzene	ND		ug/kg	170	29.	1
1,4-Dichlorobenzene	ND		ug/kg	170	30.	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	45.	1
2,4-Dinitrotoluene	ND		ug/kg	170	34.	1
2,6-Dinitrotoluene	ND		ug/kg	170	29.	1
Fluoranthene	ND		ug/kg	100	19.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	18.	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	26.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	29.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	180	17.	1
Hexachlorobutadiene	ND		ug/kg	170	25.	1
Hexachlorocyclopentadiene	ND		ug/kg	480	150	1
Hexachloroethane	ND		ug/kg	140	27.	1
Isophorone	ND		ug/kg	150	22.	1
Naphthalene	ND		ug/kg	170	21.	1
Nitrobenzene	ND		ug/kg	150	25.	1
NDPA/DPA	ND		ug/kg	140	19.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	26.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	59.	1
Butyl benzyl phthalate	ND		ug/kg	170	43.	1
Di-n-butylphthalate	ND		ug/kg	170	32.	1
Di-n-octylphthalate	ND		ug/kg	170	58.	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-01

Date Collected: 01/28/22 08:25

Client ID: SB-10

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	170	16.	1
Dimethyl phthalate	ND		ug/kg	170	36.	1
Benzo(a)anthracene	ND		ug/kg	100	19.	1
Benzo(a)pyrene	ND		ug/kg	140	41.	1
Benzo(b)fluoranthene	ND		ug/kg	100	28.	1
Benzo(k)fluoranthene	ND		ug/kg	100	27.	1
Chrysene	ND		ug/kg	100	18.	1
Acenaphthylene	ND		ug/kg	140	26.	1
Anthracene	ND		ug/kg	100	33.	1
Benzo(ghi)perylene	ND		ug/kg	140	20.	1
Fluorene	ND		ug/kg	170	16.	1
Phenanthrene	ND		ug/kg	100	20.	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	24.	1
Pyrene	ND		ug/kg	100	17.	1
Biphenyl	ND		ug/kg	390	22.	1
4-Chloroaniline	ND		ug/kg	170	31.	1
2-Nitroaniline	ND		ug/kg	170	33.	1
3-Nitroaniline	ND		ug/kg	170	32.	1
4-Nitroaniline	ND		ug/kg	170	70.	1
Dibenzofuran	ND		ug/kg	170	16.	1
2-Methylnaphthalene	ND		ug/kg	200	20.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	18.	1
Acetophenone	ND		ug/kg	170	21.	1
2,4,6-Trichlorophenol	ND		ug/kg	100	32.	1
p-Chloro-m-cresol	ND		ug/kg	170	25.	1
2-Chlorophenol	ND		ug/kg	170	20.	1
2,4-Dichlorophenol	ND		ug/kg	150	27.	1
2,4-Dimethylphenol	ND		ug/kg	170	56.	1
2-Nitrophenol	ND		ug/kg	360	64.	1
4-Nitrophenol	ND		ug/kg	240	69.	1
2,4-Dinitrophenol	ND		ug/kg	810	79.	1
4,6-Dinitro-o-cresol	ND		ug/kg	440	81.	1
Pentachlorophenol	ND		ug/kg	140	37.	1
Phenol	ND		ug/kg	170	26.	1
2-Methylphenol	ND		ug/kg	170	26.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.	1

**Project Name:** ARC2202**Lab Number:** L2204927**Project Number:** ARC2202**Report Date:** 02/17/22**SAMPLE RESULTS**

Lab ID: L2204927-01

Date Collected: 01/28/22 08:25

Client ID: SB-10

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	170	32.	1
Benzoic Acid	ND		ug/kg	550	170	1
Benzyl Alcohol	ND		ug/kg	170	52.	1
Carbazole	ND		ug/kg	170	16.	1
1,4-Dioxane	ND		ug/kg	25	7.8	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	82		25-120
Phenol-d6	85		10-120
Nitrobenzene-d5	58		23-120
2-Fluorobiphenyl	94		30-120
2,4,6-Tribromophenol	93		10-136
4-Terphenyl-d14	81		18-120

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-01  
 Client ID: SB-10  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 08:25  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/02/22 23:29  
 Analyst: RS  
 Percent Solids: 96%

Extraction Method: ALPHA 23528  
 Extraction Date: 02/02/22 08:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.481	0.022	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.481	0.044	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.241	0.038	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.481	0.051	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.241	0.043	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.241	0.058	1
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.241	0.040	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.481	0.173	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.481	0.131	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.241	0.072	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.241	0.125	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.241	0.065	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.481	0.276	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.481	0.194	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.481	0.045	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.481	0.147	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.481	0.081	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.481	0.067	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.481	0.197	1
Perfluorotetradecanoic Acid (PFTA)	0.079	JF	ng/g	0.481	0.052	1
PFOA/PFOS, Total	ND		ng/g	0.241	0.040	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-01

Date Collected: 01/28/22 08:25

Client ID: SB-10

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	28	Q	61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	37	Q	58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	93		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	43	Q	66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	58	Q	71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	92		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	61	Q	75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	80		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	49	Q	72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	88		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	71	Q	75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	81		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	35		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	82		61-155
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	39		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	78		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	52		24-159

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

**SAMPLE RESULTS**

Lab ID: L2204927-01  
 Client ID: SB-10  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 08:25  
 Date Received: 01/28/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/03/22 14:53  
 Analyst: RS  
 Percent Solids: 96%

Extraction Method: ALPHA 23528  
 Extraction Date: 02/02/22 08:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.481	0.094	1
<b>Surrogate (Extracted Internal Standard)</b>			<b>% Recovery</b>	<b>Qualifier</b>	<b>Acceptance Criteria</b>	
Perfluoro[13C8]Octanesulfonamide (M8FOSA)			85		10-117	

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-02  
 Client ID: SB-11  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 08:55  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 02/11/22 21:47  
 Analyst: SZ  
 Percent Solids: 95%

Extraction Method: EPA 3546  
 Extraction Date: 02/10/22 00:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	140	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	20.	1
Hexachlorobenzene	ND		ug/kg	100	19.	1
Bis(2-chloroethyl)ether	ND		ug/kg	150	23.	1
2-Chloronaphthalene	ND		ug/kg	170	17.	1
1,2-Dichlorobenzene	ND		ug/kg	170	31.	1
1,3-Dichlorobenzene	ND		ug/kg	170	30.	1
1,4-Dichlorobenzene	ND		ug/kg	170	30.	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	46.	1
2,4-Dinitrotoluene	ND		ug/kg	170	34.	1
2,6-Dinitrotoluene	ND		ug/kg	170	30.	1
Fluoranthene	ND		ug/kg	100	20.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	18.	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	26.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	29.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	180	17.	1
Hexachlorobutadiene	ND		ug/kg	170	25.	1
Hexachlorocyclopentadiene	ND		ug/kg	490	160	1
Hexachloroethane	ND		ug/kg	140	28.	1
Isophorone	ND		ug/kg	150	22.	1
Naphthalene	ND		ug/kg	170	21.	1
Nitrobenzene	ND		ug/kg	150	25.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	26.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	60.	1
Butyl benzyl phthalate	ND		ug/kg	170	43.	1
Di-n-butylphthalate	ND		ug/kg	170	33.	1
Di-n-octylphthalate	ND		ug/kg	170	58.	1



Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-02  
 Client ID: SB-11  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 08:55  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	170	16.	1
Dimethyl phthalate	ND		ug/kg	170	36.	1
Benzo(a)anthracene	ND		ug/kg	100	19.	1
Benzo(a)pyrene	ND		ug/kg	140	42.	1
Benzo(b)fluoranthene	ND		ug/kg	100	29.	1
Benzo(k)fluoranthene	ND		ug/kg	100	28.	1
Chrysene	ND		ug/kg	100	18.	1
Acenaphthylene	ND		ug/kg	140	26.	1
Anthracene	ND		ug/kg	100	34.	1
Benzo(ghi)perylene	ND		ug/kg	140	20.	1
Fluorene	ND		ug/kg	170	17.	1
Phenanthrene	ND		ug/kg	100	21.	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	24.	1
Pyrene	ND		ug/kg	100	17.	1
Biphenyl	ND		ug/kg	390	22.	1
4-Chloroaniline	ND		ug/kg	170	31.	1
2-Nitroaniline	ND		ug/kg	170	33.	1
3-Nitroaniline	ND		ug/kg	170	32.	1
4-Nitroaniline	ND		ug/kg	170	71.	1
Dibenzofuran	ND		ug/kg	170	16.	1
2-Methylnaphthalene	ND		ug/kg	210	21.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	18.	1
Acetophenone	ND		ug/kg	170	21.	1
2,4,6-Trichlorophenol	ND		ug/kg	100	33.	1
p-Chloro-m-cresol	ND		ug/kg	170	26.	1
2-Chlorophenol	ND		ug/kg	170	20.	1
2,4-Dichlorophenol	ND		ug/kg	150	28.	1
2,4-Dimethylphenol	ND		ug/kg	170	57.	1
2-Nitrophenol	ND		ug/kg	370	65.	1
4-Nitrophenol	ND		ug/kg	240	70.	1
2,4-Dinitrophenol	ND		ug/kg	820	80.	1
4,6-Dinitro-o-cresol	ND		ug/kg	450	82.	1
Pentachlorophenol	ND		ug/kg	140	38.	1
Phenol	ND		ug/kg	170	26.	1
2-Methylphenol	ND		ug/kg	170	27.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	27.	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

**SAMPLE RESULTS**

Lab ID: L2204927-02

Date Collected: 01/28/22 08:55

Client ID: SB-11

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	170	33.	1
Benzoic Acid	ND		ug/kg	560	170	1
Benzyl Alcohol	ND		ug/kg	170	53.	1
Carbazole	ND		ug/kg	170	17.	1
1,4-Dioxane	ND		ug/kg	26	7.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	78		25-120
Phenol-d6	81		10-120
Nitrobenzene-d5	55		23-120
2-Fluorobiphenyl	87		30-120
2,4,6-Tribromophenol	100		10-136
4-Terphenyl-d14	84		18-120

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-02  
 Client ID: SB-11  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 08:55  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/03/22 00:03  
 Analyst: RS  
 Percent Solids: 95%

Extraction Method: ALPHA 23528  
 Extraction Date: 02/02/22 08:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.480	0.022	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.480	0.044	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.240	0.038	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.480	0.050	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.240	0.043	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.240	0.058	1
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.240	0.040	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.480	0.172	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.480	0.131	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.240	0.072	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.240	0.125	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.240	0.064	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.480	0.276	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.480	0.194	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.480	0.045	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.480	0.147	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.480	0.094	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.480	0.081	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.480	0.067	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.480	0.196	1
Perfluorotetradecanoic Acid (PFTA)	0.065	J	ng/g	0.480	0.052	1
PFOA/PFOS, Total	ND		ng/g	0.240	0.040	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-02

Date Collected: 01/28/22 08:55

Client ID: SB-11

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	94		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	97		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	102		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	88		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	100		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	102		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	94		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	91		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	70	Q	72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	97		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	92		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	94		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	67		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	105		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	20		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	67		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	97		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	82		24-159

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-03  
 Client ID: SB-14  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 11:25  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 02/11/22 22:11  
 Analyst: SZ  
 Percent Solids: 93%

Extraction Method: EPA 3546  
 Extraction Date: 02/10/22 00:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	140	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	20.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	24.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	32.	1
1,3-Dichlorobenzene	ND		ug/kg	180	30.	1
1,4-Dichlorobenzene	ND		ug/kg	180	31.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	47.	1
2,4-Dinitrotoluene	ND		ug/kg	180	35.	1
2,6-Dinitrotoluene	ND		ug/kg	180	30.	1
Fluoranthene	ND		ug/kg	110	20.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	27.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	30.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	18.	1
Hexachlorobutadiene	ND		ug/kg	180	26.	1
Hexachlorocyclopentadiene	ND		ug/kg	510	160	1
Hexachloroethane	ND		ug/kg	140	29.	1
Isophorone	ND		ug/kg	160	23.	1
Naphthalene	ND		ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	26.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	27.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	61.	1
Butyl benzyl phthalate	ND		ug/kg	180	45.	1
Di-n-butylphthalate	ND		ug/kg	180	34.	1
Di-n-octylphthalate	ND		ug/kg	180	60.	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-03

Date Collected: 01/28/22 11:25

Client ID: SB-14

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	16.	1
Dimethyl phthalate	ND		ug/kg	180	37.	1
Benzo(a)anthracene	ND		ug/kg	110	20.	1
Benzo(a)pyrene	ND		ug/kg	140	43.	1
Benzo(b)fluoranthene	ND		ug/kg	110	30.	1
Benzo(k)fluoranthene	ND		ug/kg	110	28.	1
Chrysene	ND		ug/kg	110	18.	1
Acenaphthylene	ND		ug/kg	140	27.	1
Anthracene	ND		ug/kg	110	35.	1
Benzo(ghi)perylene	ND		ug/kg	140	21.	1
Fluorene	ND		ug/kg	180	17.	1
Phenanthrene	ND		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	20.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	25.	1
Pyrene	ND		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	400	23.	1
4-Chloroaniline	ND		ug/kg	180	32.	1
2-Nitroaniline	ND		ug/kg	180	34.	1
3-Nitroaniline	ND		ug/kg	180	33.	1
4-Nitroaniline	ND		ug/kg	180	73.	1
Dibenzofuran	ND		ug/kg	180	17.	1
2-Methylnaphthalene	ND		ug/kg	210	21.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	18.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	34.	1
p-Chloro-m-cresol	ND		ug/kg	180	26.	1
2-Chlorophenol	ND		ug/kg	180	21.	1
2,4-Dichlorophenol	ND		ug/kg	160	28.	1
2,4-Dimethylphenol	ND		ug/kg	180	58.	1
2-Nitrophenol	ND		ug/kg	380	67.	1
4-Nitrophenol	ND		ug/kg	250	72.	1
2,4-Dinitrophenol	ND		ug/kg	850	83.	1
4,6-Dinitro-o-cresol	ND		ug/kg	460	85.	1
Pentachlorophenol	ND		ug/kg	140	39.	1
Phenol	ND		ug/kg	180	27.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	28.	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

**SAMPLE RESULTS**

Lab ID: L2204927-03

Date Collected: 01/28/22 11:25

Client ID: SB-14

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	34.	1
Benzoic Acid	ND		ug/kg	570	180	1
Benzyl Alcohol	ND		ug/kg	180	54.	1
Carbazole	ND		ug/kg	180	17.	1
1,4-Dioxane	ND		ug/kg	27	8.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	83		25-120
Phenol-d6	88		10-120
Nitrobenzene-d5	72		23-120
2-Fluorobiphenyl	92		30-120
2,4,6-Tribromophenol	98		10-136
4-Terphenyl-d14	93		18-120

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-03  
 Client ID: SB-14  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 11:25  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/03/22 00:36  
 Analyst: RS  
 Percent Solids: 93%

Extraction Method: ALPHA 23528  
 Extraction Date: 02/02/22 08:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.514	0.023	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.514	0.047	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.257	0.040	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.514	0.054	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.257	0.046	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.257	0.062	1
Perfluorooctanoic Acid (PFOA)	0.053	J	ng/g	0.257	0.043	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.514	0.185	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.514	0.140	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.257	0.077	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.257	0.134	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.257	0.069	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.514	0.295	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.514	0.207	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.514	0.048	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.514	0.157	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.514	0.087	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.514	0.072	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.514	0.210	1
Perfluorotetradecanoic Acid (PFTA)	0.071	J	ng/g	0.514	0.056	1
PFOA/PFOS, Total	0.053	J	ng/g	0.257	0.043	1



Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-03

Date Collected: 01/28/22 11:25

Client ID: SB-14

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Surrogate (Extracted Internal Standard)			% Recovery	Qualifier		Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)			74			61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)			76			58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)			91			74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)			70			66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)			84			71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)			92			78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)			76			75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)			78			20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)			56	Q		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)			86			79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)			76			75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)			73			19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)			46			31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)			79			61-155
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)			43			34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)			75			54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)			37			24-159

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

**SAMPLE RESULTS**

Lab ID: L2204927-03  
 Client ID: SB-14  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 11:25  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/03/22 15:00  
 Analyst: RS  
 Percent Solids: 93%

Extraction Method: ALPHA 23528  
 Extraction Date: 02/02/22 08:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab

Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.514	0.101	1
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Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
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Perfluoro[13C8]Octanesulfonamide (M8FOSA)	90		10-117
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Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-04  
 Client ID: SB-15  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 12:45  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 02/11/22 22:35  
 Analyst: SZ  
 Percent Solids: 85%

Extraction Method: EPA 3546  
 Extraction Date: 02/10/22 00:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	35.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	52.	1
2,4-Dinitrotoluene	ND		ug/kg	190	39.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	ND		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	180	1
Hexachloroethane	ND		ug/kg	160	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	ND		ug/kg	190	24.	1
Nitrobenzene	ND		ug/kg	170	29.	1
NDPA/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	67.	1
Butyl benzyl phthalate	ND		ug/kg	190	49.	1
Di-n-butylphthalate	ND		ug/kg	190	37.	1
Di-n-octylphthalate	ND		ug/kg	190	66.	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-04  
 Client ID: SB-15  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 12:45  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	41.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	47.	1
Benzo(b)fluoranthene	ND		ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	190	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	27.	1
Pyrene	ND		ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	25.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	80.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
p-Chloro-m-cresol	ND		ug/kg	190	29.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	170	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	64.	1
2-Nitrophenol	ND		ug/kg	420	73.	1
4-Nitrophenol	ND		ug/kg	270	79.	1
2,4-Dinitrophenol	ND		ug/kg	930	90.	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	93.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

**SAMPLE RESULTS**

Lab ID: L2204927-04

Date Collected: 01/28/22 12:45

Client ID: SB-15

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Benzoic Acid	ND		ug/kg	630	200	1
Benzyl Alcohol	ND		ug/kg	190	59.	1
Carbazole	ND		ug/kg	190	19.	1
1,4-Dioxane	ND		ug/kg	29	8.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	80		25-120
Phenol-d6	82		10-120
Nitrobenzene-d5	64		23-120
2-Fluorobiphenyl	86		30-120
2,4,6-Tribromophenol	92		10-136
4-Terphenyl-d14	83		18-120

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-04  
 Client ID: SB-15  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 12:45  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/03/22 00:52  
 Analyst: RS  
 Percent Solids: 85%

Extraction Method: ALPHA 23528  
 Extraction Date: 02/02/22 08:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.526	0.024	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.526	0.048	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.263	0.041	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.526	0.055	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.263	0.047	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.263	0.064	1
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.263	0.044	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.526	0.189	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.526	0.144	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.263	0.079	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.263	0.137	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.263	0.071	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.526	0.302	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.526	0.212	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.526	0.049	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.526	0.161	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.526	0.089	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.526	0.074	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.526	0.215	1
Perfluorotetradecanoic Acid (PFTA)	0.057	J	ng/g	0.526	0.057	1
PFOA/PFOS, Total	ND		ng/g	0.263	0.044	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-04

Date Collected: 01/28/22 12:45

Client ID: SB-15

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	88		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	90		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	95		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	83		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	98		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	92		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	88		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	78		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	66	Q	72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	85		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	84		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	88		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	59		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	96		61-155
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	56		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	89		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	56		24-159

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

**SAMPLE RESULTS**

Lab ID: L2204927-04  
 Client ID: SB-15  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 12:45  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/03/22 15:08  
 Analyst: RS  
 Percent Solids: 85%

Extraction Method: ALPHA 23528  
 Extraction Date: 02/02/22 08:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.526	0.103	1
<b>Surrogate (Extracted Internal Standard)</b>			<b>% Recovery</b>	<b>Qualifier</b>	<b>Acceptance Criteria</b>	
Perfluoro[13C8]Octanesulfonamide (M8FOSA)			89		10-117	



Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-05  
 Client ID: SB-16  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 14:00  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 02/11/22 22:59  
 Analyst: SZ  
 Percent Solids: 90%

Extraction Method: EPA 3546  
 Extraction Date: 02/10/22 00:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	150	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	25.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	33.	1
1,3-Dichlorobenzene	ND		ug/kg	180	32.	1
1,4-Dichlorobenzene	ND		ug/kg	180	32.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	49.	1
2,4-Dinitrotoluene	ND		ug/kg	180	37.	1
2,6-Dinitrotoluene	ND		ug/kg	180	32.	1
Fluoranthene	ND		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	31.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	18.	1
Hexachlorobutadiene	ND		ug/kg	180	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	520	170	1
Hexachloroethane	ND		ug/kg	150	30.	1
Isophorone	ND		ug/kg	160	24.	1
Naphthalene	ND		ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	27.	1
NDPA/DPA	ND		ug/kg	150	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	64.	1
Butyl benzyl phthalate	ND		ug/kg	180	46.	1
Di-n-butylphthalate	ND		ug/kg	180	35.	1
Di-n-octylphthalate	ND		ug/kg	180	62.	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-05  
 Client ID: SB-16  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 14:00  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	39.	1
Benzo(a)anthracene	ND		ug/kg	110	21.	1
Benzo(a)pyrene	ND		ug/kg	150	45.	1
Benzo(b)fluoranthene	ND		ug/kg	110	31.	1
Benzo(k)fluoranthene	ND		ug/kg	110	29.	1
Chrysene	ND		ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	150	28.	1
Anthracene	ND		ug/kg	110	36.	1
Benzo(ghi)perylene	ND		ug/kg	150	22.	1
Fluorene	ND		ug/kg	180	18.	1
Phenanthrene	ND		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	26.	1
Pyrene	ND		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	420	24.	1
4-Chloroaniline	ND		ug/kg	180	33.	1
2-Nitroaniline	ND		ug/kg	180	35.	1
3-Nitroaniline	ND		ug/kg	180	35.	1
4-Nitroaniline	ND		ug/kg	180	76.	1
Dibenzofuran	ND		ug/kg	180	17.	1
2-Methylnaphthalene	ND		ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	23.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	35.	1
p-Chloro-m-cresol	ND		ug/kg	180	27.	1
2-Chlorophenol	ND		ug/kg	180	22.	1
2,4-Dichlorophenol	ND		ug/kg	160	30.	1
2,4-Dimethylphenol	ND		ug/kg	180	61.	1
2-Nitrophenol	ND		ug/kg	400	69.	1
4-Nitrophenol	ND		ug/kg	260	75.	1
2,4-Dinitrophenol	ND		ug/kg	880	86.	1
4,6-Dinitro-o-cresol	ND		ug/kg	480	88.	1
Pentachlorophenol	ND		ug/kg	150	40.	1
Phenol	ND		ug/kg	180	28.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	29.	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-05  
 Client ID: SB-16  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 14:00  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	35.	1
Benzoic Acid	ND		ug/kg	600	190	1
Benzyl Alcohol	ND		ug/kg	180	56.	1
Carbazole	ND		ug/kg	180	18.	1
1,4-Dioxane	ND		ug/kg	28	8.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	72		25-120
Phenol-d6	77		10-120
Nitrobenzene-d5	56		23-120
2-Fluorobiphenyl	82		30-120
2,4,6-Tribromophenol	88		10-136
4-Terphenyl-d14	84		18-120

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-05  
 Client ID: SB-16  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 14:00  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/03/22 01:25  
 Analyst: RS  
 Percent Solids: 90%

Extraction Method: ALPHA 23528  
 Extraction Date: 02/02/22 08:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.517	0.024	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.517	0.048	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.259	0.040	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.517	0.054	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.259	0.047	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.259	0.063	1
Perfluorooctanoic Acid (PFOA)	0.068	JF	ng/g	0.259	0.043	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.517	0.186	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.517	0.141	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.259	0.078	1
Perfluorooctanesulfonic Acid (PFOS)	0.640	F	ng/g	0.259	0.134	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.259	0.069	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.517	0.297	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.517	0.208	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.517	0.048	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.517	0.158	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.517	0.101	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.517	0.087	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.517	0.072	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.517	0.212	1
Perfluorotetradecanoic Acid (PFTA)	0.067	J	ng/g	0.517	0.056	1
PFOA/PFOS, Total	0.708	J	ng/g	0.259	0.043	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-05  
 Client ID: SB-16  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 14:00  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	88		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	90		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	101		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	84		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	97		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	103		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	89		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	90		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	65	Q	72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	91		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	86		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	92		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	54		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	96		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	15		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	48		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	92		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	60		24-159

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

**SAMPLE RESULTS**

Lab ID: L2204927-06  
 Client ID: GW-3  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 11:55  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 02/04/22 17:12  
 Analyst: SZ

Extraction Method: EPA 3510C  
 Extraction Date: 02/03/22 19:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	1.9	J	ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	2.5	J	ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	2.8		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-06  
 Client ID: GW-3  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 11:55  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		21-120
Phenol-d6	56		10-120
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	68		15-120
2,4,6-Tribromophenol	61		10-120
4-Terphenyl-d14	80		41-149

**Project Name:** ARC2202**Lab Number:** L2204927**Project Number:** ARC2202**Report Date:** 02/17/22**SAMPLE RESULTS**

Lab ID: L2204927-06  
 Client ID: GW-3  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 11:55  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 02/03/22 18:36  
 Analyst: DB

Extraction Method: EPA 3510C  
 Extraction Date: 02/02/22 12:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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1,4 Dioxane by 8270D-SIM - Mansfield Lab						
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1,4-Dioxane	ND		ng/l	156	35.3	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
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1,4-Dioxane-d8	37		15-110
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Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-06  
 Client ID: GW-3  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 11:55  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 02/04/22 18:33  
 Analyst: DV

Extraction Method: EPA 3510C  
 Extraction Date: 02/03/22 19:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.76		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.05	J	ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	2.2		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	0.09	J	ug/l	0.10	0.01	1
Anthracene	0.08	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	0.77		ug/l	0.10	0.01	1
Phenanthrene	0.49		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	0.26		ug/l	0.10	0.02	1
2-Methylnaphthalene	7.2		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

**Project Name:** ARC2202**Lab Number:** L2204927**Project Number:** ARC2202**Report Date:** 02/17/22**SAMPLE RESULTS**

Lab ID: L2204927-06

Date Collected: 01/28/22 11:55

Client ID: GW-3

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		21-120
Phenol-d6	55		10-120
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	82		15-120
2,4,6-Tribromophenol	71		10-120
4-Terphenyl-d14	89		41-149

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-06  
 Client ID: GW-3  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 11:55  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/02/22 17:58  
 Analyst: RS

Extraction Method: ALPHA 23528  
 Extraction Date: 02/01/22 17:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorobutanoic Acid (PFBA)	12.5		ng/l	10.0	2.04	1
Perfluoropentanoic Acid (PFPeA)	24.0		ng/l	10.0	1.98	1
Perfluorobutanesulfonic Acid (PFBS)	3.84	J	ng/l	10.0	1.19	1
Perfluorohexanoic Acid (PFHxA)	15.7		ng/l	10.0	1.64	1
Perfluoroheptanoic Acid (PFHpA)	10.1		ng/l	10.0	1.13	1
Perfluorohexanesulfonic Acid (PFHxS)	3.60	J	ng/l	10.0	1.88	1
Perfluorooctanoic Acid (PFOA)	128		ng/l	10.0	1.18	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	10.0	6.66	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	10.0	3.44	1
Perfluorononanoic Acid (PFNA)	7.80	J	ng/l	10.0	1.56	1
Perfluorooctanesulfonic Acid (PFOS)	161		ng/l	10.0	2.52	1
Perfluorodecanoic Acid (PFDA)	1.60	JF	ng/l	10.0	1.52	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	10.0	6.06	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	10.0	3.24	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	10.0	1.30	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	10.0	4.90	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	10.0	2.90	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	10.0	4.02	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	10.0	1.86	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	10.0	1.64	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	10.0	1.24	1
PFOA/PFOS, Total	289		ng/l	10.0	1.18	1

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-06

Date Collected: 01/28/22 11:55

Client ID: GW-3

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	76		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	102		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	104		70-131
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	76		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	78		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	109		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	78		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	109		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	79		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	99		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	76		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	97		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	61		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	78		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	12		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	65		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	75		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	68		22-136

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/02/22 11:52  
 Analyst: RS

Extraction Method: ALPHA 23528  
 Extraction Date: 02/01/22 17:47

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 06 Batch: WG1600343-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.408
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.396
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.238
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.328
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.225
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.376
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.236
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	1.33
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.688
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.312
Perfluorooctanesulfonic Acid (PFOS)	8.98		ng/l	2.00	0.504
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.304
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	1.21
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.648
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.260
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.980
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.580
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.804
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.372
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.327
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.248
PFOA/PFOS, Total	8.98		ng/l	2.00	0.236

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

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

Analytical Method: 134,LCMSMS-ID  
Analytical Date: 02/02/22 11:52  
Analyst: RS

Extraction Method: ALPHA 23528  
Extraction Date: 02/01/22 17:47

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 06 Batch: WG1600343-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	95		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	107		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	97		70-131
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	96		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	97		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	101		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	99		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	124		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	90		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	96		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	91		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	108		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	72		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	89		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	50		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	87		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	83		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	74		22-136

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

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

Analytical Method: 134,LCMSMS-ID  
Analytical Date: 02/03/22 14:24  
Analyst: RS

Extraction Method: ALPHA 23528  
Extraction Date: 02/02/22 08:31

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-05 Batch: WG1600507-1					
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.500	0.098

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	116		10-117

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

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

Analytical Method: 134,LCMSMS-ID  
Analytical Date: 02/09/22 12:23  
Analyst: RS

Extraction Method: ALPHA 23528  
Extraction Date: 02/02/22 08:31

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-05 Batch: WG1600507-1 R					
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.500	0.023
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.500	0.046
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.250	0.039
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.500	0.053
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.250	0.045
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.250	0.061
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.250	0.042
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.500	0.180
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.500	0.136
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.250	0.075
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.250	0.130
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.250	0.067
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.500	0.287
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.500	0.202
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.500	0.047
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.500	0.153
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.500	0.098
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.500	0.085
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.500	0.070
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.500	0.204
Perfluorotetradecanoic Acid (PFTA)	ND		ng/g	0.500	0.054
PFOA/PFOS, Total	ND		ng/g	0.250	0.042



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID  
Analytical Date: 02/09/22 12:23  
Analyst: RS

Extraction Method: ALPHA 23528  
Extraction Date: 02/02/22 08:31

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-05 Batch: WG1600507-1 R					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	89		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	96		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	95		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	92		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	93		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	102		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	92		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	110		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	87		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	98		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	90		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	90		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	89		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	98		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	17		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	91		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	86		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	75		24-159

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

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

Analytical Method: 1,8270D-SIM  
Analytical Date: 02/03/22 13:04  
Analyst: DB

Extraction Method: EPA 3510C  
Extraction Date: 02/02/22 12:22

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 06 Batch: WG1600595-1					
1,4-Dioxane	ND		ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	48		15-110

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/04/22 10:19  
 Analyst: CMM

Extraction Method: EPA 3510C  
 Extraction Date: 02/03/22 19:26

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 06 Batch: WG1601288-1					
Acenaphthene	ND		ug/l	2.0	0.44
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Hexachlorobenzene	ND		ug/l	2.0	0.46
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chloronaphthalene	ND		ug/l	2.0	0.44
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Fluoranthene	ND		ug/l	2.0	0.26
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Hexachloroethane	ND		ug/l	2.0	0.58
Isophorone	ND		ug/l	5.0	1.2
Naphthalene	ND		ug/l	2.0	0.46
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

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

Analytical Method: 1,8270D  
Analytical Date: 02/04/22 10:19  
Analyst: CMM

Extraction Method: EPA 3510C  
Extraction Date: 02/03/22 19:26

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 06 Batch: WG1601288-1					
Dimethyl phthalate	ND		ug/l	5.0	1.8
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Chrysene	ND		ug/l	2.0	0.34
Acenaphthylene	ND		ug/l	2.0	0.46
Anthracene	ND		ug/l	2.0	0.33
Benzo(ghi)perylene	ND		ug/l	2.0	0.30
Fluorene	ND		ug/l	2.0	0.41
Phenanthrene	ND		ug/l	2.0	0.33
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Pyrene	ND		ug/l	2.0	0.28
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	2.1	J	ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
2-Methylnaphthalene	ND		ug/l	2.0	0.45
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8270D  
Analytical Date: 02/04/22 10:19  
Analyst: CMM

Extraction Method: EPA 3510C  
Extraction Date: 02/03/22 19:26

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 06 Batch: WG1601288-1					
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Pentachlorophenol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Benzoic Acid	ND		ug/l	50	2.6
Benzyl Alcohol	ND		ug/l	2.0	0.59
Carbazole	ND		ug/l	2.0	0.49

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		21-120
Phenol-d6	49		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	67		15-120
2,4,6-Tribromophenol	69		10-120
4-Terphenyl-d14	85		41-149

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D-SIM  
 Analytical Date: 02/04/22 15:21  
 Analyst: DV

Extraction Method: EPA 3510C  
 Extraction Date: 02/03/22 19:26

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 06 Batch: WG1601289-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	0.04	J	ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	0.03	J	ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8270D-SIM  
 Analytical Date: 02/04/22 15:21  
 Analyst: DV

Extraction Method: EPA 3510C  
 Extraction Date: 02/03/22 19:26

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 06 Batch: WG1601289-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	45		21-120
Phenol-d6	41		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	76		15-120
2,4,6-Tribromophenol	57		10-120
4-Terphenyl-d14	83		41-149

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

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

Analytical Method: 1,8270D  
Analytical Date: 02/11/22 12:57  
Analyst: SZ

Extraction Method: EPA 3546  
Extraction Date: 02/10/22 00:29

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatle Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1603312-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	98	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	29.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	28.
3,3'-Dichlorobenzidine	ND		ug/kg	160	43.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	98	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	17.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	56.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.



Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/11/22 12:57  
 Analyst: SZ

Extraction Method: EPA 3546  
 Extraction Date: 02/10/22 00:29

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1603312-1					
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	28.
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.
Biphenyl	ND		ug/kg	370	21.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	15.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	98	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	350	61.

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

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

Analytical Method: 1,8270D  
Analytical Date: 02/11/22 12:57  
Analyst: SZ

Extraction Method: EPA 3546  
Extraction Date: 02/10/22 00:29

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatiles Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1603312-1					
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	780	76.
4,6-Dinitro-o-cresol	ND		ug/kg	420	78.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	31.
Benzoic Acid	ND		ug/kg	530	160
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.
1,4-Dioxane	ND		ug/kg	24	7.5

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		25-120
Phenol-d6	74		10-120
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	89		30-120
2,4,6-Tribromophenol	56		10-136
4-Terphenyl-d14	93		18-120

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS	Qual	LCS	Qual	%Recovery	RPD	Qual	RPD
	%Recovery		%Recovery		Limits			Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 06 Batch: WG1600343-2								
Perfluorobutanoic Acid (PFBA)	97		-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	98		-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	93		-		65-157	-		30
Perfluorohexanoic Acid (PFHxA)	96		-		69-168	-		30
Perfluoroheptanoic Acid (PFHpA)	99		-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	116		-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	101		-		63-159	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	111		-		49-187	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	100		-		61-179	-		30
Perfluorononanoic Acid (PFNA)	103		-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	115		-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	102		-		63-171	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	142		-		56-173	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	100		-		60-166	-		30
Perfluoroundecanoic Acid (PFUnA)	102		-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	112		-		38-156	-		30
Perfluorooctanesulfonamide (FOSA)	98		-		46-170	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	102		-		45-170	-		30
Perfluorododecanoic Acid (PFDoA)	102		-		67-153	-		30
Perfluorotridecanoic Acid (PFTrDA)	106		-		48-158	-		30
Perfluorotetradecanoic Acid (PFTA)	106		-		59-182	-		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual		Limits	
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 06 Batch: WG1600343-2									

Surrogate (Extracted Internal Standard)	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
Perfluoro[13C4]Butanoic Acid (MPFBA)	93				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	102				62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	100				70-131
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	93				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	91				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	101				71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	95				62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	126				14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	89				59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	95				69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	87				62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	94				10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	87				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	89				55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	49				10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	85				27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	85				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	71				22-136

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-05 Batch: WG1600507-2								
Perfluorooctanesulfonamide (FOSA)	120		-		67-137	-		30

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	118	Q			10-117

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-05 Batch: WG1600507-2								
Perfluorobutanoic Acid (PFBA)	100		-		71-135	-		30
Perfluoropentanoic Acid (PFPeA)	100		-		69-132	-		30
Perfluorobutanesulfonic Acid (PFBS)	98		-		72-128	-		30
Perfluorohexanoic Acid (PFHxA)	100		-		70-132	-		30
Perfluoroheptanoic Acid (PFHpA)	102		-		71-131	-		30
Perfluorohexanesulfonic Acid (PFHxS)	119		-		67-130	-		30
Perfluorooctanoic Acid (PFOA)	100		-		69-133	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	110		-		64-140	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	100		-		70-132	-		30
Perfluorononanoic Acid (PFNA)	100		-		72-129	-		30
Perfluorooctanesulfonic Acid (PFOS)	114		-		68-136	-		30
Perfluorodecanoic Acid (PFDA)	104		-		69-133	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	108		-		65-137	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	109		-		63-144	-		30
Perfluoroundecanoic Acid (PFUnA)	98		-		64-136	-		30
Perfluorodecanesulfonic Acid (PFDS)	111		-		59-134	-		30
Perfluorooctanesulfonamide (FOSA)	109		-		67-137	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	104		-		61-139	-		30
Perfluorododecanoic Acid (PFDoA)	106		-		69-135	-		30
Perfluorotridecanoic Acid (PFTrDA)	114		-		66-139	-		30
Perfluorotetradecanoic Acid (PFTA)	101		-		69-133	-		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual		Limits	
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-05 Batch: WG1600507-2									

Surrogate (Extracted Internal Standard)	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
Perfluoro[13C4]Butanoic Acid (MPFBA)	92				61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	95				58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	99				74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	96				66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	91				71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	105				78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	95				75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	111				20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	93				72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	101				79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	90				75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	115				19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	80				31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	99				61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	16				10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	89				34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	86				54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	77				24-159

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 06 Batch: WG1600595-2 WG1600595-3								
1,4-Dioxane	119		120		40-140	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	41		42		15-110



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1601288-2 WG1601288-3								
Acenaphthene	66		67		37-111	2		30
1,2,4-Trichlorobenzene	62		60		39-98	3		30
Hexachlorobenzene	69		69		40-140	0		30
Bis(2-chloroethyl)ether	65		63		40-140	3		30
2-Chloronaphthalene	61		64		40-140	5		30
1,2-Dichlorobenzene	62		62		40-140	0		30
1,3-Dichlorobenzene	60		57		40-140	5		30
1,4-Dichlorobenzene	62		60		36-97	3		30
3,3'-Dichlorobenzidine	67		69		40-140	3		30
2,4-Dinitrotoluene	64		68		48-143	6		30
2,6-Dinitrotoluene	59		60		40-140	2		30
Fluoranthene	67		73		40-140	1		30
4-Chlorophenyl phenyl ether	63		67		40-140	6		30
4-Bromophenyl phenyl ether	65		66		40-140	2		30
Bis(2-chloroisopropyl)ether	61		62		40-140	2		30
Bis(2-chloroethoxy)methane	66		65		40-140	2		30
Hexachlorobutadiene	64		63		40-140	2		30
Hexachlorocyclopentadiene	60		59		40-140	2		30
Hexachloroethane	63		67		40-140	6		30
Isophorone	65		63		40-140	3		30
Naphthalene	63		64		40-140	2		30
Nitrobenzene	70		68		40-140	3		30
NDPA/DPA	68		72		40-140	6		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS	Qual	LCS	Qual	%Recovery	RPD	Qual	RPD
	%Recovery		%Recovery		Limits			Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1601288-2 WG1601288-3								
n-Nitrosodi-n-propylamine	64		67		29-132		5	30
Bis(2-ethylhexyl)phthalate	76		85		40-140		11	30
Butyl benzyl phthalate	75		86		40-140		14	30
Di-n-butylphthalate	70		78		40-140		11	30
Di-n-octylphthalate	81		87		40-140		7	30
Diethyl phthalate	67		72		40-140		7	30
Dimethyl phthalate	60		62		40-140		3	30
Benzo(a)anthracene	70		73		40-140		4	30
Benzo(a)pyrene	68		69		40-140		10	30
Benzo(b)fluoranthene	71		71		40-140		0	30
Benzo(k)fluoranthene	73		77		40-140		4	30
Chrysene	69		72		40-140		4	30
Acenaphthylene	60		62		45-123		3	30
Anthracene	68		75		40-140		10	30
Benzo(ghi)perylene	78		78		40-140		0	30
Fluorene	68		70		40-140		3	30
Phenanthrene	68		71		40-140		4	30
Dibenzo(a,h)anthracene	74		78		40-140		5	30
Indeno(1,2,3-cd)pyrene	76		80		40-140		11	30
Pyrene	69		72		26-127		4	30
Biphenyl	66		66		40-140		0	30
4-Chloroaniline	73		62		40-140		16	30
2-Nitroaniline	66		67		52-143		2	30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1601288-2 WG1601288-3								
3-Nitroaniline	60		64		25-145	6		30
4-Nitroaniline	66		67		51-143	2		30
Dibenzofuran	66		71		40-140	7		30
2-Methylnaphthalene	61		60		40-140	2		30
1,2,4,5-Tetrachlorobenzene	68		69		2-134	1		30
Acetophenone	68		69		39-129	1		30
2,4,6-Trichlorophenol	62		70		30-130	12		30
p-Chloro-m-cresol	71		75		23-97	5		30
2-Chlorophenol	68		67		27-123	1		30
2,4-Dichlorophenol	67		69		30-130	3		30
2,4-Dimethylphenol	68		61		30-130	11		30
2-Nitrophenol	66		67		30-130	2		30
4-Nitrophenol	66		73		10-80	10		30
2,4-Dinitrophenol	58		61		20-130	5		30
4,6-Dinitro-o-cresol	61		62		20-164	2		30
Pentachlorophenol	64		68		9-103	6		30
Phenol	53		51		12-110	4		30
2-Methylphenol	66		71		30-130	7		30
3-Methylphenol/4-Methylphenol	72		73		30-130	1		30
2,4,5-Trichlorophenol	67		67		30-130	0		30
Benzoic Acid	22		33		10-164	40	Q	30
Benzyl Alcohol	66		66		26-116	0		30
Carbazole	74		78		55-144	5		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1601288-2 WG1601288-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	60		61		21-120
Phenol-d6	48		49		10-120
Nitrobenzene-d5	64		65		23-120
2-Fluorobiphenyl	59		60		15-120
2,4,6-Tribromophenol	74		77		10-120
4-Terphenyl-d14	72		73		41-149

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 06 Batch: WG1601289-2 WG1601289-3								
Acenaphthene	79		76		40-140	4		40
2-Chloronaphthalene	78		74		40-140	5		40
Fluoranthene	81		80		40-140	1		40
Hexachlorobutadiene	73		71		40-140	3		40
Naphthalene	74		73		40-140	1		40
Benzo(a)anthracene	76		77		40-140	1		40
Benzo(a)pyrene	68		69		40-140	1		40
Benzo(b)fluoranthene	79		74		40-140	7		40
Benzo(k)fluoranthene	84		81		40-140	4		40
Chrysene	83		78		40-140	6		40
Acenaphthylene	77		74		40-140	4		40
Anthracene	85		80		40-140	6		40
Benzo(ghi)perylene	84		81		40-140	4		40
Fluorene	82		78		40-140	5		40
Phenanthrene	77		75		40-140	3		40
Dibenzo(a,h)anthracene	87		86		40-140	1		40
Indeno(1,2,3-cd)pyrene	74		77		40-140	4		40
Pyrene	80		79		40-140	1		40
2-Methylnaphthalene	76		73		40-140	4		40
Pentachlorophenol	89		88		40-140	1		40
Hexachlorobenzene	82		76		40-140	8		40
Hexachloroethane	67		64		40-140	5		40

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 06 Batch: WG1601289-2 WG1601289-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	49		50		21-120
Phenol-d6	43		41		10-120
Nitrobenzene-d5	75		71		23-120
2-Fluorobiphenyl	76		73		15-120
2,4,6-Tribromophenol	74		67		10-120
4-Terphenyl-d14	82		81		41-149

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1603312-2 WG1603312-3								
Acenaphthene	89		80		31-137	11		50
1,2,4-Trichlorobenzene	80		77		38-107	4		50
Hexachlorobenzene	91		83		40-140	9		50
Bis(2-chloroethyl)ether	78		75		40-140	4		50
2-Chloronaphthalene	87		80		40-140	8		50
1,2-Dichlorobenzene	77		76		40-140	1		50
1,3-Dichlorobenzene	77		76		40-140	1		50
1,4-Dichlorobenzene	75		73		28-104	3		50
3,3'-Dichlorobenzidine	66		58		40-140	13		50
2,4-Dinitrotoluene	88		80		40-132	10		50
2,6-Dinitrotoluene	88		83		40-140	6		50
Fluoranthene	87		81		40-140	7		50
4-Chlorophenyl phenyl ether	89		81		40-140	9		50
4-Bromophenyl phenyl ether	92		82		40-140	11		50
Bis(2-chloroisopropyl)ether	78		76		40-140	3		50
Bis(2-chloroethoxy)methane	82		78		40-117	5		50
Hexachlorobutadiene	83		79		40-140	5		50
Hexachlorocyclopentadiene	79		73		40-140	8		50
Hexachloroethane	75		72		40-140	4		50
Isophorone	80		74		40-140	8		50
Naphthalene	82		77		40-140	6		50
Nitrobenzene	79		76		40-140	4		50
NDPA/DPA	92		82		36-157	11		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS	Qual	LCS	Qual	%Recovery	RPD	Qual	RPD
	%Recovery		%Recovery		Limits			Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1603312-2 WG1603312-3								
n-Nitrosodi-n-propylamine	79		75		32-121	5		50
Bis(2-ethylhexyl)phthalate	94		84		40-140	11		50
Butyl benzyl phthalate	85		78		40-140	9		50
Di-n-butylphthalate	90		82		40-140	9		50
Di-n-octylphthalate	92		82		40-140	11		50
Diethyl phthalate	87		80		40-140	8		50
Dimethyl phthalate	87		80		40-140	8		50
Benzo(a)anthracene	87		78		40-140	11		50
Benzo(a)pyrene	89		81		40-140	9		50
Benzo(b)fluoranthene	86		80		40-140	7		50
Benzo(k)fluoranthene	91		82		40-140	10		50
Chrysene	84		77		40-140	9		50
Acenaphthylene	88		81		40-140	8		50
Anthracene	87		79		40-140	10		50
Benzo(ghi)perylene	87		81		40-140	7		50
Fluorene	91		81		40-140	12		50
Phenanthrene	86		77		40-140	11		50
Dibenzo(a,h)anthracene	89		82		40-140	8		50
Indeno(1,2,3-cd)pyrene	98		90		40-140	9		50
Pyrene	86		80		35-142	7		50
Biphenyl	87		81		37-127	7		50
4-Chloroaniline	72		64		40-140	12		50
2-Nitroaniline	88		83		47-134	6		50



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1603312-2 WG1603312-3								
3-Nitroaniline	72		65		26-129	10		50
4-Nitroaniline	85		77		41-125	10		50
Dibenzofuran	90		81		40-140	11		50
2-Methylnaphthalene	88		80		40-140	10		50
1,2,4,5-Tetrachlorobenzene	88		81		40-117	8		50
Acetophenone	81		79		14-144	3		50
2,4,6-Trichlorophenol	78		72		30-130	8		50
p-Chloro-m-cresol	87		83		26-103	5		50
2-Chlorophenol	80		78		25-102	3		50
2,4-Dichlorophenol	78		78		30-130	0		50
2,4-Dimethylphenol	81		75		30-130	8		50
2-Nitrophenol	73		72		30-130	1		50
4-Nitrophenol	76		72		11-114	5		50
2,4-Dinitrophenol	8		0	Q	4-130	NC		50
4,6-Dinitro-o-cresol	15		15		10-130	0		50
Pentachlorophenol	30		30		17-109	0		50
Phenol	84		81		26-90	4		50
2-Methylphenol	86		83		30-130.	4		50
3-Methylphenol/4-Methylphenol	91		86		30-130	6		50
2,4,5-Trichlorophenol	73		69		30-130	6		50
Benzoic Acid	0	Q	0	Q	10-110	NC		50
Benzyl Alcohol	84		82		40-140	2		50
Carbazole	87		78		54-128	11		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1603312-2 WG1603312-3								
1,4-Dioxane	62		61		40-140	2		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	78		77		25-120
Phenol-d6	85		82		10-120
Nitrobenzene-d5	80		79		23-120
2-Fluorobiphenyl	87		83		30-120
2,4,6-Tribromophenol	84		77		10-136
4-Terphenyl-d14	85		79		18-120

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** ARC2202

**Lab Number:** L2204927

**Project Number:** ARC2202

**Report Date:** 02/17/22

<b>Parameter</b>	<b>Native Sample</b>	<b>MS Added</b>	<b>MS Found</b>	<b>MS %Recovery</b>	<b>Qual</b>	<b>MSD Found</b>	<b>MSD %Recovery</b>	<b>Qual</b>	<b>Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG1600343-3 QC Sample: L2200061-33 Client ID: MS Sample												
Perfluorooctanoic Acid (PFOA)	59.5	36.3	94.7	97		-	-		63-159	-		30
Perfluorooctanesulfonic Acid (PFOS)	31.9B	33.7	69.7	112		-	-		52-151	-		30

<b>Surrogate (Extracted Internal Standard)</b>	<b>MS % Recovery</b>	<b>Qualifier</b>	<b>MSD % Recovery</b>	<b>Qualifier</b>	<b>Acceptance Criteria</b>
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	91				69-131
Perfluoro[13C8]Octanoic Acid (M8PFOA)	74				62-129

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** ARC2202

**Lab Number:** L2204927

**Project Number:** ARC2202

**Report Date:** 02/17/22

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1600507-3 QC Sample: L2204927-01 Client ID: SB-10												
Perfluorobutanoic Acid (PFBA)	ND	4.85	4.66	96		-	-		71-135	-		30
Perfluoropentanoic Acid (PFPeA)	ND	4.85	5.27	109		-	-		69-132	-		30
Perfluorobutanesulfonic Acid (PFBS)	ND	4.3	3.85	89		-	-		72-128	-		30
Perfluorohexanoic Acid (PFHxA)	ND	4.85	4.62	95		-	-		70-132	-		30
Perfluoroheptanoic Acid (PFHpA)	ND	4.85	4.16	86		-	-		71-131	-		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	4.43	4.44	100		-	-		67-130	-		30
Perfluorooctanoic Acid (PFOA)	ND	4.85	4.56	94		-	-		69-133	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	4.61	4.46	97		-	-		64-140	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	4.61	4.08	88		-	-		70-132	-		30
Perfluorononanoic Acid (PFNA)	ND	4.85	6.16	127		-	-		72-129	-		30
Perfluorooctanesulfonic Acid (PFOS)	ND	4.5	4.36	97		-	-		68-136	-		30
Perfluorodecanoic Acid (PFDA)	ND	4.85	4.33	89		-	-		69-133	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	4.65	4.15	89		-	-		65-137	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	4.85	4.16	86		-	-		63-144	-		30
Perfluoroundecanoic Acid (PFUnA)	ND	4.85	4.07	84		-	-		64-136	-		30
Perfluorodecanesulfonic Acid (PFDS)	ND	4.67	3.99	85		-	-		59-134	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	4.85	4.64	96		-	-		61-139	-		30
Perfluorododecanoic Acid (PFDoA)	ND	4.85	4.23	87		-	-		69-135	-		30
Perfluorotridecanoic Acid (PFTrDA)	ND	4.85	3.95	82		-	-		66-139	-		30
Perfluorotetradecanoic Acid (PFTA)	0.079JF	4.85	3.90	79		-	-		69-133	-		30

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** ARC2202

**Lab Number:** L2204927

**Project Number:** ARC2202

**Report Date:** 02/17/22

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1600507-3 QC Sample: L2204927-01 Client ID: SB-10												

<i>Surrogate (Extracted Internal Standard)</i>	<i>MS</i>		<i>MSD</i>		<i>Acceptance Criteria</i>
	<i>% Recovery</i>	<i>Qualifier</i>	<i>% Recovery</i>	<i>Qualifier</i>	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	79				19-175
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	84				20-154
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	41				34-137
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	38				31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUOA)	80				61-155
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	<b>72</b>	Q			75-130
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	<b>48</b>	Q			66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	<b>63</b>	Q			71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	90				78-139
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	78				54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	55				24-159
Perfluoro[13C4]Butanoic Acid (MPFBA)	<b>34</b>	Q			61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	<b>42</b>	Q			58-150
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	87				79-136
Perfluoro[13C8]Octanoic Acid (M8PFOA)	<b>63</b>	Q			75-130
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	<b>52</b>	Q			72-140
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	92				74-139

## Lab Duplicate Analysis

Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG1600343-4 QC Sample: L2204586-04 Client ID: DUP Sample						
Perfluorooctanoic Acid (PFOA)	0.342JF	0.414JF	ng/l	NC		30
Perfluorooctanesulfonic Acid (PFOS)	0.581JB	0.692J	ng/l	NC		30

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanoic Acid (M8PFOA)	79		89		62-129
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	77		89		69-131

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1600507-4 QC Sample: L2204927-02 Client ID: SB-11						
Perfluorobutanoic Acid (PFBA)	ND	ND	ng/g	NC		30
Perfluoropentanoic Acid (PFPeA)	ND	ND	ng/g	NC		30
Perfluorobutanesulfonic Acid (PFBS)	ND	ND	ng/g	NC		30
Perfluorohexanoic Acid (PFHxA)	ND	ND	ng/g	NC		30
Perfluoroheptanoic Acid (PFHpA)	ND	ND	ng/g	NC		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	ND	ng/g	NC		30
Perfluorooctanoic Acid (PFOA)	ND	ND	ng/g	NC		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	ND	ng/g	NC		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	ND	ng/g	NC		30
Perfluorononanoic Acid (PFNA)	ND	ND	ng/g	NC		30
Perfluorooctanesulfonic Acid (PFOS)	ND	ND	ng/g	NC		30
Perfluorodecanoic Acid (PFDA)	ND	ND	ng/g	NC		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	ND	ng/g	NC		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	ND	ng/g	NC		30
Perfluoroundecanoic Acid (PFUnA)	ND	ND	ng/g	NC		30
Perfluorodecanesulfonic Acid (PFDS)	ND	ND	ng/g	NC		30
Perfluorooctanesulfonamide (FOSA)	ND	ND	ng/g	NC		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	ND	ng/g	NC		30
Perfluorododecanoic Acid (PFDoA)	ND	ND	ng/g	NC		30
Perfluorotridecanoic Acid (PFTrDA)	ND	ND	ng/g	NC		30

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1600507-4 QC Sample: L2204927-02 Client ID: SB-11						
Perfluorotetradecanoic Acid (PFTA)	0.065J	0.063J	ng/g	NC		30

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	94		90		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	97		92		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	102		101		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	88		86		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	100		101		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	102		99		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	94		89		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	91		84		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	<b>70</b>	Q	<b>67</b>	Q	72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	97		94		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	92		90		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	94		89		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	67		60		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFU DA)	105		101		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	20		14		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	67		62		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	97		95		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	82		76		24-159



# PCBS

**Project Name:** ARC2202**Lab Number:** L2204927**Project Number:** ARC2202**Report Date:** 02/17/22**SAMPLE RESULTS**

Lab ID: L2204927-01  
 Client ID: SB-10  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 08:25  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 02/14/22 17:54  
 Analyst: AD  
 Percent Solids: 96%

Extraction Method: EPA 3546  
 Extraction Date: 02/12/22 05:12  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/12/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/12/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	32.8	2.91	1	A
Aroclor 1221	ND		ug/kg	32.8	3.28	1	A
Aroclor 1232	ND		ug/kg	32.8	6.95	1	A
Aroclor 1242	ND		ug/kg	32.8	4.42	1	A
Aroclor 1248	ND		ug/kg	32.8	4.91	1	A
Aroclor 1254	ND		ug/kg	32.8	3.58	1	A
Aroclor 1260	ND		ug/kg	32.8	6.05	1	A
Aroclor 1262	38.1		ug/kg	32.8	4.16	1	B
Aroclor 1268	ND		ug/kg	32.8	3.39	1	A
PCBs, Total	38.1		ug/kg	32.8	2.91	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		30-150	A
Decachlorobiphenyl	69		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	66		30-150	B

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-02  
 Client ID: SB-11  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 08:55  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 02/14/22 18:03  
 Analyst: AD  
 Percent Solids: 95%

Extraction Method: EPA 3546  
 Extraction Date: 02/12/22 05:12  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/12/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/12/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	33.8	3.01	1	A
Aroclor 1221	ND		ug/kg	33.8	3.39	1	A
Aroclor 1232	ND		ug/kg	33.8	7.18	1	A
Aroclor 1242	ND		ug/kg	33.8	4.56	1	A
Aroclor 1248	ND		ug/kg	33.8	5.08	1	A
Aroclor 1254	ND		ug/kg	33.8	3.70	1	A
Aroclor 1260	ND		ug/kg	33.8	6.26	1	A
Aroclor 1262	78.7		ug/kg	33.8	4.30	1	B
Aroclor 1268	ND		ug/kg	33.8	3.51	1	A
PCBs, Total	78.7		ug/kg	33.8	3.01	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	76		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	74		30-150	B

**Project Name:** ARC2202**Lab Number:** L2204927**Project Number:** ARC2202**Report Date:** 02/17/22**SAMPLE RESULTS**

Lab ID: L2204927-03  
 Client ID: SB-14  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 11:25  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 02/14/22 18:12  
 Analyst: AD  
 Percent Solids: 93%

Extraction Method: EPA 3546  
 Extraction Date: 02/12/22 05:12  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/12/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/12/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	34.7	3.08	1	A
Aroclor 1221	ND		ug/kg	34.7	3.48	1	A
Aroclor 1232	ND		ug/kg	34.7	7.36	1	A
Aroclor 1242	ND		ug/kg	34.7	4.68	1	A
Aroclor 1248	ND		ug/kg	34.7	5.21	1	A
Aroclor 1254	ND		ug/kg	34.7	3.80	1	A
Aroclor 1260	ND		ug/kg	34.7	6.42	1	A
Aroclor 1262	ND		ug/kg	34.7	4.41	1	A
Aroclor 1268	ND		ug/kg	34.7	3.60	1	A
PCBs, Total	ND		ug/kg	34.7	3.08	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	75		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	78		30-150	B

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

**SAMPLE RESULTS**

**Lab ID:** L2204927-04  
**Client ID:** SB-15  
**Sample Location:** 2359 BEDFORD AVE BROOKLYN

**Date Collected:** 01/28/22 12:45  
**Date Received:** 01/28/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/14/22 18:21  
**Analyst:** AD  
**Percent Solids:** 85%

**Extraction Method:** EPA 3546  
**Extraction Date:** 02/12/22 05:12  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/12/22  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/12/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	38.2	3.39	1	A
Aroclor 1221	ND		ug/kg	38.2	3.83	1	A
Aroclor 1232	ND		ug/kg	38.2	8.10	1	A
Aroclor 1242	ND		ug/kg	38.2	5.15	1	A
Aroclor 1248	ND		ug/kg	38.2	5.73	1	A
Aroclor 1254	ND		ug/kg	38.2	4.18	1	A
Aroclor 1260	ND		ug/kg	38.2	7.06	1	A
Aroclor 1262	ND		ug/kg	38.2	4.85	1	A
Aroclor 1268	ND		ug/kg	38.2	3.96	1	A
PCBs, Total	ND		ug/kg	38.2	3.39	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	61		30-150	A
Decachlorobiphenyl	68		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	66		30-150	B

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-05  
 Client ID: SB-16  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 14:00  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 02/14/22 18:31  
 Analyst: AD  
 Percent Solids: 90%

Extraction Method: EPA 3546  
 Extraction Date: 02/12/22 05:12  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/12/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/12/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.6	3.25	1	A
Aroclor 1221	ND		ug/kg	36.6	3.67	1	A
Aroclor 1232	ND		ug/kg	36.6	7.77	1	A
Aroclor 1242	ND		ug/kg	36.6	4.94	1	A
Aroclor 1248	ND		ug/kg	36.6	5.50	1	A
Aroclor 1254	ND		ug/kg	36.6	4.01	1	A
Aroclor 1260	ND		ug/kg	36.6	6.77	1	A
Aroclor 1262	ND		ug/kg	36.6	4.65	1	A
Aroclor 1268	ND		ug/kg	36.6	3.80	1	A
PCBs, Total	ND		ug/kg	36.6	3.25	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	A
Decachlorobiphenyl	93		30-150	A
2,4,5,6-Tetrachloro-m-xylene	85		30-150	B
Decachlorobiphenyl	89		30-150	B

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-06  
 Client ID: GW-3  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 11:55  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8082A  
 Analytical Date: 02/11/22 21:40  
 Analyst: AD

Extraction Method: EPA 3510C  
 Extraction Date: 02/11/22 06:05  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/11/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/11/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.071	0.061	1	A
Aroclor 1221	ND		ug/l	0.071	0.061	1	A
Aroclor 1232	ND		ug/l	0.071	0.061	1	A
Aroclor 1242	ND		ug/l	0.071	0.061	1	A
Aroclor 1248	ND		ug/l	0.071	0.061	1	A
Aroclor 1254	ND		ug/l	0.071	0.061	1	A
Aroclor 1260	ND		ug/l	0.071	0.061	1	A
Aroclor 1262	ND		ug/l	0.071	0.061	1	A
Aroclor 1268	ND		ug/l	0.071	0.061	1	A
PCBs, Total	ND		ug/l	0.071	0.061	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	67		30-150	A
2,4,5,6-Tetrachloro-m-xylene	86		30-150	B
Decachlorobiphenyl	76		30-150	B

