Site Management Periodic Review Report and IC/EC Certification Submittal

Erie County Shoreline Trail-NYSDEC Site No. C915197L

Location:

Erie County Shoreline Trail
2303 Hamburg Turnpike
Lackawanna, New York 14218
NYSDEC Site No. C915197L

Reporting Period: July 18, 2021 to June 8, 2023

Prepared by:

Erie County Department of Environment and Planning 95 Franklin Street, Room 1053 Buffalo, New York 14202



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Figure 1 – Site Location Map

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Uniland

NYSDOT

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1.0 EXECUTIVE SUMMARY

This Periodic Review Report (PRR) is a required element of the approved Site Management Plan (SMP) for the Erie County Shoreline Trail Bethlehem Steel Phase I (Shoreline Trail). This New York State Brownfield Cleanup Program (BCP) site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index No. C915197L-01-18), which was executed on March 9, 2018 with amendments dated on February 14, 2019 and April 2, 2020. The Reporting Period for this report is July 18, 2021 to June 8, 2023.

During this reporting period, sections of the site cap were disturbed during minor excavation associated with development activities for the adjacent site (Dona 8). A five-foot-wide trench was cut across the Greenway Trail to facilitate the stormwater system connections. A smaller breach of the cap occurred near the Greenway Trail head during the initial phase of the stormwater system installation on the adjacent site. An additional minor breach of the cap occurred at the Right of Way between the Greenway Trail at the intersection of Odell and Route 5 during NYS DOT installation of a traffic signal pole. NYSDEC was notified (Appendix 4) of the excavations that were conducted in accordance with the SMP that is shared by both properties. Additional details on the excavations are found in section 4.1.2 of this report. The Corrective Measures involved site cap repairs that were completed in April 2023.

1.1 Site Summary

The Site is identified as the Erie County Shoreline Trail Bethlehem Steel Phase I NYSDEC BCP No. C915197L and consists of approximately 5,140 feet of the 10-foot wide asphalt paved Erie County Shoreline Trail Bethlehem Steel Phase I located in Lackawanna, New York (hereafter referred to as the "Site"). The Site is approximately seven acres of land divested and formed from the easterly fifty-foot (50') widths of BCP Sites C915198H, C915198K, C915197B, C915197D, C915197F, C915197H and C915197K. The Site is a long 50-foot wide parcel along the west side of NYS Route 5 and Hamburg Turnpike from Dona Street north to the Gateway Trade Center. The Site is bounded by the Gateway Trade Center property to the north, NYSDEC BCP Site C915198F to the south, NYS Route 5 and Hamburg turnpike to the east, and NYSDEC BCP Sites C915198H, C915197B, C915197D, C915197F, C915197H, and C915197K to the west.

Historically, the Site was a portion of a larger property occupied by an integrated steel mill operated

by the Bethlehem Steel Corporation (BSC). The site was part of a large industrial complex that contained numerous buildings and facilities, none of which currently remain on the site. The BSC property was the subject of assessments and investigations under the Resource Conservation and Recovery Act (RCRA) and the area containing the sites received a "No Further Assessment" designation from the U.S. Environmental Protection Agency (USEPA) in the early 1990s and was excluded from the RCRA Order by USEPA in 2001. In 2005, Tecumseh Redevelopment Inc. (Tecumseh) entered an approximate 102-acre portion of the BSC property containing the Sites and referred to as the Phase I Business Park in the BCP. In 2007, Tecumseh Redevelopment Inc. (Tecumseh) entered an approximate 141-acre portion of the BSC property containing the Site and referred to as the Phase II Business Park in the BCP. The Site was divested from these BCP Sites.

The Remedial Investigation (RI) conducted on the Phase I Business Park property between 2006 and 2008 and on the Phase II Business Park property between 2010 and 2013 revealed that contamination associated with historical steel mill operations had impacted the soil/fill on the property, necessitating remedial action. The RIs did not identify groundwater impacts proximate the Site. Several phases of remedial actions were undertaken for Business Park Phase I and Phase II in accordance with NYSDEC-approved Interim Remedial Measures (IRM) Work Plans. Following completion of the remedial work, some contamination was left in the soil/fill of the Sites, which is hereafter referred to as the "remaining contamination". The remaining contamination was generally characterized by widespread exceedances of the 6 New York Codes, Rules and Regulation (NYCRR) Part 375 Soil Cleanup Objectives (SCOs) for un-restricted use for certain metals and polycyclic aromatic hydrocarbons (PAHs) to the approximate native soil depth of 8 feet below the ground surface. The remedial efforts also included development of SMPs to manage the remaining contamination at the Sites in perpetuity or until extinguishment of the Environmental Easements that were placed on the Sites in accordance with Environmental Conservation Law (ECL) Article 71, Title 36.

The NYSDEC-approved Remedial Action Work Plan (RAWP) for the Erie County Shoreline Trail

Bethlehem Steel Phase I BCP Site No. C915197L dated February 2018 prescribed the remedy for

the Site which included the placement of a cover system comprised of 12 inches of clean soil with a demarcation layer in all areas that are not covered by the asphalt trail or covered by concrete. In 2018, the pedestrian/bicycle trail along with the remainder of the cover system was constructed at the Site and a BCP Certificate of Completion (COC) was issued in 2020, signifying satisfactory completion of the remedial program and acceptance of the Final Engineering Report (FER) for the Site.

1.2 Effectiveness of Remedial Program

Based on a recent inspection of the Site, the engineering and institutional controls are in place, are performing properly, and remain effective and protective of public health and the environment.

1.3 Non-Compliance

No areas of non-compliance regarding the major elements of the SMP were identified during the preparation of this PRR.

1.4 Recommendations

Overall, the remedial program is viewed to be effective in achieving the remedial objectives for the Sites. No changes to the SMP or the frequency of PRR submissions are recommended at this time.

2.0 SITE OVERVIEW

2.1 Site Description

The Site includes an approximately seven-acre parcel consisting of a 10-foot wide 5,140-foot long asphalt pedestrian/bicycle trail along the west side of NYS Route 5 and Hamburg Turnpike within the City of Lackawanna. The Site is 50 feet in width and extends from Dona Street north beyond Ridge Road to the Gateway Trade Center property. The Site is bounded by the Gateway property to the north, NYSDEC BCP Site C915198F to the south, NYS Route 5 and Hamburg turnpike to the east, and NYSDEC BCP Sites C915198H, C915198K, C915197B, C915197D, C915197F, C915197H, and C915197K to the west. The Site was divested and formed from the easterly fifty-foot (50') widths of BCP Sites C915198H, C915198K, C915197B, C915197D, C915197F, C915197H, and C915197K. Lake Erie is situated approximately 5,100 feet to the west of the Sites, while Smoke Creek is located approximately 1,200 feet south of the Site. Figure 1 shows the approximate

location of the Site and Figure 2 depicts the approximate extents of the Site.

Soil/fill remaining on the Site located beneath the cover system was characterized as generally impacted by the historical industrial usage of the BSC property. These impacts were characterized as widespread exceedances of the 6 NYCRR Part 375 SCOs for un-restricted use for certain metals and PAHs to the approximate native soil depth of 8 feet below the ground surface. The impacted soil/fill constitutes the remaining contamination on the Site. No groundwater contamination necessitating remediation was identified on the Site.

2.2 Summary of Remedial Actions

Remedial activities completed at the Site were conducted in accordance with the NYSDEC-approved Remedial Action Work Plan (RAWP) for the Erie County Shoreline Trail Bethlehem Steel Phase I BCP Site No. C915197L dated February 2018. Remediation for the Site was performed as a single project, and no interim remedial measures, operable units or separate construction contracts were performed. The final remedy implemented at the Site in 2018 involved the installation of a cover system in accordance with the NYSDEC-approved RAWP. The cover system installed at the Site is comprised of the following components:

- A demarcation layer placed atop the remaining soil/fill followed by a minimum of a 12-inch soil cover, obtained from a NYSDEC approved stockpile, in areas of the Site not covered by the 10-foot wide asphalt trail to prevent human exposure to remaining contaminated soil/fill.
- A 10-foot wide asphalt trail consisting of four inches of asphalt pavement and eight inches of gravel subbase.
- Concrete cover at the approach ramps for Ridge Road and Dona Street, bench pads, and the areas of the iron button.

Contaminated soil/fill was encountered during excavation activities associated with the installation of the underdrain system in one portion of the Site. The excavation extended approximately two feet below ground surface and resulted in the transported and disposal of 137.23 tons of non-hazardous soil/fill to the Waste management of NY at Chafee Landfill, a permitted Subtitle D landfill.

On-site soil/fill was used as subgrade backfill beneath the soil cover. Excess existing soil excavated during the installation of the underdrain system as well as soil generated from created grading operations were placed west of the Site to fill in low areas on BCP Parcel Nos. C915157D, C915157F and C915158K.

In addition to the cover system, a Site-Specific Site Management Plan (SMP) was prepared and updated in 2019 to manage remaining contamination as required by the Environmental Easements placed on NYSDEC BCP Site Nos. C915157 and C915198. The Site Specific SMP is included as Appendix E-12 in the January 2014 SMP for the Tecumseh Phase I Business Park for NYSDEC Site Nos. C915197 through C915197K. The SMP specifies the procedures required to manage the remaining contamination on the Site post remediation, including (1) implementation and management of all engineering and institutional controls; (2) media monitoring, if applicable; (3) operation and maintenance of treatment, collection, containment or recover systems, if applicable; (4) performance of periodic inspections, certification of results and submittal of PRRs; and (5) defining criteria for termination of any remaining treatment system operations.

Two environmental easements in place for the Site encompass NYSDEC BCP Site Nos. C915157 and C915198, executed by the NYSDEC and recorded with the Erie County Clerk in 2014. The environmental easements were placed on the properties to (1) implement, maintain and monitor the Engineering Controls; (2) prevent future exposure to remaining contamination by controlling disturbances of the subsurface contamination; and, (3) limit the use and development of the site to commercial and industrial uses only. An additional easement was put in place in June 2022 that granted conditional access to a portion of the Greenway Trail for the installation/maintenance of a storm sewer pipe connection for the Dona 8 project. Copies of the easements are provided in Appendix 1.

3.0 PERFORMANCE, EFFECTIVENESS & PROTECTIVENESS OF THE REMEDY

All remedial actions prescribed in the RAWP for the Site were completed and the remedial goals were accomplished through the installation of the Site-wide cover systems to prevent exposure to remaining contamination in the subsurface.

As indicated below in Section 4.1.2, the cover systems were inspected on August 12, 2022, and again on April 25, 2023. Based on the inspections the remaining cover systems are intact, functioning effectively throughout the Site and are protective of public health and the environment.

4.0 INSTITUTIONAL/ENGINEERING CONTROL (IC/EC) PLAN COMPLIANCE REPORT

4.1 IC/EC Requirements and Compliance

4.1.1 IC Requirements-Site Restrictions

In accordance with the SMP, a series of Institutional Controls (ICs) have been established for the Site. Adherence to these ICs is required by the Environmental Easements. The Environmental Easements are described within the Final Engineering Report, included within Appendix 4. These ICs are:

- Compliance with the environmental easement and the SMP by the Owner and the Owner's successors and assigns;
- All Engineering Controls (ECs) must be installed, operated and maintained as specified in the SMP;
- All ECs on the Site must be inspected at a frequency and in a manner defined in the SMP;
- Environmental or public health monitoring must be performed as defined in the SMP;
- Data and information pertinent to site management of the Site must be reported at the frequency and in a manner defined in the SMP;
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;
- Operation, maintenance, monitoring, inspection, and reporting of mechanical or physical components of the remedy shall be performed as defined in the SMP; and
- Access to the Site must be provided to agents, employees or other representatives of the State
 of New York with reasonable prior notice to the property owner to assure compliance with the
 restrictions identified by the environmental easements.

Institutional Controls identified in the environmental easements may not be discontinued without an amendment to or extinguishment of the environmental easement.