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

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

Analytical Method: 1,8082A  
Analytical Date: 02/11/22 09:06  
Analyst: CW

Extraction Method: EPA 3510C  
Extraction Date: 02/10/22 07:36  
Cleanup Method: EPA 3665A  
Cleanup Date: 02/10/22  
Cleanup Method: EPA 3660B  
Cleanup Date: 02/11/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 06 Batch: WG1603432-1						
Aroclor 1016	ND		ug/l	0.071	0.061	A
Aroclor 1221	ND		ug/l	0.071	0.061	A
Aroclor 1232	ND		ug/l	0.071	0.061	A
Aroclor 1242	ND		ug/l	0.071	0.061	A
Aroclor 1248	ND		ug/l	0.071	0.061	A
Aroclor 1254	ND		ug/l	0.071	0.061	A
Aroclor 1260	ND		ug/l	0.071	0.061	A
Aroclor 1262	ND		ug/l	0.071	0.061	A
Aroclor 1268	ND		ug/l	0.071	0.061	A
PCBs, Total	ND		ug/l	0.071	0.061	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	53		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	63		30-150	B



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8082A  
Analytical Date: 02/14/22 17:26  
Analyst: AD

Extraction Method: EPA 3546  
Extraction Date: 02/12/22 04:52  
Cleanup Method: EPA 3665A  
Cleanup Date: 02/12/22  
Cleanup Method: EPA 3660B  
Cleanup Date: 02/12/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-05 Batch: WG1604268-1						
Aroclor 1016	ND		ug/kg	32.5	2.88	A
Aroclor 1221	ND		ug/kg	32.5	3.25	A
Aroclor 1232	ND		ug/kg	32.5	6.88	A
Aroclor 1242	ND		ug/kg	32.5	4.38	A
Aroclor 1248	ND		ug/kg	32.5	4.87	A
Aroclor 1254	ND		ug/kg	32.5	3.55	A
Aroclor 1260	ND		ug/kg	32.5	6.00	A
Aroclor 1262	ND		ug/kg	32.5	4.12	A
Aroclor 1268	ND		ug/kg	32.5	3.36	A
PCBs, Total	ND		ug/kg	32.5	2.88	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	44		30-150	A
Decachlorobiphenyl	46		30-150	A
2,4,5,6-Tetrachloro-m-xylene	46		30-150	B
Decachlorobiphenyl	44		30-150	B

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 06 Batch: WG1603432-2 WG1603432-3									
Aroclor 1016	66		63		40-140	4		50	A
Aroclor 1260	66		63		40-140	4		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		60		30-150	A
Decachlorobiphenyl	57		58		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		74		30-150	B
Decachlorobiphenyl	68		68		30-150	B

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-05 Batch: WG1604268-2 WG1604268-3									
Aroclor 1016	47		68		40-140	37		50	A
Aroclor 1260	47		66		40-140	34		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	48		72		30-150	A
Decachlorobiphenyl	57		76		30-150	A
2,4,5,6-Tetrachloro-m-xylene	47		74		30-150	B
Decachlorobiphenyl	56		72		30-150	B

# PESTICIDES

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-01  
 Client ID: SB-10  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 08:25  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 02/14/22 14:38  
 Analyst: JAW  
 Percent Solids: 96%

Extraction Method: EPA 3546  
 Extraction Date: 02/10/22 00:18  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/13/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.58	0.310	1	A
Lindane	ND		ug/kg	0.659	0.294	1	A
Alpha-BHC	ND		ug/kg	0.659	0.187	1	A
Beta-BHC	ND		ug/kg	1.58	0.600	1	A
Heptachlor	ND		ug/kg	0.791	0.354	1	A
Aldrin	ND		ug/kg	1.58	0.557	1	A
Heptachlor epoxide	ND		ug/kg	2.96	0.890	1	A
Endrin	ND		ug/kg	0.659	0.270	1	A
Endrin aldehyde	ND		ug/kg	1.98	0.692	1	A
Endrin ketone	ND		ug/kg	1.58	0.407	1	A
Dieldrin	ND		ug/kg	0.988	0.494	1	A
4,4'-DDE	ND		ug/kg	1.58	0.366	1	A
4,4'-DDD	ND		ug/kg	1.58	0.564	1	A
4,4'-DDT	1.48	J	ug/kg	2.96	1.27	1	B
Endosulfan I	ND		ug/kg	1.58	0.374	1	A
Endosulfan II	ND		ug/kg	1.58	0.528	1	A
Endosulfan sulfate	ND		ug/kg	0.659	0.314	1	A
Methoxychlor	ND		ug/kg	2.96	0.923	1	A
Toxaphene	ND		ug/kg	29.6	8.30	1	A
cis-Chlordane	ND		ug/kg	1.98	0.551	1	A
trans-Chlordane	ND		ug/kg	1.98	0.522	1	A
Chlordane	ND		ug/kg	13.2	5.24	1	A

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

**SAMPLE RESULTS**

Lab ID: L2204927-01

Date Collected: 01/28/22 08:25

Client ID: SB-10

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	91		30-150	A
Decachlorobiphenyl	91		30-150	A
2,4,5,6-Tetrachloro-m-xylene	98		30-150	B
Decachlorobiphenyl	81		30-150	B

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

**SAMPLE RESULTS**

**Lab ID:** L2204927-02  
**Client ID:** SB-11  
**Sample Location:** 2359 BEDFORD AVE BROOKLYN

**Date Collected:** 01/28/22 08:55  
**Date Received:** 01/28/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/14/22 14:48  
**Analyst:** JAW  
**Percent Solids:** 95%

**Extraction Method:** EPA 3546  
**Extraction Date:** 02/10/22 00:19  
**Cleanup Method:** EPA 3620B  
**Cleanup Date:** 02/13/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/kg	1.62	0.318	1	A
Lindane	ND		ug/kg	0.677	0.302	1	A
Alpha-BHC	ND		ug/kg	0.677	0.192	1	A
Beta-BHC	ND		ug/kg	1.62	0.616	1	A
Heptachlor	ND		ug/kg	0.812	0.364	1	A
Aldrin	ND		ug/kg	1.62	0.572	1	A
Heptachlor epoxide	ND		ug/kg	3.04	0.913	1	A
Endrin	ND		ug/kg	0.677	0.277	1	A
Endrin aldehyde	ND		ug/kg	2.03	0.710	1	A
Endrin ketone	ND		ug/kg	1.62	0.418	1	A
Dieldrin	ND		ug/kg	1.01	0.507	1	A
4,4'-DDE	1.30	J	ug/kg	1.62	0.376	1	B
4,4'-DDD	ND		ug/kg	1.62	0.579	1	A
4,4'-DDT	2.41	J	ug/kg	3.04	1.30	1	B
Endosulfan I	ND		ug/kg	1.62	0.384	1	A
Endosulfan II	ND		ug/kg	1.62	0.543	1	A
Endosulfan sulfate	ND		ug/kg	0.677	0.322	1	A
Methoxychlor	ND		ug/kg	3.04	0.947	1	A
Toxaphene	ND		ug/kg	30.4	8.52	1	A
cis-Chlordane	ND		ug/kg	2.03	0.566	1	A
trans-Chlordane	ND		ug/kg	2.03	0.536	1	A
Chlordane	ND		ug/kg	13.5	5.38	1	A

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

**SAMPLE RESULTS**

Lab ID: L2204927-02

Date Collected: 01/28/22 08:55

Client ID: SB-11

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		30-150	A
Decachlorobiphenyl	70		30-150	A
2,4,5,6-Tetrachloro-m-xylene	93		30-150	B
Decachlorobiphenyl	76		30-150	B



Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-03  
 Client ID: SB-14  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 11:25  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 02/14/22 14:58  
 Analyst: JAW  
 Percent Solids: 93%

Extraction Method: EPA 3546  
 Extraction Date: 02/10/22 00:20  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/13/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.69	0.331	1	A
Lindane	ND		ug/kg	0.705	0.315	1	A
Alpha-BHC	ND		ug/kg	0.705	0.200	1	A
Beta-BHC	ND		ug/kg	1.69	0.642	1	A
Heptachlor	ND		ug/kg	0.846	0.379	1	A
Aldrin	ND		ug/kg	1.69	0.596	1	A
Heptachlor epoxide	ND		ug/kg	3.17	0.952	1	A
Endrin	ND		ug/kg	0.705	0.289	1	A
Endrin aldehyde	ND		ug/kg	2.12	0.740	1	A
Endrin ketone	ND		ug/kg	1.69	0.436	1	A
Dieldrin	ND		ug/kg	1.06	0.529	1	A
4,4'-DDE	ND		ug/kg	1.69	0.391	1	A
4,4'-DDD	ND		ug/kg	1.69	0.604	1	A
4,4'-DDT	ND		ug/kg	3.17	1.36	1	A
Endosulfan I	ND		ug/kg	1.69	0.400	1	A
Endosulfan II	ND		ug/kg	1.69	0.566	1	A
Endosulfan sulfate	ND		ug/kg	0.705	0.336	1	A
Methoxychlor	ND		ug/kg	3.17	0.987	1	A
Toxaphene	ND		ug/kg	31.7	8.88	1	A
cis-Chlordane	ND		ug/kg	2.12	0.590	1	A
trans-Chlordane	ND		ug/kg	2.12	0.558	1	A
Chlordane	ND		ug/kg	14.1	5.61	1	A

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

**SAMPLE RESULTS**

Lab ID: L2204927-03

Date Collected: 01/28/22 11:25

Client ID: SB-14

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	61		30-150	A
Decachlorobiphenyl	72		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	79		30-150	B

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-04  
 Client ID: SB-15  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 12:45  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 02/14/22 13:04  
 Analyst: JAW  
 Percent Solids: 85%

Extraction Method: EPA 3546  
 Extraction Date: 02/10/22 00:21  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/13/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.84	0.361	1	A
Lindane	ND		ug/kg	0.767	0.343	1	A
Alpha-BHC	ND		ug/kg	0.767	0.218	1	A
Beta-BHC	ND		ug/kg	1.84	0.698	1	A
Heptachlor	ND		ug/kg	0.921	0.413	1	A
Aldrin	ND		ug/kg	1.84	0.648	1	A
Heptachlor epoxide	ND		ug/kg	3.45	1.04	1	A
Endrin	ND		ug/kg	0.767	0.315	1	A
Endrin aldehyde	ND		ug/kg	2.30	0.806	1	A
Endrin ketone	ND		ug/kg	1.84	0.474	1	A
Dieldrin	ND		ug/kg	1.15	0.575	1	A
4,4'-DDE	ND		ug/kg	1.84	0.426	1	A
4,4'-DDD	ND		ug/kg	1.84	0.657	1	A
4,4'-DDT	ND		ug/kg	3.45	1.48	1	A
Endosulfan I	ND		ug/kg	1.84	0.435	1	A
Endosulfan II	ND		ug/kg	1.84	0.615	1	A
Endosulfan sulfate	ND		ug/kg	0.767	0.365	1	A
Methoxychlor	ND		ug/kg	3.45	1.07	1	A
Toxaphene	ND		ug/kg	34.5	9.67	1	A
cis-Chlordane	ND		ug/kg	2.30	0.641	1	A
trans-Chlordane	ND		ug/kg	2.30	0.608	1	A
Chlordane	ND		ug/kg	15.3	6.10	1	A

**Project Name:** ARC2202**Lab Number:** L2204927**Project Number:** ARC2202**Report Date:** 02/17/22**SAMPLE RESULTS**

Lab ID: L2204927-04

Date Collected: 01/28/22 12:45

Client ID: SB-15

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	81		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	92		30-150	B

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-05  
 Client ID: SB-16  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 14:00  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 02/14/22 13:16  
 Analyst: JAW  
 Percent Solids: 90%

Extraction Method: EPA 3546  
 Extraction Date: 02/10/22 00:22  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/13/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.72	0.336	1	A
Lindane	ND		ug/kg	0.715	0.320	1	A
Alpha-BHC	ND		ug/kg	0.715	0.203	1	A
Beta-BHC	ND		ug/kg	1.72	0.650	1	A
Heptachlor	ND		ug/kg	0.858	0.384	1	A
Aldrin	ND		ug/kg	1.72	0.604	1	A
Heptachlor epoxide	ND		ug/kg	3.22	0.965	1	A
Endrin	ND		ug/kg	0.715	0.293	1	A
Endrin aldehyde	ND		ug/kg	2.14	0.750	1	A
Endrin ketone	ND		ug/kg	1.72	0.442	1	A
Dieldrin	ND		ug/kg	1.07	0.536	1	A
4,4'-DDE	ND		ug/kg	1.72	0.397	1	A
4,4'-DDD	ND		ug/kg	1.72	0.612	1	A
4,4'-DDT	ND		ug/kg	3.22	1.38	1	A
Endosulfan I	ND		ug/kg	1.72	0.405	1	A
Endosulfan II	ND		ug/kg	1.72	0.573	1	A
Endosulfan sulfate	ND		ug/kg	0.715	0.340	1	A
Methoxychlor	ND		ug/kg	3.22	1.00	1	A
Toxaphene	ND		ug/kg	32.2	9.01	1	A
cis-Chlordane	ND		ug/kg	2.14	0.598	1	A
trans-Chlordane	ND		ug/kg	2.14	0.566	1	A
Chlordane	ND		ug/kg	14.3	5.68	1	A

**Project Name:** ARC2202**Lab Number:** L2204927**Project Number:** ARC2202**Report Date:** 02/17/22**SAMPLE RESULTS**

Lab ID: L2204927-05

Date Collected: 01/28/22 14:00

Client ID: SB-16

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	A
Decachlorobiphenyl	100		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	98		30-150	B

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

**SAMPLE RESULTS**

Lab ID: L2204927-06  
 Client ID: GW-3  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 01/28/22 11:55  
 Date Received: 01/28/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8081B  
 Analytical Date: 02/04/22 17:30  
 Analyst: AR

Extraction Method: EPA 3510C  
 Extraction Date: 02/03/22 23:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	0.011	J	ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	0.012	J	ug/l	0.029	0.003	1	B
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	0.100		ug/l	0.014	0.005	1	A
trans-Chlordane	0.070	IP	ug/l	0.014	0.004	1	B
Chlordane	0.711		ug/l	0.143	0.033	1	B

**Project Name:** ARC2202**Lab Number:** L2204927**Project Number:** ARC2202**Report Date:** 02/17/22**SAMPLE RESULTS**

Lab ID: L2204927-06

Date Collected: 01/28/22 11:55

Client ID: GW-3

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	53		30-150	A
Decachlorobiphenyl	43		30-150	A
2,4,5,6-Tetrachloro-m-xylene	42		30-150	B
Decachlorobiphenyl	37		30-150	B



Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8081B  
 Analytical Date: 02/03/22 18:01  
 Analyst: JAW

Extraction Method: EPA 3510C  
 Extraction Date: 02/03/22 11:28

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 06 Batch: WG1601109-1						
Delta-BHC	ND		ug/l	0.014	0.003	A
Lindane	ND		ug/l	0.014	0.003	A
Alpha-BHC	ND		ug/l	0.014	0.003	A
Beta-BHC	ND		ug/l	0.014	0.004	A
Heptachlor	ND		ug/l	0.014	0.002	A
Aldrin	ND		ug/l	0.014	0.002	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	A
Endrin	ND		ug/l	0.029	0.003	A
Endrin aldehyde	ND		ug/l	0.029	0.006	A
Endrin ketone	ND		ug/l	0.029	0.003	A
Dieldrin	ND		ug/l	0.029	0.003	A
4,4'-DDE	ND		ug/l	0.029	0.003	A
4,4'-DDD	ND		ug/l	0.029	0.003	A
4,4'-DDT	ND		ug/l	0.029	0.003	A
Endosulfan I	ND		ug/l	0.014	0.002	A
Endosulfan II	ND		ug/l	0.029	0.004	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	A
Methoxychlor	ND		ug/l	0.143	0.005	A
Toxaphene	ND		ug/l	0.143	0.045	A
cis-Chlordane	ND		ug/l	0.014	0.005	A
trans-Chlordane	ND		ug/l	0.014	0.004	A
Chlordane	ND		ug/l	0.143	0.033	A

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8081B  
 Analytical Date: 02/03/22 18:01  
 Analyst: JAW

Extraction Method: EPA 3510C  
 Extraction Date: 02/03/22 11:28

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 06 Batch: WG1601109-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	51		30-150	A
Decachlorobiphenyl	36		30-150	A
2,4,5,6-Tetrachloro-m-xylene	52		30-150	B
Decachlorobiphenyl	33		30-150	B

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

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

Analytical Method: 1,8081B  
Analytical Date: 02/14/22 11:42  
Analyst: JAW

Extraction Method: EPA 3546  
Extraction Date: 02/10/22 00:03  
Cleanup Method: EPA 3620B  
Cleanup Date: 02/13/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-05 Batch: WG1603310-1						
Delta-BHC	ND		ug/kg	1.54	0.301	A
Lindane	ND		ug/kg	0.640	0.286	A
Alpha-BHC	ND		ug/kg	0.640	0.182	A
Beta-BHC	ND		ug/kg	1.54	0.582	A
Heptachlor	ND		ug/kg	0.768	0.344	A
Aldrin	ND		ug/kg	1.54	0.541	A
Heptachlor epoxide	ND		ug/kg	2.88	0.864	A
Endrin	ND		ug/kg	0.640	0.262	A
Endrin aldehyde	ND		ug/kg	1.92	0.672	A
Endrin ketone	ND		ug/kg	1.54	0.396	A
Dieldrin	ND		ug/kg	0.960	0.480	A
4,4'-DDE	ND		ug/kg	1.54	0.355	A
4,4'-DDD	ND		ug/kg	1.54	0.548	A
4,4'-DDT	ND		ug/kg	2.88	1.24	A
Endosulfan I	ND		ug/kg	1.54	0.363	A
Endosulfan II	ND		ug/kg	1.54	0.513	A
Endosulfan sulfate	ND		ug/kg	0.640	0.305	A
Methoxychlor	ND		ug/kg	2.88	0.896	A
Toxaphene	ND		ug/kg	28.8	8.07	A
cis-Chlordane	ND		ug/kg	1.92	0.535	A
trans-Chlordane	ND		ug/kg	1.92	0.507	A
Chlordane	ND		ug/kg	12.8	5.09	A

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8081B  
 Analytical Date: 02/14/22 11:42  
 Analyst: JAW

Extraction Method: EPA 3546  
 Extraction Date: 02/10/22 00:03  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/13/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-05 Batch: WG1603310-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	78		30-150	A
2,4,5,6-Tetrachloro-m-xylene	79		30-150	B
Decachlorobiphenyl	78		30-150	B

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 06 Batch: WG1601109-2 WG1601109-3									
Delta-BHC	44		47		30-150	7		20	A
Lindane	70		76		30-150	8		20	A
Alpha-BHC	48		51		30-150	6		20	A
Beta-BHC	63		72		30-150	13		20	A
Heptachlor	71		72		30-150	1		20	A
Aldrin	60		55		30-150	8		20	A
Heptachlor epoxide	69		68		30-150	1		20	A
Endrin	70		73		30-150	4		20	A
Endrin aldehyde	54		65		30-150	19		20	A
Endrin ketone	64		60		30-150	6		20	A
Dieldrin	64		63		30-150	3		20	A
4,4'-DDE	65		60		30-150	8		20	A
4,4'-DDD	68		69		30-150	1		20	A
4,4'-DDT	68		72		30-150	6		20	A
Endosulfan I	62		61		30-150	1		20	A
Endosulfan II	69		73		30-150	6		20	A
Endosulfan sulfate	60		66		30-150	8		20	A
Methoxychlor	74		79		30-150	7		20	A
cis-Chlordane	54		48		30-150	13		20	A
trans-Chlordane	64		59		30-150	8		20	A

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 06 Batch: WG1601109-2 WG1601109-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	55		62		30-150	A
Decachlorobiphenyl	42		50		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		67		30-150	B
Decachlorobiphenyl	45		46		30-150	B

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-05 Batch: WG1603310-2 WG1603310-3									
Delta-BHC	85		78		30-150	9		30	A
Lindane	83		74		30-150	11		30	A
Alpha-BHC	84		76		30-150	10		30	A
Beta-BHC	86		73		30-150	16		30	A
Heptachlor	82		76		30-150	8		30	A
Aldrin	79		72		30-150	9		30	A
Heptachlor epoxide	67		65		30-150	3		30	A
Endrin	79		70		30-150	12		30	A
Endrin aldehyde	66		68		30-150	3		30	A
Endrin ketone	72		64		30-150	12		30	A
Dieldrin	81		73		30-150	10		30	A
4,4'-DDE	77		68		30-150	12		30	A
4,4'-DDD	84		75		30-150	11		30	A
4,4'-DDT	80		72		30-150	11		30	A
Endosulfan I	72		64		30-150	12		30	A
Endosulfan II	74		68		30-150	8		30	A
Endosulfan sulfate	64		60		30-150	6		30	A
Methoxychlor	78		72		30-150	8		30	A
cis-Chlordane	69		62		30-150	11		30	A
trans-Chlordane	84		77		30-150	9		30	A

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-05 Batch: WG1603310-2 WG1603310-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		59		30-150	A
Decachlorobiphenyl	75		75		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		75		30-150	B
Decachlorobiphenyl	79		68		30-150	B



## METALS

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-01

Date Collected: 01/28/22 08:25

Client ID: SB-10

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	2950		mg/kg	8.21	2.22	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	4.10	0.312	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Arsenic, Total	1.71		mg/kg	0.821	0.171	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Barium, Total	17.7		mg/kg	0.821	0.143	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Beryllium, Total	0.180	J	mg/kg	0.410	0.027	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Cadmium, Total	0.336	J	mg/kg	0.821	0.080	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Calcium, Total	860		mg/kg	8.21	2.87	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Chromium, Total	9.59		mg/kg	0.821	0.079	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Cobalt, Total	4.11		mg/kg	1.64	0.136	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Copper, Total	10.3		mg/kg	0.821	0.212	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Iron, Total	10300		mg/kg	4.10	0.741	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Lead, Total	3.38	J	mg/kg	4.10	0.220	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Magnesium, Total	1700		mg/kg	8.21	1.26	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Manganese, Total	229		mg/kg	0.821	0.130	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Mercury, Total	ND		mg/kg	0.065	0.043	1	02/04/22 07:20	02/10/22 17:08	EPA 7471B	1,7471B	ZK
Nickel, Total	24.5		mg/kg	2.05	0.199	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Potassium, Total	539		mg/kg	205	11.8	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Selenium, Total	ND		mg/kg	1.64	0.212	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	0.821	0.232	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Sodium, Total	92.0	J	mg/kg	164	2.58	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	1.64	0.258	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Vanadium, Total	14.0		mg/kg	0.821	0.166	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW
Zinc, Total	20.2		mg/kg	4.10	0.240	2	02/04/22 05:35	02/10/22 15:24	EPA 3050B	1,6010D	EW



Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-02

Date Collected: 01/28/22 08:55

Client ID: SB-11

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	2090		mg/kg	8.11	2.19	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	4.06	0.308	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Arsenic, Total	1.52		mg/kg	0.811	0.169	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Barium, Total	15.6		mg/kg	0.811	0.141	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Beryllium, Total	0.178	J	mg/kg	0.406	0.027	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Cadmium, Total	0.276	J	mg/kg	0.811	0.080	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Calcium, Total	563		mg/kg	8.11	2.84	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Chromium, Total	6.76		mg/kg	0.811	0.078	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Cobalt, Total	4.06		mg/kg	1.62	0.135	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Copper, Total	8.06		mg/kg	0.811	0.209	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Iron, Total	7900		mg/kg	4.06	0.733	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Lead, Total	3.60	J	mg/kg	4.06	0.217	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Magnesium, Total	1310		mg/kg	8.11	1.25	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Manganese, Total	209		mg/kg	0.811	0.129	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Mercury, Total	ND		mg/kg	0.066	0.043	1	02/04/22 07:20	02/10/22 17:28	EPA 7471B	1,7471B	ZK
Nickel, Total	22.0		mg/kg	2.03	0.196	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Potassium, Total	361		mg/kg	203	11.7	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Selenium, Total	ND		mg/kg	1.62	0.209	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	0.811	0.230	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Sodium, Total	65.9	J	mg/kg	162	2.56	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	1.62	0.256	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Vanadium, Total	9.97		mg/kg	0.811	0.165	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW
Zinc, Total	16.6		mg/kg	4.06	0.238	2	02/04/22 05:35	02/10/22 15:10	EPA 3050B	1,6010D	EW



Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-03

Date Collected: 01/28/22 11:25

Client ID: SB-14

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	2150		mg/kg	8.15	2.20	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	4.08	0.310	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Arsenic, Total	1.43		mg/kg	0.815	0.170	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Barium, Total	11.7		mg/kg	0.815	0.142	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Beryllium, Total	0.163	J	mg/kg	0.408	0.027	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Cadmium, Total	0.228	J	mg/kg	0.815	0.080	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Calcium, Total	604		mg/kg	8.15	2.85	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Chromium, Total	7.31		mg/kg	0.815	0.078	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Cobalt, Total	4.25		mg/kg	1.63	0.135	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Copper, Total	7.97		mg/kg	0.815	0.210	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Iron, Total	6800		mg/kg	4.08	0.736	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Lead, Total	2.86	J	mg/kg	4.08	0.218	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Magnesium, Total	2920		mg/kg	8.15	1.26	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Manganese, Total	146		mg/kg	0.815	0.130	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Mercury, Total	ND		mg/kg	0.069	0.045	1	02/04/22 07:20	02/10/22 17:31	EPA 7471B	1,7471B	ZK
Nickel, Total	43.9		mg/kg	2.04	0.197	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Potassium, Total	445		mg/kg	204	11.7	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Selenium, Total	ND		mg/kg	1.63	0.210	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	0.815	0.231	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Sodium, Total	54.1	J	mg/kg	163	2.57	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	1.63	0.257	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Vanadium, Total	8.33		mg/kg	0.815	0.165	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW
Zinc, Total	15.8		mg/kg	4.08	0.239	2	02/04/22 05:35	02/10/22 15:15	EPA 3050B	1,6010D	EW



Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-04

Date Collected: 01/28/22 12:45

Client ID: SB-15

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	2420		mg/kg	9.18	2.48	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	4.59	0.349	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Arsenic, Total	1.62		mg/kg	0.918	0.191	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Barium, Total	15.4		mg/kg	0.918	0.160	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Beryllium, Total	0.165	J	mg/kg	0.459	0.030	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Cadmium, Total	0.312	J	mg/kg	0.918	0.090	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Calcium, Total	718		mg/kg	9.18	3.21	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Chromium, Total	7.50		mg/kg	0.918	0.088	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Cobalt, Total	4.79		mg/kg	1.84	0.152	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Copper, Total	12.6		mg/kg	0.918	0.237	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Iron, Total	8740		mg/kg	4.59	0.829	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Lead, Total	3.51	J	mg/kg	4.59	0.246	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Magnesium, Total	2330		mg/kg	9.18	1.41	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Manganese, Total	205		mg/kg	0.918	0.146	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Mercury, Total	ND		mg/kg	0.074	0.049	1	02/04/22 07:20	02/10/22 17:34	EPA 7471B	1,7471B	ZK
Nickel, Total	44.1		mg/kg	2.30	0.222	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Potassium, Total	496		mg/kg	230	13.2	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Selenium, Total	ND		mg/kg	1.84	0.237	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	0.918	0.260	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Sodium, Total	86.8	J	mg/kg	184	2.89	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	1.84	0.289	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Vanadium, Total	14.0		mg/kg	0.918	0.186	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW
Zinc, Total	22.2		mg/kg	4.59	0.269	2	02/04/22 05:35	02/10/22 15:19	EPA 3050B	1,6010D	EW



Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-05

Date Collected: 01/28/22 14:00

Client ID: SB-16

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	4270		mg/kg	8.73	2.36	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	4.36	0.332	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Arsenic, Total	2.57		mg/kg	0.873	0.182	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Barium, Total	26.3		mg/kg	0.873	0.152	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Beryllium, Total	0.297	J	mg/kg	0.436	0.029	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Cadmium, Total	0.393	J	mg/kg	0.873	0.086	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Calcium, Total	822		mg/kg	8.73	3.06	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Chromium, Total	13.0		mg/kg	0.873	0.084	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Cobalt, Total	7.82		mg/kg	1.74	0.145	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Copper, Total	15.0		mg/kg	0.873	0.225	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Iron, Total	11200		mg/kg	4.36	0.788	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Lead, Total	5.42		mg/kg	4.36	0.234	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Magnesium, Total	2550		mg/kg	8.73	1.34	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Manganese, Total	322		mg/kg	0.873	0.139	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Mercury, Total	ND		mg/kg	0.070	0.046	1	02/04/22 07:20	02/10/22 17:38	EPA 7471B	1,7471B	ZK
Nickel, Total	47.7		mg/kg	2.18	0.211	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Potassium, Total	1220		mg/kg	218	12.6	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Selenium, Total	ND		mg/kg	1.74	0.225	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	0.873	0.247	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Sodium, Total	84.2	J	mg/kg	174	2.75	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	1.74	0.275	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Vanadium, Total	15.3		mg/kg	0.873	0.177	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW
Zinc, Total	27.1		mg/kg	4.36	0.256	2	02/04/22 05:35	02/10/22 15:56	EPA 3050B	1,6010D	EW



Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-06

Date Collected: 01/28/22 11:55

Client ID: GW-3

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	86.9		mg/l	0.0100	0.00327	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Antimony, Total	0.00071	J	mg/l	0.00400	0.00042	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Arsenic, Total	0.03126		mg/l	0.00050	0.00016	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Barium, Total	2.452		mg/l	0.00050	0.00017	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Beryllium, Total	0.01308		mg/l	0.00050	0.00010	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Cadmium, Total	0.00668		mg/l	0.00020	0.00005	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Calcium, Total	121.		mg/l	0.100	0.0394	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Chromium, Total	0.7209		mg/l	0.00100	0.00017	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Cobalt, Total	0.4138		mg/l	0.00050	0.00016	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Copper, Total	0.6408		mg/l	0.00100	0.00038	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Iron, Total	200.		mg/l	0.0500	0.0191	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Lead, Total	0.4145		mg/l	0.00100	0.00034	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Magnesium, Total	102.		mg/l	0.0700	0.0242	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Manganese, Total	33.43		mg/l	0.01000	0.00440	10	02/01/22 12:02	02/01/22 19:02	EPA 3005A	1,6020B	SV
Mercury, Total	ND		mg/l	0.00020	0.00009	1	02/01/22 12:41	02/02/22 16:46	EPA 7470A	1,7470A	ZK
Nickel, Total	2.916		mg/l	0.00200	0.00055	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Potassium, Total	23.4		mg/l	0.100	0.0309	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Selenium, Total	0.0646		mg/l	0.00500	0.00173	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Silver, Total	0.00022	J	mg/l	0.00040	0.00016	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Sodium, Total	15.3		mg/l	0.100	0.0293	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Thallium, Total	0.00349		mg/l	0.00100	0.00014	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Vanadium, Total	0.2433		mg/l	0.00500	0.00157	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV
Zinc, Total	0.9410		mg/l	0.01000	0.00341	1	02/01/22 12:02	02/01/22 18:25	EPA 3005A	1,6020B	SV



Project Name: ARC2202  
Project Number: ARC2202

Lab Number: L2204927  
Report Date: 02/17/22

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst	
Total Metals - Mansfield Lab for sample(s): 06 Batch: WG1600129-1										
Aluminum, Total	ND	mg/l	0.0100	0.00327	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Antimony, Total	ND	mg/l	0.00400	0.00042	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Arsenic, Total	ND	mg/l	0.00050	0.00016	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Barium, Total	ND	mg/l	0.00050	0.00017	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Beryllium, Total	ND	mg/l	0.00050	0.00010	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Cadmium, Total	ND	mg/l	0.00020	0.00005	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Calcium, Total	ND	mg/l	0.100	0.0394	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Chromium, Total	ND	mg/l	0.00100	0.00017	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Cobalt, Total	ND	mg/l	0.00050	0.00016	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Copper, Total	ND	mg/l	0.00100	0.00038	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Iron, Total	ND	mg/l	0.0500	0.0191	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Lead, Total	ND	mg/l	0.00100	0.00034	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Magnesium, Total	ND	mg/l	0.0700	0.0242	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Manganese, Total	ND	mg/l	0.00100	0.00044	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Nickel, Total	ND	mg/l	0.00200	0.00055	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Potassium, Total	ND	mg/l	0.100	0.0309	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Selenium, Total	ND	mg/l	0.00500	0.00173	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Silver, Total	ND	mg/l	0.00040	0.00016	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Sodium, Total	ND	mg/l	0.100	0.0293	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Thallium, Total	0.00035	J	mg/l	0.00200	0.00014	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV
Vanadium, Total	ND	mg/l	0.00500	0.00157	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	
Zinc, Total	ND	mg/l	0.01000	0.00341	1	02/01/22 12:02	02/01/22 16:33	1,6020B	SV	

### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 06 Batch: WG1600131-1									
Mercury, Total	ND	mg/l	0.00020	0.00009	1	02/01/22 12:41	02/02/22 16:20	1,7470A	ZK





Project Name: ARC2202  
Project Number: ARC2202

Lab Number: L2204927  
Report Date: 02/17/22

## Method Blank Analysis Batch Quality Control

### Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG1601260-1										
Aluminum, Total	ND		mg/kg	4.00	1.08	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Antimony, Total	ND		mg/kg	2.00	0.152	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Arsenic, Total	0.100	J	mg/kg	0.400	0.083	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Barium, Total	ND		mg/kg	0.400	0.070	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Beryllium, Total	ND		mg/kg	0.200	0.013	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Cadmium, Total	ND		mg/kg	0.400	0.039	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Calcium, Total	ND		mg/kg	4.00	1.40	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Chromium, Total	ND		mg/kg	0.400	0.038	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Cobalt, Total	ND		mg/kg	0.800	0.066	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Copper, Total	ND		mg/kg	0.400	0.103	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Iron, Total	ND		mg/kg	2.00	0.361	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Lead, Total	ND		mg/kg	2.00	0.107	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Magnesium, Total	ND		mg/kg	4.00	0.616	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Manganese, Total	ND		mg/kg	0.400	0.064	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Nickel, Total	ND		mg/kg	1.00	0.097	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Potassium, Total	ND		mg/kg	100	5.76	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Selenium, Total	ND		mg/kg	0.800	0.103	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Silver, Total	ND		mg/kg	0.400	0.113	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Sodium, Total	2.62	J	mg/kg	80.0	1.26	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Thallium, Total	ND		mg/kg	0.800	0.126	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Vanadium, Total	ND		mg/kg	0.400	0.081	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW
Zinc, Total	ND		mg/kg	2.00	0.117	1	02/04/22 05:35	02/10/22 15:01	1,6010D	EW

### Prep Information

Digestion Method: EPA 3050B



Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG1601261-1									
Mercury, Total	ND	mg/kg	0.083	0.054	1	02/04/22 07:20	02/10/22 17:01	1,7471B	ZK

### Prep Information

Digestion Method: EPA 7471B

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Mansfield Lab Associated sample(s): 06 Batch: WG1600129-2								
Aluminum, Total	92		-		80-120	-		
Antimony, Total	83		-		80-120	-		
Arsenic, Total	93		-		80-120	-		
Barium, Total	92		-		80-120	-		
Beryllium, Total	94		-		80-120	-		
Cadmium, Total	94		-		80-120	-		
Calcium, Total	91		-		80-120	-		
Chromium, Total	86		-		80-120	-		
Cobalt, Total	87		-		80-120	-		
Copper, Total	91		-		80-120	-		
Iron, Total	92		-		80-120	-		
Lead, Total	94		-		80-120	-		
Magnesium, Total	95		-		80-120	-		
Manganese, Total	88		-		80-120	-		
Nickel, Total	87		-		80-120	-		
Potassium, Total	92		-		80-120	-		
Selenium, Total	92		-		80-120	-		
Silver, Total	98		-		80-120	-		
Sodium, Total	102		-		80-120	-		
Thallium, Total	105		-		80-120	-		
Vanadium, Total	88		-		80-120	-		

## Lab Control Sample Analysis

Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 06 Batch: WG1600129-2					
Zinc, Total	90	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 06 Batch: WG1600131-2					
Mercury, Total	89	-	80-120	-	

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1601260-2 SRM Lot Number: D113-540					
Aluminum, Total	76	-	51-149	-	
Antimony, Total	134	-	20-250	-	
Arsenic, Total	108	-	70-130	-	
Barium, Total	92	-	75-125	-	
Beryllium, Total	94	-	75-125	-	
Cadmium, Total	100	-	75-125	-	
Calcium, Total	92	-	73-128	-	
Chromium, Total	98	-	70-130	-	
Cobalt, Total	102	-	75-125	-	
Copper, Total	101	-	75-125	-	
Iron, Total	96	-	36-164	-	
Lead, Total	103	-	72-128	-	
Magnesium, Total	90	-	63-138	-	
Manganese, Total	91	-	77-123	-	
Nickel, Total	101	-	70-130	-	
Potassium, Total	86	-	59-141	-	
Selenium, Total	104	-	66-134	-	
Silver, Total	104	-	70-131	-	
Sodium, Total	92	-	35-164	-	
Thallium, Total	100	-	70-130	-	
Vanadium, Total	98	-	74-126	-	

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1601260-2 SRM Lot Number: D113-540					
Zinc, Total	101	-	70-130	-	
Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1601261-2 SRM Lot Number: D113-540					
Mercury, Total	94	-	60-140	-	

### Matrix Spike Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 06    QC Batch ID: WG1600129-3    QC Sample: L2204828-13    Client ID: MS Sample												
Aluminum, Total	ND	2	1.86	93		-	-		75-125	-		20
Antimony, Total	ND	0.5	0.2954	59	Q	-	-		75-125	-		20
Arsenic, Total	ND	0.12	0.1140	95		-	-		75-125	-		20
Barium, Total	ND	2	1.909	95		-	-		75-125	-		20
Beryllium, Total	ND	0.05	0.04848	97		-	-		75-125	-		20
Cadmium, Total	ND	0.053	0.05027	95		-	-		75-125	-		20
Calcium, Total	ND	10	8.93	89		-	-		75-125	-		20
Chromium, Total	ND	0.2	0.1765	88		-	-		75-125	-		20
Cobalt, Total	ND	0.5	0.4366	87		-	-		75-125	-		20
Copper, Total	ND	0.25	0.2324	93		-	-		75-125	-		20
Iron, Total	ND	1	0.928	93		-	-		75-125	-		20
Lead, Total	ND	0.53	0.4868	92		-	-		75-125	-		20
Magnesium, Total	ND	10	9.40	94		-	-		75-125	-		20
Manganese, Total	ND	0.5	0.4432	89		-	-		75-125	-		20
Nickel, Total	ND	0.5	0.4350	87		-	-		75-125	-		20
Potassium, Total	ND	10	9.53	95		-	-		75-125	-		20
Selenium, Total	ND	0.12	0.117	98		-	-		75-125	-		20
Silver, Total	ND	0.05	0.04968	99		-	-		75-125	-		20
Sodium, Total	ND	10	9.39	94		-	-		75-125	-		20
Thallium, Total	0.00015J	0.12	0.1224	102		-	-		75-125	-		20
Vanadium, Total	ND	0.5	0.4508	90		-	-		75-125	-		20

**Matrix Spike Analysis**  
Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 06    QC Batch ID: WG1600129-3    QC Sample: L2204828-13    Client ID: MS Sample									
Zinc, Total	ND	0.5	0.4621	92	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 06    QC Batch ID: WG1600131-3    QC Sample: L2204907-02    Client ID: MS Sample									
Mercury, Total	ND	0.005	0.00465	93	-	-	75-125	-	20



### Matrix Spike Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05    QC Batch ID: WG1601260-3    QC Sample: L2204927-01    Client ID: SB-10									
Aluminum, Total	2950	158	3450	316	Q	-	75-125	-	20
Antimony, Total	ND	39.6	29.5	74	Q	-	75-125	-	20
Arsenic, Total	1.71	9.5	10.8	96		-	75-125	-	20
Barium, Total	17.7	158	164	92		-	75-125	-	20
Beryllium, Total	0.180J	3.96	3.85	97		-	75-125	-	20
Cadmium, Total	0.336J	4.2	4.09	97		-	75-125	-	20
Calcium, Total	860	792	1530	85		-	75-125	-	20
Chromium, Total	9.59	15.8	22.0	78		-	75-125	-	20
Cobalt, Total	4.11	39.6	37.6	84		-	75-125	-	20
Copper, Total	10.3	19.8	27.9	89		-	75-125	-	20
Iron, Total	10300	79.2	9560	0	Q	-	75-125	-	20
Lead, Total	3.38J	42	40.9	97		-	75-125	-	20
Magnesium, Total	1700	792	2440	93		-	75-125	-	20
Manganese, Total	229	39.6	263	86		-	75-125	-	20
Nickel, Total	24.5	39.6	58.2	85		-	75-125	-	20
Potassium, Total	539	792	1320	99		-	75-125	-	20
Selenium, Total	ND	9.5	8.65	91		-	75-125	-	20
Silver, Total	ND	23.8	22.0	93		-	75-125	-	20
Sodium, Total	92.0J	792	863	109		-	75-125	-	20
Thallium, Total	ND	9.5	7.96	84		-	75-125	-	20
Vanadium, Total	14.0	39.6	47.3	84		-	75-125	-	20

**Matrix Spike Analysis**  
Batch Quality Control

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1601260-3 QC Sample: L2204927-01 Client ID: SB-10									
Zinc, Total	20.2	39.6	53.9	85	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1601261-3 QC Sample: L2204927-01 Client ID: SB-10									
Mercury, Total	ND	0.132	0.128	97	-	-	80-120	-	20

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG1600129-4 QC Sample: L2204828-13 Client ID: DUP Sample						
Aluminum, Total	ND	ND	mg/l	NC		20
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	ND	ND	mg/l	NC		20
Barium, Total	ND	ND	mg/l	NC		20
Beryllium, Total	ND	ND	mg/l	NC		20
Cadmium, Total	ND	ND	mg/l	NC		20
Calcium, Total	ND	ND	mg/l	NC		20
Chromium, Total	ND	ND	mg/l	NC		20
Cobalt, Total	ND	ND	mg/l	NC		20
Copper, Total	ND	ND	mg/l	NC		20
Iron, Total	ND	ND	mg/l	NC		20
Lead, Total	ND	ND	mg/l	NC		20
Magnesium, Total	ND	ND	mg/l	NC		20
Manganese, Total	ND	ND	mg/l	NC		20
Nickel, Total	ND	ND	mg/l	NC		20
Potassium, Total	ND	ND	mg/l	NC		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Sodium, Total	ND	ND	mg/l	NC		20

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG1600129-4 QC Sample: L2204828-13 Client ID: DUP Sample					
Thallium, Total	0.00015J	ND	mg/l	NC	20
Vanadium, Total	ND	ND	mg/l	NC	20
Zinc, Total	ND	ND	mg/l	NC	20
Total Metals - Mansfield Lab Associated sample(s): 06 QC Batch ID: WG1600131-4 QC Sample: L2204907-02 Client ID: DUP Sample					
Mercury, Total	ND	ND	mg/l	NC	20

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1601260-4 QC Sample: L2204927-01 Client ID: SB-10					
Aluminum, Total	2950	3000	mg/kg	2	20
Antimony, Total	ND	ND	mg/kg	NC	20
Arsenic, Total	1.71	1.74	mg/kg	2	20
Barium, Total	17.7	20.3	mg/kg	14	20
Beryllium, Total	0.180J	0.164J	mg/kg	NC	20
Cadmium, Total	0.336J	0.298J	mg/kg	NC	20
Calcium, Total	860	776	mg/kg	10	20
Chromium, Total	9.59	9.48	mg/kg	1	20
Cobalt, Total	4.11	4.07	mg/kg	1	20
Copper, Total	10.3	9.65	mg/kg	7	20
Iron, Total	10300	9350	mg/kg	10	20
Lead, Total	3.38J	3.20J	mg/kg	NC	20
Magnesium, Total	1700	1610	mg/kg	5	20
Manganese, Total	229	215	mg/kg	6	20
Nickel, Total	24.5	23.7	mg/kg	3	20
Potassium, Total	539	470	mg/kg	14	20
Selenium, Total	ND	ND	mg/kg	NC	20
Silver, Total	ND	ND	mg/kg	NC	20
Sodium, Total	92.0J	99.6J	mg/kg	NC	20

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1601260-4 QC Sample: L2204927-01 Client ID: SB-10					
Thallium, Total	ND	ND	mg/kg	NC	20
Vanadium, Total	14.0	12.7	mg/kg	10	20
Zinc, Total	20.2	18.0	mg/kg	12	20
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1601261-4 QC Sample: L2204927-01 Client ID: SB-10					
Mercury, Total	ND	ND	mg/kg	NC	20

# **INORGANICS & MISCELLANEOUS**

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-01

Date Collected: 01/28/22 08:25

Client ID: SB-10

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96.4		%	0.100	NA	1	-	02/01/22 10:08	121,2540G	RI





Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

**SAMPLE RESULTS**

Lab ID: L2204927-02

Date Collected: 01/28/22 08:55

Client ID: SB-11

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	94.8		%	0.100	NA	1	-	02/01/22 10:08	121,2540G	RI



Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-03

Date Collected: 01/28/22 11:25

Client ID: SB-14

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92.8		%	0.100	NA	1	-	02/01/22 10:08	121,2540G	RI



Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-04

Date Collected: 01/28/22 12:45

Client ID: SB-15

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84.9		%	0.100	NA	1	-	02/01/22 10:08	121,2540G	RI



Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

## SAMPLE RESULTS

Lab ID: L2204927-05

Date Collected: 01/28/22 14:00

Client ID: SB-16

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.5		%	0.100	NA	1	-	02/01/22 10:08	121,2540G	RI



**Lab Duplicate Analysis**  
*Batch Quality Control*

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2204927

Report Date: 02/17/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1600010-1 QC Sample: L2204828-01 Client ID: DUP Sample						
Solids, Total	84.6	86.8	%	3		20

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

Cooler	Custody Seal
A	Absent
B	Absent

**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2204927-01A	Vial MeOH preserved	A	NA		2.3	Y	Absent		NYTCL-8260HLW(14)
L2204927-01B	Vial water preserved	A	NA		2.3	Y	Absent	29-JAN-22 01:07	NYTCL-8260HLW(14)
L2204927-01C	Vial water preserved	A	NA		2.3	Y	Absent	29-JAN-22 01:07	NYTCL-8260HLW(14)
L2204927-01D	Plastic 2oz unpreserved for TS	B	NA		2.6	Y	Absent		TS(7)
L2204927-01E	Plastic 2oz unpreserved for TS	A	NA		2.3	Y	Absent		TS(7)
L2204927-01F	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.3	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),NI-TI(180),CR-TI(180),AL-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),MN-TI(180),HG-T(28),MG-TI(180),CD-TI(180),NA-TI(180),CA-TI(180),K-TI(180)
L2204927-01G	Glass 250ml/8oz unpreserved	A	NA		2.3	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)
L2204927-01H	Plastic 8oz unpreserved	B	NA		2.6	Y	Absent		A2-NY-537-ISOTOPE(14)
L2204927-02A	Vial MeOH preserved	A	NA		2.3	Y	Absent		NYTCL-8260HLW(14)
L2204927-02B	Vial water preserved	A	NA		2.3	Y	Absent	29-JAN-22 01:07	NYTCL-8260HLW(14)
L2204927-02C	Vial water preserved	A	NA		2.3	Y	Absent	29-JAN-22 01:07	NYTCL-8260HLW(14)
L2204927-02D	Plastic 2oz unpreserved for TS	B	NA		2.6	Y	Absent		TS(7)
L2204927-02E	Plastic 2oz unpreserved for TS	A	NA		2.3	Y	Absent		TS(7)
L2204927-02F	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.3	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),AL-TI(180),TL-TI(180),CR-TI(180),NI-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),ZN-TI(180),SE-TI(180),V-TI(180),CO-TI(180),MG-TI(180),HG-T(28),FE-TI(180),MN-TI(180),CD-TI(180),K-TI(180),NA-TI(180),CA-TI(180)
L2204927-02G	Glass 250ml/8oz unpreserved	A	NA		2.3	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)
L2204927-02H	Plastic 8oz unpreserved	B	NA		2.6	Y	Absent		A2-NY-537-ISOTOPE(14)

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2204927-03A	Vial MeOH preserved	A	NA		2.3	Y	Absent		NYTCL-8260HLW(14)
L2204927-03B	Vial water preserved	A	NA		2.3	Y	Absent	29-JAN-22 01:07	NYTCL-8260HLW(14)
L2204927-03C	Vial water preserved	A	NA		2.3	Y	Absent	29-JAN-22 01:07	NYTCL-8260HLW(14)
L2204927-03D	Plastic 2oz unpreserved for TS	B	NA		2.6	Y	Absent		TS(7)
L2204927-03E	Plastic 2oz unpreserved for TS	A	NA		2.3	Y	Absent		TS(7)
L2204927-03F	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.3	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),NI-TI(180),CR-TI(180),TL-TI(180),AL-TI(180),ZN-TI(180),SE-TI(180),CU-TI(180),SB-TI(180),PB-TI(180),CO-TI(180),V-TI(180),HG-T(28),FE-TI(180),MN-TI(180),MG-TI(180),K-TI(180),CD-TI(180),NA-TI(180),CA-TI(180)
L2204927-03G	Glass 250ml/8oz unpreserved	A	NA		2.3	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)
L2204927-03H	Plastic 8oz unpreserved	B	NA		2.6	Y	Absent		A2-NY-537-ISOTOPE(14)
L2204927-04A	Vial MeOH preserved	A	NA		2.3	Y	Absent		NYTCL-8260HLW(14)
L2204927-04B	Vial water preserved	A	NA		2.3	Y	Absent	29-JAN-22 01:07	NYTCL-8260HLW(14)
L2204927-04C	Vial water preserved	A	NA		2.3	Y	Absent	29-JAN-22 01:07	NYTCL-8260HLW(14)
L2204927-04D	Plastic 2oz unpreserved for TS	B	NA		2.6	Y	Absent		TS(7)
L2204927-04E	Plastic 2oz unpreserved for TS	A	NA		2.3	Y	Absent		TS(7)
L2204927-04F	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.3	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),AL-TI(180),NI-TI(180),TL-TI(180),SB-TI(180),ZN-TI(180),CU-TI(180),PB-TI(180),SE-TI(180),V-TI(180),CO-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CD-TI(180),NA-TI(180),K-TI(180),CA-TI(180)
L2204927-04G	Glass 250ml/8oz unpreserved	A	NA		2.3	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)
L2204927-04H	Plastic 8oz unpreserved	B	NA		2.6	Y	Absent		A2-NY-537-ISOTOPE(14)
L2204927-05A	Vial MeOH preserved	A	NA		2.3	Y	Absent		NYTCL-8260HLW(14)
L2204927-05A9	Vial MeOH preserved split	A	NA		2.3	Y	Absent		NYTCL-8260HLW(14)
L2204927-05B	Vial water preserved	A	NA		2.3	Y	Absent	29-JAN-22 01:07	NYTCL-8260HLW(14)
L2204927-05C	Vial water preserved	A	NA		2.3	Y	Absent	29-JAN-22 01:07	NYTCL-8260HLW(14)
L2204927-05D	Plastic 2oz unpreserved for TS	B	NA		2.6	Y	Absent		TS(7)
L2204927-05E	Plastic 2oz unpreserved for TS	A	NA		2.3	Y	Absent		TS(7)

Project Name: ARC2202

Lab Number: L2204927

Project Number: ARC2202

Report Date: 02/17/22

**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2204927-05F	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.3	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),NI-TI(180),TL-TI(180),CR-TI(180),AL-TI(180),CU-TI(180),SB-TI(180),PB-TI(180),ZN-TI(180),SE-TI(180),CO-TI(180),V-TI(180),HG-T(28),MG-TI(180),FE-TI(180),MN-TI(180),CD-TI(180),NA-TI(180),CA-TI(180),K-TI(180)
L2204927-05G	Glass 250ml/8oz unpreserved	A	NA		2.3	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)
L2204927-05H	Plastic 8oz unpreserved	B	NA		2.6	Y	Absent		A2-NY-537-ISOTOPE(14)
L2204927-05Y	Vial Water preserved split	B	NA		2.6	Y	Absent		NYTCL-8260HLW(14)
L2204927-06A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L2204927-06B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L2204927-06C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L2204927-06D	Plastic 250ml HNO3 preserved	A	<2	<2	2.3	Y	Absent		SE-6020T(180),FE-6020T(180),BA-6020T(180),TL-6020T(180),NI-6020T(180),K-6020T(180),CA-6020T(180),CR-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),SB-6020T(180),AS-6020T(180),V-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),AG-6020T(180),CO-6020T(180)
L2204927-06E	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8082-LVI(365)
L2204927-06F	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8082-LVI(365)
L2204927-06G	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8081(7)
L2204927-06H	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8081(7)
L2204927-06I	Amber 250ml unpreserved	A	7	7	2.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2204927-06J	Amber 250ml unpreserved	A	7	7	2.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2204927-06K	Amber 250ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2204927-06L	Amber 250ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2204927-06M	Plastic 250ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-537-ISOTOPE(14)



**Project Name:** ARC2202  
**Project Number:** ARC2202

Serial\_No:02172214:43  
**Lab Number:** L2204927  
**Report Date:** 02/17/22

### PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
<b>PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)</b>		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
<b>PERFLUOROALKYL SULFONIC ACIDS (PFSAs)</b>		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
<b>FLUOROTELOMERS</b>		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
<b>PERFLUOROALKANE SULFONAMIDES (FASAs)</b>		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
<b>PERFLUOROALKANE SULFONYL SUBSTANCES</b>		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
<b>PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS</b>		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
<b>CHLORO-PERFLUOROALKYL SULFONIC ACIDS</b>		
11-Chloroeicosafuoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
<b>PERFLUOROETHER SULFONIC ACIDS (PFESAs)</b>		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEEESA	113507-82-7
<b>PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)</b>		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

#### Footnotes

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

#### Terms

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

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

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

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

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

**PAH Total:** With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

#### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

**Data Qualifiers**

- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2204927  
**Report Date:** 02/17/22

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

## LIMITATION OF LIABILITIES

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

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



## Certification Information

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

### Westborough Facility

**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene

**EPA 625/625.1:** alpha-Terpineol

**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

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

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

**EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LCHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

**SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

**EPA 624.1:** Volatile Halocarbons & Aromatics,

**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

**EPA 522, EPA 537.1.**

#### Non-Potable Water

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

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





## ANALYTICAL REPORT

Lab Number:	L2205287
Client:	P. W. Grosser 630 Johnson Avenue Suite 7 Bohemia, NY 11716
ATTN:	Usman Chaudhry
Phone:	(631) 589-8705
Project Name:	ARC2202
Project Number:	ARC2202
Report Date:	02/18/22

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

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

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Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2205287-01	SB-3	SOIL	2359 BEDFORD AVE, BROOKLYN, NY	02/01/22 10:30	02/01/22
L2205287-02	SB-4	SOIL	2359 BEDFORD AVE, BROOKLYN, NY	02/01/22 09:50	02/01/22
L2205287-03	SB-7	SOIL	2359 BEDFORD AVE, BROOKLYN, NY	02/01/22 12:15	02/01/22
L2205287-04	SB-8	SOIL	2359 BEDFORD AVE, BROOKLYN, NY	02/01/22 11:00	02/01/22
L2205287-05	GW-1	WATER	2359 BEDFORD AVE, BROOKLYN, NY	02/01/22 09:40	02/01/22
L2205287-06	GW-2	WATER	2359 BEDFORD AVE, BROOKLYN, NY	02/01/22 12:30	02/01/22
L2205287-07	SB-6	SOIL	2359 BEDFORD AVE, BROOKLYN, NY	02/01/22 13:30	02/01/22
L2205287-08	SB-5	SOIL	2359 BEDFORD AVE, BROOKLYN, NY	02/01/22 14:00	02/01/22
L2205287-09	SB-9	SOIL	2359 BEDFORD AVE, BROOKLYN, NY	02/01/22 14:30	02/01/22
L2205287-10	SB-12	SOIL	2359 BEDFORD AVE, BROOKLYN, NY	02/01/22 15:20	02/01/22

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

### Case Narrative

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

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

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

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

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

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

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**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

### Case Narrative (continued)

#### Report Submission

February 18, 2022: This final report includes the results of all requested analyses.

February 16, 2022: This is a preliminary report.

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

#### Semivolatile Organics

L2205287-02D: The sample has elevated detection limits due to the dilution required by the sample matrix. The WG1604356-2/-3 LCS/LCSD recoveries, associated with L2205287-01, -02D, -03, -04, -07, -08, -09, and -10, are below the acceptance criteria for benzoic acid (5%/2%); however, it has been identified as a "difficult" analyte. The results of the associated samples are reported.

#### Perfluorinated Alkyl Acids by Isotope Dilution

L2205287-01 and L2205287-08: The MeOH fraction of the extraction is reported for perfluorooctanesulfonamide (fosa) due to better extraction efficiency of the perfluoro[13c8]octanesulfonamide (m8fosa) Extracted Internal Standard.

L2205287-05 and -06: The sample was centrifuged and decanted prior to extraction due to sample matrix.

L2205287-06 and WG1601237-1/-2: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

The WG1602053-3 MS recovery, performed on L2205287-01, is outside the acceptance criteria for perfluorononanoic acid (pfna) (131%).

#### Pesticides

L2205287-01D and -02D: The sample has elevated detection limits due to the dilution required by the sample matrix.

The surrogate recoveries for the WG1601844-1 Method Blank, associated with L2205287-05 and -06, are

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

### Case Narrative (continued)

below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (21%, 22%). The associated samples are non-detect and have acceptable surrogate recoveries; therefore, no further actions were taken.

#### Total Metals

L2205287-01 through -04 and -07 through -10: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis. The WG1602643-3 MS recoveries for aluminum (145%), iron (340%), manganese (171%) and sodium (230%), performed on L2205287-05, do not apply because the sample concentrations are greater than four times the spike amounts added.

The WG1602643-3 MS recovery, performed on L2205287-05, is outside the acceptance criteria for antimony (72%). A post digestion spike was performed and was within acceptance criteria.

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

Authorized Signature:

 Caitlin Walukevich

Title: Technical Director/Representative

Date: 02/18/22

# ORGANICS

# VOLATILES

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-01  
 Client ID: SB-3  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 10:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 02/08/22 23:08  
 Analyst: MKS  
 Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	6.8	3.1	1
1,1-Dichloroethane	ND		ug/kg	1.4	0.20	1
Chloroform	0.89	J	ug/kg	2.0	0.19	1
Carbon tetrachloride	ND		ug/kg	1.4	0.31	1
1,2-Dichloropropane	ND		ug/kg	1.4	0.17	1
Dibromochloromethane	ND		ug/kg	1.4	0.19	1
1,1,2-Trichloroethane	ND		ug/kg	1.4	0.36	1
Tetrachloroethene	ND		ug/kg	0.68	0.26	1
Chlorobenzene	ND		ug/kg	0.68	0.17	1
Trichlorofluoromethane	ND		ug/kg	5.4	0.94	1
1,2-Dichloroethane	ND		ug/kg	1.4	0.35	1
1,1,1-Trichloroethane	ND		ug/kg	0.68	0.23	1
Bromodichloromethane	ND		ug/kg	0.68	0.15	1
trans-1,3-Dichloropropene	ND		ug/kg	1.4	0.37	1
cis-1,3-Dichloropropene	ND		ug/kg	0.68	0.21	1
1,3-Dichloropropene, Total	ND		ug/kg	0.68	0.21	1
1,1-Dichloropropene	ND		ug/kg	0.68	0.22	1
Bromoform	ND		ug/kg	5.4	0.33	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.68	0.22	1
Benzene	ND		ug/kg	0.68	0.22	1
Toluene	ND		ug/kg	1.4	0.74	1
Ethylbenzene	ND		ug/kg	1.4	0.19	1
Chloromethane	ND		ug/kg	5.4	1.3	1
Bromomethane	ND		ug/kg	2.7	0.79	1
Vinyl chloride	ND		ug/kg	1.4	0.45	1
Chloroethane	ND		ug/kg	2.7	0.61	1
1,1-Dichloroethene	ND		ug/kg	1.4	0.32	1
trans-1,2-Dichloroethene	ND		ug/kg	2.0	0.18	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-01  
 Client ID: SB-3  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 10:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.68	0.18	1
1,2-Dichlorobenzene	ND		ug/kg	2.7	0.20	1
1,3-Dichlorobenzene	ND		ug/kg	2.7	0.20	1
1,4-Dichlorobenzene	ND		ug/kg	2.7	0.23	1
Methyl tert butyl ether	ND		ug/kg	2.7	0.27	1
p/m-Xylene	ND		ug/kg	2.7	0.76	1
o-Xylene	ND		ug/kg	1.4	0.39	1
Xylenes, Total	ND		ug/kg	1.4	0.39	1
cis-1,2-Dichloroethene	ND		ug/kg	1.4	0.24	1
1,2-Dichloroethene, Total	ND		ug/kg	1.4	0.18	1
Dibromomethane	ND		ug/kg	2.7	0.32	1
Styrene	ND		ug/kg	1.4	0.26	1
Dichlorodifluoromethane	ND		ug/kg	14	1.2	1
Acetone	ND		ug/kg	14	6.5	1
Carbon disulfide	ND		ug/kg	14	6.2	1
2-Butanone	ND		ug/kg	14	3.0	1
Vinyl acetate	ND		ug/kg	14	2.9	1
4-Methyl-2-pentanone	ND		ug/kg	14	1.7	1
1,2,3-Trichloropropane	ND		ug/kg	2.7	0.17	1
2-Hexanone	ND		ug/kg	14	1.6	1
Bromochloromethane	ND		ug/kg	2.7	0.28	1
2,2-Dichloropropane	ND		ug/kg	2.7	0.27	1
1,2-Dibromoethane	ND		ug/kg	1.4	0.38	1
1,3-Dichloropropane	ND		ug/kg	2.7	0.23	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.68	0.18	1
Bromobenzene	ND		ug/kg	2.7	0.20	1
n-Butylbenzene	ND		ug/kg	1.4	0.23	1
sec-Butylbenzene	ND		ug/kg	1.4	0.20	1
tert-Butylbenzene	ND		ug/kg	2.7	0.16	1
o-Chlorotoluene	ND		ug/kg	2.7	0.26	1
p-Chlorotoluene	ND		ug/kg	2.7	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.1	1.4	1
Hexachlorobutadiene	ND		ug/kg	5.4	0.23	1
Isopropylbenzene	ND		ug/kg	1.4	0.15	1
p-Isopropyltoluene	ND		ug/kg	1.4	0.15	1
Naphthalene	ND		ug/kg	5.4	0.88	1
Acrylonitrile	ND		ug/kg	5.4	1.6	1



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-01

Date Collected: 02/01/22 10:30

Client ID: SB-3

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.4	0.23	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.7	0.44	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.7	0.37	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.7	0.26	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.7	0.45	1
1,4-Dioxane	ND		ug/kg	110	48.	1
p-Diethylbenzene	ND		ug/kg	2.7	0.24	1
p-Ethyltoluene	ND		ug/kg	2.7	0.52	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.7	0.26	1
Ethyl ether	ND		ug/kg	2.7	0.46	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.8	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	109		70-130

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-02  
 Client ID: SB-4  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 09:50  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 02/08/22 23:35  
 Analyst: MKS  
 Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	6.4	2.9	1
1,1-Dichloroethane	ND		ug/kg	1.3	0.19	1
Chloroform	ND		ug/kg	1.9	0.18	1
Carbon tetrachloride	ND		ug/kg	1.3	0.30	1
1,2-Dichloropropane	ND		ug/kg	1.3	0.16	1
Dibromochloromethane	ND		ug/kg	1.3	0.18	1
1,1,2-Trichloroethane	ND		ug/kg	1.3	0.34	1
Tetrachloroethene	ND		ug/kg	0.64	0.25	1
Chlorobenzene	ND		ug/kg	0.64	0.16	1
Trichlorofluoromethane	ND		ug/kg	5.1	0.89	1
1,2-Dichloroethane	ND		ug/kg	1.3	0.33	1
1,1,1-Trichloroethane	ND		ug/kg	0.64	0.21	1
Bromodichloromethane	ND		ug/kg	0.64	0.14	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	0.35	1
cis-1,3-Dichloropropene	ND		ug/kg	0.64	0.20	1
1,3-Dichloropropene, Total	ND		ug/kg	0.64	0.20	1
1,1-Dichloropropene	ND		ug/kg	0.64	0.20	1
Bromoform	ND		ug/kg	5.1	0.32	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.64	0.21	1
Benzene	ND		ug/kg	0.64	0.21	1
Toluene	ND		ug/kg	1.3	0.70	1
Ethylbenzene	ND		ug/kg	1.3	0.18	1
Chloromethane	ND		ug/kg	5.1	1.2	1
Bromomethane	ND		ug/kg	2.6	0.75	1
Vinyl chloride	ND		ug/kg	1.3	0.43	1
Chloroethane	ND		ug/kg	2.6	0.58	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	0.18	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-02  
 Client ID: SB-4  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 09:50  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.64	0.18	1
1,2-Dichlorobenzene	ND		ug/kg	2.6	0.18	1
1,3-Dichlorobenzene	ND		ug/kg	2.6	0.19	1
1,4-Dichlorobenzene	ND		ug/kg	2.6	0.22	1
Methyl tert butyl ether	ND		ug/kg	2.6	0.26	1
p/m-Xylene	ND		ug/kg	2.6	0.72	1
o-Xylene	ND		ug/kg	1.3	0.37	1
Xylenes, Total	ND		ug/kg	1.3	0.37	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.22	1
1,2-Dichloroethene, Total	ND		ug/kg	1.3	0.18	1
Dibromomethane	ND		ug/kg	2.6	0.30	1
Styrene	ND		ug/kg	1.3	0.25	1
Dichlorodifluoromethane	ND		ug/kg	13	1.2	1
Acetone	ND		ug/kg	13	6.2	1
Carbon disulfide	ND		ug/kg	13	5.8	1
2-Butanone	ND		ug/kg	13	2.8	1
Vinyl acetate	ND		ug/kg	13	2.8	1
4-Methyl-2-pentanone	ND		ug/kg	13	1.6	1
1,2,3-Trichloropropane	ND		ug/kg	2.6	0.16	1
2-Hexanone	ND		ug/kg	13	1.5	1
Bromochloromethane	ND		ug/kg	2.6	0.26	1
2,2-Dichloropropane	ND		ug/kg	2.6	0.26	1
1,2-Dibromoethane	ND		ug/kg	1.3	0.36	1
1,3-Dichloropropane	ND		ug/kg	2.6	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.64	0.17	1
Bromobenzene	ND		ug/kg	2.6	0.19	1
n-Butylbenzene	ND		ug/kg	1.3	0.21	1
sec-Butylbenzene	ND		ug/kg	1.3	0.19	1
tert-Butylbenzene	ND		ug/kg	2.6	0.15	1
o-Chlorotoluene	ND		ug/kg	2.6	0.24	1
p-Chlorotoluene	ND		ug/kg	2.6	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.8	1.3	1
Hexachlorobutadiene	ND		ug/kg	5.1	0.22	1
Isopropylbenzene	ND		ug/kg	1.3	0.14	1
p-Isopropyltoluene	ND		ug/kg	1.3	0.14	1
Naphthalene	ND		ug/kg	5.1	0.83	1
Acrylonitrile	ND		ug/kg	5.1	1.5	1

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

**SAMPLE RESULTS**

Lab ID: L2205287-02  
 Client ID: SB-4  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 09:50  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.3	0.22	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.6	0.41	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.6	0.35	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.6	0.25	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.6	0.43	1
1,4-Dioxane	ND		ug/kg	100	45.	1
p-Diethylbenzene	ND		ug/kg	2.6	0.23	1
p-Ethyltoluene	ND		ug/kg	2.6	0.49	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.6	0.24	1
Ethyl ether	ND		ug/kg	2.6	0.44	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.4	1.8	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	113		70-130

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-03  
 Client ID: SB-7  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 12:15  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 02/09/22 00:02  
 Analyst: MKS  
 Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	8.3	3.8	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.24	1
Chloroform	ND		ug/kg	2.5	0.23	1
Carbon tetrachloride	ND		ug/kg	1.7	0.38	1
1,2-Dichloropropane	ND		ug/kg	1.7	0.21	1
Dibromochloromethane	ND		ug/kg	1.7	0.23	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.44	1
Tetrachloroethene	ND		ug/kg	0.83	0.32	1
Chlorobenzene	ND		ug/kg	0.83	0.21	1
Trichlorofluoromethane	ND		ug/kg	6.6	1.2	1
1,2-Dichloroethane	ND		ug/kg	1.7	0.43	1
1,1,1-Trichloroethane	ND		ug/kg	0.83	0.28	1
Bromodichloromethane	ND		ug/kg	0.83	0.18	1
trans-1,3-Dichloropropene	ND		ug/kg	1.7	0.45	1
cis-1,3-Dichloropropene	ND		ug/kg	0.83	0.26	1
1,3-Dichloropropene, Total	ND		ug/kg	0.83	0.26	1
1,1-Dichloropropene	ND		ug/kg	0.83	0.26	1
Bromoform	ND		ug/kg	6.6	0.41	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.83	0.28	1
Benzene	ND		ug/kg	0.83	0.28	1
Toluene	ND		ug/kg	1.7	0.90	1
Ethylbenzene	ND		ug/kg	1.7	0.23	1
Chloromethane	ND		ug/kg	6.6	1.5	1
Bromomethane	ND		ug/kg	3.3	0.96	1
Vinyl chloride	ND		ug/kg	1.7	0.56	1
Chloroethane	ND		ug/kg	3.3	0.75	1
1,1-Dichloroethene	ND		ug/kg	1.7	0.40	1
trans-1,2-Dichloroethene	ND		ug/kg	2.5	0.23	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-03  
 Client ID: SB-7  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 12:15  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.83	0.23	1
1,2-Dichlorobenzene	ND		ug/kg	3.3	0.24	1
1,3-Dichlorobenzene	ND		ug/kg	3.3	0.24	1
1,4-Dichlorobenzene	ND		ug/kg	3.3	0.28	1
Methyl tert butyl ether	ND		ug/kg	3.3	0.33	1
p/m-Xylene	ND		ug/kg	3.3	0.93	1
o-Xylene	ND		ug/kg	1.7	0.48	1
Xylenes, Total	ND		ug/kg	1.7	0.48	1
cis-1,2-Dichloroethene	ND		ug/kg	1.7	0.29	1
1,2-Dichloroethene, Total	ND		ug/kg	1.7	0.23	1
Dibromomethane	ND		ug/kg	3.3	0.40	1
Styrene	ND		ug/kg	1.7	0.32	1
Dichlorodifluoromethane	ND		ug/kg	17	1.5	1
Acetone	9.0	J	ug/kg	17	8.0	1
Carbon disulfide	ND		ug/kg	17	7.6	1
2-Butanone	ND		ug/kg	17	3.7	1
Vinyl acetate	ND		ug/kg	17	3.6	1
4-Methyl-2-pentanone	ND		ug/kg	17	2.1	1
1,2,3-Trichloropropane	ND		ug/kg	3.3	0.21	1
2-Hexanone	ND		ug/kg	17	2.0	1
Bromochloromethane	ND		ug/kg	3.3	0.34	1
2,2-Dichloropropane	ND		ug/kg	3.3	0.34	1
1,2-Dibromoethane	ND		ug/kg	1.7	0.46	1
1,3-Dichloropropane	ND		ug/kg	3.3	0.28	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.83	0.22	1
Bromobenzene	ND		ug/kg	3.3	0.24	1
n-Butylbenzene	ND		ug/kg	1.7	0.28	1
sec-Butylbenzene	ND		ug/kg	1.7	0.24	1
tert-Butylbenzene	ND		ug/kg	3.3	0.20	1
o-Chlorotoluene	ND		ug/kg	3.3	0.32	1
p-Chlorotoluene	ND		ug/kg	3.3	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	1.6	1
Hexachlorobutadiene	ND		ug/kg	6.6	0.28	1
Isopropylbenzene	ND		ug/kg	1.7	0.18	1
p-Isopropyltoluene	ND		ug/kg	1.7	0.18	1
Naphthalene	ND		ug/kg	6.6	1.1	1
Acrylonitrile	ND		ug/kg	6.6	1.9	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-03

Date Collected: 02/01/22 12:15

Client ID: SB-7

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.7	0.28	1
1,2,3-Trichlorobenzene	ND		ug/kg	3.3	0.53	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.3	0.45	1
1,3,5-Trimethylbenzene	ND		ug/kg	3.3	0.32	1
1,2,4-Trimethylbenzene	ND		ug/kg	3.3	0.55	1
1,4-Dioxane	ND		ug/kg	130	58.	1
p-Diethylbenzene	ND		ug/kg	3.3	0.29	1
p-Ethyltoluene	ND		ug/kg	3.3	0.64	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	3.3	0.32	1
Ethyl ether	ND		ug/kg	3.3	0.57	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	8.3	2.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	111		70-130

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-04  
 Client ID: SB-8  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 11:00  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 02/09/22 00:29  
 Analyst: MKS  
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	6.0	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.17	1
Carbon tetrachloride	ND		ug/kg	1.2	0.28	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.32	1
Tetrachloroethene	ND		ug/kg	0.60	0.24	1
Chlorobenzene	ND		ug/kg	0.60	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.8	0.83	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.31	1
1,1,1-Trichloroethane	ND		ug/kg	0.60	0.20	1
Bromodichloromethane	ND		ug/kg	0.60	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.33	1
cis-1,3-Dichloropropene	ND		ug/kg	0.60	0.19	1
1,3-Dichloropropene, Total	ND		ug/kg	0.60	0.19	1
1,1-Dichloropropene	ND		ug/kg	0.60	0.19	1
Bromoform	ND		ug/kg	4.8	0.30	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.60	0.20	1
Benzene	ND		ug/kg	0.60	0.20	1
Toluene	ND		ug/kg	1.2	0.65	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	4.8	1.1	1
Bromomethane	ND		ug/kg	2.4	0.70	1
Vinyl chloride	ND		ug/kg	1.2	0.40	1
Chloroethane	ND		ug/kg	2.4	0.54	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-04

Date Collected: 02/01/22 11:00

Client ID: SB-8

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.60	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.4	0.18	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.24	1
p/m-Xylene	ND		ug/kg	2.4	0.67	1
o-Xylene	ND		ug/kg	1.2	0.35	1
Xylenes, Total	ND		ug/kg	1.2	0.35	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.21	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	2.4	0.28	1
Styrene	ND		ug/kg	1.2	0.24	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	ND		ug/kg	12	5.8	1
Carbon disulfide	ND		ug/kg	12	5.5	1
2-Butanone	ND		ug/kg	12	2.7	1
Vinyl acetate	ND		ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
1,2,3-Trichloropropane	ND		ug/kg	2.4	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.4	0.25	1
2,2-Dichloropropane	ND		ug/kg	2.4	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.33	1
1,3-Dichloropropane	ND		ug/kg	2.4	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.60	0.16	1
Bromobenzene	ND		ug/kg	2.4	0.17	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.18	1
tert-Butylbenzene	ND		ug/kg	2.4	0.14	1
o-Chlorotoluene	ND		ug/kg	2.4	0.23	1
p-Chlorotoluene	ND		ug/kg	2.4	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.6	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.8	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	ND		ug/kg	4.8	0.78	1
Acrylonitrile	ND		ug/kg	4.8	1.4	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-04

Date Collected: 02/01/22 11:00

Client ID: SB-8

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.4	0.39	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	0.33	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.40	1
1,4-Dioxane	ND		ug/kg	96	42.	1
p-Diethylbenzene	ND		ug/kg	2.4	0.21	1
p-Ethyltoluene	ND		ug/kg	2.4	0.46	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.4	0.23	1
Ethyl ether	ND		ug/kg	2.4	0.41	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.0	1.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	111		70-130

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-05  
 Client ID: GW-1  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 09:40  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 02/04/22 15:09  
 Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	8.8		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.70		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-05

Date Collected: 02/01/22 09:40

Client ID: GW-1

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-05

Date Collected: 02/01/22 09:40

Client ID: GW-1

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	104		70-130

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-06  
 Client ID: GW-2  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 12:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 02/04/22 15:34  
 Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-06

Date Collected: 02/01/22 12:30

Client ID: GW-2

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-06

Date Collected: 02/01/22 12:30

Client ID: GW-2

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	106		70-130



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-07  
 Client ID: SB-6  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 13:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 02/09/22 00:56  
 Analyst: MKS  
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.3	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.15	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.1	0.24	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.13	1
Dibromochloromethane	ND		ug/kg	1.1	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.28	1
Tetrachloroethene	ND		ug/kg	0.53	0.21	1
Chlorobenzene	ND		ug/kg	0.53	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.3	0.74	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.27	1
1,1,1-Trichloroethane	ND		ug/kg	0.53	0.18	1
Bromodichloromethane	ND		ug/kg	0.53	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.29	1
cis-1,3-Dichloropropene	ND		ug/kg	0.53	0.17	1
1,3-Dichloropropene, Total	ND		ug/kg	0.53	0.17	1
1,1-Dichloropropene	ND		ug/kg	0.53	0.17	1
Bromoform	ND		ug/kg	4.3	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.53	0.18	1
Benzene	ND		ug/kg	0.53	0.18	1
Toluene	ND		ug/kg	1.1	0.58	1
Ethylbenzene	ND		ug/kg	1.1	0.15	1
Chloromethane	ND		ug/kg	4.3	1.0	1
Bromomethane	ND		ug/kg	2.1	0.62	1
Vinyl chloride	ND		ug/kg	1.1	0.36	1
Chloroethane	ND		ug/kg	2.1	0.48	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-07  
 Client ID: SB-6  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 13:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.53	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.21	1
p/m-Xylene	ND		ug/kg	2.1	0.60	1
o-Xylene	ND		ug/kg	1.1	0.31	1
Xylenes, Total	ND		ug/kg	1.1	0.31	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Dibromomethane	ND		ug/kg	2.1	0.25	1
Styrene	ND		ug/kg	1.1	0.21	1
Dichlorodifluoromethane	ND		ug/kg	11	0.98	1
Acetone	ND		ug/kg	11	5.1	1
Carbon disulfide	ND		ug/kg	11	4.9	1
2-Butanone	ND		ug/kg	11	2.4	1
Vinyl acetate	ND		ug/kg	11	2.3	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.1	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.1	0.22	1
2,2-Dichloropropane	ND		ug/kg	2.1	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.30	1
1,3-Dichloropropane	ND		ug/kg	2.1	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.53	0.14	1
Bromobenzene	ND		ug/kg	2.1	0.15	1
n-Butylbenzene	ND		ug/kg	1.1	0.18	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.1	0.13	1
o-Chlorotoluene	ND		ug/kg	2.1	0.20	1
p-Chlorotoluene	ND		ug/kg	2.1	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.2	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.3	0.18	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.3	0.69	1
Acrylonitrile	ND		ug/kg	4.3	1.2	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-07

Date Collected: 02/01/22 13:30

Client ID: SB-6

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.1	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.34	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.29	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.21	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.36	1
1,4-Dioxane	ND		ug/kg	85	38.	1
p-Diethylbenzene	ND		ug/kg	2.1	0.19	1
p-Ethyltoluene	ND		ug/kg	2.1	0.41	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.1	0.20	1
Ethyl ether	ND		ug/kg	2.1	0.36	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.3	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	111		70-130

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-08  
 Client ID: SB-5  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 14:00  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 02/09/22 01:23  
 Analyst: MKS  
 Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	4.9	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.98	0.14	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	0.98	0.22	1
1,2-Dichloropropane	ND		ug/kg	0.98	0.12	1
Dibromochloromethane	ND		ug/kg	0.98	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	0.98	0.26	1
Tetrachloroethene	ND		ug/kg	0.49	0.19	1
Chlorobenzene	ND		ug/kg	0.49	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.9	0.68	1
1,2-Dichloroethane	ND		ug/kg	0.98	0.25	1
1,1,1-Trichloroethane	ND		ug/kg	0.49	0.16	1
Bromodichloromethane	ND		ug/kg	0.49	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	0.98	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.49	0.15	1
1,3-Dichloropropene, Total	ND		ug/kg	0.49	0.15	1
1,1-Dichloropropene	ND		ug/kg	0.49	0.16	1
Bromoform	ND		ug/kg	3.9	0.24	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.49	0.16	1
Benzene	ND		ug/kg	0.49	0.16	1
Toluene	ND		ug/kg	0.98	0.53	1
Ethylbenzene	ND		ug/kg	0.98	0.14	1
Chloromethane	ND		ug/kg	3.9	0.91	1
Bromomethane	ND		ug/kg	2.0	0.57	1
Vinyl chloride	ND		ug/kg	0.98	0.33	1
Chloroethane	ND		ug/kg	2.0	0.44	1
1,1-Dichloroethene	ND		ug/kg	0.98	0.23	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.13	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-08

Date Collected: 02/01/22 14:00

Client ID: SB-5

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.49	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.55	1
o-Xylene	ND		ug/kg	0.98	0.28	1
Xylenes, Total	ND		ug/kg	0.98	0.28	1
cis-1,2-Dichloroethene	ND		ug/kg	0.98	0.17	1
1,2-Dichloroethene, Total	ND		ug/kg	0.98	0.13	1
Dibromomethane	ND		ug/kg	2.0	0.23	1
Styrene	ND		ug/kg	0.98	0.19	1
Dichlorodifluoromethane	ND		ug/kg	9.8	0.90	1
Acetone	ND		ug/kg	9.8	4.7	1
Carbon disulfide	ND		ug/kg	9.8	4.5	1
2-Butanone	ND		ug/kg	9.8	2.2	1
Vinyl acetate	ND		ug/kg	9.8	2.1	1
4-Methyl-2-pentanone	ND		ug/kg	9.8	1.2	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.12	1
2-Hexanone	ND		ug/kg	9.8	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.20	1
2,2-Dichloropropane	ND		ug/kg	2.0	0.20	1
1,2-Dibromoethane	ND		ug/kg	0.98	0.27	1
1,3-Dichloropropane	ND		ug/kg	2.0	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.49	0.13	1
Bromobenzene	ND		ug/kg	2.0	0.14	1
n-Butylbenzene	ND		ug/kg	0.98	0.16	1
sec-Butylbenzene	ND		ug/kg	0.98	0.14	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
o-Chlorotoluene	ND		ug/kg	2.0	0.19	1
p-Chlorotoluene	ND		ug/kg	2.0	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.9	0.98	1
Hexachlorobutadiene	ND		ug/kg	3.9	0.16	1
Isopropylbenzene	ND		ug/kg	0.98	0.11	1
p-Isopropyltoluene	ND		ug/kg	0.98	0.11	1
Naphthalene	ND		ug/kg	3.9	0.64	1
Acrylonitrile	ND		ug/kg	3.9	1.1	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-08  
 Client ID: SB-5  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 14:00  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.98	0.17	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33	1
1,4-Dioxane	ND		ug/kg	78	34.	1
p-Diethylbenzene	ND		ug/kg	2.0	0.17	1
p-Ethyltoluene	ND		ug/kg	2.0	0.38	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19	1
Ethyl ether	ND		ug/kg	2.0	0.33	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.9	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	111		70-130

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-09  
 Client ID: SB-9  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 14:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 02/09/22 01:50  
 Analyst: MKS  
 Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	6.2	2.8	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.18	1
Chloroform	ND		ug/kg	1.8	0.17	1
Carbon tetrachloride	ND		ug/kg	1.2	0.28	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.33	1
Tetrachloroethene	ND		ug/kg	0.62	0.24	1
Chlorobenzene	ND		ug/kg	0.62	0.16	1
Trichlorofluoromethane	ND		ug/kg	5.0	0.86	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.32	1
1,1,1-Trichloroethane	ND		ug/kg	0.62	0.21	1
Bromodichloromethane	ND		ug/kg	0.62	0.14	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.34	1
cis-1,3-Dichloropropene	ND		ug/kg	0.62	0.20	1
1,3-Dichloropropene, Total	ND		ug/kg	0.62	0.20	1
1,1-Dichloropropene	ND		ug/kg	0.62	0.20	1
Bromoform	ND		ug/kg	5.0	0.30	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.62	0.20	1
Benzene	ND		ug/kg	0.62	0.20	1
Toluene	ND		ug/kg	1.2	0.67	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	5.0	1.2	1
Bromomethane	ND		ug/kg	2.5	0.72	1
Vinyl chloride	ND		ug/kg	1.2	0.42	1
Chloroethane	ND		ug/kg	2.5	0.56	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.17	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-09

Date Collected: 02/01/22 14:30

Client ID: SB-9

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.62	0.17	1
1,2-Dichlorobenzene	ND		ug/kg	2.5	0.18	1
1,3-Dichlorobenzene	ND		ug/kg	2.5	0.18	1
1,4-Dichlorobenzene	ND		ug/kg	2.5	0.21	1
Methyl tert butyl ether	ND		ug/kg	2.5	0.25	1
p/m-Xylene	ND		ug/kg	2.5	0.69	1
o-Xylene	ND		ug/kg	1.2	0.36	1
Xylenes, Total	ND		ug/kg	1.2	0.36	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.22	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.17	1
Dibromomethane	ND		ug/kg	2.5	0.30	1
Styrene	ND		ug/kg	1.2	0.24	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	ND		ug/kg	12	6.0	1
Carbon disulfide	ND		ug/kg	12	5.6	1
2-Butanone	ND		ug/kg	12	2.8	1
Vinyl acetate	ND		ug/kg	12	2.7	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.6	1
1,2,3-Trichloropropane	ND		ug/kg	2.5	0.16	1
2-Hexanone	ND		ug/kg	12	1.5	1
Bromochloromethane	ND		ug/kg	2.5	0.25	1
2,2-Dichloropropane	ND		ug/kg	2.5	0.25	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.34	1
1,3-Dichloropropane	ND		ug/kg	2.5	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.62	0.16	1
Bromobenzene	ND		ug/kg	2.5	0.18	1
n-Butylbenzene	ND		ug/kg	1.2	0.21	1
sec-Butylbenzene	ND		ug/kg	1.2	0.18	1
tert-Butylbenzene	ND		ug/kg	2.5	0.15	1
o-Chlorotoluene	ND		ug/kg	2.5	0.24	1
p-Chlorotoluene	ND		ug/kg	2.5	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.7	1.2	1
Hexachlorobutadiene	ND		ug/kg	5.0	0.21	1
Isopropylbenzene	ND		ug/kg	1.2	0.14	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.14	1
Naphthalene	ND		ug/kg	5.0	0.80	1
Acrylonitrile	ND		ug/kg	5.0	1.4	1



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-09

Date Collected: 02/01/22 14:30

Client ID: SB-9

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.2	0.21	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.5	0.40	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.5	0.34	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.5	0.24	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.5	0.41	1
1,4-Dioxane	ND		ug/kg	99	44.	1
p-Diethylbenzene	ND		ug/kg	2.5	0.22	1
p-Ethyltoluene	ND		ug/kg	2.5	0.48	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.5	0.24	1
Ethyl ether	ND		ug/kg	2.5	0.42	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.2	1.8	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	90		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	110		70-130

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-10  
 Client ID: SB-12  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 15:20  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 02/09/22 02:17  
 Analyst: MKS  
 Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.6	2.6	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.1	0.26	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.30	1
Tetrachloroethene	ND		ug/kg	0.56	0.22	1
Chlorobenzene	ND		ug/kg	0.56	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.5	0.78	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.29	1
1,1,1-Trichloroethane	ND		ug/kg	0.56	0.19	1
Bromodichloromethane	ND		ug/kg	0.56	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.30	1
cis-1,3-Dichloropropene	ND		ug/kg	0.56	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.56	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.56	0.18	1
Bromoform	ND		ug/kg	4.5	0.28	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.56	0.18	1
Benzene	ND		ug/kg	0.56	0.18	1
Toluene	ND		ug/kg	1.1	0.61	1
Ethylbenzene	ND		ug/kg	1.1	0.16	1
Chloromethane	ND		ug/kg	4.5	1.0	1
Bromomethane	ND		ug/kg	2.2	0.65	1
Vinyl chloride	ND		ug/kg	1.1	0.37	1
Chloroethane	ND		ug/kg	2.2	0.50	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.27	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.15	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-10

Date Collected: 02/01/22 15:20

Client ID: SB-12

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.56	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,3-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	0.19	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.22	1
p/m-Xylene	ND		ug/kg	2.2	0.63	1
o-Xylene	ND		ug/kg	1.1	0.32	1
Xylenes, Total	ND		ug/kg	1.1	0.32	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.20	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Dibromomethane	ND		ug/kg	2.2	0.27	1
Styrene	ND		ug/kg	1.1	0.22	1
Dichlorodifluoromethane	ND		ug/kg	11	1.0	1
Acetone	ND		ug/kg	11	5.4	1
Carbon disulfide	ND		ug/kg	11	5.1	1
2-Butanone	ND		ug/kg	11	2.5	1
Vinyl acetate	ND		ug/kg	11	2.4	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.2	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.2	0.23	1
2,2-Dichloropropane	ND		ug/kg	2.2	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.31	1
1,3-Dichloropropane	ND		ug/kg	2.2	0.19	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.56	0.15	1
Bromobenzene	ND		ug/kg	2.2	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.19	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.2	0.13	1
o-Chlorotoluene	ND		ug/kg	2.2	0.21	1
p-Chlorotoluene	ND		ug/kg	2.2	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.4	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.5	0.19	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.5	0.73	1
Acrylonitrile	ND		ug/kg	4.5	1.3	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-10

Date Collected: 02/01/22 15:20

Client ID: SB-12

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.1	0.19	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	0.36	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	0.30	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.2	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.2	0.37	1
1,4-Dioxane	ND		ug/kg	89	39.	1
p-Diethylbenzene	ND		ug/kg	2.2	0.20	1
p-Ethyltoluene	ND		ug/kg	2.2	0.43	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.2	0.21	1
Ethyl ether	ND		ug/kg	2.2	0.38	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.6	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	91		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	112		70-130

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/04/22 08:41  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05-06 Batch: WG1602050-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/04/22 08:41  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05-06 Batch: WG1602050-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

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

Analytical Method: 1,8260C  
Analytical Date: 02/04/22 08:41  
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05-06 Batch: WG1602050-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	102		70-130

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/08/22 21:19  
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-04,07-10 Batch: WG1603082-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/08/22 21:19  
 Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-04,07-10 Batch: WG1603082-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
Analytical Date: 02/08/22 21:19  
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-04,07-10 Batch: WG1603082-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	112		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG1602050-3 WG1602050-4								
Methylene chloride	92		93		70-130	1		20
1,1-Dichloroethane	100		98		70-130	2		20
Chloroform	97		94		70-130	3		20
Carbon tetrachloride	120		110		63-132	9		20
1,2-Dichloropropane	99		94		70-130	5		20
Dibromochloromethane	96		96		63-130	0		20
1,1,2-Trichloroethane	97		99		70-130	2		20
Tetrachloroethene	120		110		70-130	9		20
Chlorobenzene	110		100		75-130	10		20
Trichlorofluoromethane	100		96		62-150	4		20
1,2-Dichloroethane	100		98		70-130	2		20
1,1,1-Trichloroethane	110		100		67-130	10		20
Bromodichloromethane	100		96		67-130	4		20
trans-1,3-Dichloropropene	98		96		70-130	2		20
cis-1,3-Dichloropropene	97		93		70-130	4		20
1,1-Dichloropropene	110		100		70-130	10		20
Bromoform	91		89		54-136	2		20
1,1,2,2-Tetrachloroethane	100		96		67-130	4		20
Benzene	110		99		70-130	11		20
Toluene	110		100		70-130	10		20
Ethylbenzene	110		100		70-130	10		20
Chloromethane	100		94		64-130	6		20
Bromomethane	93		84		39-139	10		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG1602050-3 WG1602050-4								
Vinyl chloride	110		100		55-140	10		20
Chloroethane	130		120		55-138	8		20
1,1-Dichloroethene	110		110		61-145	0		20
trans-1,2-Dichloroethene	110		100		70-130	10		20
Trichloroethene	110		100		70-130	10		20
1,2-Dichlorobenzene	110		100		70-130	10		20
1,3-Dichlorobenzene	110		100		70-130	10		20
1,4-Dichlorobenzene	110		100		70-130	10		20
Methyl tert butyl ether	88		88		63-130	0		20
p/m-Xylene	115		110		70-130	4		20
o-Xylene	110		105		70-130	5		20
cis-1,2-Dichloroethene	97		97		70-130	0		20
Dibromomethane	100		98		70-130	2		20
1,2,3-Trichloropropane	96		95		64-130	1		20
Acrylonitrile	88		94		70-130	7		20
Styrene	105		100		70-130	5		20
Dichlorodifluoromethane	98		95		36-147	3		20
Acetone	68		81		58-148	17		20
Carbon disulfide	110		98		51-130	12		20
2-Butanone	68		77		63-138	12		20
Vinyl acetate	100		100		70-130	0		20
4-Methyl-2-pentanone	84		86		59-130	2		20
2-Hexanone	79		84		57-130	6		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG1602050-3 WG1602050-4								
Bromochloromethane	110		100		70-130	10		20
2,2-Dichloropropane	110		100		63-133	10		20
1,2-Dibromoethane	97		96		70-130	1		20
1,3-Dichloropropane	99		98		70-130	1		20
1,1,1,2-Tetrachloroethane	100		98		64-130	2		20
Bromobenzene	110		100		70-130	10		20
n-Butylbenzene	110		100		53-136	10		20
sec-Butylbenzene	120		110		70-130	9		20
tert-Butylbenzene	110		110		70-130	0		20
o-Chlorotoluene	110		100		70-130	10		20
p-Chlorotoluene	110		100		70-130	10		20
1,2-Dibromo-3-chloropropane	88		85		41-144	3		20
Hexachlorobutadiene	110		100		63-130	10		20
Isopropylbenzene	110		100		70-130	10		20
p-Isopropyltoluene	110		100		70-130	10		20
Naphthalene	82		84		70-130	2		20
n-Propylbenzene	110		110		69-130	0		20
1,2,3-Trichlorobenzene	95		91		70-130	4		20
1,2,4-Trichlorobenzene	98		92		70-130	6		20
1,3,5-Trimethylbenzene	110		100		64-130	10		20
1,2,4-Trimethylbenzene	110		100		70-130	10		20
1,4-Dioxane	88		92		56-162	4		20
p-Diethylbenzene	110		100		70-130	10		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG1602050-3 WG1602050-4								
p-Ethyltoluene	110		100		70-130	10		20
1,2,4,5-Tetramethylbenzene	98		93		70-130	5		20
Ethyl ether	85		82		59-134	4		20
trans-1,4-Dichloro-2-butene	85		86		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	104		104		70-130
Toluene-d8	101		100		70-130
4-Bromofluorobenzene	97		95		70-130
Dibromofluoromethane	101		99		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-04,07-10 Batch: WG1603082-3 WG1603082-4								
Methylene chloride	88		88		70-130	0		30
1,1-Dichloroethane	88		87		70-130	1		30
Chloroform	90		88		70-130	2		30
Carbon tetrachloride	97		96		70-130	1		30
1,2-Dichloropropane	90		88		70-130	2		30
Dibromochloromethane	95		94		70-130	1		30
1,1,2-Trichloroethane	85		85		70-130	0		30
Tetrachloroethene	92		92		70-130	0		30
Chlorobenzene	90		87		70-130	3		30
Trichlorofluoromethane	92		90		70-139	2		30
1,2-Dichloroethane	88		87		70-130	1		30
1,1,1-Trichloroethane	95		94		70-130	1		30
Bromodichloromethane	90		90		70-130	0		30
trans-1,3-Dichloropropene	81		80		70-130	1		30
cis-1,3-Dichloropropene	90		88		70-130	2		30
1,1-Dichloropropene	90		88		70-130	2		30
Bromoform	92		92		70-130	0		30
1,1,2,2-Tetrachloroethane	91		92		70-130	1		30
Benzene	90		88		70-130	2		30
Toluene	80		80		70-130	0		30
Ethylbenzene	81		80		70-130	1		30
Chloromethane	84		83		52-130	1		30
Bromomethane	78		77		57-147	1		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-04,07-10 Batch: WG1603082-3 WG1603082-4								
Vinyl chloride	85		83		67-130	2		30
Chloroethane	82		80		50-151	2		30
1,1-Dichloroethene	87		84		65-135	4		30
trans-1,2-Dichloroethene	93		92		70-130	1		30
Trichloroethene	91		91		70-130	0		30
1,2-Dichlorobenzene	88		87		70-130	1		30
1,3-Dichlorobenzene	89		87		70-130	2		30
1,4-Dichlorobenzene	88		88		70-130	0		30
Methyl tert butyl ether	94		94		66-130	0		30
p/m-Xylene	87		86		70-130	1		30
o-Xylene	86		85		70-130	1		30
cis-1,2-Dichloroethene	92		91		70-130	1		30
Dibromomethane	99		97		70-130	2		30
Styrene	87		85		70-130	2		30
Dichlorodifluoromethane	69		68		30-146	1		30
Acetone	137		139		54-140	1		30
Carbon disulfide	79		77		59-130	3		30
2-Butanone	132	Q	133	Q	70-130	1		30
Vinyl acetate	112		113		70-130	1		30
4-Methyl-2-pentanone	100		100		70-130	0		30
1,2,3-Trichloropropane	82		83		68-130	1		30
2-Hexanone	106		107		70-130	1		30
Bromochloromethane	110		106		70-130	4		30



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-04,07-10 Batch: WG1603082-3 WG1603082-4								
2,2-Dichloropropane	88		88		70-130	0		30
1,2-Dibromoethane	95		95		70-130	0		30
1,3-Dichloropropane	84		84		69-130	0		30
1,1,1,2-Tetrachloroethane	94		92		70-130	2		30
Bromobenzene	86		86		70-130	0		30
n-Butylbenzene	79		78		70-130	1		30
sec-Butylbenzene	81		81		70-130	0		30
tert-Butylbenzene	82		82		70-130	0		30
o-Chlorotoluene	74		75		70-130	1		30
p-Chlorotoluene	76		76		70-130	0		30
1,2-Dibromo-3-chloropropane	104		106		68-130	2		30
Hexachlorobutadiene	85		84		67-130	1		30
Isopropylbenzene	80		79		70-130	1		30
p-Isopropyltoluene	84		84		70-130	0		30
Naphthalene	94		95		70-130	1		30
Acrylonitrile	115		115		70-130	0		30
n-Propylbenzene	78		76		70-130	3		30
1,2,3-Trichlorobenzene	91		90		70-130	1		30
1,2,4-Trichlorobenzene	90		88		70-130	2		30
1,3,5-Trimethylbenzene	79		79		70-130	0		30
1,2,4-Trimethylbenzene	78		78		70-130	0		30
1,4-Dioxane	121		122		65-136	1		30
p-Diethylbenzene	84		83		70-130	1		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-04,07-10 Batch: WG1603082-3 WG1603082-4								
p-Ethyltoluene	80		79		70-130	1		30
1,2,4,5-Tetramethylbenzene	82		81		70-130	1		30
Ethyl ether	86		85		67-130	1		30
trans-1,4-Dichloro-2-butene	91		89		70-130	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		97		70-130
Toluene-d8	91		91		70-130
4-Bromofluorobenzene	86		87		70-130
Dibromofluoromethane	105		104		70-130

# SEMIVOLATILES

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-01  
 Client ID: SB-3  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 10:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 02/14/22 18:11  
 Analyst: EK  
 Percent Solids: 96%

Extraction Method: EPA 3546  
 Extraction Date: 02/12/22 13:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	140	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	20.	1
Hexachlorobenzene	ND		ug/kg	100	19.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	23.	1
2-Chloronaphthalene	ND		ug/kg	170	17.	1
1,2-Dichlorobenzene	ND		ug/kg	170	31.	1
1,3-Dichlorobenzene	ND		ug/kg	170	30.	1
1,4-Dichlorobenzene	ND		ug/kg	170	30.	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	46.	1
2,4-Dinitrotoluene	ND		ug/kg	170	34.	1
2,6-Dinitrotoluene	ND		ug/kg	170	30.	1
Fluoranthene	ND		ug/kg	100	20.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	18.	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	26.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	29.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	17.	1
Hexachlorobutadiene	ND		ug/kg	170	25.	1
Hexachlorocyclopentadiene	ND		ug/kg	490	160	1
Hexachloroethane	ND		ug/kg	140	28.	1
Isophorone	ND		ug/kg	160	22.	1
Naphthalene	ND		ug/kg	170	21.	1
Nitrobenzene	ND		ug/kg	160	26.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	27.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	60.	1
Butyl benzyl phthalate	ND		ug/kg	170	43.	1
Di-n-butylphthalate	ND		ug/kg	170	33.	1
Di-n-octylphthalate	ND		ug/kg	170	59.	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-01

Date Collected: 02/01/22 10:30

Client ID: SB-3

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	170	16.	1
Dimethyl phthalate	ND		ug/kg	170	36.	1
Benzo(a)anthracene	ND		ug/kg	100	19.	1
Benzo(a)pyrene	ND		ug/kg	140	42.	1
Benzo(b)fluoranthene	ND		ug/kg	100	29.	1
Benzo(k)fluoranthene	ND		ug/kg	100	28.	1
Chrysene	ND		ug/kg	100	18.	1
Acenaphthylene	ND		ug/kg	140	27.	1
Anthracene	ND		ug/kg	100	34.	1
Benzo(ghi)perylene	ND		ug/kg	140	20.	1
Fluorene	ND		ug/kg	170	17.	1
Phenanthrene	ND		ug/kg	100	21.	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	24.	1
Pyrene	ND		ug/kg	100	17.	1
Biphenyl	ND		ug/kg	390	22.	1
4-Chloroaniline	ND		ug/kg	170	31.	1
2-Nitroaniline	ND		ug/kg	170	33.	1
3-Nitroaniline	ND		ug/kg	170	32.	1
4-Nitroaniline	ND		ug/kg	170	71.	1
Dibenzofuran	ND		ug/kg	170	16.	1
2-Methylnaphthalene	ND		ug/kg	210	21.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	18.	1
Acetophenone	ND		ug/kg	170	21.	1
2,4,6-Trichlorophenol	ND		ug/kg	100	33.	1
p-Chloro-m-cresol	ND		ug/kg	170	26.	1
2-Chlorophenol	ND		ug/kg	170	20.	1
2,4-Dichlorophenol	ND		ug/kg	160	28.	1
2,4-Dimethylphenol	ND		ug/kg	170	57.	1
2-Nitrophenol	ND		ug/kg	370	65.	1
4-Nitrophenol	ND		ug/kg	240	70.	1
2,4-Dinitrophenol	ND		ug/kg	830	80.	1
4,6-Dinitro-o-cresol	ND		ug/kg	450	83.	1
Pentachlorophenol	ND		ug/kg	140	38.	1
Phenol	ND		ug/kg	170	26.	1
2-Methylphenol	ND		ug/kg	170	27.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	27.	1

**Project Name:** ARC2202**Lab Number:** L2205287**Project Number:** ARC2202**Report Date:** 02/18/22**SAMPLE RESULTS**

Lab ID: L2205287-01

Date Collected: 02/01/22 10:30

Client ID: SB-3

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	170	33.	1
Benzoic Acid	ND		ug/kg	560	170	1
Benzyl Alcohol	ND		ug/kg	170	53.	1
Carbazole	ND		ug/kg	170	17.	1
1,4-Dioxane	ND		ug/kg	26	7.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		25-120
Phenol-d6	67		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	71		30-120
2,4,6-Tribromophenol	86		10-136
4-Terphenyl-d14	75		18-120

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-01  
 Client ID: SB-3  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 10:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/07/22 21:38  
 Analyst: HT  
 Percent Solids: 96%

Extraction Method: ALPHA 23528  
 Extraction Date: 02/07/22 07:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.469	0.021	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.469	0.043	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.235	0.037	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.469	0.049	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.235	0.042	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.235	0.057	1
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.235	0.039	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.469	0.168	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.469	0.128	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.235	0.070	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.235	0.122	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.235	0.063	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.469	0.269	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.469	0.189	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.469	0.044	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.469	0.144	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.469	0.079	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.469	0.066	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.469	0.192	1
Perfluorotetradecanoic Acid (PFTA)	0.071	JF	ng/g	0.469	0.051	1
PFOA/PFOS, Total	ND		ng/g	0.235	0.039	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-01

Date Collected: 02/01/22 10:30

Client ID: SB-3

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	98		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	102		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	107		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	93		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	105		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	103		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	95		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	80		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	74		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	105		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	99		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	96		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	64		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	103		61-155
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	64		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	105		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	92		24-159



**Project Name:** ARC2202**Lab Number:** L2205287**Project Number:** ARC2202**Report Date:** 02/18/22**SAMPLE RESULTS**

Lab ID: L2205287-01  
 Client ID: SB-3  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 10:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/08/22 16:05  
 Analyst: RS  
 Percent Solids: 96%

Extraction Method: ALPHA 23528  
 Extraction Date: 02/07/22 07:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.469	0.092	1
<b>Surrogate (Extracted Internal Standard)</b>			<b>% Recovery</b>	<b>Qualifier</b>	<b>Acceptance Criteria</b>	
Perfluoro[13C8]Octanesulfonamide (M8FOSA)			85		10-117	

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-02  
 Client ID: SB-4  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 09:50  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/07/22 22:11  
 Analyst: HT  
 Percent Solids: 87%

Extraction Method: ALPHA 23528  
 Extraction Date: 02/07/22 07:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorobutanoic Acid (PFBA)	0.031	J	ng/g	0.532	0.024	1
Perfluoropentanoic Acid (PFPeA)	0.100	J	ng/g	0.532	0.049	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.266	0.042	1
Perfluorohexanoic Acid (PFHxA)	0.083	J	ng/g	0.532	0.056	1
Perfluoroheptanoic Acid (PFHpA)	0.083	J	ng/g	0.266	0.048	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.266	0.064	1
Perfluorooctanoic Acid (PFOA)	0.094	J	ng/g	0.266	0.045	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.532	0.191	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.532	0.145	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.266	0.080	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.266	0.138	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.266	0.071	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.532	0.305	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.532	0.214	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.532	0.050	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.532	0.163	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.532	0.104	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.532	0.090	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.532	0.074	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.532	0.217	1
Perfluorotetradecanoic Acid (PFTA)	0.072	J	ng/g	0.532	0.057	1
PFOA/PFOS, Total	0.094	J	ng/g	0.266	0.045	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-02  
 Client ID: SB-4  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 09:50  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	99		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	104		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	104		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	93		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	109		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	102		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	98		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	91		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	78		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	102		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	98		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	105		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	84		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	115		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	91		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	95		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	108		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	102		24-159

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-02 D  
 Client ID: SB-4  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 09:50  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 02/14/22 18:36  
 Analyst: EK  
 Percent Solids: 87%

Extraction Method: EPA 3546  
 Extraction Date: 02/12/22 13:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	750	98.	5
1,2,4-Trichlorobenzene	ND		ug/kg	940	110	5
Hexachlorobenzene	ND		ug/kg	560	100	5
Bis(2-chloroethyl)ether	ND		ug/kg	850	130	5
2-Chloronaphthalene	ND		ug/kg	940	93.	5
1,2-Dichlorobenzene	ND		ug/kg	940	170	5
1,3-Dichlorobenzene	ND		ug/kg	940	160	5
1,4-Dichlorobenzene	ND		ug/kg	940	160	5
3,3'-Dichlorobenzidine	ND		ug/kg	940	250	5
2,4-Dinitrotoluene	ND		ug/kg	940	190	5
2,6-Dinitrotoluene	ND		ug/kg	940	160	5
Fluoranthene	ND		ug/kg	560	110	5
4-Chlorophenyl phenyl ether	ND		ug/kg	940	100	5
4-Bromophenyl phenyl ether	ND		ug/kg	940	140	5
Bis(2-chloroisopropyl)ether	ND		ug/kg	1100	160	5
Bis(2-chloroethoxy)methane	ND		ug/kg	1000	94.	5
Hexachlorobutadiene	ND		ug/kg	940	140	5
Hexachlorocyclopentadiene	ND		ug/kg	2700	850	5
Hexachloroethane	ND		ug/kg	750	150	5
Isophorone	ND		ug/kg	850	120	5
Naphthalene	ND		ug/kg	940	110	5
Nitrobenzene	ND		ug/kg	850	140	5
NDPA/DPA	ND		ug/kg	750	110	5
n-Nitrosodi-n-propylamine	ND		ug/kg	940	140	5
Bis(2-ethylhexyl)phthalate	ND		ug/kg	940	330	5
Butyl benzyl phthalate	ND		ug/kg	940	240	5
Di-n-butylphthalate	ND		ug/kg	940	180	5
Di-n-octylphthalate	ND		ug/kg	940	320	5

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-02 D  
 Client ID: SB-4  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 09:50  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	940	87.	5
Dimethyl phthalate	ND		ug/kg	940	200	5
Benzo(a)anthracene	ND		ug/kg	560	110	5
Benzo(a)pyrene	ND		ug/kg	750	230	5
Benzo(b)fluoranthene	ND		ug/kg	560	160	5
Benzo(k)fluoranthene	ND		ug/kg	560	150	5
Chrysene	ND		ug/kg	560	98.	5
Acenaphthylene	ND		ug/kg	750	140	5
Anthracene	ND		ug/kg	560	180	5
Benzo(ghi)perylene	ND		ug/kg	750	110	5
Fluorene	ND		ug/kg	940	92.	5
Phenanthrene	ND		ug/kg	560	110	5
Dibenzo(a,h)anthracene	ND		ug/kg	560	110	5
Indeno(1,2,3-cd)pyrene	ND		ug/kg	750	130	5
Pyrene	ND		ug/kg	560	94.	5
Biphenyl	ND		ug/kg	2100	120	5
4-Chloroaniline	ND		ug/kg	940	170	5
2-Nitroaniline	ND		ug/kg	940	180	5
3-Nitroaniline	ND		ug/kg	940	180	5
4-Nitroaniline	ND		ug/kg	940	390	5
Dibenzofuran	ND		ug/kg	940	89.	5
2-Methylnaphthalene	ND		ug/kg	1100	110	5
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	940	98.	5
Acetophenone	ND		ug/kg	940	120	5
2,4,6-Trichlorophenol	ND		ug/kg	560	180	5
p-Chloro-m-cresol	ND		ug/kg	940	140	5
2-Chlorophenol	ND		ug/kg	940	110	5
2,4-Dichlorophenol	ND		ug/kg	850	150	5
2,4-Dimethylphenol	ND		ug/kg	940	310	5
2-Nitrophenol	ND		ug/kg	2000	350	5
4-Nitrophenol	ND		ug/kg	1300	380	5
2,4-Dinitrophenol	ND		ug/kg	4500	440	5
4,6-Dinitro-o-cresol	ND		ug/kg	2400	450	5
Pentachlorophenol	ND		ug/kg	750	210	5
Phenol	ND		ug/kg	940	140	5
2-Methylphenol	ND		ug/kg	940	150	5
3-Methylphenol/4-Methylphenol	ND		ug/kg	1400	150	5

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-02 D  
 Client ID: SB-4  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 09:50  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	940	180	5
Benzoic Acid	ND		ug/kg	3000	950	5
Benzyl Alcohol	ND		ug/kg	940	290	5
Carbazole	ND		ug/kg	940	92.	5
1,4-Dioxane	ND		ug/kg	140	43.	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	50		25-120
Phenol-d6	55		10-120
Nitrobenzene-d5	53		23-120
2-Fluorobiphenyl	61		30-120
2,4,6-Tribromophenol	68		10-136
4-Terphenyl-d14	65		18-120

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-03  
 Client ID: SB-7  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 12:15  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 02/14/22 19:00  
 Analyst: EK  
 Percent Solids: 95%

Extraction Method: EPA 3546  
 Extraction Date: 02/12/22 13:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	140	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	20.	1
Hexachlorobenzene	ND		ug/kg	100	19.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	23.	1
2-Chloronaphthalene	ND		ug/kg	170	17.	1
1,2-Dichlorobenzene	ND		ug/kg	170	31.	1
1,3-Dichlorobenzene	ND		ug/kg	170	30.	1
1,4-Dichlorobenzene	ND		ug/kg	170	30.	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	46.	1
2,4-Dinitrotoluene	ND		ug/kg	170	35.	1
2,6-Dinitrotoluene	ND		ug/kg	170	30.	1
Fluoranthene	ND		ug/kg	100	20.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	18.	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	26.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	30.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	17.	1
Hexachlorobutadiene	ND		ug/kg	170	25.	1
Hexachlorocyclopentadiene	ND		ug/kg	500	160	1
Hexachloroethane	ND		ug/kg	140	28.	1
Isophorone	ND		ug/kg	160	22.	1
Naphthalene	ND		ug/kg	170	21.	1
Nitrobenzene	ND		ug/kg	160	26.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	27.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	60.	1
Butyl benzyl phthalate	ND		ug/kg	170	44.	1
Di-n-butylphthalate	ND		ug/kg	170	33.	1
Di-n-octylphthalate	ND		ug/kg	170	59.	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-03

Date Collected: 02/01/22 12:15

Client ID: SB-7

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	170	16.	1
Dimethyl phthalate	ND		ug/kg	170	36.	1
Benzo(a)anthracene	ND		ug/kg	100	20.	1
Benzo(a)pyrene	ND		ug/kg	140	42.	1
Benzo(b)fluoranthene	ND		ug/kg	100	29.	1
Benzo(k)fluoranthene	ND		ug/kg	100	28.	1
Chrysene	ND		ug/kg	100	18.	1
Acenaphthylene	ND		ug/kg	140	27.	1
Anthracene	ND		ug/kg	100	34.	1
Benzo(ghi)perylene	ND		ug/kg	140	20.	1
Fluorene	ND		ug/kg	170	17.	1
Phenanthrene	ND		ug/kg	100	21.	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	24.	1
Pyrene	ND		ug/kg	100	17.	1
Biphenyl	ND		ug/kg	390	22.	1
4-Chloroaniline	ND		ug/kg	170	32.	1
2-Nitroaniline	ND		ug/kg	170	33.	1
3-Nitroaniline	ND		ug/kg	170	33.	1
4-Nitroaniline	ND		ug/kg	170	72.	1
Dibenzofuran	ND		ug/kg	170	16.	1
2-Methylnaphthalene	ND		ug/kg	210	21.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	18.	1
Acetophenone	ND		ug/kg	170	21.	1
2,4,6-Trichlorophenol	ND		ug/kg	100	33.	1
p-Chloro-m-cresol	ND		ug/kg	170	26.	1
2-Chlorophenol	ND		ug/kg	170	20.	1
2,4-Dichlorophenol	ND		ug/kg	160	28.	1
2,4-Dimethylphenol	ND		ug/kg	170	57.	1
2-Nitrophenol	ND		ug/kg	370	65.	1
4-Nitrophenol	ND		ug/kg	240	71.	1
2,4-Dinitrophenol	ND		ug/kg	830	81.	1
4,6-Dinitro-o-cresol	ND		ug/kg	450	83.	1
Pentachlorophenol	ND		ug/kg	140	38.	1
Phenol	ND		ug/kg	170	26.	1
2-Methylphenol	ND		ug/kg	170	27.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	27.	1



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

**SAMPLE RESULTS**

Lab ID: L2205287-03

Date Collected: 02/01/22 12:15

Client ID: SB-7

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	170	33.	1
Benzoic Acid	ND		ug/kg	560	180	1
Benzyl Alcohol	ND		ug/kg	170	53.	1
Carbazole	ND		ug/kg	170	17.	1
1,4-Dioxane	ND		ug/kg	26	8.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	90		25-120
Phenol-d6	92		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	96		30-120
2,4,6-Tribromophenol	111		10-136
4-Terphenyl-d14	90		18-120

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-03  
 Client ID: SB-7  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 12:15  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/07/22 22:44  
 Analyst: HT  
 Percent Solids: 95%

Extraction Method: ALPHA 23528  
 Extraction Date: 02/07/22 07:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.497	0.023	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.497	0.046	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.248	0.039	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.497	0.052	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.248	0.045	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.248	0.060	1
Perfluorooctanoic Acid (PFOA)	0.047	J	ng/g	0.248	0.042	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.497	0.178	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.497	0.136	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.248	0.075	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.248	0.129	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.248	0.067	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.497	0.285	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.497	0.200	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.497	0.047	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.497	0.152	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.497	0.097	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.497	0.084	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.497	0.070	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.497	0.203	1
Perfluorotetradecanoic Acid (PFTA)	0.069	JF	ng/g	0.497	0.054	1
PFOA/PFOS, Total	0.047	J	ng/g	0.248	0.042	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-03

Date Collected: 02/01/22 12:15

Client ID: SB-7

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	98		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	102		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	114		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	95		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	108		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	110		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	99		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	91		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	78		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	108		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	96		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	96		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	64		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	109		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	14		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	72		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	101		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	89		24-159

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-04  
 Client ID: SB-8  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 11:00  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 02/14/22 19:24  
 Analyst: EK  
 Percent Solids: 90%

Extraction Method: EPA 3546  
 Extraction Date: 02/12/22 13:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	140	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	24.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	32.	1
1,3-Dichlorobenzene	ND		ug/kg	180	31.	1
1,4-Dichlorobenzene	ND		ug/kg	180	31.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	48.	1
2,4-Dinitrotoluene	ND		ug/kg	180	36.	1
2,6-Dinitrotoluene	ND		ug/kg	180	31.	1
Fluoranthene	ND		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	27.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	31.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	18.	1
Hexachlorobutadiene	ND		ug/kg	180	26.	1
Hexachlorocyclopentadiene	ND		ug/kg	520	160	1
Hexachloroethane	ND		ug/kg	140	29.	1
Isophorone	ND		ug/kg	160	23.	1
Naphthalene	ND		ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	27.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	62.	1
Butyl benzyl phthalate	ND		ug/kg	180	45.	1
Di-n-butylphthalate	ND		ug/kg	180	34.	1
Di-n-octylphthalate	ND		ug/kg	180	61.	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-04  
 Client ID: SB-8  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 11:00  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	38.	1
Benzo(a)anthracene	ND		ug/kg	110	20.	1
Benzo(a)pyrene	ND		ug/kg	140	44.	1
Benzo(b)fluoranthene	ND		ug/kg	110	30.	1
Benzo(k)fluoranthene	ND		ug/kg	110	29.	1
Chrysene	ND		ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	140	28.	1
Anthracene	ND		ug/kg	110	35.	1
Benzo(ghi)perylene	ND		ug/kg	140	21.	1
Fluorene	ND		ug/kg	180	18.	1
Phenanthrene	ND		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	25.	1
Pyrene	ND		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	410	23.	1
4-Chloroaniline	ND		ug/kg	180	33.	1
2-Nitroaniline	ND		ug/kg	180	35.	1
3-Nitroaniline	ND		ug/kg	180	34.	1
4-Nitroaniline	ND		ug/kg	180	74.	1
Dibenzofuran	ND		ug/kg	180	17.	1
2-Methylnaphthalene	ND		ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	34.	1
p-Chloro-m-cresol	ND		ug/kg	180	27.	1
2-Chlorophenol	ND		ug/kg	180	21.	1
2,4-Dichlorophenol	ND		ug/kg	160	29.	1
2,4-Dimethylphenol	ND		ug/kg	180	59.	1
2-Nitrophenol	ND		ug/kg	390	68.	1
4-Nitrophenol	ND		ug/kg	250	73.	1
2,4-Dinitrophenol	ND		ug/kg	860	84.	1
4,6-Dinitro-o-cresol	ND		ug/kg	470	86.	1
Pentachlorophenol	ND		ug/kg	140	40.	1
Phenol	ND		ug/kg	180	27.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	28.	1

**Project Name:** ARC2202**Lab Number:** L2205287**Project Number:** ARC2202**Report Date:** 02/18/22**SAMPLE RESULTS**

Lab ID: L2205287-04

Date Collected: 02/01/22 11:00

Client ID: SB-8

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	34.	1
Benzoic Acid	ND		ug/kg	580	180	1
Benzyl Alcohol	ND		ug/kg	180	55.	1
Carbazole	ND		ug/kg	180	18.	1
1,4-Dioxane	ND		ug/kg	27	8.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	84		25-120
Phenol-d6	89		10-120
Nitrobenzene-d5	72		23-120
2-Fluorobiphenyl	93		30-120
2,4,6-Tribromophenol	103		10-136
4-Terphenyl-d14	89		18-120

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-04  
 Client ID: SB-8  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 11:00  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/07/22 23:01  
 Analyst: HT  
 Percent Solids: 90%

Extraction Method: ALPHA 23528  
 Extraction Date: 02/07/22 07:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.488	0.022	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.488	0.045	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.244	0.038	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.488	0.051	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.244	0.044	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.244	0.059	1
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.244	0.041	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.488	0.175	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.488	0.133	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.244	0.073	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.244	0.127	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.244	0.065	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.488	0.280	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.488	0.197	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.488	0.046	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.488	0.149	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.488	0.096	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.488	0.083	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.488	0.068	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.488	0.200	1
Perfluorotetradecanoic Acid (PFTA)	0.055	J	ng/g	0.488	0.053	1
PFOA/PFOS, Total	ND		ng/g	0.244	0.041	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-04  
 Client ID: SB-8  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 11:00  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	97		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	99		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	104		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	93		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	107		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	105		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	96		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	81		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	77		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	102		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	95		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	89		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	62		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	112		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	14		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	66		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	105		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	81		24-159



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-05  
 Client ID: GW-1  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 09:40  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 02/18/22 14:43  
 Analyst: JG

Extraction Method: EPA 3510C  
 Extraction Date: 02/05/22 11:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-05  
 Client ID: GW-1  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 09:40  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	44		21-120
Phenol-d6	50		10-120
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	72		15-120
2,4,6-Tribromophenol	29		10-120
4-Terphenyl-d14	82		41-149

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-05  
 Client ID: GW-1  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 09:40  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 02/06/22 18:44  
 Analyst: DV

Extraction Method: EPA 3510C  
 Extraction Date: 02/05/22 11:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.08	J	ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.05	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	0.05	J	ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.09	J	ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.03	J	ug/l	0.10	0.01	1
Chrysene	0.05	J	ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.09	J	ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	0.04	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	0.01	J	ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.07	J	ug/l	0.10	0.01	1
Pyrene	0.08	J	ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