The Site has a series of ICs in the form of restrictions. Site restrictions that apply are as follows:

- The Site may only be used for recreational trail uses only;
- The use of groundwater underlying the Site is restricted as a source of potable or process water, without necessary water quality treatment, as determined by the New York State Department of Health or Erie County Health Department;

- Compliance with the SMP is required; and
- The owner of the Site is required to provide an IC/EC certification, prepared and submitted by a professional engineer or environmental professional acceptable to the NYSEC annually or for a period to be approved by the NYSDEC, which will certify that the ICs and ECs put in place are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP.

Erie County has concluded that the ICs are in force and are being adhered to with respect to the condition and use of the Sites and activities conducted thereon.

4.1.2 Engineering Control-Soil Cover System

Exposure to the remaining contamination in soil/fill at the Site is prevented by the cover systems that were previously placed over the Site. The cover system is comprised of a minimum of 12 inches of NYSDEC approved soil overlaying a demarcation layer (orange plastic mesh material) in areas of the Site not covered by the asphalt pedestrian/bicycle trail. The pedestrian/bicycle trail consists of eight inches of subbase and four inches of asphalt pavement. The Excavation Work Plan, which appears in Appendix B of the SMP, outlines the procedures that are required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. The cover system is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in perpetuity.

On Wednesday February 16, during the installation of a stormwater connection at the 8 Dona St, Uniland parcel adjacent to the Erie County Shoreline Bike Trail, it was observed that the excavation area extended into a portion of the adjacent Greenway Trail property, breaching a small section, approximately 10 sq. ft., of the cap on the EC Shoreline Trail BCP site. EC DEP notified NYSDEC of the minor breach and explained that it would be repaired as per the SMP once the stormwater installation project being conducted at the adjacent Dona 8 site was completed. In the meantime, the excavated area was fenced off as a safety precaution. By October 31, the repair was completed as per the SMP. Air monitors were positioned near the excavation site with no elevated levels reported.

Uniland, the developers of the adjacent Dona8 parcel notified NYSDEC on July 14 of a second scheduled excavation to make storm water connections that required a 5 foot wide excavation across the Shoreline Trail site. The work was conducted as per the SMP requirements on July 27-28. The top 12" cover system was placed to the side and all subgrade materials underneath the existing demarcation fabric

were placed on poly sheeting then used as backfill after the pipe was installed. Once all the subgrade was backfilled, new demarcation fabric was installed in the trench and then the top soil cover was backfilled on top of that to surrounding grade. Air monitors were positioned near the excavation site with no elevated levels reported. CAMP data for these two repairs are included in appendix 3.

On November 4, 2022, an additional minor breach of the cap occurred in the Right of Way between the Greenway Trail at the intersection of Odell and Route 5 during NYS DOT installation of a traffic signal pole. The minor excavation area was secured and covered until cap repairs were completed in April 2023. No CAMP data is available for this event.

Copies of the site inspection report and IC Certification for the cap repairs are included as appendices.

Correspondence including NYSDEC notification and description of the work and cap repair details, cover soil, placement of excavated materials, are included in Appendix 3. Photographs of initial Site disturbance and the completed repair work are included in Appendix 2.

Soil from the February excavation was stockpiled nearby and used to backfill the same excavation to approximately 12"-15" below surrounding grade with an orange demarcation barrier installed prior to replacement of 12" of BCP approved topsoil before reseeding. Some of the soil from the November excavation was sidecast and incorporated into the existing slope. The remaining soil was stockpiled with soil from other nearby NYSDOT signal projects in the vicinity, which was tested and disposed of at an approved landfill. This repair was also capped with 12" of approved top soil and area reseeded. Additional details including analytical results and waste manifests are included in Appendix 3.

On April 25, 2023, Erie County personnel conducted the annual Site inspections, which included traversing the Sites on foot to observe the current conditions. The Site Inspection Form is included herein as Appendix 2. Appendix 3 includes photographs taking during the Site inspection. The Site consists of an asphalt pedestrian/bicycle trail aligned with vegetated soil cover occurring at the ground surface along the length of the Site. The minor excavations described in this report, appear to be repaired and were observed to be intact and functioning as intended.

4.2 IC/EC Certification

Appendix 5 includes the NYSDEC Site Management Periodic Review Report Notice-Institutional and Engineering Controls Certification Forms.

5.0 MONITORING PLAN COMPLIANCE REPORT

5.1 Requirements

The Monitoring Plan is included in Section 3.0 of the SMP and describes the measures for evaluating the performance and effectiveness of: the remedy to reduce or mitigate contamination at the Site, the soil cover systems, and all affected Site media.

The Monitoring Plan describes the methods to be used for:

- Monitoring the cover system;
- Assessing achievement of the remedial performance criteria;
- Evaluating Site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment;
- Preparing the necessary reports for the various monitoring activities.

To adequately address these issues, the Monitoring Plan provides information on:

• Annual inspection and periodic certification.

5.2 Comparisons with Remedial Objectives

Cover system monitoring was performed in accordance with the SMP, and included the annual visual inspection of the cover system components. As described in Section 4.1.2, the cover system breaches described in this report have been repaired. The cover system on the remainder of the site was observed to be intact and functioning as intended, and is continuing to satisfy the remedial objectives for the Site.

5.3 Monitoring Deficiencies

No monitoring deficiencies were noted or experienced during the inspection of the cover system or completion of the PRR.

5.4 Monitoring Conclusions and Recommendations

The procedures utilized to evaluate the performance and effectiveness of the cover system were conducted in accordance with the SMP and verified that the cover system is functioning as intended. No changes to the monitoring plan are recommended.

6.0 OPERATION AND MAINTENANCE PLAN

The remedy for the Site does not rely on mechanical systems to protect public health and the environment. Therefore, no operation and maintenance requirements apply to the Site.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Annual inspection of the Site was performed on April 25, 2023 by Erie County personnel as prescribed in the SMP. As a result of this inspection, it was determined that repairs to small portions of the cap impacted by the sewer line connectors and traffic signal installation excavation projects described in this report have been completed and conducted in compliance with the SMP. The cover system on the remainder of the site was observed to be intact and functioning as intended, and is continuing to satisfy the remedial objectives for the Site.

8.0 REFERENCES

DER-10/Technical Guidance for Site Investigation and Remediation, NYSDEC, May 3, 2010

Site Management Plan for BCP Tecumseh Phase I Business Park, NYSDEC Site No. C915197 through C915197K, Turnkey Environmental Restoration, LLC, 2019

Decision Document for the Phase I Business Park Site No. C915197, January 2012

Appendix E - Site Management Plan for Tecumseh Phase I Business Park, NYSDEC Site No. C915197 through C915197K, Turnkey Environmental Restoration, LLC, 2019

Remedial Action Work Plan – Erie County Shoreline Trail Bethlehem Steel Phase I BCP Site No. C915197L, February 2018



 $\textbf{\textit{Figure 1-Site Location Map of Rt 5 area in Lackawanna near the former Bethlehem Steel Site with excavation areas identified.}$

Appendix 1

Site Inspection Form

Annual Site Inspection Form

Bethlehem Steel Shoreline Trail
2303 Hamburg Turnpike, Lackawanna, New York
NYSDEC Site No. **C915197L**

Date: April 25, 2023

Inspector: John Hood

Weather: Sunny, 50 deg F

1. Compliance with all ICs, including site usage:

SITE USAGE: Use of the Site is limited to Commercial & Industrial Uses. Indicate if any other type of use is occurring at the Site.

Site is used as a bicycle and pedestrian trail

GROUNDWATER USAGE: Use of groundwater underlying the Site is prohibited without treatment. Indicate whether groundwater use is occurring at the Site along with any treatment measures being applied.

Groundwater is not used.

COMPLIANCE WITH SMP: List Site activities and indicate compliance or non-compliance with SMP.

Site cap repairs for two minor excavations near the Dona 8 development were conducted as per the SMP and completed in October 2022 and a third minor excavation in the NYSDOT Rt 5 ROW was repaired as per the SMP in April 2023.

2. An evaluation of the condition and continued effectiveness of the ECs:

SITE COVER CONDITION: Good, Fair, or Poor

Based on the inspections, the cover systems are intact, functioning effectively throughout the Site and are protective of public health and the environment.

SITE COVER EFFECTIVNESS: As Intended or Needs Repair

Based on the inspections, the cover systems are intact, functioning effectively throughout the Site and are protective of public health and the environment.

3. General site conditions at the time of the inspection:

Acceptable

Appendix 2

Site Photographs



Photo 1- Site of excavation near Shoreline Trailhead at Rt 5 and Dona St.



Photo 2-Fenced off section of excavation near Rt 5 and Dona St.



Photo 3-Excavation across Greenway trail for stormwater connector



Photo 4-Excavation across Greenway trail for stormwater connector



Photo 5- Greenway Trail, post excavation repair.



Photo 6- NYSDOT Traffic signal repair at Odell and Rt 5

APPENDIX 3



November 29, 2022

Mr. John Hood Chief Environmental Compliance Specialist Erie County, Environment & Planning 95 Franklin Street Buffalo NY 14202

Re: Site II-8 Tecumseh Phase II Business Park

8 Dona Street

Lackawanna, Erie County BCP Site No.: C915198H

RE: Site Cap Restoration Summary

Dear Mr. Hood,

On behalf of our client, Uniland Construction Corporation (Uniland), Benchmark Civil/Environmental Engineering & Geology, PLLC (Benchmark) is herein providing a summary of the 12" cap restoration work to the Bethlehem Shoreline Trail property that is adjacent to Uniland's 8 Dona Street property.

February 6, 2022 – To install storm manhole #1 which is located at the property line near the southeastern corner of the site, the site contractor excavated outside of the property line and into Erie County's property. The over excavation into the county's property measured approximately 20' x 10' x 10' deep. All soil excavated from this area was stockpiled to be used as backfill. Once the contractor installed manhole #1, the soil was placed back into the ground, compacted and left approximately 12" – 15" below the surrounding grade. New orange demarcation fabric was installed on top of the subgrade material then BCP approved topsoil was placed down to restore the 12" topsoil cap. On 10/31/22 the contractor installed hydroseed in this area to aid in the germination of vegetative growth.

Please see the attached Appendix A for:

- Site Picture
- Community Air Monitoring Program (CAMP) Data for intrusive work completed on 02.06.22.
- NYSDEC Import Request Approval for the topsoil that was used as cap material.

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July 27, 2022 thru July 29, 2022 - per the approved storm water drainage plan, the contractor excavated through the county's property, including removing a small portion of the bike path to connect the onsite drainage system to the main storm system running along the western side of Route 5. The existing 12" of topsoil that was in the excavation area which was approximately 60' long x 10' wide was removed and placed to the side for later use. The subgrade soil that was beneath the topsoil and demarcation fabric was removed down to proper elevation for the storm pipe installation and placed on plastic sheeting along the excavation. After the contractor installed the storm pipe and completed the connection to the storm sewer main pipe, the subgrade soil was placed back into the excavation, compacted and left approximately 12"-15" below surrounding grade. New orange demarcation fabric was installed on top of the subgrade material then the original topsoil that was stripped off was placed back down to restore the 12" topsoil cap. New asphalt was also installed in the area of the bike path that was excavated through. On 10/31/22 the contractor installed hydroseed in this area to aid in the germination of vegetative growth. The extra subgrade soil and original asphalt material from the bike path that was not placed back into the excavation as backfill was later transported offsite and disposed of an approved landfill facility under the same waste profile as the Uniland project.

Please see the attached Appendix B for:

- Site Picture
- Community Air Monitoring Program (CAMP) Data for intrusive work completed on 07.27.22 thru 07.29.2022.
- Waste Manifest which extra subgrade soil and asphalt material was disposed of offsite at an approved landfill facility.

Please contact us with any additional comments or questions.