**Project Name:** ARC2202**Lab Number:** L2205287**Project Number:** ARC2202**Report Date:** 02/18/22**SAMPLE RESULTS**

Lab ID: L2205287-05

Date Collected: 02/01/22 09:40

Client ID: GW-1

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	38		21-120
Phenol-d6	41		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	66		15-120
2,4,6-Tribromophenol	34		10-120
4-Terphenyl-d14	68		41-149

**Project Name:** ARC2202**Lab Number:** L2205287**Project Number:** ARC2202**Report Date:** 02/18/22**SAMPLE RESULTS**

Lab ID: L2205287-05  
 Client ID: GW-1  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 09:40  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 02/07/22 15:21  
 Analyst: DB

Extraction Method: EPA 3510C  
 Extraction Date: 02/05/22 14:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	150	33.9	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			30		15-110	

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-05  
 Client ID: GW-1  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 09:40  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/04/22 19:02  
 Analyst: RS

Extraction Method: ALPHA 23528  
 Extraction Date: 02/03/22 18:40

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorobutanoic Acid (PFBA)	10.7		ng/l	1.91	0.389	1
Perfluoropentanoic Acid (PFPeA)	14.2		ng/l	1.91	0.377	1
Perfluorobutanesulfonic Acid (PFBS)	3.05		ng/l	1.91	0.227	1
Perfluorohexanoic Acid (PFHxA)	11.8		ng/l	1.91	0.313	1
Perfluoroheptanoic Acid (PFHpA)	21.3		ng/l	1.91	0.215	1
Perfluorohexanesulfonic Acid (PFHxS)	7.92		ng/l	1.91	0.358	1
Perfluorooctanoic Acid (PFOA)	41.0		ng/l	1.91	0.225	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.91	1.27	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.91	0.656	1
Perfluorononanoic Acid (PFNA)	2.93		ng/l	1.91	0.297	1
Perfluorooctanesulfonic Acid (PFOS)	25.3		ng/l	1.91	0.480	1
Perfluorodecanoic Acid (PFDA)	1.69	JF	ng/l	1.91	0.290	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.91	1.16	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.91	0.618	1
Perfluoroundecanoic Acid (PFUnA)	1.09	JF	ng/l	1.91	0.248	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.91	0.934	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.91	0.553	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.91	0.766	1
Perfluorododecanoic Acid (PFDoA)	0.416	JF	ng/l	1.91	0.354	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.91	0.312	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.91	0.236	1
PFOA/PFOS, Total	66.3		ng/l	1.91	0.225	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-05

Date Collected: 02/01/22 09:40

Client ID: GW-1

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	77		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	99		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	93		70-131
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	68		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	70		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	100		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	76		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	142		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	74		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	87		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	72		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	90		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	57		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	78		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	18		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	75		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	72		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	64		22-136

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-06  
 Client ID: GW-2  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 12:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 02/08/22 00:18  
 Analyst: JG

Extraction Method: EPA 3510C  
 Extraction Date: 02/05/22 11:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	0.49	J	ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-06  
 Client ID: GW-2  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 12:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	41		21-120
Phenol-d6	31		10-120
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	47		15-120
2,4,6-Tribromophenol	37		10-120
4-Terphenyl-d14	55		41-149

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-06  
 Client ID: GW-2  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 12:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 02/06/22 19:03  
 Analyst: DV

Extraction Method: EPA 3510C  
 Extraction Date: 02/05/22 11:55

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	0.16		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.06	J	ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	0.15		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.03	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.03	J	ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.01	J	ug/l	0.10	0.01	1
Chrysene	0.02	J	ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	0.03	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.01	J	ug/l	0.10	0.01	1
Fluorene	0.20		ug/l	0.10	0.01	1
Phenanthrene	0.19		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.02	J	ug/l	0.10	0.01	1
Pyrene	0.14		ug/l	0.10	0.02	1
2-Methylnaphthalene	0.52		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

**Project Name:** ARC2202**Lab Number:** L2205287**Project Number:** ARC2202**Report Date:** 02/18/22**SAMPLE RESULTS**

Lab ID: L2205287-06

Date Collected: 02/01/22 12:30

Client ID: GW-2

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	41		21-120
Phenol-d6	36		10-120
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	63		15-120
2,4,6-Tribromophenol	54		10-120
4-Terphenyl-d14	66		41-149

**Project Name:** ARC2202**Lab Number:** L2205287**Project Number:** ARC2202**Report Date:** 02/18/22**SAMPLE RESULTS**

Lab ID: L2205287-06  
 Client ID: GW-2  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 12:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 02/07/22 15:43  
 Analyst: DB

Extraction Method: EPA 3510C  
 Extraction Date: 02/05/22 14:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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1,4 Dioxane by 8270D-SIM - Mansfield Lab						
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1,4-Dioxane	39.8	J	ng/l	150	33.9	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
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1,4-Dioxane-d8	30		15-110
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Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-06  
 Client ID: GW-2  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 12:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/04/22 19:19  
 Analyst: RS

Extraction Method: ALPHA 23528  
 Extraction Date: 02/03/22 18:40

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorobutanoic Acid (PFBA)	7.03		ng/l	1.88	0.383	1
Perfluoropentanoic Acid (PFPeA)	12.8		ng/l	1.88	0.372	1
Perfluorobutanesulfonic Acid (PFBS)	3.31		ng/l	1.88	0.223	1
Perfluorohexanoic Acid (PFHxA)	11.1		ng/l	1.88	0.308	1
Perfluoroheptanoic Acid (PFHpA)	8.59		ng/l	1.88	0.211	1
Perfluorohexanesulfonic Acid (PFHxS)	4.08		ng/l	1.88	0.353	1
Perfluorooctanoic Acid (PFOA)	43.7		ng/l	1.88	0.221	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.88	1.25	1
Perfluoroheptanesulfonic Acid (PFHpS)	0.672	J	ng/l	1.88	0.646	1
Perfluorononanoic Acid (PFNA)	4.39		ng/l	1.88	0.293	1
Perfluorooctanesulfonic Acid (PFOS)	71.8		ng/l	1.88	0.473	1
Perfluorodecanoic Acid (PFDA)	3.79		ng/l	1.88	0.285	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.88	1.14	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.88	0.608	1
Perfluoroundecanoic Acid (PFUnA)	1.59	J	ng/l	1.88	0.244	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.88	0.920	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.88	0.544	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.88	0.754	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.88	0.349	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.88	0.307	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.88	0.233	1
PFOA/PFOS, Total	116		ng/l	1.88	0.221	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-06

Date Collected: 02/01/22 12:30

Client ID: GW-2

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Surrogate (Extracted Internal Standard)			% Recovery	Qualifier		Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)			86			58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)			106			62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)			110			70-131
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)			74			57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)			78			60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)			114			71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)			88			62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)			<b>258</b>	Q		14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)			87			59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)			112			69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)			86			62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)			<b>174</b>	Q		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)			71			24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)			93			55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)			12			10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)			93			27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)			82			48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)			67			22-136

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-07  
 Client ID: SB-6  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 13:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 02/14/22 19:48  
 Analyst: EK  
 Percent Solids: 91%

Extraction Method: EPA 3546  
 Extraction Date: 02/12/22 13:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	140	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	20.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	24.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	32.	1
1,3-Dichlorobenzene	ND		ug/kg	180	30.	1
1,4-Dichlorobenzene	ND		ug/kg	180	31.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	47.	1
2,4-Dinitrotoluene	ND		ug/kg	180	36.	1
2,6-Dinitrotoluene	ND		ug/kg	180	30.	1
Fluoranthene	ND		ug/kg	110	20.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	27.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	30.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	18.	1
Hexachlorobutadiene	ND		ug/kg	180	26.	1
Hexachlorocyclopentadiene	ND		ug/kg	510	160	1
Hexachloroethane	ND		ug/kg	140	29.	1
Isophorone	ND		ug/kg	160	23.	1
Naphthalene	ND		ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	26.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	27.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	62.	1
Butyl benzyl phthalate	ND		ug/kg	180	45.	1
Di-n-butylphthalate	ND		ug/kg	180	34.	1
Di-n-octylphthalate	ND		ug/kg	180	60.	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-07

Date Collected: 02/01/22 13:30

Client ID: SB-6

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	16.	1
Dimethyl phthalate	ND		ug/kg	180	37.	1
Benzo(a)anthracene	ND		ug/kg	110	20.	1
Benzo(a)pyrene	ND		ug/kg	140	43.	1
Benzo(b)fluoranthene	ND		ug/kg	110	30.	1
Benzo(k)fluoranthene	ND		ug/kg	110	28.	1
Chrysene	ND		ug/kg	110	18.	1
Acenaphthylene	ND		ug/kg	140	27.	1
Anthracene	ND		ug/kg	110	35.	1
Benzo(ghi)perylene	ND		ug/kg	140	21.	1
Fluorene	ND		ug/kg	180	17.	1
Phenanthrene	ND		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	20.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	25.	1
Pyrene	ND		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	400	23.	1
4-Chloroaniline	ND		ug/kg	180	32.	1
2-Nitroaniline	ND		ug/kg	180	34.	1
3-Nitroaniline	ND		ug/kg	180	34.	1
4-Nitroaniline	ND		ug/kg	180	74.	1
Dibenzofuran	ND		ug/kg	180	17.	1
2-Methylnaphthalene	ND		ug/kg	210	21.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	18.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	34.	1
p-Chloro-m-cresol	ND		ug/kg	180	26.	1
2-Chlorophenol	ND		ug/kg	180	21.	1
2,4-Dichlorophenol	ND		ug/kg	160	28.	1
2,4-Dimethylphenol	ND		ug/kg	180	59.	1
2-Nitrophenol	ND		ug/kg	380	67.	1
4-Nitrophenol	ND		ug/kg	250	72.	1
2,4-Dinitrophenol	ND		ug/kg	850	83.	1
4,6-Dinitro-o-cresol	ND		ug/kg	460	85.	1
Pentachlorophenol	ND		ug/kg	140	39.	1
Phenol	ND		ug/kg	180	27.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	28.	1



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

**SAMPLE RESULTS**

Lab ID: L2205287-07

Date Collected: 02/01/22 13:30

Client ID: SB-6

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	34.	1
Benzoic Acid	ND		ug/kg	580	180	1
Benzyl Alcohol	ND		ug/kg	180	54.	1
Carbazole	ND		ug/kg	180	17.	1
1,4-Dioxane	ND		ug/kg	27	8.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	90		25-120
Phenol-d6	91		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	93		30-120
2,4,6-Tribromophenol	111		10-136
4-Terphenyl-d14	90		18-120

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-07  
 Client ID: SB-6  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 13:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/07/22 23:18  
 Analyst: HT  
 Percent Solids: 91%

Extraction Method: ALPHA 23528  
 Extraction Date: 02/07/22 07:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.505	0.023	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.505	0.047	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.253	0.039	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.505	0.053	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.253	0.046	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.253	0.061	1
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.253	0.042	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.505	0.181	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.505	0.138	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.253	0.076	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.253	0.131	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.253	0.068	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.505	0.290	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.505	0.204	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.505	0.047	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.505	0.155	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.505	0.099	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.505	0.085	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.505	0.071	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.505	0.207	1
Perfluorotetradecanoic Acid (PFTA)	0.059	J	ng/g	0.505	0.055	1
PFOA/PFOS, Total	ND		ng/g	0.253	0.042	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-07

Date Collected: 02/01/22 13:30

Client ID: SB-6

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	99		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	102		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	110		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	93		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	107		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	109		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	98		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	84		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	78		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	105		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	97		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	97		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	42		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	112		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	13		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	57		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	102		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	84		24-159

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-08  
 Client ID: SB-5  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 14:00  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 02/14/22 20:12  
 Analyst: EK  
 Percent Solids: 92%

Extraction Method: EPA 3546  
 Extraction Date: 02/12/22 13:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	140	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	24.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	32.	1
1,3-Dichlorobenzene	ND		ug/kg	180	31.	1
1,4-Dichlorobenzene	ND		ug/kg	180	32.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	48.	1
2,4-Dinitrotoluene	ND		ug/kg	180	36.	1
2,6-Dinitrotoluene	ND		ug/kg	180	31.	1
Fluoranthene	ND		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	31.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	18.	1
Hexachlorobutadiene	ND		ug/kg	180	26.	1
Hexachlorocyclopentadiene	ND		ug/kg	520	160	1
Hexachloroethane	ND		ug/kg	140	29.	1
Isophorone	ND		ug/kg	160	24.	1
Naphthalene	ND		ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	27.	1
NDPA/DPA	ND		ug/kg	140	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	63.	1
Butyl benzyl phthalate	ND		ug/kg	180	46.	1
Di-n-butylphthalate	ND		ug/kg	180	34.	1
Di-n-octylphthalate	ND		ug/kg	180	62.	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-08

Date Collected: 02/01/22 14:00

Client ID: SB-5

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	38.	1
Benzo(a)anthracene	ND		ug/kg	110	20.	1
Benzo(a)pyrene	ND		ug/kg	140	44.	1
Benzo(b)fluoranthene	ND		ug/kg	110	30.	1
Benzo(k)fluoranthene	ND		ug/kg	110	29.	1
Chrysene	ND		ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	140	28.	1
Anthracene	ND		ug/kg	110	35.	1
Benzo(ghi)perylene	ND		ug/kg	140	21.	1
Fluorene	ND		ug/kg	180	18.	1
Phenanthrene	ND		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	25.	1
Pyrene	ND		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	410	24.	1
4-Chloroaniline	ND		ug/kg	180	33.	1
2-Nitroaniline	ND		ug/kg	180	35.	1
3-Nitroaniline	ND		ug/kg	180	34.	1
4-Nitroaniline	ND		ug/kg	180	75.	1
Dibenzofuran	ND		ug/kg	180	17.	1
2-Methylnaphthalene	ND		ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	34.	1
p-Chloro-m-cresol	ND		ug/kg	180	27.	1
2-Chlorophenol	ND		ug/kg	180	21.	1
2,4-Dichlorophenol	ND		ug/kg	160	29.	1
2,4-Dimethylphenol	ND		ug/kg	180	60.	1
2-Nitrophenol	ND		ug/kg	390	68.	1
4-Nitrophenol	ND		ug/kg	250	74.	1
2,4-Dinitrophenol	ND		ug/kg	870	84.	1
4,6-Dinitro-o-cresol	ND		ug/kg	470	87.	1
Pentachlorophenol	ND		ug/kg	140	40.	1
Phenol	ND		ug/kg	180	27.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	28.	1

**Project Name:** ARC2202**Lab Number:** L2205287**Project Number:** ARC2202**Report Date:** 02/18/22**SAMPLE RESULTS**

Lab ID: L2205287-08

Date Collected: 02/01/22 14:00

Client ID: SB-5

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	35.	1
Benzoic Acid	ND		ug/kg	590	180	1
Benzyl Alcohol	ND		ug/kg	180	55.	1
Carbazole	ND		ug/kg	180	18.	1
1,4-Dioxane	ND		ug/kg	27	8.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	83		25-120
Phenol-d6	85		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	87		30-120
2,4,6-Tribromophenol	100		10-136
4-Terphenyl-d14	85		18-120

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-08  
 Client ID: SB-5  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 14:00  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/07/22 23:34  
 Analyst: HT  
 Percent Solids: 92%

Extraction Method: ALPHA 23528  
 Extraction Date: 02/07/22 07:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.496	0.023	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.496	0.046	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.248	0.039	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.496	0.052	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.248	0.045	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.248	0.060	1
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.248	0.042	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.496	0.178	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.496	0.135	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.248	0.074	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.248	0.129	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.248	0.066	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.496	0.284	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.496	0.200	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.496	0.046	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.496	0.152	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.496	0.084	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.496	0.069	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.496	0.203	1
Perfluorotetradecanoic Acid (PFTA)	0.080	JF	ng/g	0.496	0.054	1
PFOA/PFOS, Total	ND		ng/g	0.248	0.042	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-08

Date Collected: 02/01/22 14:00

Client ID: SB-5

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	93		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	97		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	106		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	90		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	103		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	102		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	94		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	81		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	74		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	94		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	92		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	87		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	68		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	112		61-155
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	73		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	101		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	75		24-159



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

**SAMPLE RESULTS**

Lab ID: L2205287-08  
 Client ID: SB-5  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 14:00  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/08/22 16:12  
 Analyst: RS  
 Percent Solids: 92%

Extraction Method: ALPHA 23528  
 Extraction Date: 02/07/22 07:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.496	0.097	1
<b>Surrogate (Extracted Internal Standard)</b>			<b>% Recovery</b>	<b>Qualifier</b>	<b>Acceptance Criteria</b>	
Perfluoro[13C8]Octanesulfonamide (M8FOSA)			85		10-117	

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-09  
 Client ID: SB-9  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 14:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 02/14/22 20:36  
 Analyst: EK  
 Percent Solids: 96%

Extraction Method: EPA 3546  
 Extraction Date: 02/12/22 13:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	140	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	20.	1
Hexachlorobenzene	ND		ug/kg	100	19.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	23.	1
2-Chloronaphthalene	ND		ug/kg	170	17.	1
1,2-Dichlorobenzene	ND		ug/kg	170	31.	1
1,3-Dichlorobenzene	ND		ug/kg	170	30.	1
1,4-Dichlorobenzene	ND		ug/kg	170	30.	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	46.	1
2,4-Dinitrotoluene	ND		ug/kg	170	34.	1
2,6-Dinitrotoluene	ND		ug/kg	170	30.	1
Fluoranthene	ND		ug/kg	100	20.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	18.	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	26.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	29.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	17.	1
Hexachlorobutadiene	ND		ug/kg	170	25.	1
Hexachlorocyclopentadiene	ND		ug/kg	490	160	1
Hexachloroethane	ND		ug/kg	140	28.	1
Isophorone	ND		ug/kg	160	22.	1
Naphthalene	ND		ug/kg	170	21.	1
Nitrobenzene	ND		ug/kg	160	26.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	27.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	60.	1
Butyl benzyl phthalate	ND		ug/kg	170	43.	1
Di-n-butylphthalate	ND		ug/kg	170	33.	1
Di-n-octylphthalate	ND		ug/kg	170	59.	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-09

Date Collected: 02/01/22 14:30

Client ID: SB-9

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	170	16.	1
Dimethyl phthalate	ND		ug/kg	170	36.	1
Benzo(a)anthracene	ND		ug/kg	100	19.	1
Benzo(a)pyrene	ND		ug/kg	140	42.	1
Benzo(b)fluoranthene	ND		ug/kg	100	29.	1
Benzo(k)fluoranthene	ND		ug/kg	100	28.	1
Chrysene	ND		ug/kg	100	18.	1
Acenaphthylene	ND		ug/kg	140	27.	1
Anthracene	ND		ug/kg	100	34.	1
Benzo(ghi)perylene	ND		ug/kg	140	20.	1
Fluorene	ND		ug/kg	170	17.	1
Phenanthrene	ND		ug/kg	100	21.	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	24.	1
Pyrene	ND		ug/kg	100	17.	1
Biphenyl	ND		ug/kg	390	22.	1
4-Chloroaniline	ND		ug/kg	170	31.	1
2-Nitroaniline	ND		ug/kg	170	33.	1
3-Nitroaniline	ND		ug/kg	170	32.	1
4-Nitroaniline	ND		ug/kg	170	71.	1
Dibenzofuran	ND		ug/kg	170	16.	1
2-Methylnaphthalene	ND		ug/kg	210	21.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	18.	1
Acetophenone	ND		ug/kg	170	21.	1
2,4,6-Trichlorophenol	ND		ug/kg	100	33.	1
p-Chloro-m-cresol	ND		ug/kg	170	26.	1
2-Chlorophenol	ND		ug/kg	170	20.	1
2,4-Dichlorophenol	ND		ug/kg	160	28.	1
2,4-Dimethylphenol	ND		ug/kg	170	57.	1
2-Nitrophenol	ND		ug/kg	370	65.	1
4-Nitrophenol	ND		ug/kg	240	70.	1
2,4-Dinitrophenol	ND		ug/kg	830	80.	1
4,6-Dinitro-o-cresol	ND		ug/kg	450	83.	1
Pentachlorophenol	ND		ug/kg	140	38.	1
Phenol	ND		ug/kg	170	26.	1
2-Methylphenol	ND		ug/kg	170	27.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	27.	1

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

**SAMPLE RESULTS**

Lab ID: L2205287-09  
 Client ID: SB-9  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 14:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	170	33.	1
Benzoic Acid	ND		ug/kg	560	170	1
Benzyl Alcohol	ND		ug/kg	170	53.	1
Carbazole	ND		ug/kg	170	17.	1
1,4-Dioxane	ND		ug/kg	26	7.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	69		25-120
Phenol-d6	71		10-120
Nitrobenzene-d5	52		23-120
2-Fluorobiphenyl	72		30-120
2,4,6-Tribromophenol	90		10-136
4-Terphenyl-d14	76		18-120

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-09  
 Client ID: SB-9  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 14:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/07/22 23:51  
 Analyst: HT  
 Percent Solids: 96%

Extraction Method: ALPHA 23528  
 Extraction Date: 02/07/22 07:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.473	0.022	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.473	0.044	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.237	0.037	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.473	0.050	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.237	0.043	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.237	0.057	1
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.237	0.040	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.473	0.170	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.473	0.129	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.237	0.071	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.237	0.123	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.237	0.063	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.473	0.272	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.473	0.191	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.473	0.044	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.473	0.145	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.473	0.093	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.473	0.080	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.473	0.066	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.473	0.194	1
Perfluorotetradecanoic Acid (PFTA)	0.055	J	ng/g	0.473	0.051	1
PFOA/PFOS, Total	ND		ng/g	0.237	0.040	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-09

Date Collected: 02/01/22 14:30

Client ID: SB-9

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	98		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	99		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	107		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	93		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	106		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	104		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	97		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	84		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	77		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	106		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	99		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	92		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	47		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	116		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	42		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	62		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	103		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	83		24-159

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-10  
 Client ID: SB-12  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 15:20  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 02/14/22 21:00  
 Analyst: EK  
 Percent Solids: 95%

Extraction Method: EPA 3546  
 Extraction Date: 02/12/22 13:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	140	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	19.	1
Hexachlorobenzene	ND		ug/kg	100	19.	1
Bis(2-chloroethyl)ether	ND		ug/kg	150	23.	1
2-Chloronaphthalene	ND		ug/kg	170	17.	1
1,2-Dichlorobenzene	ND		ug/kg	170	30.	1
1,3-Dichlorobenzene	ND		ug/kg	170	29.	1
1,4-Dichlorobenzene	ND		ug/kg	170	30.	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	45.	1
2,4-Dinitrotoluene	ND		ug/kg	170	34.	1
2,6-Dinitrotoluene	ND		ug/kg	170	29.	1
Fluoranthene	ND		ug/kg	100	20.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	18.	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	26.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	29.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	180	17.	1
Hexachlorobutadiene	ND		ug/kg	170	25.	1
Hexachlorocyclopentadiene	ND		ug/kg	490	150	1
Hexachloroethane	ND		ug/kg	140	28.	1
Isophorone	ND		ug/kg	150	22.	1
Naphthalene	ND		ug/kg	170	21.	1
Nitrobenzene	ND		ug/kg	150	25.	1
NDPA/DPA	ND		ug/kg	140	19.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	26.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	59.	1
Butyl benzyl phthalate	ND		ug/kg	170	43.	1
Di-n-butylphthalate	ND		ug/kg	170	32.	1
Di-n-octylphthalate	ND		ug/kg	170	58.	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-10  
 Client ID: SB-12  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 15:20  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	170	16.	1
Dimethyl phthalate	ND		ug/kg	170	36.	1
Benzo(a)anthracene	ND		ug/kg	100	19.	1
Benzo(a)pyrene	ND		ug/kg	140	42.	1
Benzo(b)fluoranthene	ND		ug/kg	100	29.	1
Benzo(k)fluoranthene	ND		ug/kg	100	27.	1
Chrysene	ND		ug/kg	100	18.	1
Acenaphthylene	ND		ug/kg	140	26.	1
Anthracene	ND		ug/kg	100	33.	1
Benzo(ghi)perylene	ND		ug/kg	140	20.	1
Fluorene	ND		ug/kg	170	16.	1
Phenanthrene	ND		ug/kg	100	21.	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	24.	1
Pyrene	ND		ug/kg	100	17.	1
Biphenyl	ND		ug/kg	390	22.	1
4-Chloroaniline	ND		ug/kg	170	31.	1
2-Nitroaniline	ND		ug/kg	170	33.	1
3-Nitroaniline	ND		ug/kg	170	32.	1
4-Nitroaniline	ND		ug/kg	170	70.	1
Dibenzofuran	ND		ug/kg	170	16.	1
2-Methylnaphthalene	ND		ug/kg	200	20.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	18.	1
Acetophenone	ND		ug/kg	170	21.	1
2,4,6-Trichlorophenol	ND		ug/kg	100	32.	1
p-Chloro-m-cresol	ND		ug/kg	170	25.	1
2-Chlorophenol	ND		ug/kg	170	20.	1
2,4-Dichlorophenol	ND		ug/kg	150	27.	1
2,4-Dimethylphenol	ND		ug/kg	170	56.	1
2-Nitrophenol	ND		ug/kg	370	64.	1
4-Nitrophenol	ND		ug/kg	240	70.	1
2,4-Dinitrophenol	ND		ug/kg	820	79.	1
4,6-Dinitro-o-cresol	ND		ug/kg	440	82.	1
Pentachlorophenol	ND		ug/kg	140	37.	1
Phenol	ND		ug/kg	170	26.	1
2-Methylphenol	ND		ug/kg	170	26.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	27.	1



**Project Name:** ARC2202**Lab Number:** L2205287**Project Number:** ARC2202**Report Date:** 02/18/22**SAMPLE RESULTS**

Lab ID: L2205287-10

Date Collected: 02/01/22 15:20

Client ID: SB-12

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	170	33.	1
Benzoic Acid	ND		ug/kg	550	170	1
Benzyl Alcohol	ND		ug/kg	170	52.	1
Carbazole	ND		ug/kg	170	16.	1
1,4-Dioxane	ND		ug/kg	26	7.8	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	86		25-120
Phenol-d6	88		10-120
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	89		30-120
2,4,6-Tribromophenol	97		10-136
4-Terphenyl-d14	85		18-120

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-10  
 Client ID: SB-12  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 15:20  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/08/22 00:07  
 Analyst: HT  
 Percent Solids: 95%

Extraction Method: ALPHA 23528  
 Extraction Date: 02/07/22 07:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.485	0.022	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.485	0.045	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.242	0.038	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.485	0.051	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.242	0.044	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.242	0.059	1
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.242	0.041	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.485	0.174	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.485	0.132	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.242	0.073	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.242	0.126	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.242	0.065	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.485	0.278	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.485	0.195	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.485	0.045	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.485	0.148	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.485	0.095	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.485	0.082	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.485	0.068	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.485	0.198	1
Perfluorotetradecanoic Acid (PFTA)	0.060	J	ng/g	0.485	0.052	1
PFOA/PFOS, Total	ND		ng/g	0.242	0.041	1

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-10

Date Collected: 02/01/22 15:20

Client ID: SB-12

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	100		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	103		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	114		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	98		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	109		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	110		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	100		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	89		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	78		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	108		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	100		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	96		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	59		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	111		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	88		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	61		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	105		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	93		24-159

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/04/22 16:33  
 Analyst: RS

Extraction Method: ALPHA 23528  
 Extraction Date: 02/03/22 18:40

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 05-06 Batch: WG1601237-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.408
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.396
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.238
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.328
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.225
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.376
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.236
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	1.33
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.688
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.312
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.504
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.304
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	1.21
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.648
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.260
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.980
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.580
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.804
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.372
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.327
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.248
PFOA/PFOS, Total	ND		ng/l	2.00	0.236

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID  
Analytical Date: 02/04/22 16:33  
Analyst: RS

Extraction Method: ALPHA 23528  
Extraction Date: 02/03/22 18:40

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 05-06 Batch: WG1601237-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	103		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	112		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	108		70-131
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	97		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	96		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	114		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	100		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	149	Q	14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	95		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	111		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	101		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	122		10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	98		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	107		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	55		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	109		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	100		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	82		22-136

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

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

Analytical Method: 1,8270D-SIM  
Analytical Date: 02/07/22 12:26  
Analyst: DB

Extraction Method: EPA 3510C  
Extraction Date: 02/05/22 14:58

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 05-06 Batch: WG1601773-1					
1,4-Dioxane	ND		ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	35		15-110

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

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

Analytical Method: 1,8270D  
Analytical Date: 02/07/22 19:33  
Analyst: JRW

Extraction Method: EPA 3510C  
Extraction Date: 02/05/22 11:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatle Organics by GC/MS - Westborough Lab for sample(s): 05-06 Batch: WG1601795-1					
Acenaphthene	ND		ug/l	2.0	0.44
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Hexachlorobenzene	ND		ug/l	2.0	0.46
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chloronaphthalene	ND		ug/l	2.0	0.44
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Fluoranthene	ND		ug/l	2.0	0.26
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Hexachloroethane	ND		ug/l	2.0	0.58
Isophorone	ND		ug/l	5.0	1.2
Naphthalene	ND		ug/l	2.0	0.46
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/07/22 19:33  
 Analyst: JRW

Extraction Method: EPA 3510C  
 Extraction Date: 02/05/22 11:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 05-06 Batch: WG1601795-1					
Dimethyl phthalate	ND		ug/l	5.0	1.8
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Chrysene	ND		ug/l	2.0	0.34
Acenaphthylene	ND		ug/l	2.0	0.46
Anthracene	ND		ug/l	2.0	0.33
Benzo(ghi)perylene	ND		ug/l	2.0	0.30
Fluorene	ND		ug/l	2.0	0.41
Phenanthrene	ND		ug/l	2.0	0.33
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Pyrene	ND		ug/l	2.0	0.28
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
2-Methylnaphthalene	ND		ug/l	2.0	0.45
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/07/22 19:33  
 Analyst: JRW

Extraction Method: EPA 3510C  
 Extraction Date: 02/05/22 11:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 05-06 Batch: WG1601795-1					
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Pentachlorophenol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Benzoic Acid	ND		ug/l	50	2.6
Benzyl Alcohol	ND		ug/l	2.0	0.59
Carbazole	ND		ug/l	2.0	0.49

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	37		21-120
Phenol-d6	28		10-120
Nitrobenzene-d5	52		23-120
2-Fluorobiphenyl	42		15-120
2,4,6-Tribromophenol	27		10-120
4-Terphenyl-d14	48		41-149

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

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

Analytical Method: 1,8270D-SIM  
Analytical Date: 02/06/22 17:09  
Analyst: DV

Extraction Method: EPA 3510C  
Extraction Date: 02/05/22 11:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 05-06 Batch: WG1601796-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	0.03	J	ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8270D-SIM  
 Analytical Date: 02/06/22 17:09  
 Analyst: DV

Extraction Method: EPA 3510C  
 Extraction Date: 02/05/22 11:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 05-06 Batch: WG1601796-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	39		21-120
Phenol-d6	33		10-120
Nitrobenzene-d5	58		23-120
2-Fluorobiphenyl	58		15-120
2,4,6-Tribromophenol	43		10-120
4-Terphenyl-d14	64		41-149

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID  
Analytical Date: 02/07/22 21:05  
Analyst: HT

Extraction Method: ALPHA 23528  
Extraction Date: 02/07/22 07:46

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-04,07-10 Batch: WG1602053-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.500	0.023
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.500	0.046
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.250	0.039
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.500	0.053
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.250	0.045
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.250	0.061
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.250	0.042
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.500	0.180
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.500	0.136
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.250	0.075
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.250	0.130
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.250	0.067
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.500	0.287
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.500	0.202
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.500	0.047
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.500	0.153
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.500	0.098
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.500	0.085
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.500	0.070
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.500	0.204
Perfluorotetradecanoic Acid (PFTA)	0.069	J	ng/g	0.500	0.054
PFOA/PFOS, Total	ND		ng/g	0.250	0.042

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID  
Analytical Date: 02/07/22 21:05  
Analyst: HT

Extraction Method: ALPHA 23528  
Extraction Date: 02/07/22 07:46

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-04,07-10 Batch: WG1602053-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	101		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	105		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	109		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	98		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	112		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	106		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	100		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	80		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	81		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	102		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	102		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	91		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	77		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	114		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	27		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	89		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	114		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	93		24-159

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

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

Analytical Method: 134,LCMSMS-ID  
Analytical Date: 02/08/22 15:48  
Analyst: RS

Extraction Method: ALPHA 23528  
Extraction Date: 02/07/22 07:46

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-04,07-10 Batch: WG1602053-1					
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.500	0.098

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	85		10-117

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/14/22 13:21  
 Analyst: ALS

Extraction Method: EPA 3546  
 Extraction Date: 02/12/22 13:46

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,07-10 Batch: WG1604356-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	98	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	29.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	28.
3,3'-Dichlorobenzidine	ND		ug/kg	160	43.
2,4-Dinitrotoluene	ND		ug/kg	160	32.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	98	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	17.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	460	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	18.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	56.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	55.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/14/22 13:21  
 Analyst: ALS

Extraction Method: EPA 3546  
 Extraction Date: 02/12/22 13:46

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,07-10 Batch: WG1604356-1					
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	27.
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.
Biphenyl	ND		ug/kg	370	21.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	31.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	67.
Dibenzofuran	ND		ug/kg	160	15.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	98	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	350	61.



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

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

Analytical Method: 1,8270D  
Analytical Date: 02/14/22 13:21  
Analyst: ALS

Extraction Method: EPA 3546  
Extraction Date: 02/12/22 13:46

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-04,07-10 Batch: WG1604356-1					
4-Nitrophenol	ND		ug/kg	230	66.
2,4-Dinitrophenol	ND		ug/kg	780	76.
4,6-Dinitro-o-cresol	ND		ug/kg	420	78.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	24.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	230	25.
2,4,5-Trichlorophenol	ND		ug/kg	160	31.
Benzoic Acid	ND		ug/kg	530	160
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.
1,4-Dioxane	ND		ug/kg	24	7.5

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	87		25-120
Phenol-d6	88		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	89		30-120
2,4,6-Tribromophenol	94		10-136
4-Terphenyl-d14	88		18-120

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 05-06 Batch: WG1601237-2								
Perfluorobutanoic Acid (PFBA)	103		-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	100		-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	95		-		65-157	-		30
Perfluorohexanoic Acid (PFHxA)	101		-		69-168	-		30
Perfluoroheptanoic Acid (PFHpA)	102		-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	124		-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	98		-		63-159	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	113		-		49-187	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	104		-		61-179	-		30
Perfluorononanoic Acid (PFNA)	110		-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	120		-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	103		-		63-171	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	115		-		56-173	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	104		-		60-166	-		30
Perfluoroundecanoic Acid (PFUnA)	104		-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	119		-		38-156	-		30
Perfluorooctanesulfonamide (FOSA)	103		-		46-170	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	100		-		45-170	-		30
Perfluorododecanoic Acid (PFDoA)	106		-		67-153	-		30
Perfluorotridecanoic Acid (PFTrDA)	105		-		48-158	-		30
Perfluorotetradecanoic Acid (PFTA)	107		-		59-182	-		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 05-06 Batch: WG1601237-2								

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	98				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	108				62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	114				70-131
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	97				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	94				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	114				71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	102				62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	<b>162</b>	Q			14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	94				59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	109				69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	97				62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	150				10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	95				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	107				55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	51				10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	113				27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	99				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	80				22-136

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 05-06 Batch: WG1601773-2 WG1601773-3								
1,4-Dioxane	120		120		40-140	0		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	32		35		15-110

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG1601795-2 WG1601795-3								
Acenaphthene	77		74		37-111	4		30
1,2,4-Trichlorobenzene	68		67		39-98	1		30
Hexachlorobenzene	71		68		40-140	4		30
Bis(2-chloroethyl)ether	73		72		40-140	1		30
2-Chloronaphthalene	67		66		40-140	2		30
1,2-Dichlorobenzene	69		69		40-140	0		30
1,3-Dichlorobenzene	66		66		40-140	0		30
1,4-Dichlorobenzene	70		68		36-97	3		30
3,3'-Dichlorobenzidine	41		41		40-140	0		30
2,4-Dinitrotoluene	77		73		48-143	5		30
2,6-Dinitrotoluene	68		68		40-140	0		30
Fluoranthene	69		69		40-140	0		30
4-Chlorophenyl phenyl ether	67		65		40-140	3		30
4-Bromophenyl phenyl ether	69		64		40-140	8		30
Bis(2-chloroisopropyl)ether	71		69		40-140	3		30
Bis(2-chloroethoxy)methane	78		73		40-140	7		30
Hexachlorobutadiene	60		58		40-140	3		30
Hexachlorocyclopentadiene	56		52		40-140	7		30
Hexachloroethane	74		73		40-140	1		30
Isophorone	68		67		40-140	1		30
Naphthalene	72		69		40-140	4		30
Nitrobenzene	107		107		40-140	0		30
NDPA/DPA	67		66		40-140	2		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS	Qual	LCS	Qual	%Recovery	RPD	Qual	RPD
	%Recovery		%Recovery		Limits			Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG1601795-2 WG1601795-3								
n-Nitrosodi-n-propylamine	75		72		29-132		4	30
Bis(2-ethylhexyl)phthalate	76		81		40-140		6	30
Butyl benzyl phthalate	68		74		40-140		8	30
Di-n-butylphthalate	66		64		40-140		3	30
Di-n-octylphthalate	72		79		40-140		9	30
Diethyl phthalate	73		70		40-140		4	30
Dimethyl phthalate	61		61		40-140		0	30
Benzo(a)anthracene	74		73		40-140		1	30
Benzo(a)pyrene	73		74		40-140		1	30
Benzo(b)fluoranthene	76		82		40-140		8	30
Benzo(k)fluoranthene	78		85		40-140		9	30
Chrysene	72		70		40-140		3	30
Acenaphthylene	63		61		45-123		3	30
Anthracene	72		70		40-140		3	30
Benzo(ghi)perylene	88		87		40-140		1	30
Fluorene	73		70		40-140		4	30
Phenanthrene	72		70		40-140		3	30
Dibenzo(a,h)anthracene	86		81		40-140		6	30
Indeno(1,2,3-cd)pyrene	74		72		40-140		3	30
Pyrene	67		67		26-127		0	30
Biphenyl	66		64		40-140		3	30
4-Chloroaniline	63		51		40-140		21	30
2-Nitroaniline	71		69		52-143		3	30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG1601795-2 WG1601795-3								
3-Nitroaniline	56		52		25-145	7		30
4-Nitroaniline	69		69		51-143	0		30
Dibenzofuran	74		71		40-140	4		30
2-Methylnaphthalene	67		56		40-140	18		30
1,2,4,5-Tetrachlorobenzene	63		61		2-134	3		30
Acetophenone	74		71		39-129	4		30
2,4,6-Trichlorophenol	62		62		30-130	0		30
p-Chloro-m-cresol	72		71		23-97	1		30
2-Chlorophenol	76		73		27-123	4		30
2,4-Dichlorophenol	71		70		30-130	1		30
2,4-Dimethylphenol	46		47		30-130	2		30
2-Nitrophenol	85		83		30-130	2		30
4-Nitrophenol	85	Q	82	Q	10-80	4		30
2,4-Dinitrophenol	85		75		20-130	13		30
4,6-Dinitro-o-cresol	85		81		20-164	5		30
Pentachlorophenol	56		47		9-103	17		30
Phenol	58		56		12-110	4		30
2-Methylphenol	68		65		30-130	5		30
3-Methylphenol/4-Methylphenol	71		68		30-130	4		30
2,4,5-Trichlorophenol	59		60		30-130	2		30
Benzoic Acid	49		48		10-164	2		30
Benzyl Alcohol	70		64		26-116	9		30
Carbazole	73		73		55-144	0		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 05-06 Batch: WG1601795-2 WG1601795-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	68		65		21-120
Phenol-d6	55		52		10-120
Nitrobenzene-d5	78		76		23-120
2-Fluorobiphenyl	59		57		15-120
2,4,6-Tribromophenol	70		67		10-120
4-Terphenyl-d14	61		61		41-149



## Lab Control Sample Analysis

### Batch Quality Control

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Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 05-06 Batch: WG1601796-2 WG1601796-3								
Acenaphthene	79		77		40-140	3		40
2-Chloronaphthalene	79		79		40-140	0		40
Fluoranthene	79		79		40-140	0		40
Hexachlorobutadiene	73		71		40-140	3		40
Naphthalene	77		74		40-140	4		40
Benzo(a)anthracene	80		77		40-140	4		40
Benzo(a)pyrene	72		73		40-140	1		40
Benzo(b)fluoranthene	76		78		40-140	3		40
Benzo(k)fluoranthene	83		82		40-140	1		40
Chrysene	71		74		40-140	4		40
Acenaphthylene	79		78		40-140	1		40
Anthracene	78		77		40-140	1		40
Benzo(ghi)perylene	76		76		40-140	0		40
Fluorene	82		81		40-140	1		40
Phenanthrene	75		75		40-140	0		40
Dibenzo(a,h)anthracene	81		80		40-140	1		40
Indeno(1,2,3-cd)pyrene	75		73		40-140	3		40
Pyrene	78		78		40-140	0		40
2-Methylnaphthalene	79		77		40-140	3		40
Pentachlorophenol	90		90		40-140	0		40
Hexachlorobenzene	75		75		40-140	0		40
Hexachloroethane	69		66		40-140	4		40

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 05-06 Batch: WG1601796-2 WG1601796-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	60		57		21-120
Phenol-d6	51		50		10-120
Nitrobenzene-d5	77		77		23-120
2-Fluorobiphenyl	74		75		15-120
2,4,6-Tribromophenol	77		70		10-120
4-Terphenyl-d14	77		79		41-149

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04,07-10 Batch: WG1602053-2								
Perfluorobutanoic Acid (PFBA)	96		-		71-135	-		30
Perfluoropentanoic Acid (PFPeA)	106		-		69-132	-		30
Perfluorobutanesulfonic Acid (PFBS)	88		-		72-128	-		30
Perfluorohexanoic Acid (PFHxA)	93		-		70-132	-		30
Perfluoroheptanoic Acid (PFHpA)	86		-		71-131	-		30
Perfluorohexanesulfonic Acid (PFHxS)	95		-		67-130	-		30
Perfluorooctanoic Acid (PFOA)	90		-		69-133	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	96		-		64-140	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	82		-		70-132	-		30
Perfluorononanoic Acid (PFNA)	126		-		72-129	-		30
Perfluorooctanesulfonic Acid (PFOS)	93		-		68-136	-		30
Perfluorodecanoic Acid (PFDA)	92		-		69-133	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	97		-		65-137	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	98		-		63-144	-		30
Perfluoroundecanoic Acid (PFUnA)	87		-		64-136	-		30
Perfluorodecanesulfonic Acid (PFDS)	82		-		59-134	-		30
Perfluorooctanesulfonamide (FOSA)	80		-		67-137	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	107		-		61-139	-		30
Perfluorododecanoic Acid (PFDoA)	94		-		69-135	-		30
Perfluorotridecanoic Acid (PFTrDA)	79		-		66-139	-		30
Perfluorotetradecanoic Acid (PFTA)	76		-		69-133	-		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual		Limits	
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04,07-10 Batch: WG1602053-2									

Surrogate (Extracted Internal Standard)	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
Perfluoro[13C4]Butanoic Acid (MPFBA)	100				61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	102				58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	106				74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	96				66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	109				71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	102				78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	98				75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	84				20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	77				72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	103				79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	97				75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	85				19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	78				31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	112				61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	22				10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	79				34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	103				54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	93				24-159

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04,07-10 Batch: WG1602053-2								
Perfluorooctanesulfonamide (FOSA)	118		-		67-137	-		30

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	88				10-117

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,07-10 Batch: WG1604356-2 WG1604356-3								
Acenaphthene	91		88		31-137	3		50
1,2,4-Trichlorobenzene	89		88		38-107	1		50
Hexachlorobenzene	100		94		40-140	6		50
Bis(2-chloroethyl)ether	84		82		40-140	2		50
2-Chloronaphthalene	92		88		40-140	4		50
1,2-Dichlorobenzene	85		85		40-140	0		50
1,3-Dichlorobenzene	86		84		40-140	2		50
1,4-Dichlorobenzene	84		84		28-104	0		50
3,3'-Dichlorobenzidine	70		66		40-140	6		50
2,4-Dinitrotoluene	95		91		40-132	4		50
2,6-Dinitrotoluene	95		92		40-140	3		50
Fluoranthene	96		92		40-140	4		50
4-Chlorophenyl phenyl ether	94		90		40-140	4		50
4-Bromophenyl phenyl ether	102		96		40-140	6		50
Bis(2-chloroisopropyl)ether	84		83		40-140	1		50
Bis(2-chloroethoxy)methane	88		85		40-117	3		50
Hexachlorobutadiene	94		93		40-140	1		50
Hexachlorocyclopentadiene	82		80		40-140	2		50
Hexachloroethane	83		81		40-140	2		50
Isophorone	85		81		40-140	5		50
Naphthalene	87		86		40-140	1		50
Nitrobenzene	86		83		40-140	4		50
NDPA/DPA	96		92		36-157	4		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,07-10 Batch: WG1604356-2 WG1604356-3								
n-Nitrosodi-n-propylamine	84		82		32-121	2		50
Bis(2-ethylhexyl)phthalate	98		98		40-140	0		50
Butyl benzyl phthalate	96		93		40-140	3		50
Di-n-butylphthalate	98		95		40-140	3		50
Di-n-octylphthalate	95		95		40-140	0		50
Diethyl phthalate	95		90		40-140	5		50
Dimethyl phthalate	92		89		40-140	3		50
Benzo(a)anthracene	91		88		40-140	3		50
Benzo(a)pyrene	94		92		40-140	2		50
Benzo(b)fluoranthene	96		95		40-140	1		50
Benzo(k)fluoranthene	92		86		40-140	7		50
Chrysene	90		88		40-140	2		50
Acenaphthylene	93		89		40-140	4		50
Anthracene	93		89		40-140	4		50
Benzo(ghi)perylene	93		91		40-140	2		50
Fluorene	97		91		40-140	6		50
Phenanthrene	90		88		40-140	2		50
Dibenzo(a,h)anthracene	94		90		40-140	4		50
Indeno(1,2,3-cd)pyrene	104		101		40-140	3		50
Pyrene	94		92		35-142	2		50
Biphenyl	92		85		37-127	8		50
4-Chloroaniline	73		68		40-140	7		50
2-Nitroaniline	94		91		47-134	3		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,07-10 Batch: WG1604356-2 WG1604356-3								
3-Nitroaniline	66		59		26-129	11		50
4-Nitroaniline	89		84		41-125	6		50
Dibenzofuran	94		89		40-140	5		50
2-Methylnaphthalene	93		89		40-140	4		50
1,2,4,5-Tetrachlorobenzene	96		93		40-117	3		50
Acetophenone	87		86		14-144	1		50
2,4,6-Trichlorophenol	96		91		30-130	5		50
p-Chloro-m-cresol	96		91		26-103	5		50
2-Chlorophenol	91		89		25-102	2		50
2,4-Dichlorophenol	97		94		30-130	3		50
2,4-Dimethylphenol	91		87		30-130	4		50
2-Nitrophenol	90		87		30-130	3		50
4-Nitrophenol	101		94		11-114	7		50
2,4-Dinitrophenol	56		35		4-130	46		50
4,6-Dinitro-o-cresol	89		77		10-130	14		50
Pentachlorophenol	81		69		17-109	16		50
Phenol	95	Q	91	Q	26-90	4		50
2-Methylphenol	93		89		30-130	4		50
3-Methylphenol/4-Methylphenol	99		95		30-130	4		50
2,4,5-Trichlorophenol	99		95		30-130	4		50
Benzoic Acid	5	Q	2	Q	10-110	93	Q	50
Benzyl Alcohol	93		88		40-140	6		50
Carbazole	93		92		54-128	1		50



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04,07-10 Batch: WG1604356-2 WG1604356-3								
1,4-Dioxane	59		61		40-140	3		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	93		92		25-120
Phenol-d6	93		91		10-120
Nitrobenzene-d5	88		85		23-120
2-Fluorobiphenyl	96		91		30-120
2,4,6-Tribromophenol	108		103		10-136
4-Terphenyl-d14	97		96		18-120

## Matrix Spike Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 05-06 QC Batch ID: WG1601237-3 WG1601237-4 QC Sample: L2205128-01 Client ID: MS Sample												
Perfluorobutanoic Acid (PFBA)	21.0	37.4	63.2	113		62.8	117		67-148	1		30
Perfluoropentanoic Acid (PFPeA)	28.0	37.4	70.9	115		72.0	123		63-161	2		30
Perfluorobutanesulfonic Acid (PFBS)	11.9	33.2	48.8	111		46.7	110		65-157	4		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	35	46.0	131		42.7	128		37-219	7		30
Perfluorohexanoic Acid (PFHxA)	16.6	37.4	60.0	116		59.6	120		69-168	1		30
Perfluoropentanesulfonic Acid (PFPeS)	0.750J	35.2	40.9	114		38.6	113		52-156	6		30
Perfluoroheptanoic Acid (PFHpA)	8.15	37.4	51.3	115		48.0	111		58-159	7		30
Perfluorohexanesulfonic Acid (PFHxS)	5.96	34.2	51.6	134		48.1	129		69-177	7		30
Perfluorooctanoic Acid (PFOA)	30.1	37.4	73.6	116		73.1	120		63-159	1		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	35.6	43.4	122		40.7	120		49-187	6		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	35.6	40.6	114		38.4	113		61-179	6		30
Perfluorononanoic Acid (PFNA)	2.55F	37.4	45.4	115		41.2	108		68-171	10		30
Perfluorooctanesulfonic Acid (PFOS)	19.3	34.7	65.6	133		64.3	136		52-151	2		30
Perfluorodecanoic Acid (PFDA)	0.474J	37.4	40.9	108		38.6	107		63-171	6		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	35.9	44.2	123		41.2	120		56-173	7		30
Perfluorononanesulfonic Acid (PFNS)	ND	36	38.0	106		37.8	110		48-150	1		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	37.4	35.9	96		40.5	113		60-166	12		30
Perfluoroundecanoic Acid (PFUnA)	ND	37.4	39.2	105		39.6	111		60-153	1		30
Perfluorodecanesulfonic Acid (PFDS)	ND	36	40.0	111		37.6	109		38-156	6		30
Perfluorooctanesulfonamide (FOSA)	ND	37.4	39.6F	106		33.2	93		46-170	18		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	37.4	41.7	111		34.6	97		45-170	19		30
Perfluorododecanoic Acid (PFDoA)	ND	37.4	41.7	111		38.0	106		67-153	9		30

## Matrix Spike Analysis

Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 05-06 QC Batch ID: WG1601237-3 WG1601237-4 QC Sample: L2205128-01 Client ID: MS Sample												
Perfluorotridecanoic Acid (PFTrDA)	ND	37.4	41.5	111		41.6	116		48-158	0		30
Perfluorotetradecanoic Acid (PFTA)	ND	37.4	40.2	107		39.4	110		59-182	2		30

Surrogate (Extracted Internal Standard)	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	110		130		10-162
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	149	Q	169	Q	12-142
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	170	Q	205	Q	14-147
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	67		89		27-126
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	63		65		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	77		78		55-137
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	72		76		62-124
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	64		68		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	67		74		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	95		111		71-134
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	71		75		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	59		63		22-136
Perfluoro[13C4]Butanoic Acid (MPFBA)	77		79		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	93		97		62-163
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	11		11		10-112
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	88		100		69-131
Perfluoro[13C8]Octanoic Acid (M8PFOA)	75		81		62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	70		80		59-139
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	92		104		70-131

## Matrix Spike Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04,07-10 QC Batch ID: WG1602053-3 QC Sample: L2205287-01 Client ID: SB-3												
Perfluorobutanoic Acid (PFBA)	ND	4.93	4.79	97		-	-		71-135	-		30
Perfluoropentanoic Acid (PFPeA)	ND	4.93	5.31	108		-	-		69-132	-		30
Perfluorobutanesulfonic Acid (PFBS)	ND	4.38	3.99	91		-	-		72-128	-		30
Perfluorohexanoic Acid (PFHxA)	ND	4.93	4.66	95		-	-		70-132	-		30
Perfluoroheptanoic Acid (PFHpA)	ND	4.93	4.34	88		-	-		71-131	-		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	4.5	4.29	95		-	-		67-130	-		30
Perfluorooctanoic Acid (PFOA)	ND	4.93	4.46	91		-	-		69-133	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	4.69	4.47	95		-	-		64-140	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	4.69	3.77	80		-	-		70-132	-		30
Perfluorononanoic Acid (PFNA)	ND	4.93	6.48	131	Q	-	-		72-129	-		30
Perfluorooctanesulfonic Acid (PFOS)	ND	4.57	4.34	95		-	-		68-136	-		30
Perfluorodecanoic Acid (PFDA)	ND	4.93	4.56	93		-	-		69-133	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	4.73	4.39	93		-	-		65-137	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	4.93	5.04	102		-	-		63-144	-		30
Perfluoroundecanoic Acid (PFUnA)	ND	4.93	4.51	92		-	-		64-136	-		30
Perfluorodecanesulfonic Acid (PFDS)	ND	4.75	4.20	88		-	-		59-134	-		30
Perfluorooctanesulfonamide (FOSA)	ND	4.93	4.23F	86		-	-		67-137	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	4.93	4.86	99		-	-		61-139	-		30
Perfluorododecanoic Acid (PFDoA)	ND	4.93	4.29	87		-	-		69-135	-		30
Perfluorotridecanoic Acid (PFTrDA)	ND	4.93	3.79	77		-	-		66-139	-		30
Perfluorotetradecanoic Acid (PFTA)	0.071JF	4.93	4.07	81		-	-		69-133	-		30

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** ARC2202

**Lab Number:** L2205287

**Project Number:** ARC2202

**Report Date:** 02/18/22

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04,07-10 QC Batch ID: WG1602053-3 QC Sample: L2205287-01 Client ID: SB-3												

<i>Surrogate (Extracted Internal Standard)</i>	<i>MS</i>		<i>MSD</i>		<i>Acceptance Criteria</i>
	<i>% Recovery</i>	<i>Qualifier</i>	<i>% Recovery</i>	<i>Qualifier</i>	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	91				19-175
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	90				20-154
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	74				34-137
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	64				31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	105				61-155
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	98				75-130
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	97				66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	111				71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	106				78-139
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	108				54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	87				24-159
Perfluoro[13C4]Butanoic Acid (MPFBA)	97				61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	100				58-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	19				10-117
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	107				79-136
Perfluoro[13C8]Octanoic Acid (M8PFOA)	101				75-130
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	76				72-140
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	107				74-139

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04,07-10 QC Batch ID: WG1602053-4 QC Sample: L2205287-02 Client ID: SB-4						
Perfluorobutanoic Acid (PFBA)	0.031J	0.031J	ng/g	NC		30
Perfluoropentanoic Acid (PFPeA)	0.100J	0.089J	ng/g	NC		30
Perfluorobutanesulfonic Acid (PFBS)	ND	ND	ng/g	NC		30
Perfluorohexanoic Acid (PFHxA)	0.083J	0.074J	ng/g	NC		30
Perfluoroheptanoic Acid (PFHpA)	0.083J	0.078J	ng/g	NC		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	ND	ng/g	NC		30
Perfluorooctanoic Acid (PFOA)	0.094J	0.071JF	ng/g	NC		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	ND	ng/g	NC		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	ND	ng/g	NC		30
Perfluorononanoic Acid (PFNA)	ND	ND	ng/g	NC		30
Perfluorooctanesulfonic Acid (PFOS)	ND	ND	ng/g	NC		30
Perfluorodecanoic Acid (PFDA)	ND	ND	ng/g	NC		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	ND	ng/g	NC		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	ND	ng/g	NC		30
Perfluoroundecanoic Acid (PFUnA)	ND	ND	ng/g	NC		30
Perfluorodecanesulfonic Acid (PFDS)	ND	ND	ng/g	NC		30
Perfluorooctanesulfonamide (FOSA)	ND	ND	ng/g	NC		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	ND	ng/g	NC		30
Perfluorododecanoic Acid (PFDoA)	ND	ND	ng/g	NC		30
Perfluorotridecanoic Acid (PFTrDA)	ND	ND	ng/g	NC		30

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04,07-10 QC Batch ID: WG1602053-4 QC Sample: L2205287-02 Client ID: SB-4						
Perfluorotetradecanoic Acid (PFTA)	0.072J	0.075J	ng/g	NC		30

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	99		103		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	104		107		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	104		110		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	93		95		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	109		108		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	102		107		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	98		100		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	91		93		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	78		79		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	102		105		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	98		106		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	105		109		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	84		83		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUOA)	115		117		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	91		91		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	95		100		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	108		117		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	102		103		24-159

# PCBS



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-01  
 Client ID: SB-3  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 10:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 02/15/22 13:54  
 Analyst: JWL  
 Percent Solids: 96%

Extraction Method: EPA 3546  
 Extraction Date: 02/15/22 01:16  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/15/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/15/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	33.7	2.99	1	A
Aroclor 1221	ND		ug/kg	33.7	3.38	1	A
Aroclor 1232	ND		ug/kg	33.7	7.14	1	A
Aroclor 1242	ND		ug/kg	33.7	4.54	1	A
Aroclor 1248	ND		ug/kg	33.7	5.06	1	A
Aroclor 1254	ND		ug/kg	33.7	3.69	1	A
Aroclor 1260	ND		ug/kg	33.7	6.23	1	A
Aroclor 1262	ND		ug/kg	33.7	4.28	1	A
Aroclor 1268	ND		ug/kg	33.7	3.49	1	A
PCBs, Total	ND		ug/kg	33.7	2.99	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	68		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	69		30-150	B

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-02  
 Client ID: SB-4  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 09:50  
 Date Received: 02/01/22  
 Field Prep: Not Specified

## Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 02/15/22 14:03  
 Analyst: JWL  
 Percent Solids: 87%

Extraction Method: EPA 3546  
 Extraction Date: 02/15/22 01:16  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/15/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/15/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.8	3.27	1	A
Aroclor 1221	ND		ug/kg	36.8	3.68	1	A
Aroclor 1232	ND		ug/kg	36.8	7.80	1	A
Aroclor 1242	ND		ug/kg	36.8	4.96	1	A
Aroclor 1248	ND		ug/kg	36.8	5.52	1	A
Aroclor 1254	ND		ug/kg	36.8	4.02	1	A
Aroclor 1260	ND		ug/kg	36.8	6.80	1	A
Aroclor 1262	ND		ug/kg	36.8	4.67	1	A
Aroclor 1268	ND		ug/kg	36.8	3.81	1	A
PCBs, Total	ND		ug/kg	36.8	3.27	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	49		30-150	A
Decachlorobiphenyl	60		30-150	A
2,4,5,6-Tetrachloro-m-xylene	50		30-150	B
Decachlorobiphenyl	58		30-150	B

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

**SAMPLE RESULTS**

**Lab ID:** L2205287-03  
**Client ID:** SB-7  
**Sample Location:** 2359 BEDFORD AVE, BROOKLYN, NY

**Date Collected:** 02/01/22 12:15  
**Date Received:** 02/01/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Soil  
**Analytical Method:** 1,8082A  
**Analytical Date:** 02/15/22 13:21  
**Analyst:** AD  
**Percent Solids:** 95%

**Extraction Method:** EPA 3546  
**Extraction Date:** 02/15/22 01:16  
**Cleanup Method:** EPA 3665A  
**Cleanup Date:** 02/15/22  
**Cleanup Method:** EPA 3660B  
**Cleanup Date:** 02/15/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/kg	34.3	3.04	1	A
Aroclor 1221	ND		ug/kg	34.3	3.43	1	A
Aroclor 1232	ND		ug/kg	34.3	7.26	1	A
Aroclor 1242	ND		ug/kg	34.3	4.62	1	A
Aroclor 1248	ND		ug/kg	34.3	5.14	1	A
Aroclor 1254	ND		ug/kg	34.3	3.75	1	A
Aroclor 1260	ND		ug/kg	34.3	6.33	1	A
Aroclor 1262	ND		ug/kg	34.3	4.35	1	A
Aroclor 1268	ND		ug/kg	34.3	3.55	1	A
PCBs, Total	ND		ug/kg	34.3	3.04	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	50		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	63		30-150	B

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-04  
 Client ID: SB-8  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 11:00  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 02/15/22 14:13  
 Analyst: JWL  
 Percent Solids: 90%

Extraction Method: EPA 3546  
 Extraction Date: 02/15/22 01:16  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/15/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/15/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.9	3.28	1	A
Aroclor 1221	ND		ug/kg	36.9	3.70	1	A
Aroclor 1232	ND		ug/kg	36.9	7.82	1	A
Aroclor 1242	ND		ug/kg	36.9	4.98	1	A
Aroclor 1248	ND		ug/kg	36.9	5.54	1	A
Aroclor 1254	ND		ug/kg	36.9	4.04	1	A
Aroclor 1260	ND		ug/kg	36.9	6.82	1	A
Aroclor 1262	ND		ug/kg	36.9	4.69	1	A
Aroclor 1268	ND		ug/kg	36.9	3.82	1	A
PCBs, Total	ND		ug/kg	36.9	3.28	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	65		30-150	A
2,4,5,6-Tetrachloro-m-xylene	65		30-150	B
Decachlorobiphenyl	66		30-150	B

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

**SAMPLE RESULTS**

Lab ID: L2205287-05  
 Client ID: GW-1  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 09:40  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8082A  
 Analytical Date: 02/17/22 23:36  
 Analyst: JM

Extraction Method: EPA 3510C  
 Extraction Date: 02/17/22 10:34  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/17/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/17/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Polychlorinated Biphenyls by GC - Westborough Lab</b>							
Aroclor 1016	ND		ug/l	0.071	0.061	1	A
Aroclor 1221	ND		ug/l	0.071	0.061	1	A
Aroclor 1232	ND		ug/l	0.071	0.061	1	A
Aroclor 1242	ND		ug/l	0.071	0.061	1	A
Aroclor 1248	ND		ug/l	0.071	0.061	1	A
Aroclor 1254	ND		ug/l	0.071	0.061	1	A
Aroclor 1260	ND		ug/l	0.071	0.061	1	A
Aroclor 1262	ND		ug/l	0.071	0.061	1	A
Aroclor 1268	ND		ug/l	0.071	0.061	1	A
PCBs, Total	ND		ug/l	0.071	0.061	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		30-150	A
Decachlorobiphenyl	53		30-150	A
2,4,5,6-Tetrachloro-m-xylene	82		30-150	B
Decachlorobiphenyl	60		30-150	B

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-06  
 Client ID: GW-2  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 12:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8082A  
 Analytical Date: 02/17/22 23:44  
 Analyst: JM

Extraction Method: EPA 3510C  
 Extraction Date: 02/17/22 10:34  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/17/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/17/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.071	0.061	1	A
Aroclor 1221	ND		ug/l	0.071	0.061	1	A
Aroclor 1232	ND		ug/l	0.071	0.061	1	A
Aroclor 1242	ND		ug/l	0.071	0.061	1	A
Aroclor 1248	ND		ug/l	0.071	0.061	1	A
Aroclor 1254	ND		ug/l	0.071	0.061	1	A
Aroclor 1260	ND		ug/l	0.071	0.061	1	A
Aroclor 1262	ND		ug/l	0.071	0.061	1	A
Aroclor 1268	ND		ug/l	0.071	0.061	1	A
PCBs, Total	ND		ug/l	0.071	0.061	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	89		30-150	A
Decachlorobiphenyl	52		30-150	A
2,4,5,6-Tetrachloro-m-xylene	92		30-150	B
Decachlorobiphenyl	52		30-150	B

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-07  
 Client ID: SB-6  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 13:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 02/16/22 09:20  
 Analyst: JWL  
 Percent Solids: 91%

Extraction Method: EPA 3546  
 Extraction Date: 02/15/22 01:16  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/15/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/16/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.1	3.12	1	A
Aroclor 1221	ND		ug/kg	35.1	3.52	1	A
Aroclor 1232	ND		ug/kg	35.1	7.45	1	A
Aroclor 1242	ND		ug/kg	35.1	4.74	1	A
Aroclor 1248	ND		ug/kg	35.1	5.27	1	A
Aroclor 1254	ND		ug/kg	35.1	3.84	1	A
Aroclor 1260	ND		ug/kg	35.1	6.49	1	A
Aroclor 1262	ND		ug/kg	35.1	4.46	1	A
Aroclor 1268	ND		ug/kg	35.1	3.64	1	A
PCBs, Total	ND		ug/kg	35.1	3.12	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		30-150	A
Decachlorobiphenyl	57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	60		30-150	B

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-08  
 Client ID: SB-5  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 14:00  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 02/15/22 14:22  
 Analyst: JWL  
 Percent Solids: 92%

Extraction Method: EPA 3546  
 Extraction Date: 02/15/22 01:16  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/15/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/15/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.4	3.15	1	A
Aroclor 1221	ND		ug/kg	35.4	3.55	1	A
Aroclor 1232	ND		ug/kg	35.4	7.51	1	A
Aroclor 1242	ND		ug/kg	35.4	4.78	1	A
Aroclor 1248	ND		ug/kg	35.4	5.31	1	A
Aroclor 1254	ND		ug/kg	35.4	3.88	1	A
Aroclor 1260	ND		ug/kg	35.4	6.55	1	A
Aroclor 1262	ND		ug/kg	35.4	4.50	1	A
Aroclor 1268	ND		ug/kg	35.4	3.67	1	A
PCBs, Total	ND		ug/kg	35.4	3.15	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	66		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	67		30-150	B



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-09  
 Client ID: SB-9  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 14:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 02/15/22 13:28  
 Analyst: AD  
 Percent Solids: 96%

Extraction Method: EPA 3546  
 Extraction Date: 02/15/22 01:16  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/15/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/15/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	34.2	3.04	1	A
Aroclor 1221	ND		ug/kg	34.2	3.42	1	A
Aroclor 1232	ND		ug/kg	34.2	7.25	1	A
Aroclor 1242	ND		ug/kg	34.2	4.61	1	A
Aroclor 1248	ND		ug/kg	34.2	5.13	1	A
Aroclor 1254	ND		ug/kg	34.2	3.74	1	A
Aroclor 1260	ND		ug/kg	34.2	6.32	1	A
Aroclor 1262	ND		ug/kg	34.2	4.34	1	A
Aroclor 1268	ND		ug/kg	34.2	3.54	1	A
PCBs, Total	ND		ug/kg	34.2	3.04	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		30-150	A
Decachlorobiphenyl	44		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	54		30-150	B

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-10  
 Client ID: SB-12  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 15:20  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 02/15/22 14:34  
 Analyst: JWL  
 Percent Solids: 95%

Extraction Method: EPA 3546  
 Extraction Date: 02/15/22 01:16  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/15/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/15/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	34.2	3.04	1	A
Aroclor 1221	ND		ug/kg	34.2	3.42	1	A
Aroclor 1232	ND		ug/kg	34.2	7.25	1	A
Aroclor 1242	ND		ug/kg	34.2	4.61	1	A
Aroclor 1248	ND		ug/kg	34.2	5.13	1	A
Aroclor 1254	ND		ug/kg	34.2	3.74	1	A
Aroclor 1260	ND		ug/kg	34.2	6.32	1	A
Aroclor 1262	ND		ug/kg	34.2	4.34	1	A
Aroclor 1268	ND		ug/kg	34.2	3.54	1	A
PCBs, Total	ND		ug/kg	34.2	3.04	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	64		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	63		30-150	B

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8082A  
Analytical Date: 02/15/22 12:32  
Analyst: AD

Extraction Method: EPA 3546  
Extraction Date: 02/15/22 00:56  
Cleanup Method: EPA 3665A  
Cleanup Date: 02/15/22  
Cleanup Method: EPA 3660B  
Cleanup Date: 02/15/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-04,07-10 Batch: WG1604898-1						
Aroclor 1016	ND		ug/kg	32.5	2.88	A
Aroclor 1221	ND		ug/kg	32.5	3.25	A
Aroclor 1232	ND		ug/kg	32.5	6.88	A
Aroclor 1242	ND		ug/kg	32.5	4.38	A
Aroclor 1248	ND		ug/kg	32.5	4.87	A
Aroclor 1254	ND		ug/kg	32.5	3.55	A
Aroclor 1260	ND		ug/kg	32.5	6.00	A
Aroclor 1262	ND		ug/kg	32.5	4.12	A
Aroclor 1268	ND		ug/kg	32.5	3.36	A
PCBs, Total	ND		ug/kg	32.5	2.88	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	56		30-150	A
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	66		30-150	B

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

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

Analytical Method: 1,8082A  
Analytical Date: 02/17/22 21:39  
Analyst: JM

Extraction Method: EPA 3510C  
Extraction Date: 02/17/22 10:34  
Cleanup Method: EPA 3665A  
Cleanup Date: 02/17/22  
Cleanup Method: EPA 3660B  
Cleanup Date: 02/17/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 05-06 Batch: WG1606066-1						
Aroclor 1016	ND		ug/l	0.071	0.061	A
Aroclor 1221	ND		ug/l	0.071	0.061	A
Aroclor 1232	ND		ug/l	0.071	0.061	A
Aroclor 1242	ND		ug/l	0.071	0.061	A
Aroclor 1248	ND		ug/l	0.071	0.061	A
Aroclor 1254	ND		ug/l	0.071	0.061	A
Aroclor 1260	ND		ug/l	0.071	0.061	A
Aroclor 1262	ND		ug/l	0.071	0.061	A
Aroclor 1268	ND		ug/l	0.071	0.061	A
PCBs, Total	ND		ug/l	0.071	0.061	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	96		30-150	A
Decachlorobiphenyl	112		30-150	A
2,4,5,6-Tetrachloro-m-xylene	97		30-150	B
Decachlorobiphenyl	115		30-150	B

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-04,07-10 Batch: WG1604898-2 WG1604898-3									
Aroclor 1016	60		61		40-140	2		50	A
Aroclor 1260	54		56		40-140	4		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		67		30-150	A
Decachlorobiphenyl	53		54		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		68		30-150	B
Decachlorobiphenyl	64		64		30-150	B

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 05-06 Batch: WG1606066-2 WG1606066-3									
Aroclor 1016	74		87		40-140	16		50	A
Aroclor 1260	75		86		40-140	13		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		91		30-150	A
Decachlorobiphenyl	89		90		30-150	A
2,4,5,6-Tetrachloro-m-xylene	79		88		30-150	B
Decachlorobiphenyl	94		97		30-150	B

# PESTICIDES

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-01 D  
 Client ID: SB-3  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 10:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 02/15/22 12:43  
 Analyst: JAW  
 Percent Solids: 96%

Extraction Method: EPA 3546  
 Extraction Date: 02/13/22 13:28  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	16.1	3.15	10	A
Lindane	ND		ug/kg	6.70	3.00	10	A
Alpha-BHC	ND		ug/kg	6.70	1.90	10	A
Beta-BHC	ND		ug/kg	16.1	6.10	10	A
Heptachlor	ND		ug/kg	8.04	3.60	10	A
Aldrin	ND		ug/kg	16.1	5.66	10	A
Heptachlor epoxide	ND		ug/kg	30.2	9.05	10	A
Endrin	ND		ug/kg	6.70	2.75	10	A
Endrin aldehyde	ND		ug/kg	20.1	7.04	10	A
Endrin ketone	ND		ug/kg	16.1	4.14	10	A
Dieldrin	ND		ug/kg	10.0	5.02	10	A
4,4'-DDE	ND		ug/kg	16.1	3.72	10	A
4,4'-DDD	ND		ug/kg	16.1	5.74	10	A
4,4'-DDT	ND		ug/kg	30.2	12.9	10	A
Endosulfan I	ND		ug/kg	16.1	3.80	10	A
Endosulfan II	ND		ug/kg	16.1	5.37	10	A
Endosulfan sulfate	ND		ug/kg	6.70	3.19	10	A
Methoxychlor	ND		ug/kg	30.2	9.38	10	A
Toxaphene	ND		ug/kg	302	84.4	10	A
cis-Chlordane	ND		ug/kg	20.1	5.60	10	A
trans-Chlordane	ND		ug/kg	20.1	5.31	10	A
Chlordane	ND		ug/kg	134	53.3	10	A



**Project Name:** ARC2202**Lab Number:** L2205287**Project Number:** ARC2202**Report Date:** 02/18/22**SAMPLE RESULTS**

Lab ID: L2205287-01 D

Date Collected: 02/01/22 10:30

Client ID: SB-3

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	101		30-150	A
Decachlorobiphenyl	94		30-150	A
2,4,5,6-Tetrachloro-m-xylene	106		30-150	B
Decachlorobiphenyl	44		30-150	B

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-02 D  
 Client ID: SB-4  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 09:50  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 02/15/22 12:54  
 Analyst: JAW  
 Percent Solids: 87%

Extraction Method: EPA 3546  
 Extraction Date: 02/13/22 13:28  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	17.3	3.39	10	A
Lindane	ND		ug/kg	7.21	3.22	10	A
Alpha-BHC	ND		ug/kg	7.21	2.05	10	A
Beta-BHC	ND		ug/kg	17.3	6.56	10	A
Heptachlor	ND		ug/kg	8.65	3.88	10	A
Aldrin	ND		ug/kg	17.3	6.09	10	A
Heptachlor epoxide	ND		ug/kg	32.4	9.73	10	A
Endrin	ND		ug/kg	7.21	2.96	10	A
Endrin aldehyde	ND		ug/kg	21.6	7.57	10	A
Endrin ketone	ND		ug/kg	17.3	4.46	10	A
Dieldrin	ND		ug/kg	10.8	5.41	10	A
4,4'-DDE	ND		ug/kg	17.3	4.00	10	A
4,4'-DDD	ND		ug/kg	17.3	6.17	10	A
4,4'-DDT	ND		ug/kg	32.4	13.9	10	A
Endosulfan I	ND		ug/kg	17.3	4.09	10	A
Endosulfan II	ND		ug/kg	17.3	5.78	10	A
Endosulfan sulfate	ND		ug/kg	7.21	3.43	10	A
Methoxychlor	ND		ug/kg	32.4	10.1	10	A
Toxaphene	ND		ug/kg	324	90.8	10	A
cis-Chlordane	ND		ug/kg	21.6	6.03	10	A
trans-Chlordane	ND		ug/kg	21.6	5.71	10	A
Chlordane	ND		ug/kg	144	57.3	10	A

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

**SAMPLE RESULTS**

Lab ID: L2205287-02 D

Date Collected: 02/01/22 09:50

Client ID: SB-4

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	97		30-150	A
Decachlorobiphenyl	51		30-150	A
2,4,5,6-Tetrachloro-m-xylene	104		30-150	B
Decachlorobiphenyl	80		30-150	B

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-03  
 Client ID: SB-7  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 12:15  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 02/15/22 14:01  
 Analyst: JAW  
 Percent Solids: 95%

Extraction Method: EPA 3546  
 Extraction Date: 02/13/22 13:28  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.62	0.318	1	A
Lindane	ND		ug/kg	0.677	0.302	1	A
Alpha-BHC	ND		ug/kg	0.677	0.192	1	A
Beta-BHC	ND		ug/kg	1.62	0.616	1	A
Heptachlor	ND		ug/kg	0.812	0.364	1	A
Aldrin	ND		ug/kg	1.62	0.572	1	A
Heptachlor epoxide	ND		ug/kg	3.05	0.914	1	A
Endrin	ND		ug/kg	0.677	0.278	1	A
Endrin aldehyde	ND		ug/kg	2.03	0.711	1	A
Endrin ketone	ND		ug/kg	1.62	0.418	1	A
Dieldrin	ND		ug/kg	1.02	0.508	1	A
4,4'-DDE	ND		ug/kg	1.62	0.376	1	A
4,4'-DDD	ND		ug/kg	1.62	0.579	1	A
4,4'-DDT	ND		ug/kg	3.05	1.31	1	A
Endosulfan I	ND		ug/kg	1.62	0.384	1	A
Endosulfan II	ND		ug/kg	1.62	0.543	1	A
Endosulfan sulfate	ND		ug/kg	0.677	0.322	1	A
Methoxychlor	ND		ug/kg	3.05	0.948	1	A
Toxaphene	ND		ug/kg	30.5	8.53	1	A
cis-Chlordane	ND		ug/kg	2.03	0.566	1	A
trans-Chlordane	ND		ug/kg	2.03	0.536	1	A
Chlordane	ND		ug/kg	13.5	5.38	1	A

**Project Name:** ARC2202**Lab Number:** L2205287**Project Number:** ARC2202**Report Date:** 02/18/22**SAMPLE RESULTS**

Lab ID: L2205287-03

Date Collected: 02/01/22 12:15

Client ID: SB-7

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	89		30-150	A
Decachlorobiphenyl	85		30-150	A
2,4,5,6-Tetrachloro-m-xylene	87		30-150	B
Decachlorobiphenyl	76		30-150	B

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-04  
 Client ID: SB-8  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 11:00  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 02/15/22 14:12  
 Analyst: JAW  
 Percent Solids: 90%

Extraction Method: EPA 3546  
 Extraction Date: 02/13/22 13:28  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.73	0.338	1	A
Lindane	ND		ug/kg	0.720	0.322	1	A
Alpha-BHC	ND		ug/kg	0.720	0.204	1	A
Beta-BHC	ND		ug/kg	1.73	0.655	1	A
Heptachlor	ND		ug/kg	0.864	0.387	1	A
Aldrin	ND		ug/kg	1.73	0.608	1	A
Heptachlor epoxide	ND		ug/kg	3.24	0.972	1	A
Endrin	ND		ug/kg	0.720	0.295	1	A
Endrin aldehyde	ND		ug/kg	2.16	0.756	1	A
Endrin ketone	ND		ug/kg	1.73	0.445	1	A
Dieldrin	ND		ug/kg	1.08	0.540	1	A
4,4'-DDE	ND		ug/kg	1.73	0.400	1	A
4,4'-DDD	ND		ug/kg	1.73	0.616	1	A
4,4'-DDT	ND		ug/kg	3.24	1.39	1	A
Endosulfan I	ND		ug/kg	1.73	0.408	1	A
Endosulfan II	ND		ug/kg	1.73	0.577	1	A
Endosulfan sulfate	ND		ug/kg	0.720	0.343	1	A
Methoxychlor	ND		ug/kg	3.24	1.01	1	A
Toxaphene	ND		ug/kg	32.4	9.07	1	A
cis-Chlordane	ND		ug/kg	2.16	0.602	1	A
trans-Chlordane	ND		ug/kg	2.16	0.570	1	A
Chlordane	ND		ug/kg	14.4	5.72	1	A

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

**SAMPLE RESULTS**

Lab ID: L2205287-04

Date Collected: 02/01/22 11:00

Client ID: SB-8

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	88		30-150	A
Decachlorobiphenyl	92		30-150	A
2,4,5,6-Tetrachloro-m-xylene	84		30-150	B
Decachlorobiphenyl	74		30-150	B

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

**SAMPLE RESULTS**

**Lab ID:** L2205287-05  
**Client ID:** GW-1  
**Sample Location:** 2359 BEDFORD AVE, BROOKLYN, NY

**Date Collected:** 02/01/22 09:40  
**Date Received:** 02/01/22  
**Field Prep:** Not Specified

**Sample Depth:**

**Matrix:** Water  
**Analytical Method:** 1,8081B  
**Analytical Date:** 02/06/22 23:15  
**Analyst:** JAW

**Extraction Method:** EPA 3510C  
**Extraction Date:** 02/06/22 00:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
<b>Organochlorine Pesticides by GC - Westborough Lab</b>							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A



**Project Name:** ARC2202**Lab Number:** L2205287**Project Number:** ARC2202**Report Date:** 02/18/22**SAMPLE RESULTS**

Lab ID: L2205287-05

Date Collected: 02/01/22 09:40

Client ID: GW-1

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	63		30-150	A
2,4,5,6-Tetrachloro-m-xylene	65		30-150	B
Decachlorobiphenyl	61		30-150	B

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-06  
 Client ID: GW-2  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 12:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8081B  
 Analytical Date: 02/06/22 23:25  
 Analyst: JAW

Extraction Method: EPA 3510C  
 Extraction Date: 02/06/22 00:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

**Project Name:** ARC2202**Lab Number:** L2205287**Project Number:** ARC2202**Report Date:** 02/18/22**SAMPLE RESULTS**

Lab ID: L2205287-06

Date Collected: 02/01/22 12:30

Client ID: GW-2

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	54		30-150	A
Decachlorobiphenyl	41		30-150	A
2,4,5,6-Tetrachloro-m-xylene	53		30-150	B
Decachlorobiphenyl	32		30-150	B

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-07  
 Client ID: SB-6  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 13:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 02/15/22 14:23  
 Analyst: JAW  
 Percent Solids: 91%

Extraction Method: EPA 3546  
 Extraction Date: 02/13/22 13:28  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.67	0.328	1	A
Lindane	ND		ug/kg	0.697	0.312	1	A
Alpha-BHC	ND		ug/kg	0.697	0.198	1	A
Beta-BHC	ND		ug/kg	1.67	0.634	1	A
Heptachlor	ND		ug/kg	0.836	0.375	1	A
Aldrin	ND		ug/kg	1.67	0.589	1	A
Heptachlor epoxide	ND		ug/kg	3.14	0.941	1	A
Endrin	ND		ug/kg	0.697	0.286	1	A
Endrin aldehyde	ND		ug/kg	2.09	0.732	1	A
Endrin ketone	ND		ug/kg	1.67	0.431	1	A
Dieldrin	ND		ug/kg	1.04	0.523	1	A
4,4'-DDE	ND		ug/kg	1.67	0.387	1	A
4,4'-DDD	ND		ug/kg	1.67	0.597	1	A
4,4'-DDT	ND		ug/kg	3.14	1.34	1	A
Endosulfan I	ND		ug/kg	1.67	0.395	1	A
Endosulfan II	ND		ug/kg	1.67	0.559	1	A
Endosulfan sulfate	ND		ug/kg	0.697	0.332	1	A
Methoxychlor	ND		ug/kg	3.14	0.976	1	A
Toxaphene	ND		ug/kg	31.4	8.78	1	A
cis-Chlordane	ND		ug/kg	2.09	0.583	1	A
trans-Chlordane	ND		ug/kg	2.09	0.552	1	A
Chlordane	ND		ug/kg	13.9	5.54	1	A

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

**SAMPLE RESULTS**

Lab ID: L2205287-07

Date Collected: 02/01/22 13:30

Client ID: SB-6

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	102		30-150	A
Decachlorobiphenyl	106		30-150	A
2,4,5,6-Tetrachloro-m-xylene	95		30-150	B
Decachlorobiphenyl	84		30-150	B

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-08  
 Client ID: SB-5  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 14:00  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 02/15/22 14:35  
 Analyst: JAW  
 Percent Solids: 92%

Extraction Method: EPA 3546  
 Extraction Date: 02/13/22 13:28  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.70	0.332	1	A
Lindane	ND		ug/kg	0.706	0.316	1	A
Alpha-BHC	ND		ug/kg	0.706	0.200	1	A
Beta-BHC	ND		ug/kg	1.70	0.643	1	A
Heptachlor	ND		ug/kg	0.848	0.380	1	A
Aldrin	ND		ug/kg	1.70	0.597	1	A
Heptachlor epoxide	ND		ug/kg	3.18	0.953	1	A
Endrin	ND		ug/kg	0.706	0.290	1	A
Endrin aldehyde	ND		ug/kg	2.12	0.742	1	A
Endrin ketone	ND		ug/kg	1.70	0.436	1	A
Dieldrin	ND		ug/kg	1.06	0.530	1	A
4,4'-DDE	ND		ug/kg	1.70	0.392	1	A
4,4'-DDD	ND		ug/kg	1.70	0.604	1	A
4,4'-DDT	ND		ug/kg	3.18	1.36	1	A
Endosulfan I	ND		ug/kg	1.70	0.400	1	A
Endosulfan II	ND		ug/kg	1.70	0.566	1	A
Endosulfan sulfate	ND		ug/kg	0.706	0.336	1	A
Methoxychlor	ND		ug/kg	3.18	0.989	1	A
Toxaphene	ND		ug/kg	31.8	8.90	1	A
cis-Chlordane	ND		ug/kg	2.12	0.590	1	A
trans-Chlordane	ND		ug/kg	2.12	0.559	1	A
Chlordane	ND		ug/kg	14.1	5.62	1	A

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

**SAMPLE RESULTS**

Lab ID: L2205287-08

Date Collected: 02/01/22 14:00

Client ID: SB-5

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	96		30-150	A
Decachlorobiphenyl	104		30-150	A
2,4,5,6-Tetrachloro-m-xylene	92		30-150	B
Decachlorobiphenyl	84		30-150	B

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-09  
 Client ID: SB-9  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 14:30  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 02/15/22 14:46  
 Analyst: JAW  
 Percent Solids: 96%

Extraction Method: EPA 3546  
 Extraction Date: 02/13/22 13:28  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.61	0.315	1	A
Lindane	ND		ug/kg	0.670	0.299	1	A
Alpha-BHC	ND		ug/kg	0.670	0.190	1	A
Beta-BHC	ND		ug/kg	1.61	0.609	1	A
Heptachlor	ND		ug/kg	0.803	0.360	1	A
Aldrin	ND		ug/kg	1.61	0.566	1	A
Heptachlor epoxide	ND		ug/kg	3.01	0.904	1	A
Endrin	ND		ug/kg	0.670	0.274	1	A
Endrin aldehyde	ND		ug/kg	2.01	0.703	1	A
Endrin ketone	ND		ug/kg	1.61	0.414	1	A
Dieldrin	ND		ug/kg	1.00	0.502	1	A
4,4'-DDE	ND		ug/kg	1.61	0.372	1	A
4,4'-DDD	ND		ug/kg	1.61	0.573	1	A
4,4'-DDT	ND		ug/kg	3.01	1.29	1	A
Endosulfan I	ND		ug/kg	1.61	0.380	1	A
Endosulfan II	ND		ug/kg	1.61	0.537	1	A
Endosulfan sulfate	ND		ug/kg	0.670	0.319	1	A
Methoxychlor	ND		ug/kg	3.01	0.937	1	A
Toxaphene	ND		ug/kg	30.1	8.44	1	A
cis-Chlordane	ND		ug/kg	2.01	0.560	1	A
trans-Chlordane	ND		ug/kg	2.01	0.530	1	A
Chlordane	ND		ug/kg	13.4	5.32	1	A



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

**SAMPLE RESULTS**

Lab ID: L2205287-09

Date Collected: 02/01/22 14:30

Client ID: SB-9

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	92		30-150	A
Decachlorobiphenyl	98		30-150	A
2,4,5,6-Tetrachloro-m-xylene	86		30-150	B
Decachlorobiphenyl	80		30-150	B

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-10  
 Client ID: SB-12  
 Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Date Collected: 02/01/22 15:20  
 Date Received: 02/01/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 02/15/22 14:55  
 Analyst: JAW  
 Percent Solids: 95%

Extraction Method: EPA 3546  
 Extraction Date: 02/13/22 13:28  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.65	0.323	1	A
Lindane	ND		ug/kg	0.687	0.307	1	A
Alpha-BHC	ND		ug/kg	0.687	0.195	1	A
Beta-BHC	ND		ug/kg	1.65	0.625	1	A
Heptachlor	ND		ug/kg	0.824	0.369	1	A
Aldrin	ND		ug/kg	1.65	0.580	1	A
Heptachlor epoxide	ND		ug/kg	3.09	0.927	1	A
Endrin	ND		ug/kg	0.687	0.282	1	A
Endrin aldehyde	ND		ug/kg	2.06	0.721	1	A
Endrin ketone	ND		ug/kg	1.65	0.424	1	A
Dieldrin	ND		ug/kg	1.03	0.515	1	A
4,4'-DDE	ND		ug/kg	1.65	0.381	1	A
4,4'-DDD	ND		ug/kg	1.65	0.588	1	A
4,4'-DDT	ND		ug/kg	3.09	1.32	1	A
Endosulfan I	ND		ug/kg	1.65	0.389	1	A
Endosulfan II	ND		ug/kg	1.65	0.551	1	A
Endosulfan sulfate	ND		ug/kg	0.687	0.327	1	A
Methoxychlor	ND		ug/kg	3.09	0.961	1	A
Toxaphene	ND		ug/kg	30.9	8.65	1	A
cis-Chlordane	ND		ug/kg	2.06	0.574	1	A
trans-Chlordane	ND		ug/kg	2.06	0.544	1	A
Chlordane	ND		ug/kg	13.7	5.46	1	A

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

**SAMPLE RESULTS**

Lab ID: L2205287-10

Date Collected: 02/01/22 15:20

Client ID: SB-12

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	96		30-150	A
2,4,5,6-Tetrachloro-m-xylene	93		30-150	B
Decachlorobiphenyl	87		30-150	B

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8081B  
 Analytical Date: 02/06/22 20:50  
 Analyst: JAW

Extraction Method: EPA 3510C  
 Extraction Date: 02/06/22 00:14

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 05-06 Batch: WG1601844-1						
Delta-BHC	ND		ug/l	0.014	0.003	A
Lindane	ND		ug/l	0.014	0.003	A
Alpha-BHC	ND		ug/l	0.014	0.003	A
Beta-BHC	ND		ug/l	0.014	0.004	A
Heptachlor	ND		ug/l	0.014	0.002	A
Aldrin	ND		ug/l	0.014	0.002	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	A
Endrin	ND		ug/l	0.029	0.003	A
Endrin aldehyde	ND		ug/l	0.029	0.006	A
Endrin ketone	ND		ug/l	0.029	0.003	A
Dieldrin	ND		ug/l	0.029	0.003	A
4,4'-DDE	ND		ug/l	0.029	0.003	A
4,4'-DDD	ND		ug/l	0.029	0.003	A
4,4'-DDT	ND		ug/l	0.029	0.003	A
Endosulfan I	ND		ug/l	0.014	0.002	A
Endosulfan II	ND		ug/l	0.029	0.004	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	A
Methoxychlor	ND		ug/l	0.143	0.005	A
Toxaphene	ND		ug/l	0.143	0.045	A
cis-Chlordane	ND		ug/l	0.014	0.005	A
trans-Chlordane	ND		ug/l	0.014	0.004	A
Chlordane	ND		ug/l	0.143	0.033	A

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8081B  
 Analytical Date: 02/06/22 20:50  
 Analyst: JAW

Extraction Method: EPA 3510C  
 Extraction Date: 02/06/22 00:14

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 05-06 Batch: WG1601844-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	21	Q	30-150	A
Decachlorobiphenyl	68		30-150	A
2,4,5,6-Tetrachloro-m-xylene	22	Q	30-150	B
Decachlorobiphenyl	63		30-150	B

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8081B  
 Analytical Date: 02/14/22 13:59  
 Analyst: SDC

Extraction Method: EPA 3546  
 Extraction Date: 02/13/22 13:28  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-04,07-10 Batch: WG1604457-1						
Delta-BHC	ND		ug/kg	1.54	0.302	A
Lindane	ND		ug/kg	0.643	0.287	A
Alpha-BHC	ND		ug/kg	0.643	0.183	A
Beta-BHC	ND		ug/kg	1.54	0.585	A
Heptachlor	ND		ug/kg	0.772	0.346	A
Aldrin	ND		ug/kg	1.54	0.543	A
Heptachlor epoxide	ND		ug/kg	2.89	0.868	A
Endrin	ND		ug/kg	0.643	0.264	A
Endrin aldehyde	ND		ug/kg	1.93	0.675	A
Endrin ketone	ND		ug/kg	1.54	0.397	A
Dieldrin	ND		ug/kg	0.965	0.482	A
4,4'-DDE	ND		ug/kg	1.54	0.357	A
4,4'-DDD	ND		ug/kg	1.54	0.550	A
4,4'-DDT	ND		ug/kg	2.89	1.24	A
Endosulfan I	ND		ug/kg	1.54	0.365	A
Endosulfan II	ND		ug/kg	1.54	0.516	A
Endosulfan sulfate	ND		ug/kg	0.643	0.306	A
Methoxychlor	ND		ug/kg	2.89	0.900	A
Toxaphene	ND		ug/kg	28.9	8.10	A
cis-Chlordane	ND		ug/kg	1.93	0.538	A
trans-Chlordane	ND		ug/kg	1.93	0.509	A
Chlordane	ND		ug/kg	12.9	5.11	A

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

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

Analytical Method: 1,8081B  
Analytical Date: 02/14/22 13:59  
Analyst: SDC

Extraction Method: EPA 3546  
Extraction Date: 02/13/22 13:28  
Cleanup Method: EPA 3620B  
Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-04,07-10 Batch: WG1604457-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	83		30-150	B

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 05-06 Batch: WG1601844-2 WG1601844-3									
Delta-BHC	46		51		30-150	11		20	A
Lindane	64		68		30-150	7		20	A
Alpha-BHC	64		68		30-150	6		20	A
Beta-BHC	65		69		30-150	5		20	A
Heptachlor	67		72		30-150	6		20	A
Aldrin	64		66		30-150	3		20	A
Heptachlor epoxide	64		68		30-150	5		20	A
Endrin	67		69		30-150	3		20	A
Endrin aldehyde	59		65		30-150	9		20	A
Endrin ketone	70		75		30-150	7		20	A
Dieldrin	68		70		30-150	4		20	A
4,4'-DDE	65		69		30-150	6		20	A
4,4'-DDD	72		74		30-150	3		20	A
4,4'-DDT	64		66		30-150	4		20	A
Endosulfan I	59		62		30-150	5		20	A
Endosulfan II	63		68		30-150	8		20	A
Endosulfan sulfate	56		62		30-150	10		20	A
Methoxychlor	70		73		30-150	4		20	A
cis-Chlordane	57		62		30-150	8		20	A
trans-Chlordane	73		76		30-150	5		20	A



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 05-06 Batch: WG1601844-2 WG1601844-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	56		68		30-150	A
Decachlorobiphenyl	67		67		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		65		30-150	B
Decachlorobiphenyl	63		64		30-150	B

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-04,07-10 Batch: WG1604457-2 WG1604457-3									
Delta-BHC	78		82		30-150	5		30	A
Lindane	76		79		30-150	4		30	A
Alpha-BHC	75		79		30-150	5		30	A
Beta-BHC	75		79		30-150	5		30	A
Heptachlor	78		82		30-150	5		30	A
Aldrin	71		76		30-150	7		30	A
Heptachlor epoxide	62		64		30-150	3		30	A
Endrin	72		76		30-150	5		30	A
Endrin aldehyde	47		49		30-150	4		30	A
Endrin ketone	68		69		30-150	1		30	A
Dieldrin	73		79		30-150	8		30	A
4,4'-DDE	67		72		30-150	7		30	A
4,4'-DDD	74		79		30-150	7		30	A
4,4'-DDT	74		79		30-150	7		30	A
Endosulfan I	66		74		30-150	11		30	A
Endosulfan II	70		73		30-150	4		30	A
Endosulfan sulfate	52		55		30-150	6		30	A
Methoxychlor	71		78		30-150	9		30	A
cis-Chlordane	61		65		30-150	6		30	A
trans-Chlordane	72		76		30-150	5		30	A

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-04,07-10 Batch: WG1604457-2 WG1604457-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		68		30-150	A
Decachlorobiphenyl	80		82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		67		30-150	B
Decachlorobiphenyl	81		84		30-150	B

## METALS

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-01

Date Collected: 02/01/22 10:30

Client ID: SB-3

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	2850		mg/kg	7.80	2.10	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Antimony, Total	0.663	J	mg/kg	3.90	0.296	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Arsenic, Total	2.21		mg/kg	0.780	0.162	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Barium, Total	25.2		mg/kg	0.780	0.136	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Beryllium, Total	0.359	J	mg/kg	0.390	0.026	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Cadmium, Total	0.593	J	mg/kg	0.780	0.076	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Calcium, Total	1800		mg/kg	7.80	2.73	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Chromium, Total	7.97		mg/kg	0.780	0.075	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Cobalt, Total	3.58		mg/kg	1.56	0.129	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Copper, Total	22.2		mg/kg	0.780	0.201	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Iron, Total	8770		mg/kg	3.90	0.704	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Lead, Total	23.1		mg/kg	3.90	0.209	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Magnesium, Total	1560		mg/kg	7.80	1.20	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Manganese, Total	192		mg/kg	0.780	0.124	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Mercury, Total	ND		mg/kg	0.065	0.043	1	02/04/22 07:55	02/15/22 15:23	EPA 7471B	1,7471B	AC
Nickel, Total	26.0		mg/kg	1.95	0.189	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Potassium, Total	376		mg/kg	195	11.2	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Selenium, Total	ND		mg/kg	1.56	0.201	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	0.780	0.221	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Sodium, Total	138	J	mg/kg	156	2.46	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	1.56	0.246	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Vanadium, Total	12.8		mg/kg	0.780	0.158	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW
Zinc, Total	35.0		mg/kg	3.90	0.228	2	02/04/22 06:15	02/15/22 14:59	EPA 3050B	1,6010D	EW



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-02

Date Collected: 02/01/22 09:50

Client ID: SB-4

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	1920		mg/kg	22.1	5.98	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Antimony, Total	ND		mg/kg	11.1	0.842	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Arsenic, Total	1.17	J	mg/kg	2.21	0.461	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Barium, Total	14.5		mg/kg	2.21	0.385	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Beryllium, Total	0.177	J	mg/kg	1.11	0.073	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Cadmium, Total	0.376	J	mg/kg	2.21	0.217	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Calcium, Total	566		mg/kg	22.1	7.75	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Chromium, Total	9.77		mg/kg	2.21	0.213	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Cobalt, Total	5.54		mg/kg	4.43	0.368	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Copper, Total	9.52		mg/kg	2.21	0.571	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Iron, Total	6670		mg/kg	11.1	2.00	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Lead, Total	7.24	J	mg/kg	11.1	0.594	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Magnesium, Total	1720		mg/kg	22.1	3.41	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Manganese, Total	88.8		mg/kg	2.21	0.352	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Mercury, Total	ND		mg/kg	0.073	0.048	1	02/04/22 07:55	02/15/22 15:27	EPA 7471B	1,7471B	AC
Nickel, Total	47.5		mg/kg	5.54	0.536	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Potassium, Total	278	J	mg/kg	554	31.9	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Selenium, Total	ND		mg/kg	4.43	0.571	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Silver, Total	ND		mg/kg	2.21	0.627	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Sodium, Total	104	J	mg/kg	443	6.98	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Thallium, Total	ND		mg/kg	4.43	0.698	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Vanadium, Total	12.8		mg/kg	2.21	0.450	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD
Zinc, Total	27.0		mg/kg	11.1	0.649	5	02/04/22 06:15	02/15/22 17:18	EPA 3050B	1,6010D	GD



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-03

Date Collected: 02/01/22 12:15

Client ID: SB-7

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	2430		mg/kg	20.0	5.40	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Antimony, Total	ND		mg/kg	10.0	0.760	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Arsenic, Total	ND		mg/kg	2.00	0.416	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Barium, Total	13.7		mg/kg	2.00	0.348	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Beryllium, Total	0.180	J	mg/kg	1.00	0.066	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Cadmium, Total	0.240	J	mg/kg	2.00	0.196	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Calcium, Total	765		mg/kg	20.0	7.00	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Chromium, Total	6.98		mg/kg	2.00	0.192	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Cobalt, Total	6.06		mg/kg	4.00	0.332	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Copper, Total	9.94		mg/kg	2.00	0.516	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Iron, Total	7050		mg/kg	10.0	1.80	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Lead, Total	3.94	J	mg/kg	10.0	0.536	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Magnesium, Total	3340		mg/kg	20.0	3.08	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Manganese, Total	186		mg/kg	2.00	0.318	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Mercury, Total	ND		mg/kg	0.067	0.043	1	02/04/22 07:55	02/15/22 15:30	EPA 7471B	1,7471B	AC
Nickel, Total	55.3		mg/kg	5.00	0.484	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Potassium, Total	481	J	mg/kg	500	28.8	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Selenium, Total	ND		mg/kg	4.00	0.516	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Silver, Total	ND		mg/kg	2.00	0.566	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Sodium, Total	79.2	J	mg/kg	400	6.30	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Thallium, Total	ND		mg/kg	4.00	0.630	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Vanadium, Total	9.20		mg/kg	2.00	0.406	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD
Zinc, Total	22.2		mg/kg	10.0	0.586	5	02/04/22 06:15	02/15/22 17:22	EPA 3050B	1,6010D	GD



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-04

Date Collected: 02/01/22 11:00

Client ID: SB-8

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	2630		mg/kg	8.58	2.32	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	4.29	0.326	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Arsenic, Total	1.02		mg/kg	0.858	0.178	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Barium, Total	13.0		mg/kg	0.858	0.149	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Beryllium, Total	0.266	J	mg/kg	0.429	0.028	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Cadmium, Total	0.438	J	mg/kg	0.858	0.084	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Calcium, Total	998		mg/kg	8.58	3.00	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Chromium, Total	7.39		mg/kg	0.858	0.082	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Cobalt, Total	4.45		mg/kg	1.72	0.142	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Copper, Total	16.7		mg/kg	0.858	0.221	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Iron, Total	7620		mg/kg	4.29	0.775	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Lead, Total	5.22		mg/kg	4.29	0.230	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Magnesium, Total	2660		mg/kg	8.58	1.32	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Manganese, Total	99.0		mg/kg	0.858	0.136	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Mercury, Total	ND		mg/kg	0.071	0.046	1	02/04/22 07:55	02/15/22 15:33	EPA 7471B	1,7471B	AC
Nickel, Total	35.2		mg/kg	2.15	0.208	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Potassium, Total	568		mg/kg	215	12.4	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Selenium, Total	ND		mg/kg	1.72	0.221	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	0.858	0.243	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Sodium, Total	76.5	J	mg/kg	172	2.70	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	1.72	0.270	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Vanadium, Total	10.2		mg/kg	0.858	0.174	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW
Zinc, Total	39.5		mg/kg	4.29	0.252	2	02/04/22 06:15	02/15/22 15:13	EPA 3050B	1,6010D	EW





Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-05

Date Collected: 02/01/22 09:40

Client ID: GW-1

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	14.1		mg/l	0.0100	0.00327	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Antimony, Total	0.00597		mg/l	0.00400	0.00042	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Arsenic, Total	0.00700		mg/l	0.00050	0.00016	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Barium, Total	0.2389		mg/l	0.00050	0.00017	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Beryllium, Total	0.00106		mg/l	0.00050	0.00010	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Cadmium, Total	0.00063		mg/l	0.00020	0.00005	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Calcium, Total	60.7		mg/l	0.100	0.0394	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Chromium, Total	0.05275		mg/l	0.00100	0.00017	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Cobalt, Total	0.03963		mg/l	0.00050	0.00016	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Copper, Total	0.1785		mg/l	0.00100	0.00038	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Iron, Total	36.9		mg/l	0.0500	0.0191	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Lead, Total	0.1592		mg/l	0.00100	0.00034	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Magnesium, Total	36.3		mg/l	0.0700	0.0242	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Manganese, Total	2.240		mg/l	0.00100	0.00044	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Mercury, Total	0.00017	J	mg/l	0.00020	0.00009	1	02/08/22 16:24	02/10/22 14:28	EPA 7470A	1,7470A	AC
Nickel, Total	0.3162		mg/l	0.00200	0.00055	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Potassium, Total	12.2		mg/l	0.100	0.0309	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Selenium, Total	0.00626		mg/l	0.00500	0.00173	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Silver, Total	0.00072		mg/l	0.00040	0.00016	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Sodium, Total	119.		mg/l	0.100	0.0293	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Thallium, Total	0.00054	J	mg/l	0.00100	0.00014	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Vanadium, Total	0.05678		mg/l	0.00500	0.00157	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD
Zinc, Total	0.2965		mg/l	0.01000	0.00341	1	02/08/22 15:13	02/09/22 19:25	EPA 3005A	1,6020B	CD



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-06

Date Collected: 02/01/22 12:30

Client ID: GW-2

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	93.6		mg/l	0.0100	0.00327	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Antimony, Total	ND		mg/l	0.00400	0.00042	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Arsenic, Total	0.02086		mg/l	0.00050	0.00016	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Barium, Total	2.871		mg/l	0.00050	0.00017	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Beryllium, Total	0.01201		mg/l	0.00050	0.00010	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Cadmium, Total	0.00703		mg/l	0.00020	0.00005	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Calcium, Total	140.		mg/l	0.100	0.0394	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Chromium, Total	0.7295		mg/l	0.00100	0.00017	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Cobalt, Total	0.4317		mg/l	0.00050	0.00016	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Copper, Total	0.7960		mg/l	0.00100	0.00038	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Iron, Total	185.		mg/l	0.0500	0.0191	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Lead, Total	0.3452		mg/l	0.00100	0.00034	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Magnesium, Total	186.		mg/l	0.0700	0.0242	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Manganese, Total	40.06		mg/l	0.00500	0.00220	5	02/08/22 15:13	02/10/22 11:14	EPA 3005A	1,6020B	SV
Mercury, Total	0.00039		mg/l	0.00020	0.00009	1	02/08/22 16:24	02/10/22 14:18	EPA 7470A	1,7470A	AC
Nickel, Total	5.336		mg/l	0.00200	0.00055	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Potassium, Total	25.8		mg/l	0.100	0.0309	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Selenium, Total	0.0536		mg/l	0.00500	0.00173	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Silver, Total	0.00044		mg/l	0.00040	0.00016	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Sodium, Total	47.5		mg/l	0.100	0.0293	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Thallium, Total	0.00108		mg/l	0.00100	0.00014	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Vanadium, Total	0.1383		mg/l	0.00500	0.00157	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD
Zinc, Total	1.345		mg/l	0.01000	0.00341	1	02/08/22 15:13	02/09/22 20:09	EPA 3005A	1,6020B	CD



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-07

Date Collected: 02/01/22 13:30

Client ID: SB-6

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	3330		mg/kg	8.34	2.25	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	4.17	0.317	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Arsenic, Total	0.618	J	mg/kg	0.834	0.174	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Barium, Total	23.6		mg/kg	0.834	0.145	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Beryllium, Total	0.217	J	mg/kg	0.417	0.028	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Cadmium, Total	0.384	J	mg/kg	0.834	0.082	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Calcium, Total	814		mg/kg	8.34	2.92	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Chromium, Total	8.45		mg/kg	0.834	0.080	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Cobalt, Total	4.61		mg/kg	1.67	0.138	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Copper, Total	11.2		mg/kg	0.834	0.215	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Iron, Total	9840		mg/kg	4.17	0.754	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Lead, Total	5.00		mg/kg	4.17	0.224	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Magnesium, Total	2080		mg/kg	8.34	1.28	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Manganese, Total	212		mg/kg	0.834	0.133	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Mercury, Total	ND		mg/kg	0.069	0.045	1	02/04/22 07:55	02/15/22 15:37	EPA 7471B	1,7471B	AC
Nickel, Total	30.0		mg/kg	2.09	0.202	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Potassium, Total	899		mg/kg	209	12.0	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Selenium, Total	0.467	J	mg/kg	1.67	0.215	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	0.834	0.236	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Sodium, Total	116	J	mg/kg	167	2.63	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	1.67	0.263	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Vanadium, Total	14.0		mg/kg	0.834	0.169	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW
Zinc, Total	20.1		mg/kg	4.17	0.244	2	02/04/22 06:15	02/15/22 15:17	EPA 3050B	1,6010D	EW



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-08

Date Collected: 02/01/22 14:00

Client ID: SB-5

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	2480		mg/kg	8.47	2.29	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Antimony, Total	ND		mg/kg	4.23	0.322	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Arsenic, Total	0.686	J	mg/kg	0.847	0.176	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Barium, Total	17.0		mg/kg	0.847	0.147	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Beryllium, Total	0.144	J	mg/kg	0.423	0.028	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Cadmium, Total	0.415	J	mg/kg	0.847	0.083	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Calcium, Total	640		mg/kg	8.47	2.96	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Chromium, Total	6.91		mg/kg	0.847	0.081	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Cobalt, Total	4.38		mg/kg	1.69	0.140	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Copper, Total	8.68		mg/kg	0.847	0.218	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Iron, Total	10800		mg/kg	4.23	0.764	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Lead, Total	2.63	J	mg/kg	4.23	0.227	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Magnesium, Total	1300		mg/kg	8.47	1.30	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Manganese, Total	205		mg/kg	0.847	0.135	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Mercury, Total	ND		mg/kg	0.070	0.046	1	02/04/22 07:55	02/15/22 15:57	EPA 7471B	1,7471B	AC
Nickel, Total	19.6		mg/kg	2.12	0.205	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Potassium, Total	431		mg/kg	212	12.2	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Selenium, Total	ND		mg/kg	1.69	0.218	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Silver, Total	ND		mg/kg	0.847	0.240	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Sodium, Total	79.1	J	mg/kg	169	2.67	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Thallium, Total	ND		mg/kg	1.69	0.267	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Vanadium, Total	14.2		mg/kg	0.847	0.172	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW
Zinc, Total	15.7		mg/kg	4.23	0.248	2	02/04/22 06:15	02/15/22 15:22	EPA 3050B	1,6010D	EW



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-09

Date Collected: 02/01/22 14:30

Client ID: SB-9

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	2430		mg/kg	7.94	2.14	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	3.97	0.302	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Arsenic, Total	0.444	J	mg/kg	0.794	0.165	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Barium, Total	16.7		mg/kg	0.794	0.138	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Beryllium, Total	0.143	J	mg/kg	0.397	0.026	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Cadmium, Total	0.278	J	mg/kg	0.794	0.078	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Calcium, Total	632		mg/kg	7.94	2.78	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Chromium, Total	5.60		mg/kg	0.794	0.076	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Cobalt, Total	3.46		mg/kg	1.59	0.132	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Copper, Total	7.25		mg/kg	0.794	0.205	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Iron, Total	7110		mg/kg	3.97	0.717	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Lead, Total	2.75	J	mg/kg	3.97	0.213	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Magnesium, Total	1540		mg/kg	7.94	1.22	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Manganese, Total	171		mg/kg	0.794	0.126	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Mercury, Total	ND		mg/kg	0.067	0.043	1	02/04/22 07:55	02/15/22 16:01	EPA 7471B	1,7471B	AC
Nickel, Total	23.6		mg/kg	1.98	0.192	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Potassium, Total	489		mg/kg	198	11.4	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Selenium, Total	0.278	J	mg/kg	1.59	0.205	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.794	0.225	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Sodium, Total	80.0	J	mg/kg	159	2.50	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.59	0.250	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Vanadium, Total	8.26		mg/kg	0.794	0.161	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC
Zinc, Total	15.3		mg/kg	3.97	0.232	2	02/04/22 06:15	02/15/22 15:26	EPA 3050B	1,6010D	MC



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-10

Date Collected: 02/01/22 15:20

Client ID: SB-12

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	2480		mg/kg	7.95	2.15	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	3.97	0.302	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Arsenic, Total	0.477	J	mg/kg	0.795	0.165	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Barium, Total	16.6		mg/kg	0.795	0.138	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Beryllium, Total	0.143	J	mg/kg	0.397	0.026	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Cadmium, Total	0.310	J	mg/kg	0.795	0.078	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Calcium, Total	659		mg/kg	7.95	2.78	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Chromium, Total	6.39		mg/kg	0.795	0.076	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Cobalt, Total	3.74		mg/kg	1.59	0.132	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Copper, Total	7.18		mg/kg	0.795	0.205	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Iron, Total	7350		mg/kg	3.97	0.718	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Lead, Total	2.18	J	mg/kg	3.97	0.213	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Magnesium, Total	1400		mg/kg	7.95	1.22	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Manganese, Total	228		mg/kg	0.795	0.126	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Mercury, Total	ND		mg/kg	0.066	0.043	1	02/04/22 07:55	02/15/22 16:04	EPA 7471B	1,7471B	AC
Nickel, Total	23.1		mg/kg	1.99	0.192	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Potassium, Total	413		mg/kg	199	11.4	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Selenium, Total	ND		mg/kg	1.59	0.205	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.795	0.225	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Sodium, Total	102	J	mg/kg	159	2.50	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.59	0.250	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Vanadium, Total	8.77		mg/kg	0.795	0.161	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC
Zinc, Total	15.6		mg/kg	3.97	0.233	2	02/04/22 06:15	02/15/22 15:31	EPA 3050B	1,6010D	MC



Project Name: ARC2202  
Project Number: ARC2202

Lab Number: L2205287  
Report Date: 02/18/22

## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-04,07-10 Batch: WG1601167-1										
Aluminum, Total	ND		mg/kg	4.00	1.08	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Antimony, Total	ND		mg/kg	2.00	0.152	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Arsenic, Total	0.128	J	mg/kg	0.400	0.083	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Barium, Total	ND		mg/kg	0.400	0.070	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Beryllium, Total	ND		mg/kg	0.200	0.013	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Cadmium, Total	ND		mg/kg	0.400	0.039	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Calcium, Total	ND		mg/kg	4.00	1.40	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Chromium, Total	ND		mg/kg	0.400	0.038	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Cobalt, Total	ND		mg/kg	0.800	0.066	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Copper, Total	ND		mg/kg	0.400	0.103	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Iron, Total	ND		mg/kg	2.00	0.361	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Lead, Total	ND		mg/kg	2.00	0.107	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Magnesium, Total	ND		mg/kg	4.00	0.616	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Manganese, Total	ND		mg/kg	0.400	0.064	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Nickel, Total	ND		mg/kg	1.00	0.097	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Potassium, Total	ND		mg/kg	100	5.76	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Selenium, Total	ND		mg/kg	0.800	0.103	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Silver, Total	ND		mg/kg	0.400	0.113	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Sodium, Total	2.36	J	mg/kg	80.0	1.26	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Thallium, Total	ND		mg/kg	0.800	0.126	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Vanadium, Total	ND		mg/kg	0.400	0.081	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW
Zinc, Total	ND		mg/kg	2.00	0.117	1	02/04/22 06:15	02/15/22 12:33	1,6010D	EW

### Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-04,07-10 Batch: WG1601169-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	02/04/22 07:55	02/15/22 13:58	1,7471B	AC



Project Name: ARC2202  
Project Number: ARC2202

Lab Number: L2205287  
Report Date: 02/18/22

## Method Blank Analysis Batch Quality Control

### Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 05-06 Batch: WG1602643-1										
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Antimony, Total	ND		mg/l	0.00400	0.00042	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Barium, Total	ND		mg/l	0.00050	0.00017	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Calcium, Total	ND		mg/l	0.100	0.0394	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Chromium, Total	ND		mg/l	0.00100	0.00017	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Copper, Total	0.00061	J	mg/l	0.00100	0.00038	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Iron, Total	ND		mg/l	0.0500	0.0191	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Lead, Total	ND		mg/l	0.00100	0.00034	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Manganese, Total	ND		mg/l	0.00100	0.00044	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Nickel, Total	ND		mg/l	0.00200	0.00055	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Potassium, Total	ND		mg/l	0.100	0.0309	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Selenium, Total	ND		mg/l	0.00500	0.00173	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Silver, Total	ND		mg/l	0.00040	0.00016	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Sodium, Total	ND		mg/l	0.100	0.0293	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Thallium, Total	0.00019	J	mg/l	0.00100	0.00014	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD
Zinc, Total	ND		mg/l	0.01000	0.00341	1	02/08/22 15:13	02/09/22 19:06	1,6020B	CD

### Prep Information

Digestion Method: EPA 3005A





Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 05-06 Batch: WG1602645-1									
Mercury, Total	ND	mg/l	0.00020	0.00009	1	02/08/22 16:24	02/10/22 13:54	1,7470A	AC

### Prep Information

Digestion Method: EPA 7470A

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Mansfield Lab Associated sample(s): 01-04,07-10 Batch: WG1601167-2 SRM Lot Number: D113-540								
Aluminum, Total	76		-		51-149	-		
Antimony, Total	128		-		20-250	-		
Arsenic, Total	101		-		70-130	-		
Barium, Total	93		-		75-125	-		
Beryllium, Total	102		-		75-125	-		
Cadmium, Total	98		-		75-125	-		
Calcium, Total	91		-		73-128	-		
Chromium, Total	99		-		70-130	-		
Cobalt, Total	99		-		75-125	-		
Copper, Total	100		-		75-125	-		
Iron, Total	94		-		36-164	-		
Lead, Total	97		-		72-128	-		
Magnesium, Total	88		-		63-138	-		
Manganese, Total	93		-		77-123	-		
Nickel, Total	98		-		70-130	-		
Potassium, Total	88		-		59-141	-		
Selenium, Total	104		-		66-134	-		
Silver, Total	101		-		70-131	-		
Sodium, Total	97		-		35-164	-		
Thallium, Total	98		-		70-130	-		
Vanadium, Total	97		-		74-126	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04,07-10 Batch: WG1601167-2 SRM Lot Number: D113-540					
Zinc, Total	99	-	70-130	-	
Total Metals - Mansfield Lab Associated sample(s): 01-04,07-10 Batch: WG1601169-2 SRM Lot Number: D113-540					
Mercury, Total	93	-	60-140	-	

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 05-06 Batch: WG1602643-2					
Aluminum, Total	96	-	80-120	-	
Antimony, Total	85	-	80-120	-	
Arsenic, Total	100	-	80-120	-	
Barium, Total	97	-	80-120	-	
Beryllium, Total	95	-	80-120	-	
Cadmium, Total	98	-	80-120	-	
Calcium, Total	92	-	80-120	-	
Chromium, Total	97	-	80-120	-	
Cobalt, Total	94	-	80-120	-	
Copper, Total	96	-	80-120	-	
Iron, Total	102	-	80-120	-	
Lead, Total	97	-	80-120	-	
Magnesium, Total	101	-	80-120	-	
Manganese, Total	97	-	80-120	-	
Nickel, Total	94	-	80-120	-	
Potassium, Total	94	-	80-120	-	
Selenium, Total	96	-	80-120	-	
Silver, Total	104	-	80-120	-	
Sodium, Total	98	-	80-120	-	
Thallium, Total	99	-	80-120	-	
Vanadium, Total	98	-	80-120	-	

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 05-06 Batch: WG1602643-2					
Zinc, Total	94	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 05-06 Batch: WG1602645-2					
Mercury, Total	95	-	80-120	-	

### Matrix Spike Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04,07-10 QC Batch ID: WG1601167-3 WG1601167-4 QC Sample: L2205249-03 Client ID: MS Sample												
Aluminum, Total	6970	201	7520	273	Q	7740	382	Q	75-125	3		20
Antimony, Total	3.82J	50.3	32.7	65	Q	34.3	68	Q	75-125	5		20
Arsenic, Total	36.0	12.1	48.4	103		49.5	112		75-125	2		20
Barium, Total	266	201	430	82		447	90		75-125	4		20
Beryllium, Total	0.330J	5.03	4.70	93		4.58	91		75-125	3		20
Cadmium, Total	0.850J	5.33	5.30	99		5.47	102		75-125	3		20
Calcium, Total	38800	1000	38400	0	Q	38900	10	Q	75-125	1		20
Chromium, Total	27.1	20.1	38.7	58	Q	43.8	83		75-125	12		20
Cobalt, Total	7.54	50.3	45.8	76		46.9	78		75-125	2		20
Copper, Total	425	25.1	407	0	Q	500	298	Q	75-125	21	Q	20
Iron, Total	12200	100	12200	0	Q	13000	794	Q	75-125	6		20
Lead, Total	519	53.3	287	0	Q	323	0	Q	75-125	12		20
Magnesium, Total	2990	1000	3700	70	Q	3970	97		75-125	7		20
Manganese, Total	222	50.3	246	48	Q	292	139	Q	75-125	17		20
Nickel, Total	12.2	50.3	50.7	76		52.9	81		75-125	4		20
Potassium, Total	1080	1000	2060	97		2120	103		75-125	3		20
Selenium, Total	ND	12.1	11.2	93		10.8	89		75-125	4		20
Silver, Total	ND	30.2	28.9	96		28.5	94		75-125	1		20
Sodium, Total	376	1000	1320	94		1370	99		75-125	4		20
Thallium, Total	ND	12.1	8.83	73	Q	8.77	72	Q	75-125	1		20
Vanadium, Total	17.5	50.3	61.6	88		61.4	87		75-125	0		20

### Matrix Spike Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits		
Total Metals - Mansfield Lab Associated sample(s): 01-04,07-10 QC Batch ID: WG1601167-3 WG1601167-4 QC Sample: L2205249-03 Client ID: MS Sample											
Zinc, Total	389	50.3	380	0	Q	400	22	Q	75-125	5	20
Total Metals - Mansfield Lab Associated sample(s): 01-04,07-10 QC Batch ID: WG1601169-3 WG1601169-4 QC Sample: L2205249-03 Client ID: MS Sample											
Mercury, Total	55.8	0.162	44.2	0	Q	54.1	0	Q	80-120	20	20



### Matrix Spike Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205287  
**Report Date:** 02/18/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 05-06    QC Batch ID: WG1602643-3    QC Sample: L2205287-05    Client ID: GW-1									
Aluminum, Total	14.1	2	17.0	145	Q	-	75-125	-	20
Antimony, Total	0.00597	0.5	0.3636	72	Q	-	75-125	-	20
Arsenic, Total	0.00700	0.12	0.1185	93		-	75-125	-	20
Barium, Total	0.2389	2	2.339	105		-	75-125	-	20
Beryllium, Total	0.00106	0.05	0.05271	103		-	75-125	-	20
Cadmium, Total	0.00063	0.053	0.05589	104		-	75-125	-	20
Calcium, Total	60.7	10	73.1	124		-	75-125	-	20
Chromium, Total	0.05275	0.2	0.2762	112		-	75-125	-	20
Cobalt, Total	0.03963	0.5	0.5081	94		-	75-125	-	20
Copper, Total	0.1785	0.25	0.4317	101		-	75-125	-	20
Iron, Total	36.9	1	40.3	340	Q	-	75-125	-	20
Lead, Total	0.1592	0.53	0.7086	104		-	75-125	-	20
Magnesium, Total	36.3	10	48.8	125		-	75-125	-	20
Manganese, Total	2.240	0.5	3.093	171	Q	-	75-125	-	20
Nickel, Total	0.3162	0.5	0.8132	99		-	75-125	-	20
Potassium, Total	12.2	10	22.8	106		-	75-125	-	20
Selenium, Total	0.00626	0.12	0.119	94		-	75-125	-	20
Silver, Total	0.00072	0.05	0.05380	106		-	75-125	-	20
Sodium, Total	119.	10	142	230	Q	-	75-125	-	20
Thallium, Total	0.00054J	0.12	0.1176	98		-	75-125	-	20
Vanadium, Total	0.05678	0.5	0.6054	110		-	75-125	-	20