Sincerely,

Benchmark Environmental Engineering & Science, PLLC

Thomas H. Forbes, PE

President

Eric A. Warren Project Manager

Tic A. Warren



Work Completed on 02.06.22

SITE PICTURE CAMP DATA NYSDEC IMPORT REQUEST APPROVAL

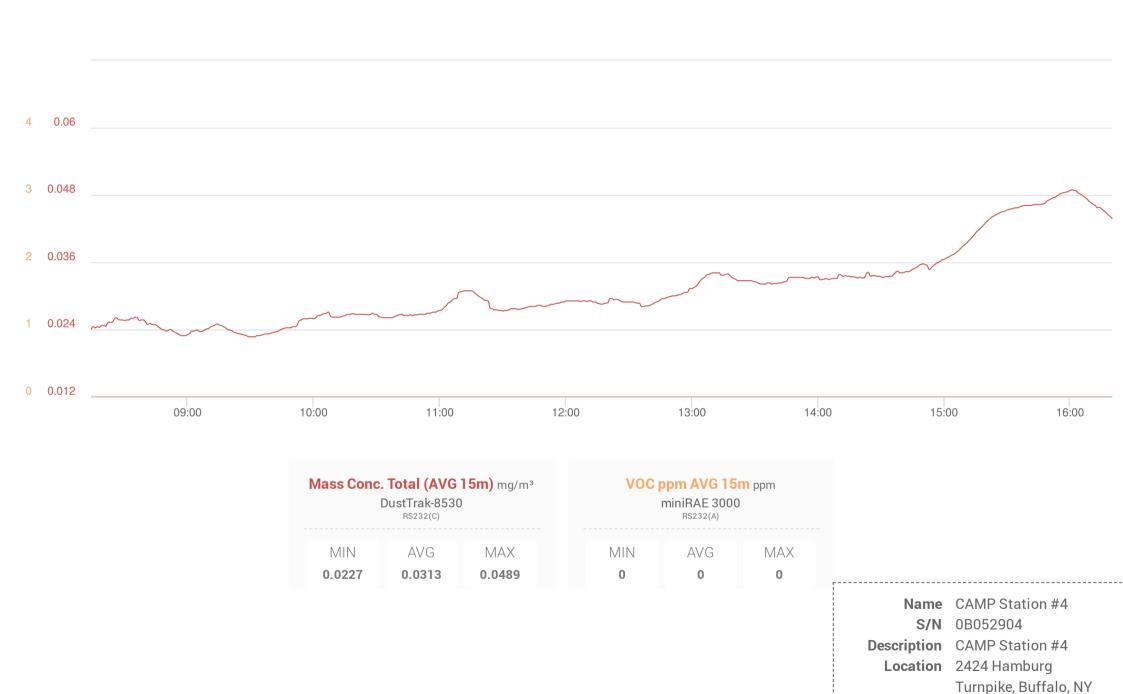


SITE PICTURE



CAMP DATA

Wed, 16th of Feb 2022, 7:00:00 - 17:00:00 (GMT-05:00) Eastern Time (US & Canada)



14218, USA

NYSDEC IMPORT REQUEST APPROVAL

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 9 270 Michigan Avenue, Buffalo, NY 14203-2915 P: (716) 851-7220 | F: (716) 851-7226 www.dec.ny.gov

March 10, 2022

Eric Warren TurnKey Environmental Restoration, LLC 2558 Hamburg Turnpike, Suite 300 Buffalo, NY 14218

> Soil Import Request Site II-8 Tecumseh Phase II Business Park Site No. C915198H Lackawanna, NY

Dear Eric Warren:

The Department has reviewed the request dated March 8, 2022 to import 3,000 cubic yards of soil from 11668 Broadway, Alden NY. Based on the information provided, the request is hereby approved.

The proposed fill material meets the Commercial soil cleanup objectives (SCOs) (Appendix 5 of DER-10). Therefore, this material may be placed below the demarcation layer or above the demarcation layer as part of final site cover.

Should you have any questions or would like to discuss the matter in further detail, feel free to contact me at andrew.zwack@dec.ny.gov or (716) 851-7220.

Sincerely,

Andrew Zwack
Assistant Engineer

ec: Ben McPherson – NYSDEC Tom Forbes - Benchmark Michael Montante – Uniland





NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION



Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e). Use of this form is not a substitute for reading the applicable Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is:

Have Ecological Resources been identified?

Is this soil originating from the site?

How many cubic yards of soil will be imported/reused?

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone?

Does it contain less than 10%, by weight, material that would pass a size 80 sieve?

Is this virgin material from a permitted mine or quarry?

Is this material recycled concrete or brick from a DEC registered processing facility?

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.4(e)5 (other material), no chemical testing needed.

SECTION 3 CONT'D - SAMPLING						
Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):						
Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.						
If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.						
SECTION 4 – SOURCE OF FILL						
Name of person providing fill and relationship to the source:						
Location where fill was obtained:						
Identification of any state or local approvals as a fill source:						
If no approvals are available, provide a brief history of the use of the property that is the fill source:						
Provide a list of supporting documentation included with this request:						

Cric A. Warren	
Signature	Date
Print Name	
Firm	

The information provided on this form is accurate and complete.



TABLE 1 SUMMARY OF TOPSOIL ANALYTICAL RESULTS 11668 Broadway Alden, New York



Alueti, New York																			
PARAMETER ¹	Unrestricted Use ²	Residential Use ²	Restricted Residential	Commercial or Industrial	Comp #1	Comp #2	Comp #3	Comp #4	Grab #1	Grab #2	Grab #3	Grab #4	Grab #5	Grab #6	Grab #7	Grab #8	Grab #9	Grab #10	Grab #11
			Use ²	Use ²								2/16/2022							
Volatile Organic Compounds (VOCs)	- mg/Kg ³																		
Ethylbenzene	1	1	1	1	-	-		-	ND	ND	0.0015	0.00018 J	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	10	10	10	10	1	-			ND	ND	ND	ND	ND	ND	ND	0.00039 J	ND	ND	0.00051 J
Total Xylenes	0.26	1.6	1.6	1.6		-			ND	ND	0.0113	0.00132 J	0.00085 J	ND	ND	ND	ND	ND	ND
Semi-Volatile Organic Compounds (SVOCs) - mg/Kg	g ³																	
Anthracene	100	100	100	500	ND	ND	0.057 J	0.130 J		-			-	-					-
Acenaphthene	20	100	100	500	ND	ND	ND	0.032 J		-			-	-					-
Acenaphthylene	100	100	100	500	ND	ND	ND	0.061 J										-	
Benzo(a)anthracene	1	1	1	5.6	0.049 J	0.036 J	0.280	0.460										-	
Benzo(b)fluoranthene	1	1	1	5.6	0.075 J	0.051 J	0.370	0.60										-	
Benzo(k)fluoranthene	8.0	1	3.9	56	ND	ND	0.130	0.220		-			-	-				-	-
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5	5.6	0.040 J	ND	0.190	0.30										-	-
Benzo(ghi)perylene	100	100	100	500	0.033 J	ND	0.150 J	0.220										-	-
Benzo(a)pyrene	1	1	1	1	0.055 J	ND	0.300	0.470										-	-
Carbazole		-		-	ND	ND	0.033 J	0.100 J										-	
Chrysene	1	1	1	1	0.052 J	0.039 J	0.260	0.460										-	
Dibenzo(a,h)anthracene	0.33	0.33	0.33	0.56	ND	ND	0.040 J	0.065 J										-	-
Dibenzofuran	7	59	59	350	ND	ND	ND	0.044 J										-	
Fluorene	30	100	100	500	ND	ND	ND	0.120 J										-	
3-Methylpenol/4-Methylphenol	-	-	-	-	ND	ND	ND	0.048 J										-	
Fluoranthene	100	100	100	500	0.110 J	0.078 J	0.630	1.20										-	
Phenanthrene	100	100	100	500	0.061 J	0.042 J	0.220	0.880									-	-	
Pyrene	100	100	100	500	0.083 J	0.058 J	0.490	0.810											
Total Metals - mg/Kg								_											
Arsenic	13	16	16	16	4.65	4.38	4.0	5.9	-		-	-					-	-	
Barium	350	350	400	400	30.2	30	34.8	57.2	-		-	-					-	-	
Beryllium	7.2	14	47	47	0.246	0.213 J	0.26	0.301	-		-	-					-	-	
Cadmium	2.5	2.5	4.3	7.5	0.491	0.493 J	0.521	0.771	-		-	-			-		-	-	
Chromium, Trivalent	30	36	180	1500	6.2	5.7	7.34	8.24	-		-	-					-	-	-
Copper	50	270	270	270	8.13	12.6	14.7	24.7	-		-	-					-	-	-
Lead	63	400	400	450	28.6	40.1	24.8	58.3	-		-	-					-	-	
Manganese	1600	2000	2000	2000	95.3	118	209	554	-		-	-					-	-	-
Mercury	0.18	0.73	0.73	0.73	0.074 J	0.091 J	0.082 J	0.104	-		-	-					-	-	-
Nickel	30	130	130	130	7.08	7.08	9.79	10.8	-	-	-	-	-	-	-	-	-	-	-
Selenium	3.9	4	4	4	0.437 J	0.315 J	0.234 J	0.206 J	-		-				-		-	-	-
Silver	2	8.3	8.3	8.3	ND	ND	ND	ND	-	-		-			-		-	-	-
Zinc	109	2200	2480	2480	43.4	54.3	59.4	77.3										-	
Polychlorinated biphenyls (PCBs) - r					Lun	L	0.0505					1		1					
Total PCBs	0.1	1	1	1	ND	ND	0.0592	ND											
Pesticides and Herbicides - mg/Kg																			
4,4'-DDE	0.0033	1.8	8.9	62	0.00795	0.0262	0.0629	0.0678		-			-	-				-	-
4,4'-DDD	0.0033	2.6	13.0	92	ND	8.72E-4 JIP	0.00307	0.0214					-	-				-	-
4,4'-DDT	0.0033	1.7	7.9	47	0.00572	0.0128	0.0124	0.0395	-	-	-	-	-	-	-			-	-
cis-Chlordane	0.0940	0.91	4.2	24	ND	1.05E-3 J	ND	ND											
Perfluorinated Alkyl Acids- ug/kg 4																			
Perfluorobutanoic Acid (PFBA)		-	-	-	0.067 J	0.064 J	0.127 J	0.085 J	-	-		-					-	-	-
Perfluorohexanoic Acid (PFHxA)					ND	ND	ND	ND	-		-		-	-			•	1	-
Perfluoropentanoic Acid (PFPeA)					ND	ND	0.061 J	ND											
Perfluorooctanoic Acid (PFOA)	0.66	6.6	33	500/600	0.169 J	0.161 J	0.203 J	0.203 J	-		-		-	-			•	1	-
Perfluorooctanesulfonic Acid (PFOS)		-	-	_	0.480	0.492	0.491	0.998					-		-			-	-
PFOA/PFOS, Total	-	-	-	-	0.649 J	0.653 J	0.694 J	1.20 J									-	_	-
Notes:	<u> </u>	<u> </u>																	

^{1.} Only those parameters detected at a minimum of one sample location are presented in this table; other compounds were reported as non-detect.

Only those parameters defected at a minimum of one sample location are presented in this table, other compounds were reported at 2. Values per NYSEC DEFN 16 Appendix 5. Allowable Constitute Levels for Improvide Tail Soil.
 Sample results were reported by the biboratory in yalgs and connected to praigly for comparisons to SCOs.
 Values per NYSEC Per all 35 Samples, Analysis and Assessment of Per-And Psyfluoroality Subdances (PFAS) October 2020.
 Definitions:
 No value available for the parameter. Parameter not analyzed for.
 Estimated box; result in each tom the sample quantification into the greater than zero.