**Matrix Spike Analysis**  
Batch Quality Control

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 05-06    QC Batch ID: WG1602643-3    QC Sample: L2205287-05    Client ID: GW-1									
Zinc, Total	0.2965	0.5	0.8163	104	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 05-06    QC Batch ID: WG1602645-3    QC Sample: L2205287-06    Client ID: GW-2									
Mercury, Total	0.00039	0.005	0.00511	94	-	-	75-125	-	20

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 05-06 QC Batch ID: WG1602643-4 QC Sample: L2205287-05 Client ID: GW-1						
Aluminum, Total	14.1	13.5	mg/l	4		20
Antimony, Total	0.00597	0.00605	mg/l	1		20
Arsenic, Total	0.00700	0.00674	mg/l	4		20
Barium, Total	0.2389	0.2395	mg/l	0		20
Beryllium, Total	0.00106	0.00099	mg/l	7		20
Cadmium, Total	0.00063	0.00059	mg/l	6		20
Calcium, Total	60.7	60.1	mg/l	1		20
Chromium, Total	0.05275	0.05251	mg/l	0		20
Cobalt, Total	0.03963	0.03894	mg/l	2		20
Copper, Total	0.1785	0.1765	mg/l	1		20
Iron, Total	36.9	37.2	mg/l	1		20
Lead, Total	0.1592	0.1576	mg/l	1		20
Magnesium, Total	36.3	35.3	mg/l	3		20
Manganese, Total	2.240	2.174	mg/l	3		20
Nickel, Total	0.3162	0.3106	mg/l	2		20
Potassium, Total	12.2	11.7	mg/l	4		20
Selenium, Total	0.00626	0.00620	mg/l	1		20
Silver, Total	0.00072	0.00077	mg/l	7		20
Sodium, Total	119.	115	mg/l	3		20

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 05-06 QC Batch ID: WG1602643-4 QC Sample: L2205287-05 Client ID: GW-1					
Thallium, Total	0.00054J	0.00099J	mg/l	NC	20
Vanadium, Total	0.05678	0.05685	mg/l	0	20
Zinc, Total	0.2965	0.2920	mg/l	2	20
Total Metals - Mansfield Lab Associated sample(s): 05-06 QC Batch ID: WG1602645-4 QC Sample: L2205287-06 Client ID: GW-2					
Mercury, Total	0.00039	0.00039	mg/l	1	20

Project Name: ARC2202

Project Number: ARC2202

**Lab Serial Dilution  
Analysis  
Batch Quality Control**

Lab Number: L2205287

Report Date: 02/18/22

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04,07-10 QC Batch ID: WG1601167-6 QC Sample: L2205249-03 Client ID: DUP Sample						
Aluminum, Total	6970	8010	mg/kg	15		20
Arsenic, Total	36.0	37.8	mg/kg	5		20
Barium, Total	266	310	mg/kg	17		20
Calcium, Total	38800	46000	mg/kg	19		20
Chromium, Total	27.1	31.2	mg/kg	15		20
Copper, Total	425	488	mg/kg	15		20
Iron, Total	12200	14500	mg/kg	19		20
Lead, Total	519	626	mg/kg	21	Q	20
Magnesium, Total	2990	3450	mg/kg	15		20
Manganese, Total	222	268	mg/kg	21	Q	20
Zinc, Total	389	463	mg/kg	19		20

# **INORGANICS & MISCELLANEOUS**

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

**SAMPLE RESULTS**

Lab ID: L2205287-01

Date Collected: 02/01/22 10:30

Client ID: SB-3

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	96.4		%	0.100	NA	1	-	02/02/22 09:15	121,2540G	RI



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-02

Date Collected: 02/01/22 09:50

Client ID: SB-4

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.3		%	0.100	NA	1	-	02/02/22 09:15	121,2540G	RI



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

**SAMPLE RESULTS**

Lab ID: L2205287-03

Date Collected: 02/01/22 12:15

Client ID: SB-7

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	94.7		%	0.100	NA	1	-	02/02/22 09:15	121,2540G	RI





Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-04

Date Collected: 02/01/22 11:00

Client ID: SB-8

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.6		%	0.100	NA	1	-	02/02/22 09:15	121,2540G	RI



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

**SAMPLE RESULTS**

Lab ID: L2205287-07

Date Collected: 02/01/22 13:30

Client ID: SB-6

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	91.2		%	0.100	NA	1	-	02/02/22 09:15	121,2540G	RI



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

**SAMPLE RESULTS**

Lab ID: L2205287-08

Date Collected: 02/01/22 14:00

Client ID: SB-5

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	91.7		%	0.100	NA	1	-	02/02/22 09:15	121,2540G	RI



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

## SAMPLE RESULTS

Lab ID: L2205287-09

Date Collected: 02/01/22 14:30

Client ID: SB-9

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	95.8		%	0.100	NA	1	-	02/02/22 09:15	121,2540G	RI



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

**SAMPLE RESULTS**

Lab ID: L2205287-10

Date Collected: 02/01/22 15:20

Client ID: SB-12

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total	95.3		%	0.100	NA	1	-	02/02/22 09:15	121,2540G	RI



**Lab Duplicate Analysis**  
*Batch Quality Control*

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205287

Report Date: 02/18/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04,07-10 QC Batch ID: WG1600496-1 QC Sample: L2205287-01 Client ID: SB-3						
Solids, Total	96.4	96.5	%	0		20

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

**Cooler Information**

Cooler	Custody Seal
A	Absent
B	Absent
C	Absent

**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2205287-01A	Vial MeOH preserved	C	NA		2.6	Y	Absent		NYTCL-8260HLW(14)
L2205287-01B	Vial water preserved	C	NA		2.6	Y	Absent	02-FEB-22 03:47	NYTCL-8260HLW(14)
L2205287-01C	Vial water preserved	C	NA		2.6	Y	Absent	02-FEB-22 03:47	NYTCL-8260HLW(14)
L2205287-01D	Metals Only-Glass 60mL/2oz unpreserved	C	NA		2.6	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),TL-TI(180),CR-TI(180),AL-TI(180),NI-TI(180),ZN-TI(180),SE-TI(180),PB-TI(180),CU-TI(180),SB-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),NA-TI(180),K-TI(180),CD-TI(180)
L2205287-01E	Plastic 2oz unpreserved for TS	A	NA		4.1	Y	Absent		TS(7)
L2205287-01F	Plastic 120ml unpreserved	C	NA		2.6	Y	Absent		TS(7)
L2205287-01G	Plastic 8oz unpreserved	A	NA		4.1	Y	Absent		A2-NY-537-ISOTOPE(14)
L2205287-01H	Glass 250ml/8oz unpreserved	C	NA		2.6	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)
L2205287-02A	Vial MeOH preserved	B	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L2205287-02B	Vial water preserved	B	NA		2.9	Y	Absent	02-FEB-22 03:47	NYTCL-8260HLW(14)
L2205287-02C	Vial water preserved	B	NA		2.9	Y	Absent	02-FEB-22 03:47	NYTCL-8260HLW(14)
L2205287-02D	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.9	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),CR-TI(180),AL-TI(180),TL-TI(180),CU-TI(180),SE-TI(180),ZN-TI(180),SB-TI(180),PB-TI(180),CO-TI(180),V-TI(180),MG-TI(180),FE-TI(180),HG-T(28),MN-TI(180),K-TI(180),CA-TI(180),CD-TI(180),NA-TI(180)
L2205287-02E	Plastic 2oz unpreserved for TS	B	NA		2.9	Y	Absent		TS(7)
L2205287-02F	Plastic 120ml unpreserved	B	NA		2.9	Y	Absent		TS(7)
L2205287-02G	Plastic 8oz unpreserved	B	NA		2.9	Y	Absent		A2-NY-537-ISOTOPE(14)

Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2205287-02H	Glass 250ml/8oz unpreserved	B	NA		2.9	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)
L2205287-03A	Vial MeOH preserved	B	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L2205287-03B	Vial water preserved	B	NA		2.9	Y	Absent	02-FEB-22 03:47	NYTCL-8260HLW(14)
L2205287-03C	Vial water preserved	B	NA		2.9	Y	Absent	02-FEB-22 03:47	NYTCL-8260HLW(14)
L2205287-03D	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.9	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),TL-TI(180),CR-TI(180),NI-TI(180),AL-TI(180),SE-TI(180),CU-TI(180),PB-TI(180),ZN-TI(180),SB-TI(180),V-TI(180),CO-TI(180),MG-TI(180),MN-TI(180),FE-TI(180),HG-T(28),K-TI(180),NA-TI(180),CA-TI(180),CD-TI(180)
L2205287-03E	Plastic 2oz unpreserved for TS	A	NA		4.1	Y	Absent		TS(7)
L2205287-03F	Plastic 120ml unpreserved	B	NA		2.9	Y	Absent		TS(7)
L2205287-03G	Plastic 8oz unpreserved	A	NA		4.1	Y	Absent		A2-NY-537-ISOTOPE(14)
L2205287-03H	Glass 250ml/8oz unpreserved	B	NA		2.9	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)
L2205287-04A	Vial MeOH preserved	C	NA		2.6	Y	Absent		NYTCL-8260HLW(14)
L2205287-04B	Vial water preserved	C	NA		2.6	Y	Absent	02-FEB-22 03:47	NYTCL-8260HLW(14)
L2205287-04C	Vial water preserved	C	NA		2.6	Y	Absent	02-FEB-22 03:47	NYTCL-8260HLW(14)
L2205287-04D	Plastic 2oz unpreserved for TS	A	NA		4.1	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),TL-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),HG-T(28),MG-TI(180),MN-TI(180),FE-TI(180),CD-TI(180),NA-TI(180),K-TI(180),CA-TI(180)
L2205287-04E	Plastic 120ml unpreserved	C	NA		2.6	Y	Absent		TS(7)
L2205287-04F	Plastic 8oz unpreserved	A	NA		4.1	Y	Absent		A2-NY-537-ISOTOPE(14)
L2205287-04G	Glass 250ml/8oz unpreserved	C	NA		2.6	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)
L2205287-05A	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260(14)
L2205287-05B	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260(14)
L2205287-05C	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260(14)
L2205287-05D	Amber 120ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8081(7)
L2205287-05E	Amber 120ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8081(7)
L2205287-05F	Amber 120ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8082-LVI(365)



Project Name: ARC2202

Lab Number: L2205287

Project Number: ARC2202

Report Date: 02/18/22

**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2205287-05G	Amber 120ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8082-LVI(365)
L2205287-05H	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2205287-05J	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2205287-05K	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2205287-05L	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2205287-05M	Plastic 250ml HNO3 preserved	B	<2	<2	2.9	Y	Absent		BA-6020T(180),SE-6020T(180),TL-6020T(180),FE-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),ZN-6020T(180),NA-6020T(180),CU-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),V-6020T(180),SB-6020T(180),HG-T(28),CD-6020T(180),AG-6020T(180),AL-6020T(180),MG-6020T(180),CO-6020T(180)
L2205287-05N	Plastic 250ml unpreserved	B	NA		2.9	Y	Absent		A2-NY-537-ISOTOPE(14)
L2205287-05O	Plastic 250ml unpreserved	B	NA		2.9	Y	Absent		A2-NY-537-ISOTOPE(14)
L2205287-06A	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260(14)
L2205287-06B	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260(14)
L2205287-06C	Vial HCl preserved	B	NA		2.9	Y	Absent		NYTCL-8260(14)
L2205287-06D	Amber 120ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8081(7)
L2205287-06E	Amber 120ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8081(7)
L2205287-06F	Amber 120ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8082-LVI(365)
L2205287-06G	Amber 120ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8082-LVI(365)
L2205287-06H	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2205287-06J	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2205287-06K	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2205287-06L	Amber 250ml unpreserved	B	7	7	2.9	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2205287-06M	Plastic 250ml HNO3 preserved	B	<2	<2	2.9	Y	Absent		FE-6020T(180),BA-6020T(180),SE-6020T(180),TL-6020T(180),NI-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),CU-6020T(180),ZN-6020T(180),NA-6020T(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),AS-6020T(180),V-6020T(180),SB-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),AG-6020T(180),AL-6020T(180),CO-6020T(180)

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**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2205287-06N	Plastic 250ml unpreserved	A	NA		4.1	Y	Absent		A2-NY-537-ISOTOPE(14)
L2205287-06O	Plastic 250ml unpreserved	A	NA		4.1	Y	Absent		A2-NY-537-ISOTOPE(14)
L2205287-07A	Vial MeOH preserved	B	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L2205287-07B	Vial water preserved	B	NA		2.9	Y	Absent	02-FEB-22 03:47	NYTCL-8260HLW(14)
L2205287-07C	Vial water preserved	B	NA		2.9	Y	Absent	02-FEB-22 03:47	NYTCL-8260HLW(14)
L2205287-07D	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.9	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),NI-TI(180),AL-TI(180),CR-TI(180),TL-TI(180),SB-TI(180),CU-TI(180),PB-TI(180),ZN-TI(180),SE-TI(180),V-TI(180),CO-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CD-TI(180),K-TI(180),NA-TI(180),CA-TI(180)
L2205287-07E	Plastic 2oz unpreserved for TS	A	NA		4.1	Y	Absent		TS(7)
L2205287-07F	Plastic 120ml unpreserved	B	NA		2.9	Y	Absent		TS(7)
L2205287-07G	Plastic 8oz unpreserved	A	NA		4.1	Y	Absent		A2-NY-537-ISOTOPE(14)
L2205287-07H	Glass 250ml/8oz unpreserved	B	NA		2.9	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)
L2205287-08A	Vial MeOH preserved	C	NA		2.6	Y	Absent		NYTCL-8260HLW(14)
L2205287-08B	Vial water preserved	C	NA		2.6	Y	Absent	02-FEB-22 03:47	NYTCL-8260HLW(14)
L2205287-08C	Vial water preserved	C	NA		2.6	Y	Absent	02-FEB-22 03:47	NYTCL-8260HLW(14)
L2205287-08D	Metals Only-Glass 60mL/2oz unpreserved	C	NA		2.6	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),NI-TI(180),TL-TI(180),AL-TI(180),CR-TI(180),CU-TI(180),ZN-TI(180),SB-TI(180),PB-TI(180),SE-TI(180),V-TI(180),CO-TI(180),HG-T(28),MG-TI(180),FE-TI(180),MN-TI(180),K-TI(180),CD-TI(180),NA-TI(180),CA-TI(180)
L2205287-08E	Plastic 2oz unpreserved for TS	A	NA		4.1	Y	Absent		TS(7)
L2205287-08F	Plastic 120ml unpreserved	C	NA		2.6	Y	Absent		TS(7)
L2205287-08G	Plastic 8oz unpreserved	A	NA		4.1	Y	Absent		A2-NY-537-ISOTOPE(14)
L2205287-08H	Glass 250ml/8oz unpreserved	C	NA		2.6	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)
L2205287-09A	Vial MeOH preserved	C	NA		2.6	Y	Absent		NYTCL-8260HLW(14)
L2205287-09B	Vial water preserved	C	NA		2.6	Y	Absent	02-FEB-22 03:47	NYTCL-8260HLW(14)
L2205287-09C	Vial water preserved	C	NA		2.6	Y	Absent	02-FEB-22 03:47	NYTCL-8260HLW(14)

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<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2205287-09D	Metals Only-Glass 60mL/2oz unpreserved	C	NA		2.6	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),AL-TI(180),TL-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),CU-TI(180),SB-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),NA-TI(180),K-TI(180)
L2205287-09E	Plastic 2oz unpreserved for TS	A	NA		4.1	Y	Absent		TS(7)
L2205287-09F	Plastic 120ml unpreserved	C	NA		2.6	Y	Absent		TS(7)
L2205287-09G	Plastic 8oz unpreserved	A	NA		4.1	Y	Absent		A2-NY-537-ISOTOPE(14)
L2205287-09H	Glass 250ml/8oz unpreserved	C	NA		2.6	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)
L2205287-10A	Vial MeOH preserved	C	NA		2.6	Y	Absent		NYTCL-8260HLW(14)
L2205287-10B	Vial water preserved	C	NA		2.6	Y	Absent	02-FEB-22 03:47	NYTCL-8260HLW(14)
L2205287-10C	Vial water preserved	C	NA		2.6	Y	Absent	02-FEB-22 03:47	NYTCL-8260HLW(14)
L2205287-10D	Metals Only-Glass 60mL/2oz unpreserved	C	NA		2.6	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),TL-TI(180),NI-TI(180),PB-TI(180),SE-TI(180),SB-TI(180),ZN-TI(180),CU-TI(180),CO-TI(180),V-TI(180),MG-TI(180),HG-T(28),FE-TI(180),MN-TI(180),K-TI(180),CA-TI(180),CD-TI(180),NA-TI(180)
L2205287-10E	Plastic 2oz unpreserved for TS	A	NA		4.1	Y	Absent		TS(7)
L2205287-10F	Plastic 120ml unpreserved	C	NA		2.6	Y	Absent		TS(7)
L2205287-10G	Plastic 8oz unpreserved	A	NA		4.1	Y	Absent		A2-NY-537-ISOTOPE(14)
L2205287-10H	Glass 250ml/8oz unpreserved	C	NA		2.6	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)

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### PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
<b>PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)</b>		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
<b>PERFLUOROALKYL SULFONIC ACIDS (PFSAs)</b>		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
<b>FLUOROTELOMERS</b>		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
<b>PERFLUOROALKANE SULFONAMIDES (FASAs)</b>		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
<b>PERFLUOROALKANE SULFONYL SUBSTANCES</b>		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
<b>PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS</b>		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
<b>CHLORO-PERFLUOROALKYL SULFONIC ACIDS</b>		
11-Chloroeicosafuoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
<b>PERFLUOROETHER SULFONIC ACIDS (PFESAs)</b>		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEEESA	113507-82-7
<b>PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)</b>		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

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## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



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#### Footnotes

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

#### Terms

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

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

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

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

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

**PAH Total:** With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

#### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



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**Data Qualifiers**

- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

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## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

## LIMITATION OF LIABILITIES

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

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





## Certification Information

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

### Westborough Facility

**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene

**EPA 625/625.1:** alpha-Terpineol

**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

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

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

**EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LCHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

**SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

**EPA 624.1:** Volatile Halocarbons & Aromatics,

**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

**EPA 522, EPA 537.1.**

#### Non-Potable Water

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.


**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

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

 <b>NEW YORK CHAIN OF CUSTODY</b>	<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page 1 of 1	Date Rec'd in Lab <span style="font-size: 1.5em;">2/1/22</span>	ALPHA Job # <span style="font-size: 1.5em;">L2205287</span>	
	Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	<b>Project Information</b> Project Name: <u>ARC2201</u> Project Location: <u>2389 Bedford Ave. Brooklyn NY</u> Project # <u>ARC2201</u> (Use Project name as Project #) <input type="checkbox"/>		<b>Deliverables</b> <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other	<b>Billing Information</b> <input type="checkbox"/> Same as Client Info PO #
<b>Client Information</b> Client: <u>PWGC</u> Address: <u>630 Johnson Ave Ste 7</u> <u>Bohemia, NY 11716</u> Phone: <u>631 589 6353</u> Fax: Email: <u>u.chaudhry@pwgrosser.com</u>		<b>Project Manager:</b> ALPHAQuote #: Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge	<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:	
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: <u>* pesticides/PCBs except Cr<sup>6+</sup>, Cr<sup>3+</sup>, herbicides, total cyanide</u>		<b>ANALYSIS</b> VOCs (EPA 8260) <input type="checkbox"/> SVOCs (EPA 8270) <input type="checkbox"/> Metals (EPA 6010) <input type="checkbox"/> Pesticides/PCBs <input type="checkbox"/> PFAS 1-4 Doxin <input type="checkbox"/>		<b>Sample Filtration</b> <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)		
Please specify Metals or TAL.						
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	Sample Specific Comments
		Date	Time			
05287 -01	SB-3	1/31/22	10:30	S	AM	
-02	SB-4	2/1/22	0950	S	AM	
-03	SB-7		1215	S	AM	
-04	SB-8		1100	S	AM	
-05	GW-1		0940	GW	AM	
-06	GW-2		120	GW	AM	
-07	SB-6		1330	S	AM	
-08	SB-5		1400	S	AM	
-09	SB-9		1430	S	AM	
-10	SB-12	↓	1520	S	AM	
Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other	Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle	Westboro: Certification No: MA935 Mansfield: Certification No: MA015	Container Type Preservative		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	
Relinquished By: <u>Paul Margele</u>		Date/Time: <u>2/1/22 1545</u>		Received By: <u>Paul Margele</u>		Date/Time: <u>2/1/22 1845</u>
Relinquished By: <u>Paul Margele</u>		Date/Time: <u>2/1/22 1845</u>		Received By: <u>alt</u>		Date/Time: <u>2/1/22</u>

Total Bottles



## ANALYTICAL REPORT

Lab Number:	L2205356
Client:	P. W. Grosser 630 Johnson Avenue Suite 7 Bohemia, NY 11716
ATTN:	Usman Chaudhry
Phone:	(631) 589-8705
Project Name:	ARC2202
Project Number:	ARC2202
Report Date:	02/16/22

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

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

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



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205356  
**Report Date:** 02/16/22

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2205356-01	OA-1	AIR	2359 BEDFORD AVE BROOKLYN	02/01/22 00:00	02/02/22
L2205356-02	OA-2	AIR	2359 BEDFORD AVE BROOKLYN	02/01/22 00:00	02/02/22
L2205356-03	SV-1	SOIL_VAPOR	2359 BEDFORD AVE BROOKLYN	02/01/22 00:00	02/02/22
L2205356-04	SV-2	SOIL_VAPOR	2359 BEDFORD AVE BROOKLYN	02/01/22 00:00	02/02/22
L2205356-05	SV-3	SOIL_VAPOR	2359 BEDFORD AVE BROOKLYN	02/01/22 00:00	02/02/22
L2205356-06	UNUSED CAN #3389	SOIL_VAPOR	2359 BEDFORD AVE BROOKLYN		02/02/22
L2205356-07	UNUSED CAN #1572	SOIL_VAPOR	2359 BEDFORD AVE BROOKLYN		02/02/22

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205356  
**Report Date:** 02/16/22

### Case Narrative

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

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

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

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

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

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

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**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205356  
**Report Date:** 02/16/22

### Case Narrative (continued)

#### Volatile Organics in Air

Canisters were released from the laboratory on January 27 and February 1, 2022. The canister certification results are provided as an addendum.

The WG1605307-3 LCS recoveries for dibromochloromethane (131%), tetrachloroethene (137%), bromoform (133%) and hexachlorobutadiene (132%) are above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of this analyte.

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

Authorized Signature:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 02/16/22

**AIR**

**Project Name:** ARC2202**Lab Number:** L2205356**Project Number:** ARC2202**Report Date:** 02/16/22**SAMPLE RESULTS**

Lab ID: L2205356-01  
 Client ID: OA-1  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 02/01/22 00:00  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/15/22 20:36  
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.578	0.200	--	2.86	0.989	--		1
Chloromethane	0.731	0.200	--	1.51	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	11.4	5.00	--	21.5	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	2.67	1.00	--	6.34	2.38	--		1
Trichlorofluoromethane	0.232	0.200	--	1.30	1.12	--		1
Isopropanol	1.73	0.500	--	4.25	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1





**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205356  
**Report Date:** 02/16/22

### SAMPLE RESULTS

Lab ID: L2205356-01  
 Client ID: OA-1  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 02/01/22 00:00  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Benzene	0.381	0.200	--	1.22	0.639	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.736	0.200	--	2.77	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205356  
**Report Date:** 02/16/22

### SAMPLE RESULTS

Lab ID: L2205356-01  
 Client ID: OA-1  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 02/01/22 00:00  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	87		60-140



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205356  
**Report Date:** 02/16/22

### SAMPLE RESULTS

Lab ID: L2205356-01  
 Client ID: OA-1  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 02/01/22 00:00  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 02/15/22 20:36  
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air by SIM - Mansfield Lab</b>								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.089	0.020	--	0.560	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.044	0.020	--	0.298	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	89		60-140



**Project Name:** ARC2202**Lab Number:** L2205356**Project Number:** ARC2202**Report Date:** 02/16/22**SAMPLE RESULTS**

Lab ID: L2205356-02  
 Client ID: OA-2  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 02/01/22 00:00  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/15/22 21:15  
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.540	0.200	--	2.67	0.989	--		1
Chloromethane	0.682	0.200	--	1.41	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	8.81	5.00	--	16.6	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	2.57	1.00	--	6.10	2.38	--		1
Trichlorofluoromethane	0.233	0.200	--	1.31	1.12	--		1
Isopropanol	1.65	0.500	--	4.06	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	0.531	0.500	--	1.84	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1



**Project Name:** ARC2202**Lab Number:** L2205356**Project Number:** ARC2202**Report Date:** 02/16/22**SAMPLE RESULTS**

Lab ID: L2205356-02  
 Client ID: OA-2  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 02/01/22 00:00  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Benzene	0.388	0.200	--	1.24	0.639	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.692	0.200	--	2.61	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1



**Project Name:** ARC2202**Lab Number:** L2205356**Project Number:** ARC2202**Report Date:** 02/16/22**SAMPLE RESULTS**

Lab ID: L2205356-02

Date Collected: 02/01/22 00:00

Client ID: OA-2

Date Received: 02/02/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	98		60-140
chlorobenzene-d5	87		60-140



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205356  
**Report Date:** 02/16/22

### SAMPLE RESULTS

Lab ID: L2205356-02  
 Client ID: OA-2  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 02/01/22 00:00  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 02/15/22 21:15  
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air by SIM - Mansfield Lab</b>								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.080	0.020	--	0.503	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.045	0.020	--	0.305	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	97		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	90		60-140



**Project Name:** ARC2202**Lab Number:** L2205356**Project Number:** ARC2202**Report Date:** 02/16/22**SAMPLE RESULTS**

Lab ID: L2205356-03  
 Client ID: SV-1  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 02/01/22 00:00  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/15/22 20:33  
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.525	0.200	--	2.60	0.989	--		1
Chloromethane	0.467	0.200	--	0.964	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	0.907	0.200	--	2.01	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	2.81	0.200	--	7.42	0.528	--		1
Ethanol	6.30	5.00	--	11.9	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	18.2	1.00	--	43.2	2.38	--		1
Trichlorofluoromethane	0.244	0.200	--	1.37	1.12	--		1
Isopropanol	1.63	0.500	--	4.01	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	1.90	0.200	--	5.92	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	4.00	0.500	--	11.8	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1





**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205356  
**Report Date:** 02/16/22

### SAMPLE RESULTS

Lab ID: L2205356-03  
 Client ID: SV-1  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 02/01/22 00:00  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	2.90	0.200	--	10.2	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	1.30	0.200	--	4.15	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.378	0.200	--	1.30	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	1.59	0.200	--	6.52	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	4.47	0.200	--	16.8	0.754	--		1
2-Hexanone	0.711	0.200	--	2.91	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.863	0.200	--	3.75	0.869	--		1



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205356  
**Report Date:** 02/16/22

### SAMPLE RESULTS

Lab ID: L2205356-03  
 Client ID: SV-1  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 02/01/22 00:00  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
p/m-Xylene	3.34	0.400	--	14.5	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.938	0.200	--	4.07	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	0.492	0.200	--	2.42	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	103		60-140
Bromochloromethane	106		60-140
chlorobenzene-d5	104		60-140



**Project Name:** ARC2202**Lab Number:** L2205356**Project Number:** ARC2202**Report Date:** 02/16/22**SAMPLE RESULTS**

Lab ID: L2205356-04  
 Client ID: SV-2  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 02/01/22 00:00  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/15/22 21:13  
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.487	0.200	--	2.41	0.989	--		1
Chloromethane	0.419	0.200	--	0.865	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	1.33	0.200	--	2.94	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	0.509	0.200	--	1.34	0.528	--		1
Ethanol	5.19	5.00	--	9.78	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	17.9	1.00	--	42.5	2.38	--		1
Trichlorofluoromethane	0.205	0.200	--	1.15	1.12	--		1
Isopropanol	0.912	0.500	--	2.24	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	1.21	0.200	--	3.77	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	2.88	0.500	--	8.49	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



**Project Name:** ARC2202**Lab Number:** L2205356**Project Number:** ARC2202**Report Date:** 02/16/22**SAMPLE RESULTS**

Lab ID: L2205356-04  
 Client ID: SV-2  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 02/01/22 00:00  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	6.20	0.200	--	21.9	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	1.78	0.200	--	5.69	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.444	0.200	--	1.53	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	0.230	0.200	--	1.07	0.934	--		1
Heptane	3.07	0.200	--	12.6	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	5.36	0.200	--	20.2	0.754	--		1
2-Hexanone	1.10	0.200	--	4.51	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	1.14	0.200	--	4.95	0.869	--		1



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205356  
**Report Date:** 02/16/22

### SAMPLE RESULTS

Lab ID: L2205356-04  
 Client ID: SV-2  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 02/01/22 00:00  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
p/m-Xylene	4.24	0.400	--	18.4	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	1.18	0.200	--	5.13	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	0.672	0.200	--	3.30	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	104		60-140
Bromochloromethane	106		60-140
chlorobenzene-d5	105		60-140



**Project Name:** ARC2202**Lab Number:** L2205356**Project Number:** ARC2202**Report Date:** 02/16/22**SAMPLE RESULTS**

Lab ID: L2205356-05  
 Client ID: SV-3  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 02/01/22 00:00  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 02/15/22 21:56  
 Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.515	0.200	--	2.55	0.989	--		1
Chloromethane	0.659	0.200	--	1.36	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	13.0	5.00	--	24.5	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	26.3	1.00	--	62.5	2.38	--		1
Trichlorofluoromethane	0.253	0.200	--	1.42	1.12	--		1
Isopropanol	2.23	0.500	--	5.48	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.512	0.500	--	1.51	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205356  
**Report Date:** 02/16/22

### SAMPLE RESULTS

Lab ID: L2205356-05  
 Client ID: SV-3  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 02/01/22 00:00  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.313	0.200	--	1.10	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	0.390	0.200	--	1.25	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	1.23	0.200	--	5.75	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.909	0.200	--	3.43	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	0.223	0.200	--	0.969	0.869	--		1



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205356  
**Report Date:** 02/16/22

### SAMPLE RESULTS

Lab ID: L2205356-05  
 Client ID: SV-3  
 Sample Location: 2359 BEDFORD AVE BROOKLYN

Date Collected: 02/01/22 00:00  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
p/m-Xylene	0.782	0.400	--	3.40	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	0.295	0.200	--	1.28	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	0.509	0.200	--	2.50	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	99		60-140
Bromochloromethane	102		60-140
chlorobenzene-d5	95		60-140





Project Name: ARC2202

Lab Number: L2205356

Project Number: ARC2202

Report Date: 02/16/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/15/22 16:48

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 03-05 Batch: WG1605284-4								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1



Project Name: ARC2202

Lab Number: L2205356

Project Number: ARC2202

Report Date: 02/16/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/15/22 16:48

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 03-05 Batch: WG1605284-4								
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1



Project Name: ARC2202

Lab Number: L2205356

Project Number: ARC2202

Report Date: 02/16/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/15/22 16:48

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 03-05 Batch: WG1605284-4								
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: ARC2202

Lab Number: L2205356

Project Number: ARC2202

Report Date: 02/16/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/15/22 16:03

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1605307-4								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1



Project Name: ARC2202

Lab Number: L2205356

Project Number: ARC2202

Report Date: 02/16/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/15/22 16:03

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1605307-4								
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1



Project Name: ARC2202

Lab Number: L2205356

Project Number: ARC2202

Report Date: 02/16/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 02/15/22 16:03

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1605307-4								
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: ARC2202

Lab Number: L2205356

Project Number: ARC2202

Report Date: 02/16/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 02/15/22 16:42

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-02 Batch: WG1605309-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205356

Project Number: ARC2202

Report Date: 02/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 03-05 Batch: WG1605284-3								
Dichlorodifluoromethane	98		-		70-130	-		
Chloromethane	111		-		70-130	-		
Freon-114	100		-		70-130	-		
Vinyl chloride	102		-		70-130	-		
1,3-Butadiene	102		-		70-130	-		
Bromomethane	98		-		70-130	-		
Chloroethane	104		-		70-130	-		
Ethanol	108		-		40-160	-		
Vinyl bromide	116		-		70-130	-		
Acetone	132		-		40-160	-		
Trichlorofluoromethane	113		-		70-130	-		
Isopropanol	124		-		40-160	-		
1,1-Dichloroethene	101		-		70-130	-		
Tertiary butyl Alcohol	97		-		70-130	-		
Methylene chloride	116		-		70-130	-		
3-Chloropropene	123		-		70-130	-		
Carbon disulfide	105		-		70-130	-		
Freon-113	111		-		70-130	-		
trans-1,2-Dichloroethene	102		-		70-130	-		
1,1-Dichloroethane	106		-		70-130	-		
Methyl tert butyl ether	97		-		70-130	-		
2-Butanone	118		-		70-130	-		
cis-1,2-Dichloroethene	104		-		70-130	-		



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205356

Project Number: ARC2202

Report Date: 02/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 03-05 Batch: WG1605284-3								
Ethyl Acetate	102		-		70-130	-		
Chloroform	94		-		70-130	-		
Tetrahydrofuran	111		-		70-130	-		
1,2-Dichloroethane	101		-		70-130	-		
n-Hexane	103		-		70-130	-		
1,1,1-Trichloroethane	113		-		70-130	-		
Benzene	87		-		70-130	-		
Carbon tetrachloride	103		-		70-130	-		
Cyclohexane	102		-		70-130	-		
1,2-Dichloropropane	118		-		70-130	-		
Bromodichloromethane	101		-		70-130	-		
1,4-Dioxane	101		-		70-130	-		
Trichloroethene	113		-		70-130	-		
2,2,4-Trimethylpentane	106		-		70-130	-		
Heptane	126		-		70-130	-		
cis-1,3-Dichloropropene	103		-		70-130	-		
4-Methyl-2-pentanone	130		-		70-130	-		
trans-1,3-Dichloropropene	91		-		70-130	-		
1,1,2-Trichloroethane	116		-		70-130	-		
Toluene	100		-		70-130	-		
2-Hexanone	113		-		70-130	-		
Dibromochloromethane	114		-		70-130	-		
1,2-Dibromoethane	96		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205356

Report Date: 02/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 03-05 Batch: WG1605284-3								
Tetrachloroethene	102		-		70-130	-		
Chlorobenzene	91		-		70-130	-		
Ethylbenzene	106		-		70-130	-		
p/m-Xylene	108		-		70-130	-		
Bromoform	110		-		70-130	-		
Styrene	98		-		70-130	-		
1,1,2,2-Tetrachloroethane	104		-		70-130	-		
o-Xylene	112		-		70-130	-		
4-Ethyltoluene	97		-		70-130	-		
1,3,5-Trimethylbenzene	98		-		70-130	-		
1,2,4-Trimethylbenzene	106		-		70-130	-		
Benzyl chloride	108		-		70-130	-		
1,3-Dichlorobenzene	105		-		70-130	-		
1,4-Dichlorobenzene	105		-		70-130	-		
1,2-Dichlorobenzene	104		-		70-130	-		
1,2,4-Trichlorobenzene	119		-		70-130	-		
Hexachlorobutadiene	112		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205356

Project Number: ARC2202

Report Date: 02/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1605307-3								
Dichlorodifluoromethane	102		-		70-130	-		
Chloromethane	112		-		70-130	-		
Freon-114	106		-		70-130	-		
Vinyl chloride	94		-		70-130	-		
1,3-Butadiene	108		-		70-130	-		
Bromomethane	101		-		70-130	-		
Chloroethane	94		-		70-130	-		
Ethanol	88		-		40-160	-		
Vinyl bromide	103		-		70-130	-		
Acetone	116		-		40-160	-		
Trichlorofluoromethane	101		-		70-130	-		
Isopropanol	117		-		40-160	-		
1,1-Dichloroethene	97		-		70-130	-		
Tertiary butyl Alcohol	91		-		70-130	-		
Methylene chloride	112		-		70-130	-		
3-Chloropropene	112		-		70-130	-		
Carbon disulfide	89		-		70-130	-		
Freon-113	111		-		70-130	-		
trans-1,2-Dichloroethene	92		-		70-130	-		
1,1-Dichloroethane	103		-		70-130	-		
Methyl tert butyl ether	106		-		70-130	-		
2-Butanone	118		-		70-130	-		
cis-1,2-Dichloroethene	103		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205356

Project Number: ARC2202

Report Date: 02/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1605307-3								
Ethyl Acetate	107		-		70-130	-		
Chloroform	110		-		70-130	-		
Tetrahydrofuran	115		-		70-130	-		
1,2-Dichloroethane	100		-		70-130	-		
n-Hexane	101		-		70-130	-		
1,1,1-Trichloroethane	106		-		70-130	-		
Benzene	100		-		70-130	-		
Carbon tetrachloride	106		-		70-130	-		
Cyclohexane	101		-		70-130	-		
1,2-Dichloropropane	108		-		70-130	-		
Bromodichloromethane	114		-		70-130	-		
1,4-Dioxane	102		-		70-130	-		
Trichloroethene	110		-		70-130	-		
2,2,4-Trimethylpentane	105		-		70-130	-		
Heptane	122		-		70-130	-		
cis-1,3-Dichloropropene	112		-		70-130	-		
4-Methyl-2-pentanone	120		-		70-130	-		
trans-1,3-Dichloropropene	88		-		70-130	-		
1,1,2-Trichloroethane	112		-		70-130	-		
Toluene	119		-		70-130	-		
2-Hexanone	111		-		70-130	-		
Dibromochloromethane	131	Q	-		70-130	-		
1,2-Dibromoethane	121		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205356

Report Date: 02/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1605307-3								
Tetrachloroethene	137	Q	-		70-130	-		
Chlorobenzene	122		-		70-130	-		
Ethylbenzene	120		-		70-130	-		
p/m-Xylene	121		-		70-130	-		
Bromoform	133	Q	-		70-130	-		
Styrene	116		-		70-130	-		
1,1,2,2-Tetrachloroethane	127		-		70-130	-		
o-Xylene	123		-		70-130	-		
4-Ethyltoluene	123		-		70-130	-		
1,3,5-Trimethylbenzene	125		-		70-130	-		
1,2,4-Trimethylbenzene	127		-		70-130	-		
Benzyl chloride	90		-		70-130	-		
1,3-Dichlorobenzene	111		-		70-130	-		
1,4-Dichlorobenzene	105		-		70-130	-		
1,2-Dichlorobenzene	117		-		70-130	-		
1,2,4-Trichlorobenzene	100		-		70-130	-		
Hexachlorobutadiene	132	Q	-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205356

Report Date: 02/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG1605309-3								
Vinyl chloride	101		-		70-130	-		25
1,1-Dichloroethene	98		-		70-130	-		25
cis-1,2-Dichloroethene	102		-		70-130	-		25
1,1,1-Trichloroethane	102		-		70-130	-		25
Carbon tetrachloride	99		-		70-130	-		25
Trichloroethene	104		-		70-130	-		25
Tetrachloroethene	129		-		70-130	-		25

Project Name: ARC2202

Project Number: ARC2202

Serial\_No:02162217:01  
Lab Number: L2205356

Report Date: 02/16/22

### Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2205356-01	OA-1	01085	Flow 1	02/01/22	378043		-	-	-	Pass	40.0	41.1	3
L2205356-01	OA-1	3313	6.0L Can	01/27/22	377422	L2202595-08	Pass	-29.8	-4.3	-	-	-	-
L2205356-02	OA-2	01442	Flow 3	01/28/22	377824		-	-	-	Pass	40.0	40.5	1
L2205356-02	OA-2	1969	6.0L Can	01/27/22	377422	L2202595-08	Pass	-29.6	-4.1	-	-	-	-
L2205356-03	SV-1	02136	FLOW 2	01/27/22	377422		-	-	-	Pass	40.0	36	11
L2205356-03	SV-1	1633	6.0L Can	01/27/22	377422	L2202595-08	Pass	-29.7	-7.5	-	-	-	-
L2205356-04	SV-2	01749	Flow 1	01/27/22	377422		-	-	-	Pass	40.0	39.9	0
L2205356-04	SV-2	3609	6.0L Can	01/27/22	377422	L2202595-08	Pass	-29.7	-6.6	-	-	-	-
L2205356-05	SV-3	0647	Flow 2	02/01/22	378043		-	-	-	Pass	40.0	41.8	4
L2205356-05	SV-3	3606	6.0L Can	02/01/22	378043	L2201327-05	Pass	-29.7	-10.3	-	-	-	-
L2205356-06	UNUSED CAN #3389	01102	Flow 2	01/27/22	377422		-	-	-	Pass	40.0	40.9	2
L2205356-06	UNUSED CAN #3389	3389	6.0L Can	01/27/22	377422	L2202595-09	Pass	-29.6	-27.8	-	-	-	-
L2205356-07	UNUSED CAN #1572	01952	Flow 1	01/27/22	377422		-	-	-	Pass	40.0	40.9	2
L2205356-07	UNUSED CAN #1572	1572	6.0L Can	01/27/22	377422	L2202595-09	Pass	-29.6	-4.7	-	-	-	-



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

**Lab Number:** L2201327  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2201327-05  
 Client ID: CAN 3578 SHELF 38  
 Sample Location:

Date Collected: 01/10/22 16:00  
 Date Received: 01/11/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 01/17/22 19:52  
 Analyst: TS

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



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

**Lab Number:** L2201327  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2201327-05  
 Client ID: CAN 3578 SHELF 38  
 Sample Location:

Date Collected: 01/10/22 16:00  
 Date Received: 01/11/22  
 Field Prep: Not Specified

Sample Depth:

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



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

**Lab Number:** L2201327  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2201327-05  
 Client ID: CAN 3578 SHELF 38  
 Sample Location:

Date Collected: 01/10/22 16:00  
 Date Received: 01/11/22  
 Field Prep: Not Specified

Sample Depth:

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

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

**Lab Number:** L2201327  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2201327-05  
 Client ID: CAN 3578 SHELF 38  
 Sample Location:

Date Collected: 01/10/22 16:00  
 Date Received: 01/11/22  
 Field Prep: Not Specified

Sample Depth:

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



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

**Lab Number:** L2201327  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2201327-05  
 Client ID: CAN 3578 SHELF 38  
 Sample Location:

Date Collected: 01/10/22 16:00  
 Date Received: 01/11/22  
 Field Prep: Not Specified

Sample Depth:

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

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	90		60-140

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

**Lab Number:** L2201327  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2201327-05  
 Client ID: CAN 3578 SHELF 38  
 Sample Location:

Date Collected: 01/10/22 16:00  
 Date Received: 01/11/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 01/17/22 19:52  
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1



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

**Lab Number:** L2201327  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2201327-05  
 Client ID: CAN 3578 SHELF 38  
 Sample Location:

Date Collected: 01/10/22 16:00  
 Date Received: 01/11/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

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

**Lab Number:** L2201327  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2201327-05  
 Client ID: CAN 3578 SHELF 38  
 Sample Location:

Date Collected: 01/10/22 16:00  
 Date Received: 01/11/22  
 Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	94		60-140
bromochloromethane	95		60-140
chlorobenzene-d5	91		60-140

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

**Lab Number:** L2202595  
**Report Date:** 02/16/22

### Air Canister Certification Results

**Lab ID:** L2202595-08  
**Client ID:** CAN 762 SHELF 61  
**Sample Location:**

**Date Collected:** 01/18/22 08:00  
**Date Received:** 01/18/22  
**Field Prep:** Not Specified

**Sample Depth:**  
**Matrix:** Air  
**Analytical Method:** 48,TO-15  
**Analytical Date:** 01/20/22 21:49  
**Analyst:** TS

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



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

**Lab Number:** L2202595  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2202595-08  
 Client ID: CAN 762 SHELF 61  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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



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

**Lab Number:** L2202595  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2202595-08  
 Client ID: CAN 762 SHELF 61  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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



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

**Lab Number:** L2202595  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2202595-08  
 Client ID: CAN 762 SHELF 61  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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



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

**Lab Number:** L2202595  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2202595-08  
 Client ID: CAN 762 SHELF 61  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	102		60-140
Bromochloromethane	101		60-140
chlorobenzene-d5	100		60-140



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

**Lab Number:** L2202595  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2202595-08  
 Client ID: CAN 762 SHELF 61  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 01/20/22 21:49  
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1



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

**Lab Number:** L2202595  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2202595-08  
 Client ID: CAN 762 SHELF 61  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

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

**Lab Number:** L2202595  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2202595-08  
 Client ID: CAN 762 SHELF 61  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	100		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	98		60-140

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

**Lab Number:** L2202595  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2202595-09  
 Client ID: CAN 2274 SHELF 62  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 01/20/22 22:28  
 Analyst: TS

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



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

**Lab Number:** L2202595  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2202595-09  
 Client ID: CAN 2274 SHELF 62  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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



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

**Lab Number:** L2202595  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2202595-09  
 Client ID: CAN 2274 SHELF 62  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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



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

**Lab Number:** L2202595  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2202595-09  
 Client ID: CAN 2274 SHELF 62  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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



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

**Lab Number:** L2202595  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2202595-09  
 Client ID: CAN 2274 SHELF 62  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	105		60-140
Bromochloromethane	103		60-140
chlorobenzene-d5	102		60-140



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

**Lab Number:** L2202595  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2202595-09  
 Client ID: CAN 2274 SHELF 62  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 01/20/22 22:28  
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
Acrolein	ND	0.050	--	ND	0.115	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.050	--	ND	0.281	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
Freon-113	ND	0.050	--	ND	0.383	--		1
trans-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1-Dichloroethane	ND	0.020	--	ND	0.081	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
Chloroform	ND	0.020	--	ND	0.098	--		1
1,2-Dichloroethane	ND	0.020	--	ND	0.081	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Benzene	ND	0.100	--	ND	0.319	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1

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

**Lab Number:** L2202595  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2202595-09  
 Client ID: CAN 2274 SHELF 62  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1



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

**Lab Number:** L2202595  
**Report Date:** 02/16/22

### Air Canister Certification Results

Lab ID: L2202595-09  
 Client ID: CAN 2274 SHELF 62  
 Sample Location:

Date Collected: 01/18/22 08:00  
 Date Received: 01/18/22  
 Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	102		60-140
bromochloromethane	102		60-140
chlorobenzene-d5	100		60-140



**Project Name:** ARC2202**Lab Number:** L2205356**Project Number:** ARC2202**Report Date:** 02/16/22**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

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

NA                                      Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2205356-01A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2205356-02A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2205356-03A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30)
L2205356-04A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30)
L2205356-05A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30)
L2205356-06A	Canister - 6 Liter	NA	NA			Y	Absent		CLEAN-FEE()
L2205356-07A	Canister - 6 Liter	NA	NA			Y	Absent		CLEAN-FEE()



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205356  
**Report Date:** 02/16/22

## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: Data Usability Report



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205356  
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#### Footnotes

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

#### Terms

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

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

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

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

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

**PAH Total:** With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

#### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the reporting limit (RL) for the sample.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where

Report Format: Data Usability Report



**Project Name:** ARC2202  
**Project Number:** ARC2202

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**Data Qualifiers**

the identification is based on a mass spectral library search.

- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205356  
**Report Date:** 02/16/22

## REFERENCES

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

## LIMITATION OF LIABILITIES

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

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



## Certification Information

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

### Westborough Facility

**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene

**EPA 625/625.1:** alpha-Terpineol

**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

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

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

**EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LCHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

**SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**

**EPA 624.1:** Volatile Halocarbons & Aromatics,

**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

**EPA 522, EPA 537.1.**

#### Non-Potable Water

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

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



# AIR ANALYSIS

PAGE 1 OF 1

CHAIN OF CUSTODY

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

Date Rec'd in Lab: 2/13/22

ALPHA Job #: L2205356

**Client Information**  
Client: PWGC  
Address: 630 Johnson Ave Ste 7  
Bohemia NY 11716  
Phone: 631 589 6353  
Fax:  
Email: u.chaudhry@pwgrosser.com

**Project Information**  
Project Name: ARC2202  
Project Location: 2359 Bedford Ave Brooklyn  
Project #: ARC2202  
Project Manager:  
ALPHA Quote #:

**Report Information - Data Deliverables**  
 FAX  
 ADEX  
Criteria Checker:  
(Default based on Regulatory Criteria Indicated)  
Other Formats:  
 EMAIL (standard pdf report)  
 Additional Deliverables:  
Report to: (if different than Project Manager)

**Billing Information**  
 Same as Client info PO #:

**Turn-Around Time**  
 Standard  RUSH (only confirmed if pre-approved)  
Date Due: Time:

**Regulatory Requirements/Report Limits**  
State/Fed Program Res / Comm

These samples have been previously analyzed by Alpha  
Other Project Specific Requirements/Comments:  
Project-Specific Target Compound List:

**All Columns Below Must Be Filled Out**

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION					Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15 TO-15 SIM APH Fixed Gases Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum							
05356-01	OA-1	2/1/22	1726		-3.09	Outdoor	AM	6L	3313	010851			
02	OA-2					↓	AM		1909	01442			
03	SV-1					SV	AM		1633	02130			
04	SV-2					↓	AM		3609	01749			
05	SV-3					↓	AM		3006	06471			

\*SAMPLE MATRIX CODES  
AA = Ambient Air (Indoor/Outdoor)  
SV = Soil Vapor/Landfill Gas/SVE  
Other = Please Specify

Container Type

Relinquished By: Shrey Mohi Date/Time: 2/2/22 10:50  
Received By: John Doe - AA2 Date/Time: 2/2/22 10:50  
John Doe - AA2 Date/Time: 2/2/22 13:25  
John Doe - AA2 Date/Time: 2/2/22 2000  
John Doe - AA2 Date/Time: 2/2/22 2350

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.



## ANALYTICAL REPORT

Lab Number:	L2205390
Client:	P. W. Grosser 630 Johnson Avenue Suite 7 Bohemia, NY 11716
ATTN:	Usman Chaudhry
Phone:	(631) 589-8705
Project Name:	ARC2202
Project Number:	ARC2202
Report Date:	02/21/22

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

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

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



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2205390-01	SB-13	SOIL	2359 BEDFORD AVE., BROOKLYN, NY	02/01/22 15:30	02/02/22
L2205390-02	GW-4	WATER	2359 BEDFORD AVE., BROOKLYN, NY	02/01/22 16:30	02/02/22
L2205390-03	FIELD BLANK	WATER	2359 BEDFORD AVE., BROOKLYN, NY	02/01/22 00:00	02/02/22
L2205390-04	TRIP BLANK	WATER	2359 BEDFORD AVE., BROOKLYN, NY	02/01/22 00:00	02/02/22



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

### Case Narrative

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

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

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

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

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

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

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**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

### Case Narrative (continued)

#### Report Submission

February 21, 2022: This final report includes the results of all requested analyses.

February 18, 2022: This is a preliminary report.

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

#### Sample Receipt

L2205390-01: The collection date and time on the chain of custody was 01-FEB-22 15:30; however, the collection date/time on the container label was 01-FEB-22 15:45. At the client's request, the collection date/time is reported as 01-FEB-22 15:30.

L2205390-03: A sample identified as "FIELD BLANK" was received, but not listed on the Chain of Custody. At the client's request, this sample was not analyzed.

L2205390-04: A sample identified as "TRIP BLANK" was received, but not listed on the Chain of Custody. Both containers were received broken; therefore, the analysis could not be performed.

#### Semivolatile Organics

The WG1604471-2/-3 LCS/LCSD recoveries, associated with L2205390-01, are below the acceptance criteria for benzoic acid (0%/0%); however, it has been identified as a "difficult" analyte. The results of the associated sample are reported.

#### Perfluorinated Alkyl Acids by Isotope Dilution

L2205390-02: The sample was centrifuged and decanted prior to extraction due to sample matrix.

L2205390-02 and WG1602737-1: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

#### Pesticides

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

### Case Narrative (continued)

The surrogate recoveries for the WG1601844-1 Method Blank, associated with L2205390-02, are below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (21%/22%). The associated sample is non-detect and has acceptable surrogate recoveries; therefore, no further actions were taken.

#### Total Metals


L2205390-01: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

The WG1601249-3 MS recovery, performed on L2205390-02, is outside the acceptance criteria for mercury (16%). A post digestion spike was performed and was within acceptance criteria.

The WG1601249-4 Laboratory Duplicate RPD for mercury (32%), performed on L2205390-02, is above the acceptance criteria; however, the sample and duplicate results are less than five times the reporting limit. Therefore, the RPD is valid.