ANALYTICAL REPORT

Lab Number: L2208221

Client: Benchmark & Turnkey Companies

2558 Hamburg Turnpike

Suite 300

Buffalo, NY 14218

ATTN: Eric Warren
Phone: (716) 856-0599

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Report Date: 03/04/22

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



Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number: L2208221 **Report Date:** 03/04/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2208221-01	COMP 1	SOIL	BROADWAY & TWO RED RD	02/16/22 08:50	02/16/22
L2208221-02	COMP 2	SOIL	BROADWAY & TWO RED RD	02/16/22 09:00	02/16/22
L2208221-03	COMP 3	SOIL	BROADWAY & TWO RED RD	02/16/22 09:10	02/16/22
L2208221-04	COMP 4	SOIL	BROADWAY & TWO RED RD	02/16/22 09:20	02/16/22
L2208221-05	GRAB 1	SOIL	BROADWAY & TWO RED RD	02/16/22 07:50	02/16/22
L2208221-06	GRAB 2	SOIL	BROADWAY & TWO RED RD	02/16/22 07:55	02/16/22
L2208221-07	GRAB 3	SOIL	BROADWAY & TWO RED RD	02/16/22 08:00	02/16/22
L2208221-08	GRAB 4	SOIL	BROADWAY & TWO RED RD	02/16/22 08:05	02/16/22
L2208221-09	GRAB 5	SOIL	BROADWAY & TWO RED RD	02/16/22 08:10	02/16/22
L2208221-10	GRAB 6	SOIL	BROADWAY & TWO RED RD	02/16/22 08:15	02/16/22
L2208221-11	GRAB 7	SOIL	BROADWAY & TWO RED RD	02/16/22 08:20	02/16/22
L2208221-12	GRAB 8	SOIL	BROADWAY & TWO RED RD	02/16/22 08:25	02/16/22
L2208221-13	GRAB 9	SOIL	BROADWAY & TWO RED RD	02/16/22 08:30	02/16/22
L2208221-14	GRAB 10	SOIL	BROADWAY & TWO RED RD	02/16/22 08:35	02/16/22
L2208221-15	GRAB 11	SOIL	BROADWAY & TWO RED RD	02/16/22 08:40	02/16/22



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221
Project Number: T0006-022-002 Report Date: 03/04/22

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:1168 BROADWAY TOPSOILLab Number:L2208221Project Number:T0006-022-002Report Date:03/04/22

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.

Sample Receipt

The analyses performed were specified by the client.

Volatile Organics

Any reported concentrations that are below 200 ug/kg may be biased low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

Perfluorinated Alkyl Acids by Isotope Dilution

L2208221-01: The MeOH fraction of the extraction is reported for perfluoroctanesulfonamide (fosa) due to better extraction efficiency of the perfluoro[13c8]octanesulfonamide (m8fosa) Extracted Internal Standard. L2208221-01, -03, -04, WG1606408-1, and WG1606408-2: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

PCBs

L2208221-03: The surrogate recoveries are outside the acceptance criteria for decachlorobiphenyl (265%,299%); however, the sample was not re-extracted due to coelution with Aroclor 1268.

Total Metals

The WG1607434-3 MS recovery, performed on L2208221-01, is outside the acceptance criteria for mercury (127%). A post digestion spike was performed and was within acceptance criteria.



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Case Narrative (continued)

Hexavalent Chromium

The WG1609028-4 Insoluble MS recovery for chromium, hexavalent (57%), performed on L2208221-02, is outside the acceptance criteria. The Soluble MS recovery for chromium, hexavalent (32%) was also outside criteria. This has been attributed to matrix interference. A post-spike was performed with a recovery of 104%.

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.

Whall M. Morris

Authorized Signature:

Title: Technical Director/Representative Date: 03/04/22

ORGANICS



VOLATILES



L2208221

03/04/22

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

SAMPLE RESULTS

Date Collected: 02/16/22 07:50

Lab ID: L2208221-05

Client ID: GRAB 1

Sample Location: BROADWAY & TWO RED RD

Date Received: 02/16/22 Field Prep: Not Specified

Lab Number:

Report Date:

Sample Depth:

Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/27/22 14:34

Analyst: AJK Percent Solids: 71%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborou	igh Lab					
Methylene chloride	ND		ug/kg	6.9	3.2	1
1,1-Dichloroethane	ND		ug/kg	1.4	0.20	1
Chloroform	ND		ug/kg	2.1	0.19	1
Carbon tetrachloride	ND		ug/kg	1.4	0.32	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	0.37	1
Tetrachloroethene	ND		ug/kg	0.69	0.27	1
Chlorobenzene	ND		ug/kg	0.69	0.18	1
Trichlorofluoromethane	ND		ug/kg	5.5	0.96	1
1,2-Dichloroethane	ND		ug/kg	1.4	0.35	1
1,1,1-Trichloroethane	ND		ug/kg	0.69	0.23	1
Bromodichloromethane	ND		ug/kg	0.69	0.15	1
trans-1,3-Dichloropropene	ND		ug/kg	1.4	0.38	1
cis-1,3-Dichloropropene	ND		ug/kg	0.69	0.22	1
Bromoform	ND		ug/kg	5.5	0.34	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.69	0.23	1
Benzene	ND		ug/kg	0.69	0.23	1
Toluene	ND		ug/kg	1.4	0.75	1
Ethylbenzene	ND		ug/kg	1.4	0.19	1
Chloromethane	ND		ug/kg	5.5	1.3	1
Bromomethane	ND		ug/kg	2.8	0.80	1
Vinyl chloride	ND		ug/kg	1.4	0.46	1
Chloroethane	ND		ug/kg	2.8	0.62	1
1,1-Dichloroethene	ND		ug/kg	1.4	0.33	1
trans-1,2-Dichloroethene	ND		ug/kg	2.1	0.19	1
Trichloroethene	ND		ug/kg	0.69	0.19	1
1,2-Dichlorobenzene	ND		ug/kg	2.8	0.20	1



Project Name: 1168 BROADWAY TOPSOIL L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-05 Date Collected: 02/16/22 07:50