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

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 02/21/22

# ORGANICS

# VOLATILES

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-01  
 Client ID: SB-13  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Date Collected: 02/01/22 15:30  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8260C  
 Analytical Date: 02/08/22 19:07  
 Analyst: JC  
 Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by EPA 5035 Low - Westborough Lab</b>						
Methylene chloride	ND		ug/kg	5.4	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.1	0.25	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.13	1
Dibromochloromethane	ND		ug/kg	1.1	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.29	1
Tetrachloroethene	ND		ug/kg	0.54	0.21	1
Chlorobenzene	ND		ug/kg	0.54	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.3	0.74	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	0.54	0.18	1
Bromodichloromethane	ND		ug/kg	0.54	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.29	1
cis-1,3-Dichloropropene	ND		ug/kg	0.54	0.17	1
1,3-Dichloropropene, Total	ND		ug/kg	0.54	0.17	1
1,1-Dichloropropene	ND		ug/kg	0.54	0.17	1
Bromoform	ND		ug/kg	4.3	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.54	0.18	1
Benzene	ND		ug/kg	0.54	0.18	1
Toluene	ND		ug/kg	1.1	0.58	1
Ethylbenzene	ND		ug/kg	1.1	0.15	1
Chloromethane	ND		ug/kg	4.3	1.0	1
Bromomethane	ND		ug/kg	2.1	0.62	1
Vinyl chloride	ND		ug/kg	1.1	0.36	1
Chloroethane	ND		ug/kg	2.1	0.48	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-01

Date Collected: 02/01/22 15:30

Client ID: SB-13

Date Received: 02/02/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.54	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.22	1
p/m-Xylene	ND		ug/kg	2.1	0.60	1
o-Xylene	ND		ug/kg	1.1	0.31	1
Xylenes, Total	ND		ug/kg	1.1	0.31	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Dibromomethane	ND		ug/kg	2.1	0.26	1
Styrene	ND		ug/kg	1.1	0.21	1
Dichlorodifluoromethane	ND		ug/kg	11	0.98	1
Acetone	ND		ug/kg	11	5.2	1
Carbon disulfide	ND		ug/kg	11	4.9	1
2-Butanone	ND		ug/kg	11	2.4	1
Vinyl acetate	ND		ug/kg	11	2.3	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.1	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.1	0.22	1
2,2-Dichloropropane	ND		ug/kg	2.1	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.30	1
1,3-Dichloropropane	ND		ug/kg	2.1	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.54	0.14	1
Bromobenzene	ND		ug/kg	2.1	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.18	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.1	0.13	1
o-Chlorotoluene	ND		ug/kg	2.1	0.20	1
p-Chlorotoluene	ND		ug/kg	2.1	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.2	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.3	0.18	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.3	0.70	1
Acrylonitrile	ND		ug/kg	4.3	1.2	1

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-01

Date Collected: 02/01/22 15:30

Client ID: SB-13

Date Received: 02/02/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.1	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.34	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.29	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.21	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.36	1
1,4-Dioxane	ND		ug/kg	86	38.	1
p-Diethylbenzene	ND		ug/kg	2.1	0.19	1
p-Ethyltoluene	ND		ug/kg	2.1	0.41	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.1	0.20	1
Ethyl ether	ND		ug/kg	2.1	0.36	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.4	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	96		70-130



Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-02  
 Client ID: GW-4  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Date Collected: 02/01/22 16:30  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8260C  
 Analytical Date: 02/07/22 14:30  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Volatile Organics by GC/MS - Westborough Lab</b>						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	2.2	J	ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.82		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-02

Date Collected: 02/01/22 16:30

Client ID: GW-4

Date Received: 02/02/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	3.6	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-02

Date Collected: 02/01/22 16:30

Client ID: GW-4

Date Received: 02/02/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	105		70-130

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/07/22 08:28  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1602624-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/07/22 08:28  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1602624-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/07/22 08:28  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1602624-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	104		70-130

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/08/22 12:43  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01 Batch: WG1603062-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	0.63	J	ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 02/08/22 12:43  
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01 Batch: WG1603062-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
Analytical Date: 02/08/22 12:43  
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01 Batch: WG1603062-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

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

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1602624-3 WG1602624-4								
Methylene chloride	100		120		70-130	18		20
1,1-Dichloroethane	100		110		70-130	10		20
Chloroform	92		100		70-130	8		20
Carbon tetrachloride	100		110		63-132	10		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	92		100		63-130	8		20
1,1,2-Trichloroethane	100		110		70-130	10		20
Tetrachloroethene	100		120		70-130	18		20
Chlorobenzene	100		110		75-130	10		20
Trichlorofluoromethane	85		92		62-150	8		20
1,2-Dichloroethane	90		95		70-130	5		20
1,1,1-Trichloroethane	90		100		67-130	11		20
Bromodichloromethane	94		100		67-130	6		20
trans-1,3-Dichloropropene	98		110		70-130	12		20
cis-1,3-Dichloropropene	94		96		70-130	2		20
1,1-Dichloropropene	90		100		70-130	11		20
Bromoform	110		120		54-136	9		20
1,1,2,2-Tetrachloroethane	110		120		67-130	9		20
Benzene	97		110		70-130	13		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		110		70-130	10		20
Chloromethane	84		87		64-130	4		20
Bromomethane	64		69		39-139	8		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1602624-3 WG1602624-4								
Vinyl chloride	92		98		55-140	6		20
Chloroethane	91		96		55-138	5		20
1,1-Dichloroethene	120		130		61-145	8		20
trans-1,2-Dichloroethene	100		110		70-130	10		20
Trichloroethene	98		100		70-130	2		20
1,2-Dichlorobenzene	100		120		70-130	18		20
1,3-Dichlorobenzene	110		120		70-130	9		20
1,4-Dichlorobenzene	110		110		70-130	0		20
Methyl tert butyl ether	90		98		63-130	9		20
p/m-Xylene	105		115		70-130	9		20
o-Xylene	100		110		70-130	10		20
cis-1,2-Dichloroethene	92		100		70-130	8		20
Dibromomethane	93		96		70-130	3		20
1,2,3-Trichloropropane	100		110		64-130	10		20
Acrylonitrile	99		99		70-130	0		20
Styrene	105		115		70-130	9		20
Dichlorodifluoromethane	66		71		36-147	7		20
Acetone	98		100		58-148	2		20
Carbon disulfide	120		130		51-130	8		20
2-Butanone	76		89		63-138	16		20
Vinyl acetate	100		100		70-130	0		20
4-Methyl-2-pentanone	90		97		59-130	7		20
2-Hexanone	89		94		57-130	5		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1602624-3 WG1602624-4								
Bromochloromethane	100		110		70-130	10		20
2,2-Dichloropropane	94		100		63-133	6		20
1,2-Dibromoethane	90		100		70-130	11		20
1,3-Dichloropropane	98		100		70-130	2		20
1,1,1,2-Tetrachloroethane	100		110		64-130	10		20
Bromobenzene	110		120		70-130	9		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	110		110		70-130	0		20
tert-Butylbenzene	100		110		70-130	10		20
o-Chlorotoluene	100		110		70-130	10		20
p-Chlorotoluene	110		110		70-130	0		20
1,2-Dibromo-3-chloropropane	110		130		41-144	17		20
Hexachlorobutadiene	110		110		63-130	0		20
Isopropylbenzene	110		120		70-130	9		20
p-Isopropyltoluene	100		110		70-130	10		20
Naphthalene	97		110		70-130	13		20
n-Propylbenzene	100		110		69-130	10		20
1,2,3-Trichlorobenzene	100		120		70-130	18		20
1,2,4-Trichlorobenzene	110		120		70-130	9		20
1,3,5-Trimethylbenzene	100		110		64-130	10		20
1,2,4-Trimethylbenzene	100		110		70-130	10		20
1,4-Dioxane	166	Q	154		56-162	8		20
p-Diethylbenzene	100		110		70-130	10		20

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205390

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1602624-3 WG1602624-4								
p-Ethyltoluene	100		110		70-130	10		20
1,2,4,5-Tetramethylbenzene	100		110		70-130	10		20
Ethyl ether	96		100		59-134	4		20
trans-1,4-Dichloro-2-butene	110		97		70-130	13		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		90		70-130
Toluene-d8	102		96		70-130
4-Bromofluorobenzene	101		99		70-130
Dibromofluoromethane	100		99		70-130

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG1603062-3 WG1603062-4								
Methylene chloride	91		89		70-130	2		30
1,1-Dichloroethane	95		92		70-130	3		30
Chloroform	102		100		70-130	2		30
Carbon tetrachloride	100		99		70-130	1		30
1,2-Dichloropropane	97		95		70-130	2		30
Dibromochloromethane	95		94		70-130	1		30
1,1,2-Trichloroethane	101		99		70-130	2		30
Tetrachloroethene	111		106		70-130	5		30
Chlorobenzene	107		103		70-130	4		30
Trichlorofluoromethane	104		101		70-139	3		30
1,2-Dichloroethane	97		95		70-130	2		30
1,1,1-Trichloroethane	102		99		70-130	3		30
Bromodichloromethane	99		98		70-130	1		30
trans-1,3-Dichloropropene	104		100		70-130	4		30
cis-1,3-Dichloropropene	102		99		70-130	3		30
1,1-Dichloropropene	108		106		70-130	2		30
Bromoform	93		94		70-130	1		30
1,1,2,2-Tetrachloroethane	99		98		70-130	1		30
Benzene	105		102		70-130	3		30
Toluene	109		104		70-130	5		30
Ethylbenzene	114		109		70-130	4		30
Chloromethane	69		66		52-130	4		30
Bromomethane	115		111		57-147	4		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG1603062-3 WG1603062-4								
Vinyl chloride	90		86		67-130	5		30
Chloroethane	90		86		50-151	5		30
1,1-Dichloroethene	100		98		65-135	2		30
trans-1,2-Dichloroethene	102		99		70-130	3		30
Trichloroethene	108		105		70-130	3		30
1,2-Dichlorobenzene	106		105		70-130	1		30
1,3-Dichlorobenzene	109		108		70-130	1		30
1,4-Dichlorobenzene	108		107		70-130	1		30
Methyl tert butyl ether	91		89		66-130	2		30
p/m-Xylene	112		108		70-130	4		30
o-Xylene	110		106		70-130	4		30
cis-1,2-Dichloroethene	100		97		70-130	3		30
Dibromomethane	98		96		70-130	2		30
Styrene	111		107		70-130	4		30
Dichlorodifluoromethane	87		83		30-146	5		30
Acetone	79		73		54-140	8		30
Carbon disulfide	91		87		59-130	4		30
2-Butanone	78		76		70-130	3		30
Vinyl acetate	73		71		70-130	3		30
4-Methyl-2-pentanone	91		85		70-130	7		30
1,2,3-Trichloropropane	104		101		68-130	3		30
2-Hexanone	81		79		70-130	3		30
Bromochloromethane	93		92		70-130	1		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG1603062-3 WG1603062-4								
2,2-Dichloropropane	104		100		70-130	4		30
1,2-Dibromoethane	101		97		70-130	4		30
1,3-Dichloropropane	104		101		69-130	3		30
1,1,1,2-Tetrachloroethane	98		96		70-130	2		30
Bromobenzene	104		102		70-130	2		30
n-Butylbenzene	122		119		70-130	2		30
sec-Butylbenzene	120		116		70-130	3		30
tert-Butylbenzene	114		110		70-130	4		30
o-Chlorotoluene	117		113		70-130	3		30
p-Chlorotoluene	116		113		70-130	3		30
1,2-Dibromo-3-chloropropane	89		91		68-130	2		30
Hexachlorobutadiene	118		115		67-130	3		30
Isopropylbenzene	117		112		70-130	4		30
p-Isopropyltoluene	118		114		70-130	3		30
Naphthalene	102		100		70-130	2		30
Acrylonitrile	79		77		70-130	3		30
n-Propylbenzene	120		116		70-130	3		30
1,2,3-Trichlorobenzene	108		108		70-130	0		30
1,2,4-Trichlorobenzene	114		112		70-130	2		30
1,3,5-Trimethylbenzene	118		115		70-130	3		30
1,2,4-Trimethylbenzene	117		114		70-130	3		30
1,4-Dioxane	92		88		65-136	4		30
p-Diethylbenzene	118		115		70-130	3		30



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205390

Report Date: 02/21/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01 Batch: WG1603062-3 WG1603062-4								
p-Ethyltoluene	116		113		70-130	3		30
1,2,4,5-Tetramethylbenzene	116		114		70-130	2		30
Ethyl ether	88		84		67-130	5		30
trans-1,4-Dichloro-2-butene	86		84		70-130	2		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	94		94		70-130
Toluene-d8	104		103		70-130
4-Bromofluorobenzene	104		104		70-130
Dibromofluoromethane	95		97		70-130

# SEMIVOLATILES

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-01  
 Client ID: SB-13  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Date Collected: 02/01/22 15:30  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8270D  
 Analytical Date: 02/15/22 06:58  
 Analyst: CMM  
 Percent Solids: 95%

Extraction Method: EPA 3546  
 Extraction Date: 02/13/22 15:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
Acenaphthene	ND		ug/kg	140	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	20.	1
Hexachlorobenzene	ND		ug/kg	100	19.	1
Bis(2-chloroethyl)ether	ND		ug/kg	150	23.	1
2-Chloronaphthalene	ND		ug/kg	170	17.	1
1,2-Dichlorobenzene	ND		ug/kg	170	31.	1
1,3-Dichlorobenzene	ND		ug/kg	170	29.	1
1,4-Dichlorobenzene	ND		ug/kg	170	30.	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	46.	1
2,4-Dinitrotoluene	ND		ug/kg	170	34.	1
2,6-Dinitrotoluene	ND		ug/kg	170	29.	1
Fluoranthene	ND		ug/kg	100	20.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	18.	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	26.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	29.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	180	17.	1
Hexachlorobutadiene	ND		ug/kg	170	25.	1
Hexachlorocyclopentadiene	ND		ug/kg	490	160	1
Hexachloroethane	ND		ug/kg	140	28.	1
Isophorone	ND		ug/kg	150	22.	1
Naphthalene	ND		ug/kg	170	21.	1
Nitrobenzene	ND		ug/kg	150	25.	1
NDPA/DPA	ND		ug/kg	140	19.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	26.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	59.	1
Butyl benzyl phthalate	ND		ug/kg	170	43.	1
Di-n-butylphthalate	ND		ug/kg	170	32.	1
Di-n-octylphthalate	ND		ug/kg	170	58.	1

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-01

Date Collected: 02/01/22 15:30

Client ID: SB-13

Date Received: 02/02/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	170	16.	1
Dimethyl phthalate	ND		ug/kg	170	36.	1
Benzo(a)anthracene	ND		ug/kg	100	19.	1
Benzo(a)pyrene	ND		ug/kg	140	42.	1
Benzo(b)fluoranthene	ND		ug/kg	100	29.	1
Benzo(k)fluoranthene	ND		ug/kg	100	27.	1
Chrysene	ND		ug/kg	100	18.	1
Acenaphthylene	ND		ug/kg	140	26.	1
Anthracene	ND		ug/kg	100	33.	1
Benzo(ghi)perylene	ND		ug/kg	140	20.	1
Fluorene	ND		ug/kg	170	17.	1
Phenanthrene	ND		ug/kg	100	21.	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	24.	1
Pyrene	ND		ug/kg	100	17.	1
Biphenyl	ND		ug/kg	390	22.	1
4-Chloroaniline	ND		ug/kg	170	31.	1
2-Nitroaniline	ND		ug/kg	170	33.	1
3-Nitroaniline	ND		ug/kg	170	32.	1
4-Nitroaniline	ND		ug/kg	170	71.	1
Dibenzofuran	ND		ug/kg	170	16.	1
2-Methylnaphthalene	ND		ug/kg	200	21.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	18.	1
Acetophenone	ND		ug/kg	170	21.	1
2,4,6-Trichlorophenol	ND		ug/kg	100	32.	1
p-Chloro-m-cresol	ND		ug/kg	170	26.	1
2-Chlorophenol	ND		ug/kg	170	20.	1
2,4-Dichlorophenol	ND		ug/kg	150	28.	1
2,4-Dimethylphenol	ND		ug/kg	170	56.	1
2-Nitrophenol	ND		ug/kg	370	64.	1
4-Nitrophenol	ND		ug/kg	240	70.	1
2,4-Dinitrophenol	ND		ug/kg	820	80.	1
4,6-Dinitro-o-cresol	ND		ug/kg	440	82.	1
Pentachlorophenol	ND		ug/kg	140	38.	1
Phenol	ND		ug/kg	170	26.	1
2-Methylphenol	ND		ug/kg	170	26.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	27.	1

**Project Name:** ARC2202**Lab Number:** L2205390**Project Number:** ARC2202**Report Date:** 02/21/22**SAMPLE RESULTS**

Lab ID: L2205390-01

Date Collected: 02/01/22 15:30

Client ID: SB-13

Date Received: 02/02/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	170	33.	1
Benzoic Acid	ND		ug/kg	550	170	1
Benzyl Alcohol	ND		ug/kg	170	52.	1
Carbazole	ND		ug/kg	170	17.	1
1,4-Dioxane	ND		ug/kg	26	7.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	39		25-120
Phenol-d6	39		10-120
Nitrobenzene-d5	37		23-120
2-Fluorobiphenyl	40		30-120
2,4,6-Tribromophenol	40		10-136
4-Terphenyl-d14	36		18-120

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-01  
 Client ID: SB-13  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Date Collected: 02/01/22 15:30  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/10/22 16:57  
 Analyst: RS  
 Percent Solids: 95%

Extraction Method: ALPHA 23528  
 Extraction Date: 02/10/22 07:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.475	0.022	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.475	0.044	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.237	0.037	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.475	0.050	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.237	0.043	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.237	0.057	1
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.237	0.040	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.475	0.170	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.475	0.130	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.237	0.071	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.237	0.123	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.237	0.064	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.475	0.272	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.475	0.191	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.475	0.044	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.475	0.145	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.475	0.093	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.475	0.080	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.475	0.067	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.475	0.194	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/g	0.475	0.051	1
PFOA/PFOS, Total	ND		ng/g	0.237	0.040	1

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-01

Date Collected: 02/01/22 15:30

Client ID: SB-13

Date Received: 02/02/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	83		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	84		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	89		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	85		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	84		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	93		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	88		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	108		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	82		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	84		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	82		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	93		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	64		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	89		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	85		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	69		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	83		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	68		24-159

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-02  
 Client ID: GW-4  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Date Collected: 02/01/22 16:30  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D  
 Analytical Date: 02/08/22 00:41  
 Analyst: JG

Extraction Method: EPA 3510C  
 Extraction Date: 02/06/22 01:53

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS - Westborough Lab</b>						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1



Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-02

Date Collected: 02/01/22 16:30

Client ID: GW-4

Date Received: 02/02/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	80		21-120
Phenol-d6	61		10-120
Nitrobenzene-d5	89		23-120
2-Fluorobiphenyl	65		15-120
2,4,6-Tribromophenol	77		10-120
4-Terphenyl-d14	76		41-149

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-02  
 Client ID: GW-4  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Date Collected: 02/01/22 16:30  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 02/07/22 09:16  
 Analyst: DV

Extraction Method: EPA 3510C  
 Extraction Date: 02/06/22 01:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Semivolatile Organics by GC/MS-SIM - Westborough Lab</b>						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.04	J	ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	0.09	J	ug/l	0.10	0.05	1
Benzo(a)anthracene	0.03	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	0.02	J	ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.03	J	ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.02	J	ug/l	0.10	0.01	1
Chrysene	0.03	J	ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	0.03	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.03	J	ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	0.09	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.03	J	ug/l	0.10	0.01	1
Pyrene	0.05	J	ug/l	0.10	0.02	1
2-Methylnaphthalene	0.06	J	ug/l	0.10	0.02	1
Pentachlorophenol	0.21	J	ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

**Project Name:** ARC2202**Lab Number:** L2205390**Project Number:** ARC2202**Report Date:** 02/21/22**SAMPLE RESULTS**

Lab ID: L2205390-02

Date Collected: 02/01/22 16:30

Client ID: GW-4

Date Received: 02/02/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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## Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	79		21-120
Phenol-d6	69		10-120
Nitrobenzene-d5	94		23-120
2-Fluorobiphenyl	93		15-120
2,4,6-Tribromophenol	105		10-120
4-Terphenyl-d14	97		41-149

**Project Name:** ARC2202**Lab Number:** L2205390**Project Number:** ARC2202**Report Date:** 02/21/22**SAMPLE RESULTS**

Lab ID: L2205390-02  
 Client ID: GW-4  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Date Collected: 02/01/22 16:30  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8270D-SIM  
 Analytical Date: 02/07/22 16:28  
 Analyst: DB

Extraction Method: EPA 3510C  
 Extraction Date: 02/05/22 14:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	150	33.9	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			35		15-110	

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-02  
 Client ID: GW-4  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Date Collected: 02/01/22 16:30  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/09/22 02:02  
 Analyst: HT

Extraction Method: ALPHA 23528  
 Extraction Date: 02/08/22 17:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
<b>Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab</b>						
Perfluorobutanoic Acid (PFBA)	13.7		ng/l	1.96	0.399	1
Perfluoropentanoic Acid (PFPeA)	40.6		ng/l	1.96	0.388	1
Perfluorobutanesulfonic Acid (PFBS)	4.93		ng/l	1.96	0.233	1
Perfluorohexanoic Acid (PFHxA)	22.0		ng/l	1.96	0.321	1
Perfluoroheptanoic Acid (PFHpA)	17.5		ng/l	1.96	0.220	1
Perfluorohexanesulfonic Acid (PFHxS)	3.20		ng/l	1.96	0.368	1
Perfluorooctanoic Acid (PFOA)	82.3		ng/l	1.96	0.231	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.96	1.30	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.96	0.673	1
Perfluorononanoic Acid (PFNA)	3.77		ng/l	1.96	0.305	1
Perfluorooctanesulfonic Acid (PFOS)	43.1		ng/l	1.96	0.493	1
Perfluorodecanoic Acid (PFDA)	0.900	J	ng/l	1.96	0.298	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.96	1.19	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.96	0.634	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.96	0.254	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.96	0.959	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.96	0.568	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.96	0.787	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.96	0.364	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.96	0.320	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.96	0.243	1
PFOA/PFOS, Total	125		ng/l	1.96	0.231	1

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-02

Date Collected: 02/01/22 16:30

Client ID: GW-4

Date Received: 02/02/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	84		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	73		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	97		70-131
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	63		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	72		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	103		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	84		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	365	Q	14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	87		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	96		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	86		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	215	Q	10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	80		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	81		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	19		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	96		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	73		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	62		22-136

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

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

Analytical Method: 1,8270D-SIM  
Analytical Date: 02/07/22 12:26  
Analyst: DB

Extraction Method: EPA 3510C  
Extraction Date: 02/05/22 14:58

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 02 Batch: WG1601773-1					
1,4-Dioxane	ND		ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	35		15-110

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/07/22 19:33  
 Analyst: JRW

Extraction Method: EPA 3510C  
 Extraction Date: 02/05/22 11:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatle Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1601795-1					
Acenaphthene	ND		ug/l	2.0	0.44
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Hexachlorobenzene	ND		ug/l	2.0	0.46
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chloronaphthalene	ND		ug/l	2.0	0.44
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Fluoranthene	ND		ug/l	2.0	0.26
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Hexachloroethane	ND		ug/l	2.0	0.58
Isophorone	ND		ug/l	5.0	1.2
Naphthalene	ND		ug/l	2.0	0.46
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

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

Analytical Method: 1,8270D  
Analytical Date: 02/07/22 19:33  
Analyst: JRW

Extraction Method: EPA 3510C  
Extraction Date: 02/05/22 11:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1601795-1					
Dimethyl phthalate	ND		ug/l	5.0	1.8
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Chrysene	ND		ug/l	2.0	0.34
Acenaphthylene	ND		ug/l	2.0	0.46
Anthracene	ND		ug/l	2.0	0.33
Benzo(ghi)perylene	ND		ug/l	2.0	0.30
Fluorene	ND		ug/l	2.0	0.41
Phenanthrene	ND		ug/l	2.0	0.33
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Pyrene	ND		ug/l	2.0	0.28
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
2-Methylnaphthalene	ND		ug/l	2.0	0.45
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8270D  
Analytical Date: 02/07/22 19:33  
Analyst: JRW

Extraction Method: EPA 3510C  
Extraction Date: 02/05/22 11:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1601795-1					
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Pentachlorophenol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Benzoic Acid	ND		ug/l	50	2.6
Benzyl Alcohol	ND		ug/l	2.0	0.59
Carbazole	ND		ug/l	2.0	0.49

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	37		21-120
Phenol-d6	28		10-120
Nitrobenzene-d5	52		23-120
2-Fluorobiphenyl	42		15-120
2,4,6-Tribromophenol	27		10-120
4-Terphenyl-d14	48		41-149

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

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

Analytical Method: 1,8270D-SIM  
Analytical Date: 02/06/22 17:09  
Analyst: DV

Extraction Method: EPA 3510C  
Extraction Date: 02/05/22 11:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 02 Batch: WG1601796-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	0.03	J	ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8270D-SIM  
 Analytical Date: 02/06/22 17:09  
 Analyst: DV

Extraction Method: EPA 3510C  
 Extraction Date: 02/05/22 11:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 02 Batch: WG1601796-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	39		21-120
Phenol-d6	33		10-120
Nitrobenzene-d5	58		23-120
2-Fluorobiphenyl	58		15-120
2,4,6-Tribromophenol	43		10-120
4-Terphenyl-d14	64		41-149

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID  
 Analytical Date: 02/09/22 01:28  
 Analyst: HT

Extraction Method: ALPHA 23528  
 Extraction Date: 02/08/22 17:20

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 02 Batch: WG1602737-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.408
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.396
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.238
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.328
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.225
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.376
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.236
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	1.33
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.688
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.312
Perfluorooctanesulfonic Acid (PFOS)	0.764	J	ng/l	2.00	0.504
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.304
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	1.21
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.648
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.260
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.980
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.580
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.804
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.372
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.327
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.248
PFOA/PFOS, Total	0.764	J	ng/l	2.00	0.236

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

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

Analytical Method: 134,LCMSMS-ID  
Analytical Date: 02/09/22 01:28  
Analyst: HT

Extraction Method: ALPHA 23528  
Extraction Date: 02/08/22 17:20

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 02 Batch: WG1602737-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	99		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	110		62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	106		70-131
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	102		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	97		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	113		71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	101		62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	<b>170</b>	Q	14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	101		59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	103		69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	98		62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	<b>165</b>	Q	10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	94		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	107		55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	53		10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	107		27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	94		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	74		22-136

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

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

Analytical Method: 134,LCMSMS-ID  
Analytical Date: 02/10/22 16:24  
Analyst: RS

Extraction Method: ALPHA 23528  
Extraction Date: 02/10/22 07:39

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01 Batch: WG1603371-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/g	0.500	0.023
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.500	0.046
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.250	0.039
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.500	0.053
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.250	0.045
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.250	0.061
Perfluorooctanoic Acid (PFOA)	ND		ng/g	0.250	0.042
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.500	0.180
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.500	0.136
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.250	0.075
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/g	0.250	0.130
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.250	0.067
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.500	0.287
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.500	0.202
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.500	0.047
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.500	0.153
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.500	0.098
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.500	0.085
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.500	0.070
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.500	0.204
Perfluorotetradecanoic Acid (PFTA)	ND		ng/g	0.500	0.054
PFOA/PFOS, Total	ND		ng/g	0.250	0.042

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID  
Analytical Date: 02/10/22 16:24  
Analyst: RS

Extraction Method: ALPHA 23528  
Extraction Date: 02/10/22 07:39

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01 Batch: WG1603371-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	82		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	85		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	84		74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	86		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	87		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	90		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	85		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	105		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	83		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	84		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	81		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	83		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	71		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	87		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	32		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	68		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	77		54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	60		24-159



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

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

Analytical Method: 134,LCMSMS-ID  
Analytical Date: 02/14/22 17:45  
Analyst: SG

Extraction Method: ALPHA 23528  
Extraction Date: 02/10/22 07:39

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01 Batch: WG1603371-1					
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.500	0.098

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	96		10-117

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/15/22 05:22  
 Analyst: WR

Extraction Method: EPA 3546  
 Extraction Date: 02/13/22 15:31

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1604471-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	170	19.
Hexachlorobenzene	ND		ug/kg	100	19.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	170	16.
1,2-Dichlorobenzene	ND		ug/kg	170	30.
1,3-Dichlorobenzene	ND		ug/kg	170	28.
1,4-Dichlorobenzene	ND		ug/kg	170	29.
3,3'-Dichlorobenzidine	ND		ug/kg	170	44.
2,4-Dinitrotoluene	ND		ug/kg	170	33.
2,6-Dinitrotoluene	ND		ug/kg	170	28.
Fluoranthene	ND		ug/kg	100	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	170	18.
4-Bromophenyl phenyl ether	ND		ug/kg	170	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	17.
Hexachlorobutadiene	ND		ug/kg	170	24.
Hexachlorocyclopentadiene	ND		ug/kg	480	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	22.
Naphthalene	ND		ug/kg	170	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	170	26.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	57.
Butyl benzyl phthalate	ND		ug/kg	170	42.
Di-n-butylphthalate	ND		ug/kg	170	31.
Di-n-octylphthalate	ND		ug/kg	170	56.
Diethyl phthalate	ND		ug/kg	170	15.

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 02/15/22 05:22  
 Analyst: WR

Extraction Method: EPA 3546  
 Extraction Date: 02/13/22 15:31

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1604471-1					
Dimethyl phthalate	ND		ug/kg	170	35.
Benzo(a)anthracene	ND		ug/kg	100	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	100	28.
Benzo(k)fluoranthene	ND		ug/kg	100	26.
Chrysene	ND		ug/kg	100	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	100	32.
Benzo(ghi)perylene	ND		ug/kg	130	20.
Fluorene	ND		ug/kg	170	16.
Phenanthrene	ND		ug/kg	100	20.
Dibenzo(a,h)anthracene	ND		ug/kg	100	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	100	16.
Biphenyl	ND		ug/kg	380	22.
4-Chloroaniline	ND		ug/kg	170	30.
2-Nitroaniline	ND		ug/kg	170	32.
3-Nitroaniline	ND		ug/kg	170	31.
4-Nitroaniline	ND		ug/kg	170	69.
Dibenzofuran	ND		ug/kg	170	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	17.
Acetophenone	ND		ug/kg	170	20.
2,4,6-Trichlorophenol	ND		ug/kg	100	31.
p-Chloro-m-cresol	ND		ug/kg	170	25.
2-Chlorophenol	ND		ug/kg	170	20.
2,4-Dichlorophenol	ND		ug/kg	150	27.
2,4-Dimethylphenol	ND		ug/kg	170	55.
2-Nitrophenol	ND		ug/kg	360	62.

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8270D  
Analytical Date: 02/15/22 05:22  
Analyst: WR

Extraction Method: EPA 3546  
Extraction Date: 02/13/22 15:31

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1604471-1					
4-Nitrophenol	ND		ug/kg	230	68.
2,4-Dinitrophenol	ND		ug/kg	800	77.
4,6-Dinitro-o-cresol	ND		ug/kg	430	80.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	170	25.
2-Methylphenol	ND		ug/kg	170	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	170	32.
Benzoic Acid	ND		ug/kg	540	170
Benzyl Alcohol	ND		ug/kg	170	51.
Carbazole	ND		ug/kg	170	16.
1,4-Dioxane	ND		ug/kg	25	7.6

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	54		25-120
Phenol-d6	54		10-120
Nitrobenzene-d5	50		23-120
2-Fluorobiphenyl	52		30-120
2,4,6-Tribromophenol	57		10-136
4-Terphenyl-d14	56		18-120

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 02 Batch: WG1601773-2 WG1601773-3								
1,4-Dioxane	120		120		40-140	0		30

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,4-Dioxane-d8	32		35		15-110

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1601795-2 WG1601795-3								
Acenaphthene	77		74		37-111	4		30
1,2,4-Trichlorobenzene	68		67		39-98	1		30
Hexachlorobenzene	71		68		40-140	4		30
Bis(2-chloroethyl)ether	73		72		40-140	1		30
2-Chloronaphthalene	67		66		40-140	2		30
1,2-Dichlorobenzene	69		69		40-140	0		30
1,3-Dichlorobenzene	66		66		40-140	0		30
1,4-Dichlorobenzene	70		68		36-97	3		30
3,3'-Dichlorobenzidine	41		41		40-140	0		30
2,4-Dinitrotoluene	77		73		48-143	5		30
2,6-Dinitrotoluene	68		68		40-140	0		30
Fluoranthene	69		69		40-140	0		30
4-Chlorophenyl phenyl ether	67		65		40-140	3		30
4-Bromophenyl phenyl ether	69		64		40-140	8		30
Bis(2-chloroisopropyl)ether	71		69		40-140	3		30
Bis(2-chloroethoxy)methane	78		73		40-140	7		30
Hexachlorobutadiene	60		58		40-140	3		30
Hexachlorocyclopentadiene	56		52		40-140	7		30
Hexachloroethane	74		73		40-140	1		30
Isophorone	68		67		40-140	1		30
Naphthalene	72		69		40-140	4		30
Nitrobenzene	107		107		40-140	0		30
NDPA/DPA	67		66		40-140	2		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1601795-2 WG1601795-3								
n-Nitrosodi-n-propylamine	75		72		29-132	4		30
Bis(2-ethylhexyl)phthalate	76		81		40-140	6		30
Butyl benzyl phthalate	68		74		40-140	8		30
Di-n-butylphthalate	66		64		40-140	3		30
Di-n-octylphthalate	72		79		40-140	9		30
Diethyl phthalate	73		70		40-140	4		30
Dimethyl phthalate	61		61		40-140	0		30
Benzo(a)anthracene	74		73		40-140	1		30
Benzo(a)pyrene	73		74		40-140	1		30
Benzo(b)fluoranthene	76		82		40-140	8		30
Benzo(k)fluoranthene	78		85		40-140	9		30
Chrysene	72		70		40-140	3		30
Acenaphthylene	63		61		45-123	3		30
Anthracene	72		70		40-140	3		30
Benzo(ghi)perylene	88		87		40-140	1		30
Fluorene	73		70		40-140	4		30
Phenanthrene	72		70		40-140	3		30
Dibenzo(a,h)anthracene	86		81		40-140	6		30
Indeno(1,2,3-cd)pyrene	74		72		40-140	3		30
Pyrene	67		67		26-127	0		30
Biphenyl	66		64		40-140	3		30
4-Chloroaniline	63		51		40-140	21		30
2-Nitroaniline	71		69		52-143	3		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1601795-2 WG1601795-3								
3-Nitroaniline	56		52		25-145	7		30
4-Nitroaniline	69		69		51-143	0		30
Dibenzofuran	74		71		40-140	4		30
2-Methylnaphthalene	67		56		40-140	18		30
1,2,4,5-Tetrachlorobenzene	63		61		2-134	3		30
Acetophenone	74		71		39-129	4		30
2,4,6-Trichlorophenol	62		62		30-130	0		30
p-Chloro-m-cresol	72		71		23-97	1		30
2-Chlorophenol	76		73		27-123	4		30
2,4-Dichlorophenol	71		70		30-130	1		30
2,4-Dimethylphenol	46		47		30-130	2		30
2-Nitrophenol	85		83		30-130	2		30
4-Nitrophenol	85	Q	82	Q	10-80	4		30
2,4-Dinitrophenol	85		75		20-130	13		30
4,6-Dinitro-o-cresol	85		81		20-164	5		30
Pentachlorophenol	56		47		9-103	17		30
Phenol	58		56		12-110	4		30
2-Methylphenol	68		65		30-130	5		30
3-Methylphenol/4-Methylphenol	71		68		30-130	4		30
2,4,5-Trichlorophenol	59		60		30-130	2		30
Benzoic Acid	49		48		10-164	2		30
Benzyl Alcohol	70		64		26-116	9		30
Carbazole	73		73		55-144	0		30



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1601795-2 WG1601795-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	68		65		21-120
Phenol-d6	55		52		10-120
Nitrobenzene-d5	78		76		23-120
2-Fluorobiphenyl	59		57		15-120
2,4,6-Tribromophenol	70		67		10-120
4-Terphenyl-d14	61		61		41-149

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 02 Batch: WG1601796-2 WG1601796-3								
Acenaphthene	79		77		40-140	3		40
2-Chloronaphthalene	79		79		40-140	0		40
Fluoranthene	79		79		40-140	0		40
Hexachlorobutadiene	73		71		40-140	3		40
Naphthalene	77		74		40-140	4		40
Benzo(a)anthracene	80		77		40-140	4		40
Benzo(a)pyrene	72		73		40-140	1		40
Benzo(b)fluoranthene	76		78		40-140	3		40
Benzo(k)fluoranthene	83		82		40-140	1		40
Chrysene	71		74		40-140	4		40
Acenaphthylene	79		78		40-140	1		40
Anthracene	78		77		40-140	1		40
Benzo(ghi)perylene	76		76		40-140	0		40
Fluorene	82		81		40-140	1		40
Phenanthrene	75		75		40-140	0		40
Dibenzo(a,h)anthracene	81		80		40-140	1		40
Indeno(1,2,3-cd)pyrene	75		73		40-140	3		40
Pyrene	78		78		40-140	0		40
2-Methylnaphthalene	79		77		40-140	3		40
Pentachlorophenol	90		90		40-140	0		40
Hexachlorobenzene	75		75		40-140	0		40
Hexachloroethane	69		66		40-140	4		40

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205390

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 02 Batch: WG1601796-2 WG1601796-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	60		57		21-120
Phenol-d6	51		50		10-120
Nitrobenzene-d5	77		77		23-120
2-Fluorobiphenyl	74		75		15-120
2,4,6-Tribromophenol	77		70		10-120
4-Terphenyl-d14	77		79		41-149

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 02 Batch: WG1602737-2								
Perfluorobutanoic Acid (PFBA)	100		-		67-148	-		30
Perfluoropentanoic Acid (PFPeA)	100		-		63-161	-		30
Perfluorobutanesulfonic Acid (PFBS)	99		-		65-157	-		30
Perfluorohexanoic Acid (PFHxA)	101		-		69-168	-		30
Perfluoroheptanoic Acid (PFHpA)	101		-		58-159	-		30
Perfluorohexanesulfonic Acid (PFHxS)	121		-		69-177	-		30
Perfluorooctanoic Acid (PFOA)	99		-		63-159	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	113		-		49-187	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	100		-		61-179	-		30
Perfluorononanoic Acid (PFNA)	102		-		68-171	-		30
Perfluorooctanesulfonic Acid (PFOS)	116		-		52-151	-		30
Perfluorodecanoic Acid (PFDA)	100		-		63-171	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	118		-		56-173	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	99		-		60-166	-		30
Perfluoroundecanoic Acid (PFUnA)	103		-		60-153	-		30
Perfluorodecanesulfonic Acid (PFDS)	110		-		38-156	-		30
Perfluorooctanesulfonamide (FOSA)	95		-		46-170	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	105		-		45-170	-		30
Perfluorododecanoic Acid (PFDoA)	102		-		67-153	-		30
Perfluorotridecanoic Acid (PFTrDA)	109		-		48-158	-		30
Perfluorotetradecanoic Acid (PFTA)	104		-		59-182	-		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual		Limits	
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 02 Batch: WG1602737-2									

Surrogate (Extracted Internal Standard)	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
Perfluoro[13C4]Butanoic Acid (MPFBA)	100				58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	104				62-163
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	109				70-131
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	102				57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	99				60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	112				71-134
Perfluoro[13C8]Octanoic Acid (M8PFOA)	102				62-129
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	134				14-147
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	99				59-139
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	110				69-131
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	99				62-124
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	120				10-162
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	101				24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	103				55-137
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	63				10-112
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	97				27-126
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	99				48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	91				22-136

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01 Batch: WG1603371-2								
Perfluorobutanoic Acid (PFBA)	101		-		71-135	-		30
Perfluoropentanoic Acid (PFPeA)	101		-		69-132	-		30
Perfluorobutanesulfonic Acid (PFBS)	97		-		72-128	-		30
Perfluorohexanoic Acid (PFHxA)	100		-		70-132	-		30
Perfluoroheptanoic Acid (PFHpA)	103		-		71-131	-		30
Perfluorohexanesulfonic Acid (PFHxS)	114		-		67-130	-		30
Perfluorooctanoic Acid (PFOA)	104		-		69-133	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	117		-		64-140	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	101		-		70-132	-		30
Perfluorononanoic Acid (PFNA)	101		-		72-129	-		30
Perfluorooctanesulfonic Acid (PFOS)	119		-		68-136	-		30
Perfluorodecanoic Acid (PFDA)	101		-		69-133	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	135		-		65-137	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	116		-		63-144	-		30
Perfluoroundecanoic Acid (PFUnA)	99		-		64-136	-		30
Perfluorodecanesulfonic Acid (PFDS)	115		-		59-134	-		30
Perfluorooctanesulfonamide (FOSA)	91		-		67-137	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	109		-		61-139	-		30
Perfluorododecanoic Acid (PFDoA)	104		-		69-135	-		30
Perfluorotridecanoic Acid (PFTrDA)	114		-		66-139	-		30
Perfluorotetradecanoic Acid (PFTA)	107		-		69-133	-		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual		Limits	
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01 Batch: WG1603371-2									

Surrogate (Extracted Internal Standard)	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
Perfluoro[13C4]Butanoic Acid (MPFBA)	83				61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	84				58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	91				74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	86				66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	83				71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	93				78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	82				75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	108				20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	80				72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	87				79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	81				75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	82				19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	65				31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	92				61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	44				10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	72				34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	77				54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	59				24-159

### Lab Control Sample Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01 Batch: WG1603371-2								
Perfluorooctanesulfonamide (FOSA)	108		-		67-137	-		30

<b>Surrogate (Extracted Internal Standard)</b>	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	95				10-117



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1604471-2 WG1604471-3								
Acenaphthene	52		44		31-137	17		50
1,2,4-Trichlorobenzene	47		44		38-107	7		50
Hexachlorobenzene	54		46		40-140	16		50
Bis(2-chloroethyl)ether	50		44		40-140	13		50
2-Chloronaphthalene	52		45		40-140	14		50
1,2-Dichlorobenzene	51		45		40-140	13		50
1,3-Dichlorobenzene	48		44		40-140	9		50
1,4-Dichlorobenzene	50		46		28-104	8		50
3,3'-Dichlorobenzidine	40		32	Q	40-140	22		50
2,4-Dinitrotoluene	54		46		40-132	16		50
2,6-Dinitrotoluene	52		46		40-140	12		50
Fluoranthene	53		46		40-140	14		50
4-Chlorophenyl phenyl ether	53		46		40-140	14		50
4-Bromophenyl phenyl ether	53		45		40-140	16		50
Bis(2-chloroisopropyl)ether	47		44		40-140	7		50
Bis(2-chloroethoxy)methane	50		44		40-117	13		50
Hexachlorobutadiene	49		43		40-140	13		50
Hexachlorocyclopentadiene	40		35	Q	40-140	13		50
Hexachloroethane	49		44		40-140	11		50
Isophorone	50		44		40-140	13		50
Naphthalene	51		45		40-140	13		50
Nitrobenzene	50		46		40-140	8		50
NDPA/DPA	53		46		36-157	14		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1604471-2 WG1604471-3								
n-Nitrosodi-n-propylamine	50		44		32-121	13		50
Bis(2-ethylhexyl)phthalate	52		45		40-140	14		50
Butyl benzyl phthalate	54		46		40-140	16		50
Di-n-butylphthalate	53		46		40-140	14		50
Di-n-octylphthalate	54		44		40-140	20		50
Diethyl phthalate	53		46		40-140	14		50
Dimethyl phthalate	52		46		40-140	12		50
Benzo(a)anthracene	52		44		40-140	17		50
Benzo(a)pyrene	53		45		40-140	16		50
Benzo(b)fluoranthene	53		44		40-140	19		50
Benzo(k)fluoranthene	56		47		40-140	17		50
Chrysene	52		44		40-140	17		50
Acenaphthylene	53		46		40-140	14		50
Anthracene	52		45		40-140	14		50
Benzo(ghi)perylene	55		48		40-140	14		50
Fluorene	53		46		40-140	14		50
Phenanthrene	52		46		40-140	12		50
Dibenzo(a,h)anthracene	55		47		40-140	16		50
Indeno(1,2,3-cd)pyrene	56		49		40-140	13		50
Pyrene	53		46		35-142	14		50
Biphenyl	52		44		37-127	17		50
4-Chloroaniline	47		42		40-140	11		50
2-Nitroaniline	55		47		47-134	16		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1604471-2 WG1604471-3								
3-Nitroaniline	45		39		26-129	14		50
4-Nitroaniline	52		45		41-125	14		50
Dibenzofuran	53		46		40-140	14		50
2-Methylnaphthalene	52		46		40-140	12		50
1,2,4,5-Tetrachlorobenzene	51		46		40-117	10		50
Acetophenone	50		45		14-144	11		50
2,4,6-Trichlorophenol	56		47		30-130	17		50
p-Chloro-m-cresol	55		46		26-103	18		50
2-Chlorophenol	53		48		25-102	10		50
2,4-Dichlorophenol	54		48		30-130	12		50
2,4-Dimethylphenol	52		45		30-130	14		50
2-Nitrophenol	52		45		30-130	14		50
4-Nitrophenol	54		46		11-114	16		50
2,4-Dinitrophenol	26		19		4-130	31		50
4,6-Dinitro-o-cresol	51		43		10-130	17		50
Pentachlorophenol	50		41		17-109	20		50
Phenol	55		49		26-90	12		50
2-Methylphenol	53		48		30-130	10		50
3-Methylphenol/4-Methylphenol	58		52		30-130	11		50
2,4,5-Trichlorophenol	56		48		30-130	15		50
Benzoic Acid	0	Q	0	Q	10-110	NC		50
Benzyl Alcohol	54		47		40-140	14		50
Carbazole	53	Q	46	Q	54-128	14		50

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1604471-2 WG1604471-3								
1,4-Dioxane	42		38	Q	40-140	10		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	53		49		25-120
Phenol-d6	54		49		10-120
Nitrobenzene-d5	50		44		23-120
2-Fluorobiphenyl	51		44		30-120
2,4,6-Tribromophenol	56		49		10-136
4-Terphenyl-d14	51		45		18-120

## Matrix Spike Analysis

### Batch Quality Control

**Project Name:** ARC2202

**Lab Number:** L2205390

**Project Number:** ARC2202

**Report Date:** 02/21/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1602737-3 WG1602737-4 QC Sample: L2205878-03 Client ID: MS Sample												
Perfluorobutanoic Acid (PFBA)	5.74	34.8	40.6	100		40.6	101		67-148	0		30
Perfluoropentanoic Acid (PFPeA)	4.25	34.8	40.0	103		39.3	101		63-161	2		30
Perfluorobutanesulfonic Acid (PFBS)	1.90	30.9	32.1	98		32.0	98		65-157	0		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	32.6	39.3	121		38.6	119		37-219	2		30
Perfluorohexanoic Acid (PFHxA)	4.97	34.8	40.0	101		39.1	99		69-168	2		30
Perfluoropentanesulfonic Acid (PFPeS)	0.224J	32.7	35.6	108		35.8	110		52-156	1		30
Perfluoroheptanoic Acid (PFHpA)	5.44	34.8	41.7	104		40.7	102		58-159	2		30
Perfluorohexanesulfonic Acid (PFHxS)	1.27J	31.8	39.8	121		39.7	122		69-177	0		30
Perfluorooctanoic Acid (PFOA)	34.1	34.8	71.5	107		70.2	104		63-159	2		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	33.1	37.7	114		38.5	117		49-187	2		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	33.1	32.6	98		34.0	103		61-179	4		30
Perfluorononanoic Acid (PFNA)	ND	34.8	36.0	103		35.2	102		68-171	2		30
Perfluorooctanesulfonic Acid (PFOS)	7.08	32.3	42.5	110		42.6	111		52-151	0		30
Perfluorodecanoic Acid (PFDA)	ND	34.8	35.2	101		34.0	98		63-171	3		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	33.4	38.7	116		41.9	126		56-173	8		30
Perfluorononanesulfonic Acid (PFNS)	ND	33.5	33.3	100		30.8	93		48-150	8		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	34.8	36.7	105		37.5	109		60-166	2		30
Perfluoroundecanoic Acid (PFUnA)	ND	34.8	35.9	103		33.9	98		60-153	6		30
Perfluorodecanesulfonic Acid (PFDS)	ND	33.5	33.9	101		33.7	101		38-156	1		30
Perfluorooctanesulfonamide (FOSA)	ND	34.8	35.4	102		32.1F	93		46-170	10		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	34.8	33.5	96		32.1	93		45-170	4		30
Perfluorododecanoic Acid (PFDoA)	ND	34.8	36.2	104		35.8	104		67-153	1		30

## Matrix Spike Analysis

Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1602737-3 WG1602737-4 QC Sample: L2205878-03 Client ID: MS Sample												
Perfluorotridecanoic Acid (PFTTrDA)	ND	34.8	37.7	108		35.9	104		48-158	5		30
Perfluorotetradecanoic Acid (PFTTA)	ND	34.8	35.6	102		33.8	98		59-182	5		30

Surrogate (Extracted Internal Standard)	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	102		89		10-162
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	158	Q	150	Q	12-142
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	135		131		14-147
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	84		87		27-126
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	69		67		24-116
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUOA)	84		84		55-137
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	84		81		62-124
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	77		76		57-129
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	81		81		60-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	101		99		71-134
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	79		76		48-131
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	75		71		22-136
Perfluoro[13C4]Butanoic Acid (MPFBA)	82		79		58-132
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	85		84		62-163
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	28		40		10-112
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	99		93		69-131
Perfluoro[13C8]Octanoic Acid (M8PFOA)	84		81		62-129
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	82		82		59-139
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	98		97		70-131

## Matrix Spike Analysis

### Batch Quality Control

**Project Name:** ARC2202

**Lab Number:** L2205390

**Project Number:** ARC2202

**Report Date:** 02/21/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1603371-3 QC Sample: L2206793-01 Client ID: MS Sample												
Perfluorobutanoic Acid (PFBA)	0.025J	5.25	5.44	103		-	-		71-135	-		30
Perfluoropentanoic Acid (PFPeA)	0.158J	5.25	5.66	105		-	-		69-132	-		30
Perfluorobutanesulfonic Acid (PFBS)	ND	4.66	4.80	103		-	-		72-128	-		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	4.92	5.82	118		-	-		62-145	-		30
Perfluorohexanoic Acid (PFHxA)	0.112J	5.25	5.46	102		-	-		70-132	-		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	4.94	5.38	109		-	-		73-123	-		30
Perfluoroheptanoic Acid (PFHpA)	0.193J	5.25	5.63	103		-	-		71-131	-		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	4.8	5.92	123		-	-		67-130	-		30
Perfluorooctanoic Acid (PFOA)	0.171JF	5.25	5.65	104		-	-		69-133	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	5	5.86	117		-	-		64-140	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	5	5.15	103		-	-		70-132	-		30
Perfluorononanoic Acid (PFNA)	ND	5.25	5.49	104		-	-		72-129	-		30
Perfluorooctanesulfonic Acid (PFOS)	1.23	4.88	7.10	120		-	-		68-136	-		30
Perfluorodecanoic Acid (PFDA)	0.077J	5.25	5.46	102		-	-		69-133	-		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	5.04	7.02	139	Q	-	-		65-137	-		30
Perfluorononanesulfonic Acid (PFNS)	ND	5.05	5.39	107		-	-		69-125	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	5.25	5.99	114		-	-		63-144	-		30
Perfluoroundecanoic Acid (PFUnA)	ND	5.25	5.50	105		-	-		64-136	-		30
Perfluorodecanesulfonic Acid (PFDS)	ND	5.06	5.52	109		-	-		59-134	-		30
Perfluorooctanesulfonamide (FOSA)	ND	5.25	5.39	103		-	-		67-137	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	5.25	5.42	103		-	-		61-139	-		30
Perfluorododecanoic Acid (PFDoA)	ND	5.25	5.46	104		-	-		69-135	-		30

## Matrix Spike Analysis

*Batch Quality Control*

**Project Name:** ARC2202

**Lab Number:** L2205390

**Project Number:** ARC2202

**Report Date:** 02/21/22

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1603371-3 QC Sample: L2206793-01 Client ID: MS Sample												
Perfluorotridecanoic Acid (PFTTrDA)	ND	5.25	5.65	108		-	-		66-139	-		30
Perfluorotetradecanoic Acid (PFTTA)	ND	5.25	5.24	100		-	-		69-133	-		30

<i>Surrogate (Extracted Internal Standard)</i>	<i>MS % Recovery</i>	<i>Qualifier</i>	<i>MSD % Recovery</i>	<i>Qualifier</i>	<i>Acceptance Criteria</i>
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	98				19-175
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	100				14-167
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	123				20-154
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	84				34-137
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	70				31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUOA)	93				61-155
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	87				75-130
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	89				66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	88				71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	101				78-139
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	89				54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	77				24-159
Perfluoro[13C4]Butanoic Acid (MPFBA)	86				61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	87				58-150
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	84				10-117
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	96				79-136
Perfluoro[13C8]Octanoic Acid (M8PFOA)	89				75-130
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	84				72-140
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	95				74-139



## Lab Duplicate Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205390

Report Date: 02/21/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1603371-4 QC Sample: L2206793-02 Client ID: DUP Sample						
Perfluorobutanoic Acid (PFBA)	ND	ND	ng/g	NC		30
Perfluoropentanoic Acid (PFPeA)	0.050J	ND	ng/g	NC		30
Perfluorobutanesulfonic Acid (PFBS)	ND	ND	ng/g	NC		30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	ND	ng/g	NC		30
Perfluorohexanoic Acid (PFHxA)	ND	ND	ng/g	NC		30
Perfluoropentanesulfonic Acid (PFPeS)	ND	ND	ng/g	NC		30
Perfluoroheptanoic Acid (PFHpA)	0.060J	0.054J	ng/g	NC		30
Perfluorohexanesulfonic Acid (PFHxS)	ND	ND	ng/g	NC		30
Perfluorooctanoic Acid (PFOA)	0.116JF	0.098J	ng/g	NC		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	ND	ng/g	NC		30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	ND	ng/g	NC		30
Perfluorononanoic Acid (PFNA)	0.092JF	0.077J	ng/g	NC		30
Perfluorooctanesulfonic Acid (PFOS)	1.01	1.05	ng/g	4		30
Perfluorodecanoic Acid (PFDA)	ND	ND	ng/g	NC		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	ND	ng/g	NC		30
Perfluorononanesulfonic Acid (PFNS)	ND	ND	ng/g	NC		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	ND	ng/g	NC		30
Perfluoroundecanoic Acid (PFUnA)	ND	ND	ng/g	NC		30
Perfluorodecanesulfonic Acid (PFDS)	ND	ND	ng/g	NC		30
Perfluorooctanesulfonamide (FOSA)	ND	ND	ng/g	NC		30

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205390

Report Date: 02/21/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1603371-4 QC Sample: L2206793-02 Client ID: DUP Sample						
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	ND	ng/g	NC		30
Perfluorododecanoic Acid (PFDoA)	ND	ND	ng/g	NC		30
Perfluorotridecanoic Acid (PFTrDA)	ND	ND	ng/g	NC		30
Perfluorotetradecanoic Acid (PFTA)	ND	ND	ng/g	NC		30

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	82		85		61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	82		88		58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	94		92		74-139
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	89		90		14-167
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	83		87		66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	83		87		71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	99		98		78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	85		90		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	107		109		20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	80		85		72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	89		91		79-136
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	77		83		75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	89		93		19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	54		58		31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	86		91		61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	79		85		10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	65		59		34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	78		81		54-150

## Lab Duplicate Analysis

Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205390

Report Date: 02/21/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1603371-4 QC Sample: L2206793-02 Client ID: DUP Sample						

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	66		65		24-159

# PCBS

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-01  
 Client ID: SB-13  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Date Collected: 02/01/22 15:30  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8082A  
 Analytical Date: 02/17/22 20:37  
 Analyst: AD  
 Percent Solids: 95%

Extraction Method: EPA 3546  
 Extraction Date: 02/16/22 23:21  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/17/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/17/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	33.9	3.01	1	A
Aroclor 1221	ND		ug/kg	33.9	3.40	1	A
Aroclor 1232	ND		ug/kg	33.9	7.19	1	A
Aroclor 1242	ND		ug/kg	33.9	4.57	1	A
Aroclor 1248	ND		ug/kg	33.9	5.08	1	A
Aroclor 1254	ND		ug/kg	33.9	3.71	1	A
Aroclor 1260	ND		ug/kg	33.9	6.26	1	A
Aroclor 1262	ND		ug/kg	33.9	4.30	1	A
Aroclor 1268	ND		ug/kg	33.9	3.51	1	A
PCBs, Total	ND		ug/kg	33.9	3.01	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	61		30-150	A
Decachlorobiphenyl	62		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	52		30-150	B

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-02  
 Client ID: GW-4  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Date Collected: 02/01/22 16:30  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8082A  
 Analytical Date: 02/21/22 12:15  
 Analyst: AD

Extraction Method: EPA 3510C  
 Extraction Date: 02/18/22 00:30  
 Cleanup Method: EPA 3665A  
 Cleanup Date: 02/19/22  
 Cleanup Method: EPA 3660B  
 Cleanup Date: 02/19/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.071	0.061	1	A
Aroclor 1221	ND		ug/l	0.071	0.061	1	A
Aroclor 1232	ND		ug/l	0.071	0.061	1	A
Aroclor 1242	ND		ug/l	0.071	0.061	1	A
Aroclor 1248	ND		ug/l	0.071	0.061	1	A
Aroclor 1254	ND		ug/l	0.071	0.061	1	A
Aroclor 1260	ND		ug/l	0.071	0.061	1	A
Aroclor 1262	ND		ug/l	0.071	0.061	1	A
Aroclor 1268	ND		ug/l	0.071	0.061	1	A
PCBs, Total	ND		ug/l	0.071	0.061	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	85		30-150	A
Decachlorobiphenyl	80		30-150	A
2,4,5,6-Tetrachloro-m-xylene	87		30-150	B
Decachlorobiphenyl	85		30-150	B

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8082A  
Analytical Date: 02/17/22 08:20  
Analyst: JM

Extraction Method: EPA 3546  
Extraction Date: 02/16/22 19:16  
Cleanup Method: EPA 3665A  
Cleanup Date: 02/17/22  
Cleanup Method: EPA 3660B  
Cleanup Date: 02/17/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1605809-1						
Aroclor 1016	ND		ug/kg	32.2	2.86	A
Aroclor 1221	ND		ug/kg	32.2	3.22	A
Aroclor 1232	ND		ug/kg	32.2	6.82	A
Aroclor 1242	ND		ug/kg	32.2	4.33	A
Aroclor 1248	ND		ug/kg	32.2	4.82	A
Aroclor 1254	ND		ug/kg	32.2	3.52	A
Aroclor 1260	ND		ug/kg	32.2	5.94	A
Aroclor 1262	ND		ug/kg	32.2	4.08	A
Aroclor 1268	ND		ug/kg	32.2	3.33	A
PCBs, Total	ND		ug/kg	32.2	2.86	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	70		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	71		30-150	B

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

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

Analytical Method: 1,8082A  
Analytical Date: 02/18/22 00:01  
Analyst: JM

Extraction Method: EPA 3510C  
Extraction Date: 02/17/22 02:46  
Cleanup Method: EPA 3665A  
Cleanup Date: 02/17/22  
Cleanup Method: EPA 3660B  
Cleanup Date: 02/17/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 02 Batch: WG1605888-1						
Aroclor 1016	ND		ug/l	0.071	0.061	A
Aroclor 1221	ND		ug/l	0.071	0.061	A
Aroclor 1232	ND		ug/l	0.071	0.061	A
Aroclor 1242	ND		ug/l	0.071	0.061	A
Aroclor 1248	ND		ug/l	0.071	0.061	A
Aroclor 1254	ND		ug/l	0.071	0.061	A
Aroclor 1260	ND		ug/l	0.071	0.061	A
Aroclor 1262	ND		ug/l	0.071	0.061	A
Aroclor 1268	ND		ug/l	0.071	0.061	A
PCBs, Total	ND		ug/l	0.071	0.061	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	77		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	79		30-150	B



### Lab Control Sample Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1605809-2 WG1605809-3									
Aroclor 1016	68		74		40-140	8		50	A
Aroclor 1260	60		68		40-140	13		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		74		30-150	A
Decachlorobiphenyl	62		69		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		76		30-150	B
Decachlorobiphenyl	64		69		30-150	B

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205390

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 02 Batch: WG1605888-2 WG1605888-3									
Aroclor 1016	74		66		40-140	12		50	A
Aroclor 1260	67		60		40-140	11		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		70		30-150	A
Decachlorobiphenyl	76		64		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		69		30-150	B
Decachlorobiphenyl	81		72		30-150	B

# PESTICIDES

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-01  
 Client ID: SB-13  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Date Collected: 02/01/22 15:30  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil  
 Analytical Method: 1,8081B  
 Analytical Date: 02/15/22 15:05  
 Analyst: JAW  
 Percent Solids: 95%

Extraction Method: EPA 3546  
 Extraction Date: 02/13/22 14:17  
 Cleanup Method: EPA 3620B  
 Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.67	0.326	1	A
Lindane	ND		ug/kg	0.694	0.310	1	A
Alpha-BHC	ND		ug/kg	0.694	0.197	1	A
Beta-BHC	ND		ug/kg	1.67	0.632	1	A
Heptachlor	ND		ug/kg	0.833	0.374	1	A
Aldrin	ND		ug/kg	1.67	0.587	1	A
Heptachlor epoxide	ND		ug/kg	3.12	0.938	1	A
Endrin	ND		ug/kg	0.694	0.285	1	A
Endrin aldehyde	ND		ug/kg	2.08	0.729	1	A
Endrin ketone	ND		ug/kg	1.67	0.429	1	A
Dieldrin	ND		ug/kg	1.04	0.521	1	A
4,4'-DDE	ND		ug/kg	1.67	0.385	1	A
4,4'-DDD	ND		ug/kg	1.67	0.594	1	A
4,4'-DDT	ND		ug/kg	3.12	1.34	1	A
Endosulfan I	ND		ug/kg	1.67	0.394	1	A
Endosulfan II	ND		ug/kg	1.67	0.557	1	A
Endosulfan sulfate	ND		ug/kg	0.694	0.330	1	A
Methoxychlor	ND		ug/kg	3.12	0.972	1	A
Toxaphene	ND		ug/kg	31.2	8.75	1	A
cis-Chlordane	ND		ug/kg	2.08	0.581	1	A
trans-Chlordane	ND		ug/kg	2.08	0.550	1	A
Chlordane	ND		ug/kg	13.9	5.52	1	A

**Project Name:** ARC2202**Lab Number:** L2205390**Project Number:** ARC2202**Report Date:** 02/21/22**SAMPLE RESULTS**

Lab ID: L2205390-01

Date Collected: 02/01/22 15:30

Client ID: SB-13

Date Received: 02/02/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		30-150	A
Decachlorobiphenyl	97		30-150	A
2,4,5,6-Tetrachloro-m-xylene	88		30-150	B
Decachlorobiphenyl	84		30-150	B

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-02  
 Client ID: GW-4  
 Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Date Collected: 02/01/22 16:30  
 Date Received: 02/02/22  
 Field Prep: Not Specified

Sample Depth:

Matrix: Water  
 Analytical Method: 1,8081B  
 Analytical Date: 02/06/22 23:35  
 Analyst: JAW

Extraction Method: EPA 3510C  
 Extraction Date: 02/06/22 00:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

**Project Name:** ARC2202**Lab Number:** L2205390**Project Number:** ARC2202**Report Date:** 02/21/22**SAMPLE RESULTS**

Lab ID: L2205390-02

Date Collected: 02/01/22 16:30

Client ID: GW-4

Date Received: 02/02/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	42		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	37		30-150	B

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

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

Analytical Method: 1,8081B  
Analytical Date: 02/06/22 20:50  
Analyst: JAW

Extraction Method: EPA 3510C  
Extraction Date: 02/06/22 00:14

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 02 Batch: WG1601844-1						
Delta-BHC	ND		ug/l	0.014	0.003	A
Lindane	ND		ug/l	0.014	0.003	A
Alpha-BHC	ND		ug/l	0.014	0.003	A
Beta-BHC	ND		ug/l	0.014	0.004	A
Heptachlor	ND		ug/l	0.014	0.002	A
Aldrin	ND		ug/l	0.014	0.002	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	A
Endrin	ND		ug/l	0.029	0.003	A
Endrin aldehyde	ND		ug/l	0.029	0.006	A
Endrin ketone	ND		ug/l	0.029	0.003	A
Dieldrin	ND		ug/l	0.029	0.003	A
4,4'-DDE	ND		ug/l	0.029	0.003	A
4,4'-DDD	ND		ug/l	0.029	0.003	A
4,4'-DDT	ND		ug/l	0.029	0.003	A
Endosulfan I	ND		ug/l	0.014	0.002	A
Endosulfan II	ND		ug/l	0.029	0.004	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	A
Methoxychlor	ND		ug/l	0.143	0.005	A
Toxaphene	ND		ug/l	0.143	0.045	A
cis-Chlordane	ND		ug/l	0.014	0.005	A
trans-Chlordane	ND		ug/l	0.014	0.004	A
Chlordane	ND		ug/l	0.143	0.033	A



Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

**Method Blank Analysis  
Batch Quality Control**

Analytical Method: 1,8081B  
 Analytical Date: 02/06/22 20:50  
 Analyst: JAW

Extraction Method: EPA 3510C  
 Extraction Date: 02/06/22 00:14

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 02 Batch: WG1601844-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	21	Q	30-150	A
Decachlorobiphenyl	68		30-150	A
2,4,5,6-Tetrachloro-m-xylene	22	Q	30-150	B
Decachlorobiphenyl	63		30-150	B

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

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

Analytical Method: 1,8081B  
Analytical Date: 02/14/22 13:59  
Analyst: SDC

Extraction Method: EPA 3546  
Extraction Date: 02/13/22 13:28  
Cleanup Method: EPA 3620B  
Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG1604457-1						
Delta-BHC	ND		ug/kg	1.54	0.302	A
Lindane	ND		ug/kg	0.643	0.287	A
Alpha-BHC	ND		ug/kg	0.643	0.183	A
Beta-BHC	ND		ug/kg	1.54	0.585	A
Heptachlor	ND		ug/kg	0.772	0.346	A
Aldrin	ND		ug/kg	1.54	0.543	A
Heptachlor epoxide	ND		ug/kg	2.89	0.868	A
Endrin	ND		ug/kg	0.643	0.264	A
Endrin aldehyde	ND		ug/kg	1.93	0.675	A
Endrin ketone	ND		ug/kg	1.54	0.397	A
Dieldrin	ND		ug/kg	0.965	0.482	A
4,4'-DDE	ND		ug/kg	1.54	0.357	A
4,4'-DDD	ND		ug/kg	1.54	0.550	A
4,4'-DDT	ND		ug/kg	2.89	1.24	A
Endosulfan I	ND		ug/kg	1.54	0.365	A
Endosulfan II	ND		ug/kg	1.54	0.516	A
Endosulfan sulfate	ND		ug/kg	0.643	0.306	A
Methoxychlor	ND		ug/kg	2.89	0.900	A
Toxaphene	ND		ug/kg	28.9	8.10	A
cis-Chlordane	ND		ug/kg	1.93	0.538	A
trans-Chlordane	ND		ug/kg	1.93	0.509	A
Chlordane	ND		ug/kg	12.9	5.11	A

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205390

Report Date: 02/21/22

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

Analytical Method: 1,8081B  
Analytical Date: 02/14/22 13:59  
Analyst: SDC

Extraction Method: EPA 3546  
Extraction Date: 02/13/22 13:28  
Cleanup Method: EPA 3620B  
Cleanup Date: 02/14/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG1604457-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	83		30-150	B

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 02 Batch: WG1601844-2 WG1601844-3									
Delta-BHC	46		51		30-150	11		20	A
Lindane	64		68		30-150	7		20	A
Alpha-BHC	64		68		30-150	6		20	A
Beta-BHC	65		69		30-150	5		20	A
Heptachlor	67		72		30-150	6		20	A
Aldrin	64		66		30-150	3		20	A
Heptachlor epoxide	64		68		30-150	5		20	A
Endrin	67		69		30-150	3		20	A
Endrin aldehyde	59		65		30-150	9		20	A
Endrin ketone	70		75		30-150	7		20	A
Dieldrin	68		70		30-150	4		20	A
4,4'-DDE	65		69		30-150	6		20	A
4,4'-DDD	72		74		30-150	3		20	A
4,4'-DDT	64		66		30-150	4		20	A
Endosulfan I	59		62		30-150	5		20	A
Endosulfan II	63		68		30-150	8		20	A
Endosulfan sulfate	56		62		30-150	10		20	A
Methoxychlor	70		73		30-150	4		20	A
cis-Chlordane	57		62		30-150	8		20	A
trans-Chlordane	73		76		30-150	5		20	A

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205390

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 02 Batch: WG1601844-2 WG1601844-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	56		68		30-150	A
Decachlorobiphenyl	67		67		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		65		30-150	B
Decachlorobiphenyl	63		64		30-150	B

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1604457-2 WG1604457-3									
Delta-BHC	78		82		30-150	5		30	A
Lindane	76		79		30-150	4		30	A
Alpha-BHC	75		79		30-150	5		30	A
Beta-BHC	75		79		30-150	5		30	A
Heptachlor	78		82		30-150	5		30	A
Aldrin	71		76		30-150	7		30	A
Heptachlor epoxide	62		64		30-150	3		30	A
Endrin	72		76		30-150	5		30	A
Endrin aldehyde	47		49		30-150	4		30	A
Endrin ketone	68		69		30-150	1		30	A
Dieldrin	73		79		30-150	8		30	A
4,4'-DDE	67		72		30-150	7		30	A
4,4'-DDD	74		79		30-150	7		30	A
4,4'-DDT	74		79		30-150	7		30	A
Endosulfan I	66		74		30-150	11		30	A
Endosulfan II	70		73		30-150	4		30	A
Endosulfan sulfate	52		55		30-150	6		30	A
Methoxychlor	71		78		30-150	9		30	A
cis-Chlordane	61		65		30-150	6		30	A
trans-Chlordane	72		76		30-150	5		30	A