Client ID: GRAB 1 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

1,4-Dichlorobenzene ND ug/kg 2,8 0,24 1	Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4-Dichlorobenzene ND ug/kg 2,8 0,24 1	Volatile Organics by GC/MS - Wes	stborough Lab					
1.4-Dichlorobenzene ND ug/kg 2.8 0.24 1 Methyl tert buyl ether ND ug/kg 2.8 0.28 1 p/m-Xylene ND ug/kg 2.8 0.77 1 OxYlene ND ug/kg 1.4 0.40 1 cis-1,2-Dichloroethene ND ug/kg 1.4 0.24 1 Styrene ND ug/kg 1.4 0.27 1 Dichlorodifluoromethane ND ug/kg 14 1.3 1 Acetone ND ug/kg 14 6.6 1 Carbon disulfide ND ug/kg 14 6.6 1 Carbon disulfide ND ug/kg 14 6.6 1 2-Butanone ND ug/kg 14 1.8 1 4-Methyl-2-pentanone ND ug/kg 14 1.8 1 2-Busanone ND ug/kg 1.4 0.2 1 B	1,3-Dichlorobenzene	ND		ug/kg	2.8	0.20	1
Methyl tert buyl ether ND ug/kg 2.8 0.28 1 pr/m-Xylene ND ug/kg 2.8 0.77 1 o-Xylene ND ug/kg 1.4 0.40 1 cist-1,2-Dichloroethene ND ug/kg 1.4 0.24 1 Styrene ND ug/kg 1.4 0.27 1 Dichlorodifluoromethane ND ug/kg 1.4 0.27 1 Acetone ND ug/kg 1.4 0.6 1 Carbon disulfide ND ug/kg 1.4 6.3 1 Carbon disulfide ND ug/kg 1.4 6.3 1 Carbon disulfide ND ug/kg 1.4 6.3 1 Carbon disulfide ND ug/kg 1.4 1.8 1 4-Methyl-2-pentanone ND ug/kg 1.4 1.8 1 Bromochloromethane ND ug/kg 2.8 0.28 1	1,4-Dichlorobenzene	ND			2.8	0.24	1
p/m-Xylene ND ug/kg 2.8 0.77 1 o-Xylene ND ug/kg 1.4 0.40 1 cis-1,2-Dichloroethene ND ug/kg 1.4 0.24 1 Styrene ND ug/kg 1.4 0.27 1 Dichlorodifluoromethane ND ug/kg 1.4 0.6 1 Acetone ND ug/kg 1.4 6.6 1 Carbon disulfide ND ug/kg 1.4 6.3 1 2-Butanone ND ug/kg 1.4 6.3 1 2-Butanone ND ug/kg 1.4 1.8 1 2-Hexanone ND ug/kg 1.4 1.8 1 2-Hexanone ND ug/kg 1.4 0.38 1 1,2-Dibromedrane ND ug/kg 1.4 0.38 1 1,2-Dibromedrane ND ug/kg 1.4 0.20 1 1,2-Distorporplotu	Methyl tert butyl ether	ND			2.8	0.28	1
ND	p/m-Xylene	ND			2.8	0.77	1
Styrene ND ug/kg 1.4 0.27 1 Dichlorodifluoromethane ND ug/kg 14 1.3 1 Acetone ND ug/kg 14 6.6 1 Carbon disulfide ND ug/kg 14 6.3 1 2-Butanone ND ug/kg 14 3.1 1 4-Methyl-2-pentanone ND ug/kg 14 1.8 1 2-Hexanone ND ug/kg 14 1.6 1 2-Hexanone ND ug/kg 1.4 1.6 1 1,2-Dibromothane ND ug/kg 2.8 0.28 1 1,2-Dibromothane ND ug/kg 1.4 0.38 1 n-Butylbenzene ND ug/kg 1.4 0.23 1 n-Butylbenzene ND ug/kg 1.4 0.20 1 1,2-Dibromo-3-chloropropane ND ug/kg 1.4 0.15 1	o-Xylene	ND		ug/kg	1.4	0.40	1
Dichlorodifluoromethane ND	cis-1,2-Dichloroethene	ND		ug/kg	1.4	0.24	1
Acetone ND ug/kg 14 6.6 1 Carbon disulfide ND ug/kg 14 6.3 1 2-Butanone ND ug/kg 14 3.1 1 4-Methyl-2-pentanone ND ug/kg 14 1.8 1 2-Hexanone ND ug/kg 14 1.6 1 3.1 1 2-Hexanone ND ug/kg 14 1.6 1 8-Bromochloromethane ND ug/kg 2.8 0.28 1 1.2-Dibromoethane ND ug/kg 1.4 0.38 1 1.2-Dibromoethane ND ug/kg 1.4 0.38 1 1.2-Dibromoethane ND ug/kg 1.4 0.23 1 1.2-Dibromoethane ND ug/kg 1.4 0.20 1 1.2-Dibromo-3-chloropropane ND ug/kg 1.4 0.20 1 1.2-Dibromo-3-chloropropane ND ug/kg 1.1 0.20 1 1.2-Dibromo-3-chloropropane ND ug/kg 1.1 0.20 1 1.2-Dibromo-3-chloropropane ND ug/kg 1.1 0.15 1 1-P-Isopropyltoluene ND ug/kg 1.4 0.15 1 1.2-Jisprome-3-chloropropane ND ug/kg 2.8 0.44 1 1.2-Jisprome-3-chloropropane ND ug/kg 2.8 0.44 1 1.2-Jisprome-3-chloropropane ND ug/kg 2.8 0.38 1 1.2-Jirichlorobenzene ND ug/kg 2.8 0.38 1 1.3-Jirichlorobenzene ND ug/kg 2.8 0.36 1 1.3-Jirichlorobenzene ND ug/kg 3.5 1.3 1 0.4-Jirichlorobenzene ND ug/kg 3.5 1.3 1 0.4-Jirichlorobenzene ND ug/kg 3.5 1.3 1 0.4-Jirichlorobenzene ND ug/kg 3.5 0.96 1	Styrene	ND		ug/kg	1.4	0.27	1
Carbon disulfide ND ug/kg 14 6.3 1 2-Butanone ND ug/kg 14 3.1 1 4-Methyl-2-pentanone ND ug/kg 14 1.8 1 2-Hexanone ND ug/kg 14 1.6 1 Bromochloromethane ND ug/kg 2.8 0.28 1 1,2-Dibromoethane ND ug/kg 1.4 0.38 1 1,2-Dibromoethane ND ug/kg 1.4 0.23 1 n-Butylbenzene ND ug/kg 1.4 0.23 1 n-Butylbenzene ND ug/kg 1.4 0.20 1 1,2-Dibromo-3-chloropropane ND ug/kg 4.1 1.4 1 Isopropylbenzene ND ug/kg 1.4 0.15 1 p-Isopropylbenzene ND ug/kg 1.4 0.15 1 n-Propylbenzene ND ug/kg 2.8 0.44 1 <	Dichlorodifluoromethane	ND		ug/kg	14	1.3	1
2-Butanone ND ug/kg 14 3.1 1 4-Methyl-2-pentanone ND ug/kg 14 1.8 1 2-Hexanone ND ug/kg 14 1.6 1 Bromochloromethane ND ug/kg 2.8 0.28 1 1,2-Dibromoethane ND ug/kg 1.4 0.38 1 n-Butylbenzene ND ug/kg 1.4 0.23 1 n-Butylbenzene ND ug/kg 1.4 0.23 1 sec-Butylbenzene ND ug/kg 1.4 0.20 1 1,2-Dibromo-3-chloropropane ND ug/kg 4.1 1.4 1 Isopropylbenzene ND ug/kg 1.4 0.15 1 p-Isopropylbenzene ND ug/kg 1.4 0.15 1 n-Propylbenzene ND ug/kg 2.8 0.44 1 1,2-4-Trichlorobenzene ND ug/kg 2.8 0.38 1 <td>Acetone</td> <td>ND</td> <td></td> <td>ug/kg</td> <td>14</td> <td>6.6</td> <td>1</td>	Acetone	ND		ug/kg	14	6.6	1
A-Methyl-2-pentanone ND ug/kg 14 1.8 1 2-Hexanone ND ug/kg 14 1.6 1 Bromochloromethane ND ug/kg 2.8 0.28 1 1,2-Dibromoethane ND ug/kg 1.4 0.38 1 1,2-Dibromoethane ND ug/kg 1.4 0.38 1 1,2-Dibromoethane ND ug/kg 1.4 0.23 1 1,2-Dibromo-3-chloropropane ND ug/kg 1.4 0.20 1 1,2-Dibromo-3-chloropropane ND ug/kg 1.4 0.15 1 1,2-Trichlorobenzene ND ug/kg 1.4 0.15 1 1,2-Trichlorobenzene ND ug/kg 1.4 0.24 1 1,2-Trichlorobenzene ND ug/kg 2.8 0.44 1 1,2-Trinethylbenzene ND ug/kg 2.8 0.38 1 1,3-5-Trimethylbenzene ND ug/kg 2.8 0.46 1 1,3-5-Trimethylbenzene ND ug/kg 3.5 0.46 1 1,2-4-Trimethylbenzene ND ug/kg 3.5 0.46 1 1,2-4-Trimethylbenzene ND ug/kg 3.5 0.96 1 1,2-4-Trimethylbenzene ND ug/kg 3.5 0.96 1	Carbon disulfide	ND		ug/kg	14	6.3	1
ND	2-Butanone	ND		ug/kg	14	3.1	1
ND	4-Methyl-2-pentanone	ND		ug/kg	14	1.8	1
1,2-Dibromoethane ND ug/kg 1.4 0.38 1 n-Butylbenzene ND ug/kg 1.4 0.23 1 sec-Butylbenzene ND ug/kg 1.4 0.20 1 1,2-Dibromo-3-chloropropane ND ug/kg 1.4 0.10 1 lsopropylbenzene ND ug/kg 1.4 0.15 1 p-Isopropyltoluene ND ug/kg 1.4 0.15 1 n-Propylbenzene ND ug/kg 1.4 0.15 1 n-Propylbenzene ND ug/kg 1.4 0.15 1 1,2,3-Trichlorobenzene ND ug/kg 1.4 0.24 1 1,2,3-Trichlorobenzene ND ug/kg 2.8 0.44 1 1,2,4-Trichlorobenzene ND ug/kg 2.8 0.38 1 1,3,5-Trimethylbenzene ND ug/kg 2.8 0.38 1 1,3,5-Trimethylbenzene ND ug/kg 2.8 0.27 1 1,2,4-Trimethylbenzene ND ug/kg 2.8 0.46 1 1,2,4-Trimethylbenzene ND ug/kg 3.5 1.3 1 Cyclohexane ND ug/kg 5.5 1.3 1 1,4-Dioxane ND ug/kg 110 48. 1 Freon-113 ND ug/kg 5.5 0.96 1	2-Hexanone	ND		ug/kg	14	1.6	1
ND	Bromochloromethane	ND		ug/kg	2.8	0.28	1
ND	1,2-Dibromoethane	ND		ug/kg	1.4	0.38	1
1,2-Dibromo-3-chloropropane ND ug/kg 4.1 1.4 1 Isopropylbenzene ND ug/kg 1.4 0.15 1 p-Isopropylbenzene ND ug/kg 1.4 0.15 1 n-Propylbenzene ND ug/kg 1.4 0.24 1 1,2,3-Trichlorobenzene ND ug/kg 2.8 0.44 1 1,2,4-Trichlorobenzene ND ug/kg 2.8 0.38 1 1,3,5-Trimethylbenzene ND ug/kg 2.8 0.27 1 1,2,4-Trimethylbenzene ND ug/kg 2.8 0.46 1 Methyl Acetate ND ug/kg 5.5 1.3 1 Cyclohexane ND ug/kg 14 0.75 1 1,4-Dioxane ND ug/kg 110 48 1 Freon-113 ND ug/kg 5.5 0.96 1	n-Butylbenzene	ND		ug/kg	1.4	0.23	1
ND	sec-Butylbenzene	ND		ug/kg	1.4	0.20	1
p-Isopropyltoluene ND ug/kg 1.4 0.15 1 n-Propylbenzene ND ug/kg 1.4 0.24 1 1,2,3-Trichlorobenzene ND ug/kg 2.8 0.44 1 1,2,4-Trichlorobenzene ND ug/kg 2.8 0.38 1 1,3,5-Trimethylbenzene ND ug/kg 2.8 0.27 1 1,2,4-Trimethylbenzene ND ug/kg 2.8 0.27 1 1,2,4-Trimethylbenzene ND ug/kg 2.8 0.46 1 1,2,4-Trimethylbenzene ND ug/kg 5.5 1.3 1 Cyclohexane ND ug/kg 14 0.75 1 1,4-Dioxane ND ug/kg 110 48 1 Freon-113 ND ug/kg 5.5 0.96 1	1,2-Dibromo-3-chloropropane	ND		ug/kg	4.1	1.4	1
ND	Isopropylbenzene	ND		ug/kg	1.4	0.15	1
1,2,3-Trichlorobenzene ND ug/kg 2.8 0.44 1 1,2,4-Trichlorobenzene ND ug/kg 2.8 0.38 1 1,3,5-Trimethylbenzene ND ug/kg 2.8 0.27 1 1,2,4-Trimethylbenzene ND ug/kg 2.8 0.46 1 Methyl Acetate ND ug/kg 5.5 1.3 1 Cyclohexane ND ug/kg 14 0.75 1 1,4-Dioxane ND ug/kg 110 48. 1 Freon-113 ND ug/kg 5.5 0.96 1	p-Isopropyltoluene	ND		ug/kg	1.4	0.15	1
1,2,4-Trichlorobenzene ND ug/kg 2.8 0.38 1 1,3,5-Trimethylbenzene ND ug/kg 2.8 0.27 1 1,2,4-Trimethylbenzene ND ug/kg 2.8 0.46 1 Methyl Acetate ND ug/kg 5.5 1.3 1 Cyclohexane ND ug/kg 14 0.75 1 1,4-Dioxane ND ug/kg 110 48. 1 Freon-113 ND ug/kg 5.5 0.96 1	n-Propylbenzene	ND		ug/kg	1.4	0.24	1
1,3,5-Trimethylbenzene ND ug/kg 2.8 0.27 1 1,2,4-Trimethylbenzene ND ug/kg 2.8 0.46 1 Methyl Acetate ND ug/kg 5.5 1.3 1 Cyclohexane ND ug/kg 14 0.75 1 1,4-Dioxane ND ug/kg 110 48. 1 Freon-113 ND ug/kg 5.5 0.96 1	1,2,3-Trichlorobenzene	ND		ug/kg	2.8	0.44	1
1,2,4-Trimethylbenzene ND ug/kg 2.8 0.46 1 Methyl Acetate ND ug/kg 5.5 1.3 1 Cyclohexane ND ug/kg 14 0.75 1 1,4-Dioxane ND ug/kg 110 48. 1 Freon-113 ND ug/kg 5.5 0.96 1	1,2,4-Trichlorobenzene	ND		ug/kg	2.8	0.38	1
Methyl Acetate ND ug/kg 5.5 1.3 1 Cyclohexane ND ug/kg 14 0.75 1 1,4-Dioxane ND ug/kg 110 48. 1 Freon-113 ND ug/kg 5.5 0.96 1	1,3,5-Trimethylbenzene	ND		ug/kg	2.8	0.27	1
Cyclohexane ND ug/kg 14 0.75 1 1,4-Dioxane ND ug/kg 110 48. 1 Freon-113 ND ug/kg 5.5 0.96 1	1,2,4-Trimethylbenzene	ND		ug/kg	2.8	0.46	1
1,4-Dioxane ND ug/kg 110 48. 1 Freon-113 ND ug/kg 5.5 0.96 1	Methyl Acetate	ND		ug/kg	5.5	1.3	1
Freon-113 ND ug/kg 5.5 0.96 1	Cyclohexane	ND		ug/kg	14	0.75	1
-5-5	1,4-Dioxane	ND		ug/kg	110	48.	1
Methyl cyclohexane ND ug/kg 5.5 0.83 1	Freon-113	ND		ug/kg	5.5	0.96	1
	Methyl cyclohexane	ND		ug/kg	5.5	0.83	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	114	70-130	
Toluene-d8	94	70-130	
4-Bromofluorobenzene	103	70-130	
Dibromofluoromethane	113	70-130	



L2208221

03/04/22

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

SAMPLE RESULTS

Lab Number:

Report Date:

Lab ID: Date Collected: 02/16/22 07:55 L2208221-06

Date Received: 02/16/22 Client ID: GRAB 2 BROADWAY & TWO RED RD Sample Location: Field Prep: Not Specified

Sample Depth:

Matrix: Soil Analytical Method: 1,8260C Analytical Date: 02/27/22 15:00

Analyst: AJK 77% Percent Solids:

Volatile Organics by GC/MS - Westborough Lab Methylene chloride ND 1,1-Dichloroethane ND Chloroform ND Carbon tetrachloride ND 1,2-Dichloropropane ND Dibromochloromethane ND 1,1,2-Trichloroethane ND Tetrachloroethene ND Chlorobenzene ND Trichlorofluoromethane ND 1,2-Dichloroethane ND 1,1,1-Trichloroethane ND Bromodichloromethane ND trans-1,3-Dichloropropene ND	ug/kg	g 6.4		
1,1-Dichloroethane ND Chloroform ND Carbon tetrachloride ND 1,2-Dichloropropane ND Dibromochloromethane ND 1,1,2-Trichloroethane ND Tetrachloroethene ND Chlorobenzene ND Trichlorofluoromethane ND 1,2-Dichloroethane ND 1,1,1-Trichloroethane ND Bromodichloromethane ND	ug/kg	j 6.4	2.2	
ChloroformNDCarbon tetrachlorideND1,2-DichloropropaneNDDibromochloromethaneND1,1,2-TrichloroethaneNDTetrachloroetheneNDChlorobenzeneNDTrichlorofluoromethaneND1,2-DichloroethaneND1,1,1-TrichloroethaneNDBromodichloromethaneND			3.0	1
Carbon tetrachloride ND 1,2-Dichloropropane ND Dibromochloromethane ND 1,1,2-Trichloroethane ND Tetrachloroethene ND Chlorobenzene ND Trichlorofluoromethane ND 1,2-Dichloroethane ND 1,1,1-Trichloroethane ND Bromodichloromethane ND	ug/kg	j 1.3	0.19	1
1,2-Dichloropropane ND Dibromochloromethane ND 1,1,2-Trichloroethane ND Tetrachloroethene ND Chlorobenzene ND Trichlorofluoromethane ND 1,2-Dichloroethane ND 1,1,1-Trichloroethane ND Bromodichloromethane ND	ug/kg	g 1.9	0.18	1
DibromochloromethaneND1,1,2-TrichloroethaneNDTetrachloroetheneNDChlorobenzeneNDTrichlorofluoromethaneND1,2-DichloroethaneND1,1,1-TrichloroethaneNDBromodichloromethaneND	ug/kg	g 1.3	0.30	1
1,1,2-Trichloroethane ND Tetrachloroethene ND Chlorobenzene ND Trichlorofluoromethane ND 1,2-Dichloroethane ND 1,1,1-Trichloroethane ND Bromodichloromethane ND	ug/kg	g 1.3	0.16	1
TetrachloroetheneNDChlorobenzeneNDTrichlorofluoromethaneND1,2-DichloroethaneND1,1,1-TrichloroethaneNDBromodichloromethaneND	ug/kg	g 1.3	0.18	1
ChlorobenzeneNDTrichlorofluoromethaneND1,2-DichloroethaneND1,1,1-TrichloroethaneNDBromodichloromethaneND	ug/kg	g 1.3	0.34	1
Trichlorofluoromethane ND 1,2-Dichloroethane ND 1,1,1-Trichloroethane ND Bromodichloromethane ND	ug/kg	g 0.64	0.25	1
1,2-DichloroethaneND1,1,1-TrichloroethaneNDBromodichloromethaneND	ug/kg	0.64	0.16	1
1,1,1-Trichloroethane ND Bromodichloromethane ND	ug/kg	g 5.2	0.90	1
Bromodichloromethane ND	ug/kg	g 1.3	0.33	1
	ug/kg	0.64	0.22	1
trans-1 3-Dichloronronana ND	ug/kg	g 0.64	0.14	1
trans-1,5-bichlorophopene	ug/kg	g 1.3	0.35	1
cis-1,3-Dichloropropene ND	ug/kg	0.64	0.20	1
Bromoform ND	ug/kg	g 5.2	0.32	1
1,1,2,2-Tetrachloroethane ND	ug/kg	g 0.64	0.21	1
Benzene ND	ug/kg	g 0.64	0.21	1
Toluene ND	ug/kg	g 1.3	0.70	1
Ethylbenzene ND	ug/kg	g 1.3	0.18	1
Chloromethane ND	ug/kg	g 5.2	1.2	1
Bromomethane ND	ug/kg	g 2.6	0.75	1
Vinyl chloride ND	ug/kg	g 1.3	0.43	1
Chloroethane ND	ug/kg	g 2.6	0.58	1
1,1-Dichloroethene ND	ug/kg	g 1.3	0.31	1
trans-1,2-Dichloroethene ND	ug/kg	1.9	0.18	1
Trichloroethene ND	ug/kg	0.04	0.10	4
1,2-Dichlorobenzene ND		0.64	0.18	1



Project Name: 1168 BROADWAY TOPSOIL L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-06 Date Collected: 02/16/22 07:55

Client ID: GRAB 2 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

ND	Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Methyl tert buyl ether	Volatile Organics by GC/MS - Wes	tborough Lab					
1.4-Dichlorobenzene ND ug/kg 2.6 0.22 1 Methyl tert buyl ether ND ug/kg 2.6 0.72 1 p/m-Xylene ND ug/kg 2.6 0.72 1 ox-Xylene ND ug/kg 1.3 0.38 1 ox-Xylene ND ug/kg 1.3 0.22 1 ox-Xylene ND ug/kg 1.3 0.25 1 sistrone ND ug/kg 1.3 0.25 1 Styrene ND ug/kg 13 0.25 1 Dichlorodifluoromethane ND ug/kg 13 6.2 1 Acetone ND ug/kg 13 6.2 1 Carbon disuffide ND ug/kg 13 1.6 1 2-Butanone ND ug/kg 13 1.6 1 2-Butanone ND ug/kg 13 1.6 1 2-Hexanone N	1,3-Dichlorobenzene	ND		ug/kg	2.6	0.19	1
Methyl tert buyl ether ND ug/kg 2.6 0.26 1 pr/m-Xylene ND ug/kg 2.6 0.72 1 o-Xylene ND ug/kg 1.3 0.38 1 cist-1,2-Dichloroethene ND ug/kg 1.3 0.22 1 Styrene ND ug/kg 1.3 0.25 1 Dichlorodifluoromethane ND ug/kg 13 0.25 1 Acetone ND ug/kg 13 0.2 1 Carbon disulfide ND ug/kg 13 5.9 1 Carbon disulfide ND ug/kg 13 5.9 1 Carbon disulfide ND ug/kg 13 5.9 1 Carbon disulfide ND ug/kg 13 1.6 1 4-Methyl-2-pentanone ND ug/kg 13 1.6 1 Bromochloromethane ND ug/kg 2.6 0.26 1	1,4-Dichlorobenzene	ND			2.6	0.22	1
p/m-Xylene ND ug/kg 2.6 0.72 1 o-Xylene ND ug/kg 1.3 0.38 1 cis-1,2-Dichloroethene ND ug/kg 1.3 0.22 1 Styrene ND ug/kg 1.3 0.25 1 Dichlorodifluoromethane ND ug/kg 1.3 0.25 1 Acetone ND ug/kg 1.3 6.2 1 Carbon disulfide ND ug/kg 1.3 5.9 1 2-Butanone ND ug/kg 1.3 5.9 1 4-Methyl-2-pentanone ND ug/kg 1.3 1.6 1 2-Hexanone ND ug/kg 1.3 1.6 1 1-2-Dibromochane ND ug/kg 1.3 0.36 1 1-2-Dibromochane ND ug/kg 1.3 0.19 1 1-2-Dibromochane ND ug/kg 1.3 0.19 1 1	Methyl tert butyl ether	ND			2.6	0.26	1
ND	p/m-Xylene	ND			2.6	0.72	1
Styrene ND	o-Xylene	ND		ug/kg	1.3	0.38	1
ND	cis-1,2-Dichloroethene	ND			1.3	0.22	1
Acetone ND ug/kg 13 6.2 1 Carbon disulfide ND ug/kg 13 5.9 1 2-Butanone ND ug/kg 13 2.9 1 4-Methyl-2-pentanone ND ug/kg 13 1.6 1 2-Hexanone ND ug/kg 13 1.5 1 Bromochloromethane ND ug/kg 13 1.5 1 Bromochloromethane ND ug/kg 13 0.36 1 1,2-Dibromoethane ND ug/kg 1.3 0.36 1 1,2-Dibromoethane ND ug/kg 1.3 0.36 1 1,2-Dibromoethane ND ug/kg 1.3 0.22 1 1,2-Dibromoethane ND ug/kg 1.3 0.19 1 1,2-Dibromo-3-chloropropane ND ug/kg 3.9 1.3 0.14 1 1,2-Dispropyltoluene ND ug/kg 1.3 0.14 1 1,2-Strichlorobenzene ND ug/kg 1.3 0.22 1 1,2-3-Trichlorobenzene ND ug/kg 2.6 0.42 1 1,2-3-Trichlorobenzene ND ug/kg 2.6 0.45 1 1,2-4-Trimethylbenzene ND ug/kg 2.6 0.45 1 1,3-5-Trimethylbenzene ND ug/kg 3.0 0.70 1 1,4-Dioxane ND ug/kg 3.2 0.89 1	Styrene	ND			1.3	0.25	1
Carbon disulfide ND ug/kg 13 5.9 1 2-Butanone ND ug/kg 13 2.9 1 4-Methyl-2-pentanone ND ug/kg 13 1.6 1 2-Hexanone ND ug/kg 13 1.5 1 Bromochloromethane ND ug/kg 2.6 0.26 1 1,2-Dibromoethane ND ug/kg 1.3 0.36 1 1,2-Dibromoethane ND ug/kg 1.3 0.22 1 n-Butylbenzene ND ug/kg 1.3 0.22 1 n-Butylbenzene ND ug/kg 1.3 0.19 1 1,2-Dibromo-3-chloropropane ND ug/kg 3.9 1.3 1 Isopropylbenzene ND ug/kg 1.3 0.14 1 p-Isopropylbenzene ND ug/kg 1.3 0.14 1 n-Propylbenzene ND ug/kg 2.6 0.42 1 <	Dichlorodifluoromethane	ND		ug/kg	13	1.2	1
Carbon disulfide ND ug/kg 13 5.9 1 2-Butanone ND ug/kg 13 2.9 1 4-Methyl-2-pentanone ND ug/kg 13 1.6 1 2-Hexanone ND ug/kg 13 1.5 1 Bromochloromethane ND ug/kg 2.6 0.26 1 1,2-Dibromoethane ND ug/kg 1.3 0.36 1 n-Butylbenzene ND ug/kg 1.3 0.22 1 n-Butylbenzene ND ug/kg 1.3 0.19 1 sec-Butylbenzene ND ug/kg 1.3 0.14 1 <tr< td=""><td>Acetone</td><td>ND</td><td></td><td>ug/kg</td><td>13</td><td>6.2</td><td>1</td></tr<>	Acetone	ND		ug/kg	13	6.2	1
A-Methyl-2-pentanone ND ug/kg 13 1.6 1 2-Hexanone ND ug/kg 13 1.5 1 Bromochloromethane ND ug/kg 2.6 0.26 1 1.2-Dibromoethane ND ug/kg 1.3 0.36 1 1.2-Dibromoethane ND ug/kg 1.3 0.36 1 1.8-Butylbenzene ND ug/kg 1.3 0.22 1 1.8-Butylbenzene ND ug/kg 1.3 0.19 1 1.2-Dibromo-3-chloropropane ND ug/kg 3.9 1.3 1 1.2-Dibromo-3-chloropropane ND ug/kg 3.9 1.3 1 1.2-Dibromo-3-chloropropane ND ug/kg 1.3 0.14 1 1.2-Dibromo-3-chloropropane ND ug/kg 1.3 0.14 1 1.2-Dibromo-3-chloropropane ND ug/kg 1.3 0.14 1 1.2-In-Propylbenzene ND ug/kg 1.3 0.14 1 1.2-In-Propylbenzene ND ug/kg 1.3 0.14 1 1.2-In-Propylbenzene ND ug/kg 1.3 0.22 1 1.2-In-In-In-In-In-In-In-In-In-In-In-In-In-	Carbon disulfide	ND		ug/kg	13	5.9	1
ND	2-Butanone	ND		ug/kg	13	2.9	1
ND	4-Methyl-2-pentanone	ND		ug/kg	13	1.6	1
1,2-Dibromoethane ND	2-Hexanone	ND		ug/kg	13	1.5	1
ND	Bromochloromethane	ND		ug/kg	2.6	0.26	1
ND	1,2-Dibromoethane	ND		ug/kg	1.3	0.36	1
1,2-Dibromo-3-chloropropane ND	n-Butylbenzene	ND		ug/kg	1.3	0.22	1
Sopropylbenzene ND ug/kg 1.3 0.14 1 1 1 1 1 1 1 1 1	sec-Butylbenzene	ND		ug/kg	1.3	0.19	1
P-Isopropyltoluene ND ug/kg 1.3 0.14 1 n-Propylbenzene ND ug/kg 1.3 0.22 1 1,2,3-Trichlorobenzene ND ug/kg 2.6 0.42 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 0.25 1 1,2,4-Trimethylbenzene ND ug/kg 2.6 0.43 1 1,2,4-Trimethylbenzene ND ug/kg 2.6 0.43 1 1,2,4-Trimethylbenzene ND ug/kg 5.2 1.2 1 Cyclohexane ND ug/kg 13 0.70 1 1,4-Dioxane ND ug/kg 100 45. 1 Freon-113 ND ug/kg 5.2 0.89 1	1,2-Dibromo-3-chloropropane	ND		ug/kg	3.9	1.3	1
ND	Isopropylbenzene	ND		ug/kg	1.3	0.14	1
1,2,3-Trichlorobenzene ND ug/kg 2.6 0.42 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 Methyl Acetate ND ug/kg 5.2 1.2 1 Cyclohexane ND ug/kg 13 0.70 1 1,4-Dioxane ND ug/kg 100 45 1 Freon-113 ND ug/kg 5.2 0.89 1	p-Isopropyltoluene	ND		ug/kg	1.3	0.14	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 Methyl Acetate ND ug/kg 5.2 1.2 1 Cyclohexane ND ug/kg 13 0.70 1 1,4-Dioxane ND ug/kg 100 45. 1 Freon-113 ND ug/kg 5.2 0.89 1	n-Propylbenzene	ND		ug/kg	1.3	0.22	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 Methyl Acetate ND ug/kg 5.2 1.2 1 Cyclohexane ND ug/kg 13 0.70 1 1,4-Dioxane ND ug/kg 100 45. 1 Freon-113 ND ug/kg 5.2 0.89 1	1,2,3-Trichlorobenzene	ND		ug/kg	2.6	0.42	1
1,2,4-Trimethylbenzene ND ug/kg 2.6 0.43 1 Methyl Acetate ND ug/kg 5.2 1.2 1 Cyclohexane ND ug/kg 13 0.70 1 1,4-Dioxane ND ug/kg 100 45. 1 Freon-113 ND ug/kg 5.2 0.89 1	1,2,4-Trichlorobenzene	ND		ug/kg	2.6	0.35	1
Methyl Acetate ND ug/kg 5.2 1.2 1 Cyclohexane ND ug/kg 13 0.70 1 1,4-Dioxane ND ug/kg 100 45. 1 Freon-113 ND ug/kg 5.2 0.89 1	1,3,5-Trimethylbenzene	ND		ug/kg	2.6	0.25	1
Cyclohexane ND ug/kg 13 0.70 1 1,4-Dioxane ND ug/kg 100 45. 1 Freon-113 ND ug/kg 5.2 0.89 1	1,2,4-Trimethylbenzene	ND		ug/kg	2.6	0.43	1
1,4-Dioxane ND ug/kg 100 45. 1 Freon-113 ND ug/kg 5.2 0.89 1	Methyl Acetate	ND		ug/kg	5.2	1.2	1
Freon-113 ND ug/kg 5.2 0.89 1	Cyclohexane	ND		ug/kg	13	0.70	1
0 0	1,4-Dioxane	ND		ug/kg	100	45.	1
Methyl cyclohexane ND ug/kg 5.2 0.78 1	Freon-113	ND		ug/kg	5.2	0.89	1
	Methyl cyclohexane	ND		ug/kg	5.2	0.78	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
1,2-Dichloroethane-d4	117		70-130	
Toluene-d8	94		70-130	
4-Bromofluorobenzene	102		70-130	
Dibromofluoromethane	113		70-130	