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1604457-2 WG1604457-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		68		30-150	A
Decachlorobiphenyl	80		82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		67		30-150	B
Decachlorobiphenyl	81		84		30-150	B

## METALS



Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-01

Date Collected: 02/01/22 15:30

Client ID: SB-13

Date Received: 02/02/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	2190		mg/kg	8.17	2.20	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Antimony, Total	ND		mg/kg	4.08	0.310	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Arsenic, Total	0.458	J	mg/kg	0.817	0.170	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Barium, Total	14.2		mg/kg	0.817	0.142	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Beryllium, Total	0.155	J	mg/kg	0.408	0.027	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Cadmium, Total	ND		mg/kg	0.817	0.080	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Calcium, Total	656		mg/kg	8.17	2.86	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Chromium, Total	6.52		mg/kg	0.817	0.078	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Cobalt, Total	3.82		mg/kg	1.63	0.136	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Copper, Total	6.93		mg/kg	0.817	0.211	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Iron, Total	6650		mg/kg	4.08	0.738	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Lead, Total	3.85	J	mg/kg	4.08	0.219	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Magnesium, Total	1490		mg/kg	8.17	1.26	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Manganese, Total	192		mg/kg	0.817	0.130	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Mercury, Total	ND		mg/kg	0.066	0.043	1	02/08/22 08:50	02/09/22 14:07	EPA 7471B	1,7471B	AC
Nickel, Total	26.8		mg/kg	2.04	0.198	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Potassium, Total	539		mg/kg	204	11.8	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Selenium, Total	ND		mg/kg	1.63	0.211	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Silver, Total	ND		mg/kg	0.817	0.231	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Sodium, Total	88.8	J	mg/kg	163	2.57	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Thallium, Total	ND		mg/kg	1.63	0.257	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Vanadium, Total	8.97		mg/kg	0.817	0.166	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD
Zinc, Total	18.0		mg/kg	4.08	0.239	2	02/08/22 07:10	02/16/22 10:11	EPA 3050B	1,6010D	GD



Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-02

Date Collected: 02/01/22 16:30

Client ID: GW-4

Date Received: 02/02/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab</b>											
Aluminum, Total	119.		mg/l	0.0100	0.00327	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP
Antimony, Total	ND		mg/l	0.00400	0.00042	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP
Arsenic, Total	0.03758		mg/l	0.00050	0.00016	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP
Barium, Total	8.232		mg/l	0.00050	0.00017	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP
Beryllium, Total	0.02136		mg/l	0.00050	0.00010	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP
Cadmium, Total	0.02284		mg/l	0.00020	0.00005	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP
Calcium, Total	131.		mg/l	0.100	0.0394	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP
Chromium, Total	0.2016		mg/l	0.00100	0.00017	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP
Cobalt, Total	0.2593		mg/l	0.00050	0.00016	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP
Copper, Total	0.6580		mg/l	0.00100	0.00038	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP
Iron, Total	163.		mg/l	0.0500	0.0191	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP
Lead, Total	0.6554		mg/l	0.00100	0.00034	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP
Magnesium, Total	139.		mg/l	0.0700	0.0242	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP
Manganese, Total	33.21		mg/l	0.00500	0.00220	5	02/06/22 11:22	02/06/22 18:57	EPA 3005A	1,6020B	WP
Mercury, Total	0.00048		mg/l	0.00020	0.00009	1	02/06/22 12:39	02/08/22 08:05	EPA 7470A	1,7470A	AC
Nickel, Total	19.30		mg/l	0.01000	0.00278	5	02/06/22 11:22	02/06/22 18:57	EPA 3005A	1,6020B	WP
Potassium, Total	41.7		mg/l	0.100	0.0309	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP
Selenium, Total	0.116		mg/l	0.00500	0.00173	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP
Silver, Total	0.00178		mg/l	0.00040	0.00016	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP
Sodium, Total	36.6		mg/l	0.100	0.0293	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP
Thallium, Total	0.00121		mg/l	0.00100	0.00014	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP
Vanadium, Total	0.1312		mg/l	0.00500	0.00157	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP
Zinc, Total	1.416		mg/l	0.01000	0.00341	1	02/06/22 11:22	02/06/22 17:53	EPA 3005A	1,6020B	WP



Project Name: ARC2202  
Project Number: ARC2202

Lab Number: L2205390  
Report Date: 02/21/22

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab for sample(s): 02 Batch: WG1601248-1</b>									
Aluminum, Total	ND	mg/l	0.0100	0.00327	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Antimony, Total	ND	mg/l	0.00400	0.00042	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Arsenic, Total	ND	mg/l	0.00050	0.00016	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Barium, Total	ND	mg/l	0.00050	0.00017	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Beryllium, Total	ND	mg/l	0.00050	0.00010	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Cadmium, Total	ND	mg/l	0.00020	0.00005	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Calcium, Total	ND	mg/l	0.100	0.0394	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Chromium, Total	ND	mg/l	0.00100	0.00017	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Cobalt, Total	ND	mg/l	0.00050	0.00016	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Copper, Total	ND	mg/l	0.00100	0.00038	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Iron, Total	ND	mg/l	0.0500	0.0191	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Lead, Total	ND	mg/l	0.00100	0.00034	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Magnesium, Total	ND	mg/l	0.0700	0.0242	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Manganese, Total	ND	mg/l	0.00100	0.00044	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Nickel, Total	ND	mg/l	0.00200	0.00055	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Potassium, Total	ND	mg/l	0.100	0.0309	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Selenium, Total	ND	mg/l	0.00500	0.00173	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Silver, Total	ND	mg/l	0.00040	0.00016	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Sodium, Total	ND	mg/l	0.100	0.0293	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Thallium, Total	ND	mg/l	0.00100	0.00014	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Vanadium, Total	ND	mg/l	0.00500	0.00157	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP
Zinc, Total	ND	mg/l	0.01000	0.00341	1	02/06/22 11:22	02/06/22 17:21	1,6020B	WP

### Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>Total Metals - Mansfield Lab for sample(s): 02 Batch: WG1601249-1</b>									
Mercury, Total	ND	mg/l	0.00020	0.00009	1	02/06/22 12:39	02/08/22 07:59	1,7470A	AC



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

## Method Blank Analysis Batch Quality Control

### Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1601640-1										
Aluminum, Total	ND		mg/kg	4.00	1.08	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Antimony, Total	ND		mg/kg	2.00	0.152	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Arsenic, Total	ND		mg/kg	0.400	0.083	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Barium, Total	ND		mg/kg	0.400	0.070	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Beryllium, Total	ND		mg/kg	0.200	0.013	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Cadmium, Total	ND		mg/kg	0.400	0.039	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Calcium, Total	ND		mg/kg	4.00	1.40	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Chromium, Total	ND		mg/kg	0.400	0.038	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Cobalt, Total	ND		mg/kg	0.800	0.066	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Copper, Total	ND		mg/kg	0.400	0.103	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Iron, Total	ND		mg/kg	2.00	0.361	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Lead, Total	ND		mg/kg	2.00	0.107	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Magnesium, Total	ND		mg/kg	4.00	0.616	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Manganese, Total	0.152	J	mg/kg	0.400	0.064	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Nickel, Total	ND		mg/kg	1.00	0.097	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Potassium, Total	ND		mg/kg	100	5.76	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Selenium, Total	ND		mg/kg	0.800	0.103	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Silver, Total	ND		mg/kg	0.400	0.113	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Sodium, Total	1.60	J	mg/kg	80.0	1.26	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Thallium, Total	ND		mg/kg	0.800	0.126	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Vanadium, Total	ND		mg/kg	0.400	0.081	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD
Zinc, Total	ND		mg/kg	2.00	0.117	1	02/08/22 07:10	02/16/22 09:52	1,6010D	GD

### Prep Information

Digestion Method: EPA 3050B



Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1601642-1									
Mercury, Total	ND	mg/kg	0.083	0.054	1	02/08/22 08:50	02/09/22 13:34	1,7471B	AC

### Prep Information

Digestion Method: EPA 7471B

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205390

Report Date: 02/21/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG1601248-2								
Aluminum, Total	90		-		80-120	-		
Antimony, Total	85		-		80-120	-		
Arsenic, Total	93		-		80-120	-		
Barium, Total	90		-		80-120	-		
Beryllium, Total	96		-		80-120	-		
Cadmium, Total	94		-		80-120	-		
Calcium, Total	85		-		80-120	-		
Chromium, Total	89		-		80-120	-		
Cobalt, Total	88		-		80-120	-		
Copper, Total	90		-		80-120	-		
Iron, Total	93		-		80-120	-		
Lead, Total	93		-		80-120	-		
Magnesium, Total	98		-		80-120	-		
Manganese, Total	87		-		80-120	-		
Nickel, Total	89		-		80-120	-		
Potassium, Total	91		-		80-120	-		
Selenium, Total	89		-		80-120	-		
Silver, Total	99		-		80-120	-		
Sodium, Total	97		-		80-120	-		
Thallium, Total	93		-		80-120	-		
Vanadium, Total	89		-		80-120	-		

## Lab Control Sample Analysis

Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205390

Report Date: 02/21/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG1601248-2					
Zinc, Total	90	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 02 Batch: WG1601249-2					
Mercury, Total	97	-	80-120	-	

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205390

Report Date: 02/21/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1601640-2 SRM Lot Number: D113-540					
Aluminum, Total	66	-	51-149	-	
Antimony, Total	115	-	20-250	-	
Arsenic, Total	90	-	70-130	-	
Barium, Total	85	-	75-125	-	
Beryllium, Total	86	-	75-125	-	
Cadmium, Total	89	-	75-125	-	
Calcium, Total	88	-	73-128	-	
Chromium, Total	85	-	70-130	-	
Cobalt, Total	90	-	75-125	-	
Copper, Total	88	-	75-125	-	
Iron, Total	81	-	36-164	-	
Lead, Total	89	-	72-128	-	
Magnesium, Total	83	-	63-138	-	
Manganese, Total	86	-	77-123	-	
Nickel, Total	89	-	70-130	-	
Potassium, Total	79	-	59-141	-	
Selenium, Total	92	-	66-134	-	
Silver, Total	92	-	70-131	-	
Sodium, Total	92	-	35-164	-	
Thallium, Total	92	-	70-130	-	
Vanadium, Total	85	-	74-126	-	



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205390

Report Date: 02/21/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1601640-2 SRM Lot Number: D113-540					
Zinc, Total	90	-	70-130	-	
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1601642-2 SRM Lot Number: D113-540					
Mercury, Total	98	-	60-140	-	

### Matrix Spike Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02    QC Batch ID: WG1601248-3    QC Sample: L2205400-06    Client ID: MS Sample												
Aluminum, Total	12.0	2	15.9	195	Q	-	-		75-125	-		20
Antimony, Total	0.0008J	0.5	0.3519	70	Q	-	-		75-125	-		20
Arsenic, Total	0.02823	0.12	0.1312	86		-	-		75-125	-		20
Barium, Total	0.5666	2	2.571	100		-	-		75-125	-		20
Beryllium, Total	0.0007	0.05	0.04875	96		-	-		75-125	-		20
Cadmium, Total	0.00107	0.053	0.05259	97		-	-		75-125	-		20
Calcium, Total	117	10	144	270	Q	-	-		75-125	-		20
Chromium, Total	0.01276	0.2	0.1984	93		-	-		75-125	-		20
Cobalt, Total	0.0207	0.5	0.4775	91		-	-		75-125	-		20
Copper, Total	0.0831	0.25	0.3215	95		-	-		75-125	-		20
Iron, Total	35.0	1	38.6	360	Q	-	-		75-125	-		20
Lead, Total	0.05244	0.53	0.5766	99		-	-		75-125	-		20
Magnesium, Total	22.6	10	35.4	128	Q	-	-		75-125	-		20
Manganese, Total	5.687	0.5	8.303	523	Q	-	-		75-125	-		20
Nickel, Total	0.0459	0.5	0.5056	92		-	-		75-125	-		20
Potassium, Total	7.69	10	18.4	107		-	-		75-125	-		20
Selenium, Total	0.00960	0.12	0.0941	70	Q	-	-		75-125	-		20
Silver, Total	0.00045	0.05	0.05094	101		-	-		75-125	-		20
Sodium, Total	657	10	712	550	Q	-	-		75-125	-		20
Thallium, Total	0.0005J	0.12	0.1073	89		-	-		75-125	-		20
Vanadium, Total	0.0169	0.5	0.4838	93		-	-		75-125	-		20

### Matrix Spike Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02    QC Batch ID: WG1601248-3    QC Sample: L2205400-06    Client ID: MS Sample									
Zinc, Total	0.4400	0.5	1.034	119	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 02    QC Batch ID: WG1601249-3    QC Sample: L2205390-02    Client ID: GW-4									
Mercury, Total	0.00048	0.005	0.00127	16	Q	-	75-125	-	20

### Matrix Spike Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2205390  
**Report Date:** 02/21/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01    QC Batch ID: WG1601640-3    QC Sample: L2205388-01    Client ID: MS Sample									
Aluminum, Total	5670	178	5240	0	Q	-	75-125	-	20
Antimony, Total	ND	44.4	24.4	55	Q	-	75-125	-	20
Arsenic, Total	14.0	10.7	18.3	40	Q	-	75-125	-	20
Barium, Total	26.1	178	168	80		-	75-125	-	20
Beryllium, Total	0.694	4.44	4.23	80		-	75-125	-	20
Cadmium, Total	0.231J	4.71	3.70	78		-	75-125	-	20
Calcium, Total	31600	888	59900	3180	Q	-	75-125	-	20
Chromium, Total	22.1	17.8	28.7	37	Q	-	75-125	-	20
Cobalt, Total	3.45	44.4	33.9	68	Q	-	75-125	-	20
Copper, Total	1.98	22.2	21.9	90		-	75-125	-	20
Iron, Total	41200	88.8	30100	0	Q	-	75-125	-	20
Lead, Total	10.7	47.1	45.9	75		-	75-125	-	20
Magnesium, Total	17800	888	33800	1800	Q	-	75-125	-	20
Manganese, Total	203	44.4	243	90		-	75-125	-	20
Nickel, Total	4.42	44.4	35.3	70	Q	-	75-125	-	20
Potassium, Total	1500	888	2250	84		-	75-125	-	20
Selenium, Total	0.898J	10.7	9.32	87		-	75-125	-	20
Silver, Total	ND	26.6	23.4	88		-	75-125	-	20
Sodium, Total	58.7J	888	839	94		-	75-125	-	20
Thallium, Total	ND	10.7	7.79	73	Q	-	75-125	-	20
Vanadium, Total	64.1	44.4	81.4	39	Q	-	75-125	-	20

**Matrix Spike Analysis**  
Batch Quality Control

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01    QC Batch ID: WG1601640-3    QC Sample: L2205388-01    Client ID: MS Sample									
Zinc, Total	24.1	44.4	52.7	64	Q	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01    QC Batch ID: WG1601642-3    QC Sample: L2205388-01    Client ID: MS Sample									
Mercury, Total	ND	0.147	0.172	117	-	-	80-120	-	20

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205390

Report Date: 02/21/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1601248-4 QC Sample: L2205400-06 Client ID: DUP Sample						
Arsenic, Total	0.02823	0.02869	mg/l	2		20
Barium, Total	0.5666	0.5772	mg/l	2		20
Cadmium, Total	0.00107	0.00114	mg/l	7		20
Chromium, Total	0.01276	0.01334	mg/l	4		20
Lead, Total	0.05244	0.05599	mg/l	7		20
Selenium, Total	0.00960	0.0113	mg/l	16		20
Silver, Total	0.00045	0.00045	mg/l	0		20
Total Metals - Mansfield Lab Associated sample(s): 02 QC Batch ID: WG1601249-4 QC Sample: L2205390-02 Client ID: GW-4						
Mercury, Total	0.00048	0.00035	mg/l	32	Q	20

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205390

Report Date: 02/21/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1601640-4 QC Sample: L2205388-01 Client ID: DUP Sample					
Aluminum, Total	5670	5460	mg/kg	4	20
Antimony, Total	ND	ND	mg/kg	NC	20
Arsenic, Total	14.0	12.4	mg/kg	12	20
Barium, Total	26.1	27.0	mg/kg	3	20
Beryllium, Total	0.694	0.648	mg/kg	7	20
Cadmium, Total	0.231J	0.222J	mg/kg	NC	20
Calcium, Total	31600	40200	mg/kg	24	Q 20
Chromium, Total	22.1	28.0	mg/kg	24	Q 20
Cobalt, Total	3.45	3.50	mg/kg	1	20
Copper, Total	1.98	2.52	mg/kg	24	Q 20
Iron, Total	41200	39200	mg/kg	5	20
Lead, Total	10.7	40.0	mg/kg	116	Q 20
Magnesium, Total	17800	22800	mg/kg	25	Q 20
Manganese, Total	203	233	mg/kg	14	20
Nickel, Total	4.42	4.21	mg/kg	5	20
Potassium, Total	1500	1420	mg/kg	5	20
Selenium, Total	0.898J	0.584J	mg/kg	NC	20
Silver, Total	ND	ND	mg/kg	NC	20
Sodium, Total	58.7J	59.7J	mg/kg	NC	20

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205390

Report Date: 02/21/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1601640-4 QC Sample: L2205388-01 Client ID: DUP Sample					
Thallium, Total	ND	0.343J	mg/kg	NC	20
Vanadium, Total	64.1	61.0	mg/kg	5	20
Zinc, Total	24.1	23.2	mg/kg	4	20
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1601642-4 QC Sample: L2205388-01 Client ID: DUP Sample					
Mercury, Total	ND	ND	mg/kg	NC	20



Project Name: ARC2202

Project Number: ARC2202

**Lab Serial Dilution  
Analysis  
Batch Quality Control**

Lab Number: L2205390

Report Date: 02/21/22

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1601640-6 QC Sample: L2205388-01 Client ID: DUP Sample						
Aluminum, Total	5670	6620	mg/kg	17		20
Barium, Total	26.1	31.0	mg/kg	19		20
Calcium, Total	31600	38600	mg/kg	22	Q	20
Iron, Total	41200	52600	mg/kg	28	Q	20
Magnesium, Total	17800	22000	mg/kg	24	Q	20
Manganese, Total	203	247	mg/kg	22	Q	20
Vanadium, Total	64.1	77.0	mg/kg	20		20

# **INORGANICS & MISCELLANEOUS**

Project Name: ARC2202

Lab Number: L2205390

Project Number: ARC2202

Report Date: 02/21/22

## SAMPLE RESULTS

Lab ID: L2205390-01

Date Collected: 02/01/22 15:30

Client ID: SB-13

Date Received: 02/02/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	95.1		%	0.100	NA	1	-	02/03/22 08:15	121,2540G	RI



**Lab Duplicate Analysis**  
*Batch Quality Control*

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2205390

Report Date: 02/21/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1600951-1 QC Sample: L2205626-01 Client ID: DUP Sample						
Solids, Total	84.0	83.3	%	1		20

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Serial\_No:**02212218:55  
**Lab Number:** L2205390  
**Report Date:** 02/21/22

**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information**

**Cooler**                      **Custody Seal**  
A                                      Absent

**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2205390-01A	Vial MeOH preserved	A	NA		4.7	Y	Absent		NYTCL-8260HLW(14)
L2205390-01B	Vial water preserved	A	NA		4.7	Y	Absent	03-FEB-22 00:54	NYTCL-8260HLW(14)
L2205390-01C	Vial water preserved	A	NA		4.7	Y	Absent	03-FEB-22 00:54	NYTCL-8260HLW(14)
L2205390-01D	Plastic 2oz unpreserved for TS	A	NA		4.7	Y	Absent		TS(7)
L2205390-01E	Plastic 120ml unpreserved	A	NA		4.7	Y	Absent		TS(7)
L2205390-01F	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.7	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),AL-TI(180),NI-TI(180),TL-TI(180),CR-TI(180),SB-TI(180),PB-TI(180),ZN-TI(180),CU-TI(180),SE-TI(180),CO-TI(180),V-TI(180),MN-TI(180),FE-TI(180),MG-TI(180),HG-T(28),K-TI(180),CD-TI(180),CA-TI(180),NA-TI(180)
L2205390-01G	Plastic 8oz unpreserved	A	NA		4.7	Y	Absent		A2-NY-537-ISOTOPE(14)
L2205390-01H	Glass 250ml/8oz unpreserved	A	NA		4.7	Y	Absent		NYTCL-8270(14),NYTCL-8081(14),NYTCL-8082(365)
L2205390-02A	Vial HCl preserved	A	NA		4.7	Y	Absent		NYTCL-8260(14)
L2205390-02B	Vial HCl preserved	A	NA		4.7	Y	Absent		NYTCL-8260(14)
L2205390-02C	Vial HCl preserved	A	NA		4.7	Y	Absent		NYTCL-8260(14)
L2205390-02D	Plastic 250ml HNO3 preserved	A	<2	<2	4.7	Y	Absent		TL-6020T(180),BA-6020T(180),FE-6020T(180),SE-6020T(180),CA-6020T(180),NI-6020T(180),CR-6020T(180),K-6020T(180),NA-6020T(180),ZN-6020T(180),CU-6020T(180),PB-6020T(180),MN-6020T(180),BE-6020T(180),V-6020T(180),AS-6020T(180),SB-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),AG-6020T(180),AL-6020T(180),CO-6020T(180)
L2205390-02E	Amber 120ml unpreserved	A	7	7	4.7	Y	Absent		NYTCL-8081(7),NYTCL-8082-LVI(365)
L2205390-02F	Amber 120ml unpreserved	A	7	7	4.7	Y	Absent		NYTCL-8081(7),NYTCL-8082-LVI(365)
L2205390-02G	Amber 120ml unpreserved	A	7	7	4.7	Y	Absent		NYTCL-8081(7),NYTCL-8082-LVI(365)
L2205390-02H	Amber 120ml unpreserved	A	7	7	4.7	Y	Absent		NYTCL-8081(7),NYTCL-8082-LVI(365)
L2205390-02I	Amber 250ml unpreserved	A	7	7	4.7	Y	Absent		A2-1,4-DIOXANE-SIM(7)

\*Values in parentheses indicate holding time in days



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**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2205390-02J	Amber 250ml unpreserved	A	7	7	4.7	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L2205390-02K	Amber 250ml unpreserved	A	7	7	4.7	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2205390-02L	Amber 250ml unpreserved	A	7	7	4.7	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2205390-02M	Plastic 250ml unpreserved	A	NA		4.7	Y	Absent		A2-NY-537-ISOTOPE(14)
L2205390-02N	Plastic 250ml unpreserved	A	NA		4.7	Y	Absent		A2-NY-537-ISOTOPE(14)
L2205390-03A	Plastic 250ml unpreserved	A	NA		4.7	Y	Absent		HOLD-537(14)
L2205390-03B	Plastic 250ml unpreserved	A	NA		4.7	Y	Absent		HOLD-537(14)
L2205390-04A	Vial HCl preserved	A	N/A	N/A	4.7	Y	Absent		ARCHIVE()
L2205390-04B	Vial HCl preserved	A	N/A	N/A	4.7	Y	Absent		ARCHIVE()

**Project Name:** ARC2202  
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### PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
<b>PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)</b>		
Perfluorooctadecanoic Acid	PFODA	16517-11-6
Perfluorohexadecanoic Acid	PFHxDA	67905-19-5
Perfluorotetradecanoic Acid	PFTA	376-06-7
Perfluorotridecanoic Acid	PFTrDA	72629-94-8
Perfluorododecanoic Acid	PFDoA	307-55-1
Perfluoroundecanoic Acid	PFUnA	2058-94-8
Perfluorodecanoic Acid	PFDA	335-76-2
Perfluorononanoic Acid	PFNA	375-95-1
Perfluorooctanoic Acid	PFOA	335-67-1
Perfluoroheptanoic Acid	PFHpA	375-85-9
Perfluorohexanoic Acid	PFHxA	307-24-4
Perfluoropentanoic Acid	PFPeA	2706-90-3
Perfluorobutanoic Acid	PFBA	375-22-4
<b>PERFLUOROALKYL SULFONIC ACIDS (PFSAs)</b>		
Perfluorododecanesulfonic Acid	PFDoDS	79780-39-5
Perfluorodecanesulfonic Acid	PFDS	335-77-3
Perfluorononanesulfonic Acid	PFNS	68259-12-1
Perfluorooctanesulfonic Acid	PFOS	1763-23-1
Perfluoroheptanesulfonic Acid	PFHpS	375-92-8
Perfluorohexanesulfonic Acid	PFHxS	355-46-4
Perfluoropentanesulfonic Acid	PFPeS	2706-91-4
Perfluorobutanesulfonic Acid	PFBS	375-73-5
<b>FLUOROTELOMERS</b>		
1H,1H,2H,2H-Perfluorododecanesulfonic Acid	10:2FTS	120226-60-0
1H,1H,2H,2H-Perfluorodecanesulfonic Acid	8:2FTS	39108-34-4
1H,1H,2H,2H-Perfluorooctanesulfonic Acid	6:2FTS	27619-97-2
1H,1H,2H,2H-Perfluorohexanesulfonic Acid	4:2FTS	757124-72-4
<b>PERFLUOROALKANE SULFONAMIDES (FASAs)</b>		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
<b>PERFLUOROALKANE SULFONYL SUBSTANCES</b>		
N-Ethyl Perfluorooctanesulfonamido Ethanol	NEtFOSE	1691-99-2
N-Methyl Perfluorooctanesulfonamido Ethanol	NMeFOSE	24448-09-7
N-Ethyl Perfluorooctanesulfonamidoacetic Acid	NEtFOSAA	2991-50-6
N-Methyl Perfluorooctanesulfonamidoacetic Acid	NMeFOSAA	2355-31-9
<b>PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS</b>		
2,3,3,3-Tetrafluoro-2-[1,1,2,2,3,3,3-Heptafluoropropoxy]-Propanoic Acid	HFPO-DA	13252-13-6
4,8-Dioxa-3h-Perfluorononanoic Acid	ADONA	919005-14-4
<b>CHLORO-PERFLUOROALKYL SULFONIC ACIDS</b>		
11-Chloroeicosafuoro-3-Oxaundecane-1-Sulfonic Acid	11Cl-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9Cl-PF3ONS	756426-58-1
<b>PERFLUOROETHER SULFONIC ACIDS (PFESAs)</b>		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEEESA	113507-82-7
<b>PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)</b>		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	863090-89-5
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	151772-58-6

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## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers





**Project Name:** ARC2202  
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#### Footnotes

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

#### Terms

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

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

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

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

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

**PAH Total:** With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

#### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

**Report Format:** DU Report with 'J' Qualifiers



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**Data Qualifiers**

- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** ARC2202  
**Project Number:** ARC2202

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## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 134 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS) using Isotope Dilution. Alpha SOP 23528.

## LIMITATION OF LIABILITIES

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

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



## Certification Information

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

### Westborough Facility

**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene

**EPA 625/625.1:** alpha-Terpineol

**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

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

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

**EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LCHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

**SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

**EPA 624.1:** Volatile Halocarbons & Aromatics,

**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

**EPA 522, EPA 537.1.**

#### Non-Potable Water


**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

**EPA 245.1 Hg.**

**SM2340B**

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

 <b>NEW YORK CHAIN OF CUSTODY</b>	<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page 1 of 1	Date Rec'd in Lab <b>2/2/22</b>	ALPHA Job # <b>L2205390</b>																																														
	Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	<b>Project Information</b> Project Name: <b>ARC2201</b> Project Location: <b>2359 Bedford Ave Brooklyn NY</b> Project # <b>ARC2201</b> (Use Project name as Project #) <input type="checkbox"/>		<b>Deliverables</b> <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other	<b>Billing Information</b> <input type="checkbox"/> Same as Client Info PO #																																													
<b>Client Information</b> Client: <b>PWGL</b> Address: <b>630 Johnson Ave Ste 7</b> Phone: <b>631 589 6353</b> Fax: Email: <b>uchaudhry@pwgrosser.com</b>		<b>Project Manager:</b> ALPHAQuote #: Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge	<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:																																														
These samples have been previously analyzed by Alpha <input type="checkbox"/>		<b>Other project specific requirements/comments:</b> <b>*pesticides/PCBs except Cr<sup>6</sup>, Cr<sup>3</sup>, herbicides + total cyanide</b>		<b>ANALYSIS</b> VOCs (EPA 8260)    SVOCs (EPA 8270)    Metals (EPA 6010/477)    Pesticides/PCBs*    PFAS/1-4 Dioxin																																															
Please specify Metals or TAL.		<b>Sample Filtration</b> <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <input type="checkbox"/> Lab to do (Please Specify below)		T o t a l  B o t t l e																																															
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">ALPHA Lab ID (Lab Use Only)</th> <th rowspan="2">Sample ID</th> <th colspan="2">Collection</th> <th rowspan="2">Sample Matrix</th> <th rowspan="2">Sampler's Initials</th> <th rowspan="2">VOCs (EPA 8260)</th> <th rowspan="2">SVOCs (EPA 8270)</th> <th rowspan="2">Metals (EPA 6010/477)</th> <th rowspan="2">Pesticides/PCBs*</th> <th rowspan="2">PFAS/1-4 Dioxin</th> <th rowspan="2">Sample Specific Comments</th> </tr> <tr> <th>Date</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>05390-01</td> <td>SB-13</td> <td>2/1/22</td> <td>1530</td> <td>S</td> <td>AM</td> <td>---</td> <td>---</td> <td>---</td> <td>---</td> <td>---</td> <td></td> </tr> <tr> <td>02</td> <td>GW-4</td> <td>↓</td> <td>1030</td> <td>GW</td> <td>AM</td> <td>---</td> <td>---</td> <td>---</td> <td>---</td> <td>---</td> <td></td> </tr> <tr> <td colspan="12" style="text-align: center;"><del> </del></td> </tr> </tbody> </table>		ALPHA Lab ID (Lab Use Only)	Sample ID			Collection		Sample Matrix	Sampler's Initials	VOCs (EPA 8260)	SVOCs (EPA 8270)	Metals (EPA 6010/477)	Pesticides/PCBs*	PFAS/1-4 Dioxin	Sample Specific Comments	Date	Time	05390-01	SB-13	2/1/22	1530	S	AM	---	---	---	---	---		02	GW-4	↓	1030	GW	AM	---	---	---	---	---		<del> </del>									
ALPHA Lab ID (Lab Use Only)	Sample ID			Collection		Sample Matrix	Sampler's Initials									VOCs (EPA 8260)	SVOCs (EPA 8270)	Metals (EPA 6010/477)	Pesticides/PCBs*	PFAS/1-4 Dioxin	Sample Specific Comments																														
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02	GW-4	↓	1030	GW	AM	---	---	---	---	---																																									
<del> </del>																																																			
Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other	Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle	Westboro: Certification No: MA935 Mansfield: Certification No: MA015	Container Type  Preservative	Relinquished By:    Date/Time    Received By:    Date/Time James Houch 1    2/2/22 1050    [Signature]    2/2/22 10:50 [Signature] - AAL    2/2/22 13:25    [Signature]    2/2 1800 [Signature]    2/2    [Signature]    2/2 2000 [Signature]    2/2 2000    [Signature]    2/2 2200																																															
Form No: 01-25 HC (rev. 30-Sept-2013)		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)																																																	



## ANALYTICAL REPORT

Lab Number:	L2208589
Client:	P. W. Grosser 630 Johnson Avenue Suite 7 Bohemia, NY 11716
ATTN:	Usman Chaudhry
Phone:	(631) 589-8705
Project Name:	ARC2202
Project Number:	ARC2202
Report Date:	02/22/22

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

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

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



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2208589  
**Report Date:** 02/22/22

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2208589-01	GW-3	WATER	2359 BEDFORD AVE BROOKLYN	01/28/22 11:55	01/28/22
L2208589-02	GW-1	WATER	2359 BEDFORD AVE, BROOKLYN, NY	02/01/22 09:40	02/01/22
L2208589-03	GW-2	WATER	2359 BEDFORD AVE, BROOKLYN, NY	02/01/22 12:30	02/01/22
L2208589-04	GW-4	WATER	2359 BEDFORD AVE., BROOKLYN, NY	02/01/22 16:30	02/02/22

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2208589  
**Report Date:** 02/22/22

### Case Narrative

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

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

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

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

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

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

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**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2208589  
**Report Date:** 02/22/22

### Case Narrative (continued)

#### Report Submission

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

#### Dissolved Metals

The WG1606545-3 MS recovery, performed on L2208589-03, is outside the acceptance criteria for sodium (58%). A post digestion spike was performed and was within acceptance criteria.

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

Authorized Signature:

 Caitlin Walukevich

Title: Technical Director/Representative

Date: 02/22/22

## METALS

Project Name: ARC2202

Lab Number: L2208589

Project Number: ARC2202

Report Date: 02/22/22

## SAMPLE RESULTS

Lab ID: L2208589-01

Date Collected: 01/28/22 11:55

Client ID: GW-3

Date Received: 01/28/22

Sample Location: 2359 BEDFORD AVE BROOKLYN

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Dissolved Metals - Mansfield Lab</b>											
Aluminum, Dissolved	0.190		mg/l	0.0100	0.00327	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Antimony, Dissolved	ND		mg/l	0.00400	0.00042	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Arsenic, Dissolved	0.00037	J	mg/l	0.00050	0.00016	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Barium, Dissolved	0.03114		mg/l	0.00050	0.00017	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Calcium, Dissolved	48.4		mg/l	0.100	0.0394	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Chromium, Dissolved	0.00100		mg/l	0.00100	0.00017	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Cobalt, Dissolved	0.00051		mg/l	0.00050	0.00016	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Copper, Dissolved	0.00181		mg/l	0.00100	0.00038	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Iron, Dissolved	0.354		mg/l	0.0500	0.0191	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Lead, Dissolved	0.00045	J	mg/l	0.00100	0.00034	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Magnesium, Dissolved	16.2		mg/l	0.0700	0.0242	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Manganese, Dissolved	0.4922		mg/l	0.00100	0.00044	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	02/20/22 12:30	02/22/22 08:30	EPA 7470A	1,7470A	AC
Nickel, Dissolved	0.04000		mg/l	0.00200	0.00055	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Potassium, Dissolved	5.04		mg/l	0.100	0.0309	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Sodium, Dissolved	20.9		mg/l	0.300	0.0293	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Thallium, Dissolved	ND		mg/l	0.00100	0.00014	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	02/20/22 12:12	02/20/22 21:34	EPA 3005A	1,6020B	WP



Project Name: ARC2202

Lab Number: L2208589

Project Number: ARC2202

Report Date: 02/22/22

## SAMPLE RESULTS

Lab ID: L2208589-02

Date Collected: 02/01/22 09:40

Client ID: GW-1

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Dissolved Metals - Mansfield Lab</b>											
Aluminum, Dissolved	0.00571	J	mg/l	0.0100	0.00327	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Antimony, Dissolved	ND		mg/l	0.00400	0.00042	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Arsenic, Dissolved	0.00030	J	mg/l	0.00050	0.00016	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Barium, Dissolved	0.06595		mg/l	0.00050	0.00017	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Calcium, Dissolved	39.8		mg/l	0.100	0.0394	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Chromium, Dissolved	0.00042	J	mg/l	0.00100	0.00017	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Cobalt, Dissolved	ND		mg/l	0.00050	0.00016	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Copper, Dissolved	0.00085	J	mg/l	0.00100	0.00038	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Iron, Dissolved	ND		mg/l	0.0500	0.0191	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Magnesium, Dissolved	17.0		mg/l	0.0700	0.0242	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Manganese, Dissolved	0.00092	J	mg/l	0.00100	0.00044	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	02/20/22 12:30	02/22/22 08:20	EPA 7470A	1,7470A	AC
Nickel, Dissolved	0.00775		mg/l	0.00200	0.00055	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Potassium, Dissolved	7.62		mg/l	0.100	0.0309	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Sodium, Dissolved	172.		mg/l	0.300	0.0293	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Thallium, Dissolved	ND		mg/l	0.00100	0.00014	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	02/20/22 12:12	02/20/22 21:40	EPA 3005A	1,6020B	WP



Project Name: ARC2202

Lab Number: L2208589

Project Number: ARC2202

Report Date: 02/22/22

## SAMPLE RESULTS

Lab ID: L2208589-03

Date Collected: 02/01/22 12:30

Client ID: GW-2

Date Received: 02/01/22

Sample Location: 2359 BEDFORD AVE, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Dissolved Metals - Mansfield Lab</b>											
Aluminum, Dissolved	0.00424	J	mg/l	0.0100	0.00327	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Antimony, Dissolved	0.00155	J	mg/l	0.00400	0.00042	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Arsenic, Dissolved	ND		mg/l	0.00050	0.00016	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Barium, Dissolved	0.04139		mg/l	0.00050	0.00017	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Cadmium, Dissolved	0.00015	J	mg/l	0.00020	0.00005	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Calcium, Dissolved	52.8		mg/l	0.100	0.0394	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Chromium, Dissolved	0.00030	J	mg/l	0.00100	0.00017	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Cobalt, Dissolved	0.00165		mg/l	0.00050	0.00016	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Copper, Dissolved	0.00040	J	mg/l	0.00100	0.00038	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Iron, Dissolved	ND		mg/l	0.0500	0.0191	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Magnesium, Dissolved	18.1		mg/l	0.0700	0.0242	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Manganese, Dissolved	0.7433		mg/l	0.00100	0.00044	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	02/20/22 12:30	02/22/22 08:33	EPA 7470A	1,7470A	AC
Nickel, Dissolved	0.1097		mg/l	0.00200	0.00055	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Potassium, Dissolved	4.45		mg/l	0.100	0.0309	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Selenium, Dissolved	0.00207	J	mg/l	0.00500	0.00173	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Sodium, Dissolved	63.9		mg/l	0.300	0.0293	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Thallium, Dissolved	0.00035	J	mg/l	0.00100	0.00014	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	02/20/22 12:12	02/20/22 22:50	EPA 3005A	1,6020B	WP



Project Name: ARC2202

Lab Number: L2208589

Project Number: ARC2202

Report Date: 02/22/22

## SAMPLE RESULTS

Lab ID: L2208589-04

Date Collected: 02/01/22 16:30

Client ID: GW-4

Date Received: 02/02/22

Sample Location: 2359 BEDFORD AVE., BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
<b>Dissolved Metals - Mansfield Lab</b>											
Aluminum, Dissolved	0.0290		mg/l	0.0100	0.00327	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Antimony, Dissolved	0.00123	J	mg/l	0.00400	0.00042	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Arsenic, Dissolved	0.00035	J	mg/l	0.00050	0.00016	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Barium, Dissolved	0.01903		mg/l	0.00050	0.00017	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Calcium, Dissolved	16.7		mg/l	0.100	0.0394	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Chromium, Dissolved	0.00108		mg/l	0.00100	0.00017	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Cobalt, Dissolved	ND		mg/l	0.00050	0.00016	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Copper, Dissolved	0.00091	J	mg/l	0.00100	0.00038	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Iron, Dissolved	0.0256	J	mg/l	0.0500	0.0191	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Magnesium, Dissolved	11.4		mg/l	0.0700	0.0242	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Manganese, Dissolved	0.00143		mg/l	0.00100	0.00044	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	02/20/22 12:30	02/22/22 08:37	EPA 7470A	1,7470A	AC
Nickel, Dissolved	0.00261		mg/l	0.00200	0.00055	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Potassium, Dissolved	4.50		mg/l	0.100	0.0309	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Sodium, Dissolved	53.9		mg/l	0.300	0.0293	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Thallium, Dissolved	0.00019	J	mg/l	0.00100	0.00014	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	02/20/22 12:12	02/20/22 22:55	EPA 3005A	1,6020B	WP



Project Name: ARC2202  
Project Number: ARC2202

Lab Number: L2208589  
Report Date: 02/22/22

## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-04 Batch: WG1606545-1										
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Antimony, Dissolved	ND		mg/l	0.00400	0.00042	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Arsenic, Dissolved	ND		mg/l	0.00050	0.00016	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Barium, Dissolved	ND		mg/l	0.00050	0.00017	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Calcium, Dissolved	ND		mg/l	0.100	0.0394	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Chromium, Dissolved	ND		mg/l	0.00100	0.00017	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Cobalt, Dissolved	ND		mg/l	0.00050	0.00016	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Iron, Dissolved	ND		mg/l	0.0500	0.0191	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Magnesium, Dissolved	ND		mg/l	0.0700	0.0242	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Manganese, Dissolved	ND		mg/l	0.00100	0.00044	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Nickel, Dissolved	ND		mg/l	0.00200	0.00055	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Potassium, Dissolved	ND		mg/l	0.100	0.0309	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Sodium, Dissolved	ND		mg/l	0.300	0.0293	1	02/20/22 12:12	02/21/22 09:17	1,6020B	SV
Thallium, Dissolved	0.00021	J	mg/l	0.00100	0.00014	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP
Zinc, Dissolved	0.00762	J	mg/l	0.01000	0.00341	1	02/20/22 12:12	02/20/22 22:12	1,6020B	WP

### Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-04 Batch: WG1606546-1										
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	02/20/22 12:30	02/22/22 08:07	1,7470A	AC



**Project Name:** ARC2202

**Lab Number:** L2208589

**Project Number:** ARC2202

**Report Date:** 02/22/22

## Method Blank Analysis Batch Quality Control

### Prep Information

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Digestion Method: EPA 7470A



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2208589

Report Date: 02/22/22

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG1606545-2								
Aluminum, Dissolved	103		-		80-120	-		
Antimony, Dissolved	88		-		80-120	-		
Arsenic, Dissolved	99		-		80-120	-		
Barium, Dissolved	101		-		80-120	-		
Beryllium, Dissolved	94		-		80-120	-		
Cadmium, Dissolved	102		-		80-120	-		
Calcium, Dissolved	100		-		80-120	-		
Chromium, Dissolved	98		-		80-120	-		
Cobalt, Dissolved	97		-		80-120	-		
Copper, Dissolved	100		-		80-120	-		
Iron, Dissolved	101		-		80-120	-		
Lead, Dissolved	102		-		80-120	-		
Magnesium, Dissolved	109		-		80-120	-		
Manganese, Dissolved	102		-		80-120	-		
Nickel, Dissolved	98		-		80-120	-		
Potassium, Dissolved	103		-		80-120	-		
Selenium, Dissolved	104		-		80-120	-		
Silver, Dissolved	109		-		80-120	-		
Sodium, Dissolved	107		-		80-120	-		
Thallium, Dissolved	111		-		80-120	-		
Vanadium, Dissolved	98		-		80-120	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2208589

Report Date: 02/22/22

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG1606545-2					
Zinc, Dissolved	100	-	80-120	-	
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG1606546-2					
Mercury, Dissolved	96	-	80-120	-	

### Matrix Spike Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2208589  
**Report Date:** 02/22/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1606545-3 QC Sample: L2208589-03 Client ID: GW-2												
Aluminum, Dissolved	0.00424J	4	3.96	99	-	-	-	-	75-125	-	-	20
Antimony, Dissolved	0.00155J	1	0.8647	86	-	-	-	-	75-125	-	-	20
Arsenic, Dissolved	ND	0.24	0.2533	106	-	-	-	-	75-125	-	-	20
Barium, Dissolved	0.04139	4	4.054	100	-	-	-	-	75-125	-	-	20
Beryllium, Dissolved	ND	0.1	0.08942	89	-	-	-	-	75-125	-	-	20
Cadmium, Dissolved	0.00015J	0.106	0.1071	101	-	-	-	-	75-125	-	-	20
Calcium, Dissolved	52.8	20	72.0	96	-	-	-	-	75-125	-	-	20
Chromium, Dissolved	0.00030J	0.4	0.3919	98	-	-	-	-	75-125	-	-	20
Cobalt, Dissolved	0.00165	1	0.9637	96	-	-	-	-	75-125	-	-	20
Copper, Dissolved	0.00040J	0.5	0.4961	99	-	-	-	-	75-125	-	-	20
Iron, Dissolved	ND	2	2.03	102	-	-	-	-	75-125	-	-	20
Lead, Dissolved	ND	1.06	1.081	102	-	-	-	-	75-125	-	-	20
Magnesium, Dissolved	18.1	20	39.1	105	-	-	-	-	75-125	-	-	20
Manganese, Dissolved	0.7433	1	1.739	100	-	-	-	-	75-125	-	-	20
Nickel, Dissolved	0.1097	1	1.082	97	-	-	-	-	75-125	-	-	20
Potassium, Dissolved	4.45	20	25.0	103	-	-	-	-	75-125	-	-	20
Selenium, Dissolved	0.00207J	0.24	0.246	102	-	-	-	-	75-125	-	-	20
Silver, Dissolved	ND	0.1	0.1088	109	-	-	-	-	75-125	-	-	20
Sodium, Dissolved	63.9	20	75.5	58	Q	-	-	-	75-125	-	-	20
Thallium, Dissolved	0.00035J	0.24	0.2637	110	-	-	-	-	75-125	-	-	20
Vanadium, Dissolved	ND	1	0.9626	96	-	-	-	-	75-125	-	-	20

### Matrix Spike Analysis Batch Quality Control

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2208589  
**Report Date:** 02/22/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1606545-3 QC Sample: L2208589-03 Client ID: GW-2									
Zinc, Dissolved	ND	1	0.9823	98	-	-	75-125	-	20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1606546-3 QC Sample: L2208589-02 Client ID: GW-1									
Mercury, Dissolved	ND	0.005	0.00451	90	-	-	75-125	-	20

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2208589

Report Date: 02/22/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1606545-4 QC Sample: L2208589-03 Client ID: GW-2						
Aluminum, Dissolved	0.00424J	0.00514J	mg/l	NC		20
Antimony, Dissolved	0.00155J	0.00303J	mg/l	NC		20
Arsenic, Dissolved	ND	0.00028J	mg/l	NC		20
Barium, Dissolved	0.04139	0.04056	mg/l	2		20
Beryllium, Dissolved	ND	ND	mg/l	NC		20
Cadmium, Dissolved	0.00015J	0.00016J	mg/l	NC		20
Calcium, Dissolved	52.8	51.6	mg/l	2		20
Chromium, Dissolved	0.00030J	0.00026J	mg/l	NC		20
Cobalt, Dissolved	0.00165	0.00164	mg/l	1		20
Copper, Dissolved	0.00040J	0.00045J	mg/l	NC		20
Iron, Dissolved	ND	0.0290J	mg/l	NC		20
Lead, Dissolved	ND	ND	mg/l	NC		20
Magnesium, Dissolved	18.1	17.3	mg/l	5		20
Manganese, Dissolved	0.7433	0.7276	mg/l	2		20
Nickel, Dissolved	0.1097	0.1075	mg/l	2		20
Potassium, Dissolved	4.45	4.35	mg/l	2		20
Selenium, Dissolved	0.00207J	0.00233J	mg/l	NC		20
Silver, Dissolved	ND	ND	mg/l	NC		20
Sodium, Dissolved	63.9	62.0	mg/l	3		20

## Lab Duplicate Analysis

*Batch Quality Control*

Project Name: ARC2202

Project Number: ARC2202

Lab Number: L2208589

Report Date: 02/22/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1606545-4 QC Sample: L2208589-03 Client ID: GW-2					
Thallium, Dissolved	0.00035J	0.00122	mg/l	NC	20
Vanadium, Dissolved	ND	ND	mg/l	NC	20
Zinc, Dissolved	ND	ND	mg/l	NC	20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1606546-4 QC Sample: L2208589-02 Client ID: GW-1					
Mercury, Dissolved	ND	ND	mg/l	NC	20

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Serial\_No:**02222211:15  
**Lab Number:** L2208589  
**Report Date:** 02/22/22

**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Cooler Information**

Cooler	Custody Seal
A	Absent
A1	Absent
B	Absent

**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2208589-01F	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		-
L2208589-01X	Plastic 120ml HNO3 preserved Filtrates	A	NA		2.3	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),MG-6020S(180),BE-6020S(180),CO-6020S(180),ZN-6020S(180),CR-6020S(180),CA-6020S(180),FE-6020S(180),TL-6020S(180),NI-6020S(180),PB-6020S(180),NA-6020S(180),BA-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L2208589-02F	Amber 120ml unpreserved	B	7	7	2.9	Y	Absent		-
L2208589-02X	Plastic 120ml HNO3 preserved Filtrates	B	NA		2.9	Y	Absent		SE-6020S(180),K-6020S(180),V-6020S(180),CU-6020S(180),MN-6020S(180),CO-6020S(180),MG-6020S(180),BE-6020S(180),ZN-6020S(180),FE-6020S(180),CA-6020S(180),CR-6020S(180),BA-6020S(180),NA-6020S(180),TL-6020S(180),NI-6020S(180),PB-6020S(180),AS-6020S(180),SB-6020S(180),AG-6020S(180),HG-S(28),CD-6020S(180),AL-6020S(180)
L2208589-03F	Amber 120ml unpreserved	B	7	7	2.9	Y	Absent		-
L2208589-03X	Plastic 120ml HNO3 preserved Filtrates	B	NA		2.9	Y	Absent		SE-6020S(180),K-6020S(180),CU-6020S(180),V-6020S(180),MN-6020S(180),ZN-6020S(180),CO-6020S(180),MG-6020S(180),BE-6020S(180),CR-6020S(180),FE-6020S(180),CA-6020S(180),PB-6020S(180),BA-6020S(180),NA-6020S(180),TL-6020S(180),NI-6020S(180),SB-6020S(180),AG-6020S(180),AS-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L2208589-04F	Amber 120ml unpreserved	A1	7	7	4.7	Y	Absent		-

\*Values in parentheses indicate holding time in days



**Project Name:** ARC2202

**Project Number:** ARC2202

Serial\_No:02222211:15

**Lab Number:** L2208589

**Report Date:** 02/22/22

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2208589-04X	Plastic 120ml HNO3 preserved Filtrates	A1	NA		4.7	Y	Absent		V-6020S(180),K-6020S(180),CU-6020S(180),SE-6020S(180),MN-6020S(180),CO-6020S(180),BE-6020S(180),ZN-6020S(180),MG-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),NI-6020S(180),BA-6020S(180),NA-6020S(180),PB-6020S(180),TL-6020S(180),AS-6020S(180),SB-6020S(180),AG-6020S(180),HG-S(28),AL-6020S(180),CD-6020S(180)



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2208589  
**Report Date:** 02/22/22

## GLOSSARY

### Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)  Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2208589  
**Report Date:** 02/22/22

#### Footnotes

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

#### Terms

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

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

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

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

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

**PAH Total:** With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

**PFAS Total:** With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA, this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

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

#### Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- F** - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2208589  
**Report Date:** 02/22/22

**Data Qualifiers**

- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- V** - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)
- Z** - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

**Project Name:** ARC2202  
**Project Number:** ARC2202

**Lab Number:** L2208589  
**Report Date:** 02/22/22

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

## LIMITATION OF LIABILITIES

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

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



## Certification Information

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

### Westborough Facility

**EPA 624/624.1:** m/p-xylene, o-xylene, Naphthalene

**EPA 625/625.1:** alpha-Terpineol

**EPA 8260C/8260D:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

**EPA 8270D/8270E:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

### Mansfield Facility

**SM 2540D:** TSS

**EPA 8082A:** NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**Biological Tissue Matrix:** EPA 3050B

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

### Westborough Facility:

#### Drinking Water

**EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

**EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**

**EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

#### Non-Potable Water

**SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**

Ammonia-N, **LCHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,**

**SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

**EPA 624.1:** Volatile Halocarbons & Aromatics,

**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

### Mansfield Facility:

#### Drinking Water

**EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

**EPA 522, EPA 537.1.**

#### Non-Potable Water

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.


**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.


**EPA 245.1 Hg.**


**SM2340B**

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

	<b>NEW YORK CHAIN OF CUSTODY</b>	<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page   of	Date Rec'd In Lab <u>1/28/22</u>	ALPHA Job # <u>L2204927</u>
		Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3268	<b>Project Information</b> Project Name: <u>ARC2201</u> Project Location: <u>2359 Bedford Avenue Brooklyn</u> Project # <u>ARC2201</u> (Use Project name as Project #) <input type="checkbox"/>		<b>Deliverables</b> <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQuIS (1 File) <input type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other
<b>Client Information</b> Client: <u>PWGC</u> Address: <u>630 Johnson Ave Sk 7 Bohemia NY 11787</u> Phone: <u>631 589 6353</u> Fax: Email: <u>u.chaudhry@pwg.com</u>		<b>Project Manager:</b> <u>Usman Chaudhry</u> ALPHAQuote #: Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: <u>*pesticides/PCBS except Cr<sup>6</sup>, Cr<sup>3</sup>, herbicides + total cyanide</u>				<b>ANALYSIS</b>		<b>Sample Filtration</b> <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do Dissolved Metals TAL (Please Specify below)
Please specify Metals or TAL.				↓ Dissolved Metals TAL (Please Specify below)		Total Bottles
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	
		Date	Time			
<del>01727</del>	SB-3	1/28/22	08:25	S	AM	
<del>02</del>	SB-4		08:55	S	AM	
<del>03</del>	SB-14		11:25	S	AM	
<del>04</del>	SB-15		12:45	S	AM	
<del>05</del>	SB-16		11:00	S	AM	
08589-01	GW-3		11:55	GW	AM	X
Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative
Relinquished By: <u>Usman Chaudhry</u> <u>Paul Maggella</u> <u>7/1/22</u>		Date/Time <u>1/28/22 15:15</u> <u>1/28/22 11:40</u> <u>2/1/22</u>		Received By: <u>Wendy Dred</u> <u>Paul Maggella</u> <u>7/1/22</u>		Date/Time <u>1/28/22 15:15</u> <u>1/28/22 11:40</u> <u>2/1/22 23:30</u>
Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)						
Form No: 01-25 HC (rev. 30-Sept-2013)						

 <b>NEW YORK CHAIN OF CUSTODY</b>		<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page 1 of 1		Date Rec'd in Lab 2/1/22		ALPHA Job # L2208589				
		Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		<b>Project Information</b> Project Name: <u>ARC2201</u> Project Location: <u>2359 Bedford Ave. Brooklyn NY</u>		<b>Deliverables</b> <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other		<b>Billing Information</b> <input type="checkbox"/> Same as Client Info PO #:		
<b>Client Information</b> Client: <u>PWGC</u> Address: <u>630 Johnson Ave Ste 7</u> <u>Bohemia, NY 11710</u> Phone: <u>631 589 6353</u> Fax: Email: <u>u.chaudhry@pwgrosser.com</u>		Project # <u>ARC2201</u> (Use Project name as Project #) <input type="checkbox"/>		<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWO Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:						
Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		These samples have been previously analyzed by Alpha <input type="checkbox"/>		<b>ANALYSIS</b> * pesticides/PCBs except Cr <sup>6</sup> , Cr <sup>3</sup> , herbicides, total cyanide		<b>Sample Filtration</b> <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do						
Other project specific requirements/comments: * pesticides/PCBs except Cr <sup>6</sup> , Cr <sup>3</sup> , herbicides, total cyanide		Please specify Metals or TAL.		Dissolved Metals TAL (Please Specify below)		Total Bottles						
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	VOCs (EM 8260)	SVOCs (EM 8260)	Metals (EM 8260)	Pesticides/PCBs*	PFAS (EM 8260)	↓	Sample Specific Comments
		Date	Time									
<del>08589-01</del>	SB-3	1/31/22	10:30	S	AM							
<del>02</del>	SB-4	2/1/22	0950	S	AM							
<del>03</del>	SB-7		1215	S	AM							
<del>04</del>	SB-8		1100	S	AM							
08589-02	GW-1		0940	GW	AM						X	
-03	GW-2		120	GW	AM						X	
<del>07</del>	SB-6		1330	S	AM							
<del>08</del>	SB-5		1400	S	AM							
<del>09</del>	SB-9		1430	S	AM							
<del>10</del>	SB-12		1520	S	AM							
Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)				
Relinquished By: <u>John Monti</u> Date/Time: <u>2/1/22 1545</u>		Received By: <u>Paul Mangel</u> Date/Time: <u>2/1/22 1850</u>		Relinquished By: <u>Paul Mangel</u> Date/Time: <u>2/1/22 1830</u>		Received By: <u>alt</u> Date/Time: <u>2/1/22</u>						

 <b>NEW YORK CHAIN OF CUSTODY</b>		<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 6 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page 1 of 1		Date Rec'd in Lab <b>2/2/22</b>		ALPHA Job # <b>L2208589</b>			
		Westborough, MA 01581 8 Walkup Dr. TEL: 508-899-9220 FAX: 508-899-9193		Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		<b>Project Information</b> Project Name: <b>ARC2201</b> Project Location: <b>2359 Belford Ave Brooklyn NY</b> Project # <b>ARC2201</b> (Use Project name as Project #) <input type="checkbox"/>		<b>Deliverables</b> <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQulS (1 File) <input type="checkbox"/> EQulS (4 File) <input type="checkbox"/> Other		<b>Billing Information</b> <input type="checkbox"/> Same as Client Info PO #	
<b>Client Information</b> Client: <b>PWGL</b> Address: <b>630 Johnson Ave Ste 7</b> Phone: <b>631 589 6353</b> Fax: Email: <b>uchaudhry@pwgrosser.com</b>		<b>Project Manager:</b> ALPHAQuote #: Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge							
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: <b>*pesticides/PCBs except Cr<sup>6</sup>, Cr<sup>3</sup>, herbicides + total cyanide</b>						<b>ANALYSIS</b> VCS (EPA 8160)    SVCS (EPA 8210)    Metals (EPA 8210)    Pesticides/PCBs    PAHs + Dioxin Dissolved Metals TAL ↓ X		<b>Sample Filtration</b> <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do Metals TAL (Please Specify below)		Total Bottle	
Please specify Metals or TAL.											Sample Specific Comments
ALPHA Lab ID (Lab Use Only)		Sample ID		Collection		Sample Matrix		Sampler's Initials			
				Date    Time							
<del>085390-01</del> <del>08589-04-02</del>		SB-13 GW-4		2/1/22    1530 ↓    1030		S    AM GW    AM					
Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type		Preservative		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	
		Relinquished By:		Date/Time		Received By:		Date/Time			
		James Hovatt 1		2/2/22 1050		[Signature]		2/2/22 10:50			
		[Signature]		2/2/22 13:25		[Signature]		2/2 1800			
		[Signature]		2/2		[Signature]		2/2 2000			
		[Signature]		2/2 2000		[Signature]		2/2 2200			





## APPENDIX E

### SOIL VAPOR/INDOOR AIR MATRICES

# Soil Vapor/Indoor Air Matrix A

May 2017

**Analytes Assigned:**

Trichloroethene (TCE), *cis*-1,2-Dichloroethene (c12-DCE), 1,1-Dichloroethene (11-DCE), Carbon Tetrachloride

SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m <sup>3</sup> )	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m <sup>3</sup> )		
	< 0.2	0.2 to < 1	1 and above
< 6	1. No further action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
6 to < 60	4. No further action	5. MONITOR	6. MITIGATE
60 and above	7. MITIGATE	8. MITIGATE	9. MITIGATE

**No further action:** No additional actions are recommended to address human exposures.

**Identify Source(s) and Resample or Mitigate:** We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

**Monitor:** We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined based on site-, building- and analyte-specific information, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

**Mitigate:** We recommend mitigation to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

**These general recommendations are made with consideration being given to the additional notes on page 2.**

## ADDITIONAL NOTES FOR MATRIX A

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This matrix summarizes actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

- [1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).
- [2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor or the source of soil vapor contamination.
- [3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 0.20 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.
- [4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions might be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.
- [5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.
- [6] The party responsible for implementing the recommended actions will differ depending upon several factors, including but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.

# Soil Vapor/Indoor Air Matrix B

May 2017

**Analytes Assigned:**

Tetrachloroethene (PCE), 1,1,1-Trichloroethane (111-TCA), Methylene Chloride

SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m <sup>3</sup> )	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m <sup>3</sup> )		
	< 3	3 to < 10	10 and above
< 100	1. No further action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
100 to < 1,000	4. No further action	5. MONITOR	6. MITIGATE
1,000 and above	7. MITIGATE	8. MITIGATE	9. MITIGATE

**No further action:** No additional actions are recommended to address human exposures.

**Identify Source(s) and Resample or Mitigate:** We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

**Monitor:** We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined based on site-, building- and analyte-specific information, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

**Mitigate:** We recommend mitigation to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

**These general recommendations are made with consideration being given to the additional notes on page 2.**

## ADDITIONAL NOTES FOR MATRIX B

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This matrix summarizes actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

- [1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).
- [2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor or the source of soil vapor contamination.
- [3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 1 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.
- [4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions might be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.
- [5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.
- [6] The party responsible for implementing the recommended actions will differ depending upon several factors, including but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.

# Soil Vapor/Indoor Air Matrix C

May 2017

**Analytes Assigned:**

Vinyl Chloride

SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m <sup>3</sup> )	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m <sup>3</sup> )	
	< 0.2	0.2 and above
< 6	1. No further action	2. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
6 to < 60	3. MONITOR	4. MITIGATE
60 and above	5. MITIGATE	6. MITIGATE

**No further action:** No additional actions are recommended to address human exposures.

**Identify Source(s) and Resample or Mitigate:** We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

**Monitor:** We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined based on site-, building- and analyte-specific information, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

**Mitigate:** We recommend mitigation to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

These general recommendations are made with consideration being given to the additional notes on page 2.

## ADDITIONAL NOTES FOR MATRIX C

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This matrix summarizes actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

- [1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).
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- [4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions might be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.
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