L2208221

03/04/22

Not Specified

02/16/22

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

SAMPLE RESULTS

Date Collected: 02/16/22 08:00

Lab Number:

Report Date:

Date Received:

Field Prep:

Lab ID: L2208221-07

Client ID: GRAB 3

Sample Location: BROADWAY & TWO RED RD

Sample Depth:

Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/27/22 15:25

Analyst: AJK Percent Solids: 74%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westboroug	gh Lab					
Methylene chloride	ND		ug/kg	6.4	2.9	1
1,1-Dichloroethane	ND		ug/kg	1.3	0.18	1
Chloroform	ND		ug/kg	1.9	0.18	1
Carbon tetrachloride	ND		ug/kg	1.3	0.29	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	0.88	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
Bromoform	ND		ug/kg	5.1	0.31	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	0.69	1
Ethylbenzene	1.5		ug/kg	1.3	0.18	1
Chloromethane	ND		ug/kg	5.1	1.2	1
Bromomethane	ND		ug/kg	2.5	0.74	1
Vinyl chloride	ND		ug/kg	1.3	0.42	1
Chloroethane	ND		ug/kg	2.5	0.57	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	0.17	1
Trichloroethene	ND		ug/kg	0.64	0.17	1
1,2-Dichlorobenzene	ND		ug/kg	2.5	0.18	1



MDL

Dilution Factor

Project Name: 1168 BROADWAY TOPSOIL L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-07 Date Collected: 02/16/22 08:00

Client ID: GRAB 3 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Qualifier

Units

RL

Result

Sample Depth:

Parameter

Parameter	Kesuit	Qualifier	Ullita	KL.	MIDE	Dilution Factor	
Volatile Organics by GC/MS - Wes	stborough Lab						
1,3-Dichlorobenzene	ND		ug/kg	2.5	0.19	1	
1,4-Dichlorobenzene	ND		ug/kg	2.5	0.22	1	
Methyl tert butyl ether	ND		ug/kg	2.5	0.26	1	
p/m-Xylene	8.0		ug/kg	2.5	0.71	1	
o-Xylene	3.3		ug/kg	1.3	0.37	1	
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.22	1	
Styrene	ND		ug/kg	1.3	0.25	1	
Dichlorodifluoromethane	ND		ug/kg	13	1.2	1	
Acetone	ND		ug/kg	13	6.1	1	
Carbon disulfide	ND		ug/kg	13	5.8	1	
2-Butanone	ND		ug/kg	13	2.8	1	
4-Methyl-2-pentanone	ND		ug/kg	13	1.6	1	
2-Hexanone	ND		ug/kg	13	1.5	1	
Bromochloromethane	ND		ug/kg	2.5	0.26	1	
1,2-Dibromoethane	ND		ug/kg	1.3	0.35	1	
n-Butylbenzene	ND		ug/kg	1.3	0.21	1	
sec-Butylbenzene	ND		ug/kg	1.3	0.18	1	
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.8	1.3	1	
Isopropylbenzene	ND		ug/kg	1.3	0.14	1	
p-Isopropyltoluene	ND		ug/kg	1.3	0.14	1	
n-Propylbenzene	ND		ug/kg	1.3	0.22	1	
1,2,3-Trichlorobenzene	ND		ug/kg	2.5	0.41	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	0.42	1	
Methyl Acetate	ND		ug/kg	5.1	1.2	1	
Cyclohexane	ND		ug/kg	13	0.69	1	
1,4-Dioxane	ND		ug/kg	100	45.	1	
Freon-113	ND		ug/kg	5.1	0.88	1	
Methyl cyclohexane	ND		ug/kg	5.1	0.77	1	

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	113	70-130	
Toluene-d8	96	70-130	
4-Bromofluorobenzene	103	70-130	
Dibromofluoromethane	111	70-130	



L2208221

03/04/22

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

SAMPLE RESULTS

Date Collected: 02/16/22 08:05

Lab ID: L2208221-08

Client ID: GRAB 4

Sample Location: BROADWAY & TWO RED RD

Date Received: 02/16/22 Field Prep: Not Specified

Lab Number:

Report Date:

Sample Depth:

Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/27/22 15:50

Analyst: AJK Percent Solids: 79%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westboroug	gh Lab					
Methylene chloride	ND		ug/kg	6.1	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	0.61	0.24	1
Chlorobenzene	ND		ug/kg	0.61	0.16	1
Trichlorofluoromethane	ND		ug/kg	4.9	0.85	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.32	1
1,1,1-Trichloroethane	ND		ug/kg	0.61	0.20	1
Bromodichloromethane	ND		ug/kg	0.61	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.33	1
cis-1,3-Dichloropropene	ND		ug/kg	0.61	0.19	1
Bromoform	ND		ug/kg	4.9	0.30	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.61	0.20	1
Benzene	ND		ug/kg	0.61	0.20	1
Toluene	ND		ug/kg	1.2	0.66	1
Ethylbenzene	0.18	J	ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	4.9	1.1	1
Bromomethane	ND		ug/kg	2.4	0.71	1
Vinyl chloride	ND		ug/kg	1.2	0.41	1
Chloroethane	ND		ug/kg	2.4	0.55	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.29	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.17	1
Trichloroethene	ND		ug/kg	0.61	0.17	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.18	1



Project Name: 1168 BROADWAY TOPSOIL L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-08 Date Collected: 02/16/22 08:05

Client ID: GRAB 4 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

ND	Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
ND	Volatile Organics by GC/MS - West	borough Lab					
1,4-Dichlorobenzene ND	1,3-Dichlorobenzene	ND		ug/kg	2.4	0.18	1
Methyl tert buyl ether ND ug/kg 2.4 0.25 1 p/m-Xylene 0.80 J ug/kg 2.4 0.69 1 o-Xylene 0.42 J ug/kg 1.2 0.26 1 cist-1,2-Dichloroethene ND ug/kg 1.2 0.21 1 Styrene ND ug/kg 1.2 0.24 1 Dichlorodifluoromethane ND ug/kg 12 0.24 1 Acetone ND ug/kg 12 5.9 1 Carbon disulfide ND ug/kg 12 5.6 1 Carbon disulfide ND ug/kg 12 2.7 1 4-Methyl-2-pentanone ND ug/kg 12 1.6 1 4-Methyl-2-pentanone ND ug/kg 12 0.2 1 Bromochloromethane ND ug/kg 12 0.3 1 1,2-Dibromoethane ND ug/kg 1.2 0	1,4-Dichlorobenzene	ND			2.4	0.21	1
prim-Xylene 0.90 J ug/kg 2.4 0.69 1 o-Xylene 0.42 J ug/kg 1.2 0.36 1 cisi-1,2-Dichloroethene ND ug/kg 1.2 0.21 1 Styrene ND ug/kg 1.2 0.24 1 Dichlorodifluoromethane ND ug/kg 12 5.9 1 Acetone ND ug/kg 12 5.9 1 Carbon disulfide ND ug/kg 12 5.6 1 2-Butanone ND ug/kg 12 2.7 1 4-Methyl-2-pentanone ND ug/kg 12 1.6 1 2-Hexanone ND ug/kg 12 0.1 1 1-2-Dibromochane ND ug/kg 1.2 0.34 1 1-2-Dibromochane ND ug/kg 1.2 0.13 1 1-2-Dibromochane ND ug/kg 1.2 0.13 1<	Methyl tert butyl ether	ND			2.4	0.25	1
ND	p/m-Xylene	0.90	J		2.4	0.69	1
Styrene ND ug/kg 1.2 0.24 1 Dichlorodifluoromethane ND ug/kg 12 1.1 1 Acetone ND ug/kg 12 5.9 1 Carbon disulfide ND ug/kg 12 5.6 1 2-Butanone ND ug/kg 12 2.7 1 4-Methyl-2-pentanone ND ug/kg 12 1.6 1 2-Hexanone ND ug/kg 12 1.4 1 2-Hexanone ND ug/kg 12 1.4 1 Bromochloromethane ND ug/kg 12 0.4 1 1,2-Dibromoethane ND ug/kg 1.2 0.34 1 n-Butylbenzene ND ug/kg 1.2 0.20 1 sec-Butylbenzene ND ug/kg 1.2 0.18 1 1,2-Dibromo-3-chloropropane ND ug/kg 1.2 0.13 1 <t< td=""><td>o-Xylene</td><td>0.42</td><td>J</td><td>ug/kg</td><td>1.2</td><td>0.36</td><td>1</td></t<>	o-Xylene	0.42	J	ug/kg	1.2	0.36	1
Dichlorodifluoromethane ND	cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.21	1
Acetone ND ug/kg 12 5.9 1 Carbon disulfide ND ug/kg 12 5.6 1 2-Butanone ND ug/kg 12 2.7 1 4-Methyl-2-pentanone ND ug/kg 12 1.6 1 2-Hexanone ND ug/kg 12 1.6 1 2-Hexanone ND ug/kg 12 1.4 1.6 1 2-Hexanone ND ug/kg 12 1.4 1.6 1 2-Hexanone ND ug/kg 12 1.4 1.6 1 3-Dibromoethane ND ug/kg 12 1.4 1.6 1 3-Dibromoethane ND ug/kg 1.2 0.34 1 1.2-Dibromoethane ND ug/kg 1.2 0.34 1 1.2-Dibromoethane ND ug/kg 1.2 0.20 1 1.2-Dibromoethane ND ug/kg 1.2 0.18 1 1.2-Dibromo-3-chloropropane ND ug/kg 3.7 1.2 1 3-Dibromo-3-chloropropane ND ug/kg 1.2 0.18 1 1.2-Dibromo-3-chloropropane ND ug/kg 1.2 0.13 1 3-Dibromo-3-chloropropane ND ug/kg 1.2 0.21 1 3-Dibromo-3-chloropropane ND ug/kg 1.2 0.21 1 3-Dibromo-3-chloropropane ND ug/kg 2.4 0.39 1 3-Dibromo-3-chloropropane ND ug/kg 2.4 0.33 1 3-Dibromo-3-chloropropane ND ug/kg 2.4 0.39 1 3-Dibromo-3-chloropropane ND ug/kg 2.4 0.39 1 3-Dibromo-3-chloropropane ND ug/kg 2.4 0.39 1 3-Dibromo-3-chloropropane ND ug/kg 2.4 0.41 1 3-Dibromo-3-chloropropane ND ug/kg 2.4 0.41 1 3-Dibromo-3-chloropropane ND ug/kg 3.9 1.2 1 3-Dib	Styrene	ND		ug/kg	1.2	0.24	1
Carbon disulfide ND ug/kg 12 5.6 1 2-Butanone ND ug/kg 12 2.7 1 4-Methyl-2-pentanone ND ug/kg 12 1.6 1 2-Hexanone ND ug/kg 12 1.4 1 2-Hexanone ND ug/kg 1.2 0.25 1 1,2-Dibromethane ND ug/kg 1.2 0.34 1 1,2-Dibromoethane ND ug/kg 1.2 0.34 1 n-Butylbenzene ND ug/kg 1.2 0.34 1 n-Butylbenzene ND ug/kg 1.2 0.20 1 sec-Butylbenzene ND ug/kg 1.2 0.18 1 1,2-Dibromo-3-chloropropane ND ug/kg 3.7 1.2 1 lsepropylbenzene ND ug/kg 1.2 0.13 1 p-Isopropylbenzene ND ug/kg 1.2 0.13 1	Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
2-Butanone ND ug/kg 12 2.7 1 4-Methyl-2-pentanone ND ug/kg 12 1.6 1 2-Hexanone ND ug/kg 12 1.4 1 Bromochloromethane ND ug/kg 2.4 0.25 1 1,2-Dibromoethane ND ug/kg 1.2 0.34 1 n-Butylbenzene ND ug/kg 1.2 0.20 1 n-Butylbenzene ND ug/kg 1.2 0.18 1 n-Butylbenzene ND ug/kg 3.7 1.2 1 sec-Butylbenzene ND ug/kg 1.2 0.18 1 1,2-Dibromo-3-chloropropane ND ug/kg 3.7 1.2 1 Isopropylbenzene ND ug/kg 1.2 0.13 1 p-Isopropylbenzene ND ug/kg 1.2 0.13 1 n-Propylbenzene ND ug/kg 2.4 0.33 1 <td>Acetone</td> <td>ND</td> <td></td> <td>ug/kg</td> <td>12</td> <td>5.9</td> <td>1</td>	Acetone	ND		ug/kg	12	5.9	1
ND	Carbon disulfide	ND		ug/kg	12	5.6	1
ND	2-Butanone	ND		ug/kg	12	2.7	1
ND	4-Methyl-2-pentanone	ND		ug/kg	12	1.6	1
1,2-Dibromoethane ND	2-Hexanone	ND		ug/kg	12	1.4	1
ND	Bromochloromethane	ND		ug/kg	2.4	0.25	1
ND	1,2-Dibromoethane	ND		ug/kg	1.2	0.34	1
1,2-Dibromo-3-chloropropane ND	n-Butylbenzene	ND		ug/kg	1.2	0.20	1
Stopropylbenzene ND ug/kg 1.2 0.13 1 1 1 1 1 1 1 1 1	sec-Butylbenzene	ND		ug/kg	1.2	0.18	1
P-Isopropyltoluene ND ug/kg 1.2 0.13 1 n-Propylbenzene ND ug/kg 1.2 0.21 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 0.24 1 1,2,4-Trimethylbenzene ND ug/kg 2.4 0.24 1 1,2,4-Trimethylbenzene ND ug/kg 2.4 0.41 1 1,2,4-Trimethylbenzene ND ug/kg 1.2 0.41 1 1,2,4-Trimethylbenzene ND ug/kg 1.2 0.67 1 1,4-Dioxane ND ug/kg 12 0.67 1 1,4-Dioxane ND ug/kg 98 43 1 1,4-Dioxane ND ug/kg 4.9 0.85 1	1,2-Dibromo-3-chloropropane	ND		ug/kg	3.7	1.2	1
ND	Isopropylbenzene	ND		ug/kg	1.2	0.13	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 0.24 1 1,2,4-Trimethylbenzene ND ug/kg 2.4 0.41 1 Methyl Acetate ND ug/kg 4.9 1.2 1 Cyclohexane ND ug/kg 12 0.67 1 1,4-Dioxane ND ug/kg 98 43 1 Freon-113 ND ug/kg 4.9 0.85 1	p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
1,2,4-Trichlorobenzene ND ug/kg 2.4 0.33 1 1,3,5-Trimethylbenzene ND ug/kg 2.4 0.24 1 1,2,4-Trimethylbenzene ND ug/kg 2.4 0.41 1 Methyl Acetate ND ug/kg 4.9 1.2 1 Cyclohexane ND ug/kg 12 0.67 1 1,4-Dioxane ND ug/kg 98 43 1 Freon-113 ND ug/kg 4.9 0.85 1	n-Propylbenzene	ND		ug/kg	1.2	0.21	1
1,3,5-Trimethylbenzene ND ug/kg 2.4 0.24 1 1,2,4-Trimethylbenzene ND ug/kg 2.4 0.41 1 Methyl Acetate ND ug/kg 4.9 1.2 1 Cyclohexane ND ug/kg 12 0.67 1 1,4-Dioxane ND ug/kg 98 43 1 Freon-113 ND ug/kg 4.9 0.85 1	1,2,3-Trichlorobenzene	ND		ug/kg	2.4	0.39	1
1,2,4-Trimethylbenzene ND ug/kg 2.4 0.41 1 Methyl Acetate ND ug/kg 4.9 1.2 1 Cyclohexane ND ug/kg 12 0.67 1 1,4-Dioxane ND ug/kg 98 43 1 Freon-113 ND ug/kg 4.9 0.85 1	1,2,4-Trichlorobenzene	ND		ug/kg	2.4	0.33	1
Methyl Acetate ND ug/kg 4.9 1.2 1 Cyclohexane ND ug/kg 12 0.67 1 1,4-Dioxane ND ug/kg 98 43. 1 Freon-113 ND ug/kg 4.9 0.85 1	1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.24	1
Cyclohexane ND ug/kg 12 0.67 1 1,4-Dioxane ND ug/kg 98 43. 1 Freon-113 ND ug/kg 4.9 0.85 1	1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.41	1
1,4-Dioxane ND ug/kg 98 43. 1 Freon-113 ND ug/kg 4.9 0.85 1	Methyl Acetate	ND		ug/kg	4.9	1.2	1
Freon-113 ND ug/kg 4.9 0.85 1	Cyclohexane	ND		ug/kg	12	0.67	1
-0-0	1,4-Dioxane	ND		ug/kg	98	43.	1
Methyl cyclohexane ND ug/kg 4.9 0.74 1	Freon-113	ND		ug/kg	4.9	0.85	1
	Methyl cyclohexane	ND		ug/kg	4.9	0.74	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
1,2-Dichloroethane-d4	116		70-130	
Toluene-d8	94		70-130	
4-Bromofluorobenzene	104		70-130	
Dibromofluoromethane	113		70-130	



L2208221

02/16/22 08:10

Not Specified

02/16/22

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

SAMPLE RESULTS

Lab Number:

Date Collected:

Date Received:

Field Prep:

Report Date: 03/04/22

Lab ID: L2208221-09

Client ID: GRAB 5

BROADWAY & TWO RED RD Sample Location:

Sample Depth:

Matrix: Soil Analytical Method: 1,8260C Analytical Date: 02/27/22 16:15

Analyst: AJK 72% Percent Solids:

Volatile Organics by GC/MS - Westborough	ND				
	NB	ug/kg	6.7	3.1	1
1,1-Dichloroethane	ND	ug/kg	1.3	0.20	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	0.67	0.26	1
Chlorobenzene	ND	ug/kg	0.67	0.17	1
Trichlorofluoromethane	ND	ug/kg	5.4	0.94	1
1,2-Dichloroethane	ND	ug/kg	1.3	0.34	1
1,1,1-Trichloroethane	ND	ug/kg	0.67	0.22	1
Bromodichloromethane	ND	ug/kg	0.67	0.15	1
trans-1,3-Dichloropropene	ND	ug/kg	1.3	0.37	1
cis-1,3-Dichloropropene	ND	ug/kg	0.67	0.21	1
Bromoform	ND	ug/kg	5.4	0.33	1
1,1,2,2-Tetrachloroethane	ND	ug/kg	0.67	0.22	1
Benzene	ND	ug/kg	0.67	0.22	1
Toluene	ND	ug/kg	1.3	0.73	1
Ethylbenzene	ND	ug/kg	1.3	0.19	1
Chloromethane	ND	ug/kg	5.4	1.2	1
Bromomethane	ND	ug/kg	2.7	0.78	1
Vinyl chloride	ND	ug/kg	1.3	0.45	1
Chloroethane	ND	ug/kg	2.7	0.61	1
1,1-Dichloroethene	ND	ug/kg	1.3	0.32	1
trans-1,2-Dichloroethene	ND	ug/kg	2.0	0.18	1
Trichloroethene	ND	ug/kg	0.67	0.18	1
1,2-Dichlorobenzene	ND	ug/kg	2.7	0.19	1



MDL

L2208221

Dilution Factor

Project Name: 1168 BROADWAY TOPSOIL Lab Number:

Result

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Qualifier

Units

RL

Lab ID: L2208221-09 Date Collected: 02/16/22 08:10

Client ID: GRAB 5 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Parameter

- urumeter			••			
Volatile Organics by GC/MS - Wes	stborough Lab					
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	0.85	J	ug/kg	2.7	0.75	1
o-Xylene	ND		ug/kg	1.3	0.39	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.24	1
Styrene	ND		ug/kg	1.3	0.26	1
Dichlorodifluoromethane	ND		ug/kg	13	1.2	1
Acetone	ND		ug/kg	13	6.5	1
Carbon disulfide	ND		ug/kg	13	6.1	1
2-Butanone	ND		ug/kg	13	3.0	1
4-Methyl-2-pentanone	ND		ug/kg	13	1.7	1
2-Hexanone	ND		ug/kg	13	1.6	1
Bromochloromethane	ND		ug/kg	2.7	0.28	1
1,2-Dibromoethane	ND		ug/kg	1.3	0.38	1
n-Butylbenzene	ND		ug/kg	1.3	0.22	1
sec-Butylbenzene	ND		ug/kg	1.3	0.20	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.0	1.3	1
Isopropylbenzene	ND		ug/kg	1.3	0.15	1
p-Isopropyltoluene	ND		ug/kg	1.3	0.15	1
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	0.45	1
Methyl Acetate	ND		ug/kg	5.4	1.3	1
Cyclohexane	ND		ug/kg	13	0.73	1
1,4-Dioxane	ND		ug/kg	110	47.	1
Freon-113	ND		ug/kg	5.4	0.93	1
Methyl cyclohexane	ND		ug/kg	5.4	0.81	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	114	70-130	
Toluene-d8	95	70-130	
4-Bromofluorobenzene	104	70-130	
Dibromofluoromethane	114	70-130	



L2208221

02/16/22 08:15

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

SAMPLE RESULTS

Report Date: 03/04/22

Lab ID: L2208221-10

Client ID: GRAB 6

Sample Location: BROADWAY & TWO RED RD

Date Received: 02/16/22 Field Prep: Not Specified

Lab Number:

Date Collected:

Sample Depth:

Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/27/22 16:40

Analyst: AJK Percent Solids: 70%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by GC/MS - We	estborough Lab						
Methylene chloride	ND		ug/kg	6.8	3.1	1	
1,1-Dichloroethane	ND		ug/kg	1.4	0.20	1	
Chloroform	ND		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	0.27	1	
Chlorobenzene	ND		ug/kg	0.68	0.17	1	
Trichlorofluoromethane	ND		ug/kg	5.5	0.95	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	0.22	1	
Bromoform	ND		ug/kg	5.5	0.34	1	
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.68	0.23	1	
Benzene	ND		ug/kg	0.68	0.23	1	
Toluene	ND		ug/kg	1.4	0.74	1	
Ethylbenzene	ND		ug/kg	1.4	0.19	1	
Chloromethane	ND		ug/kg	5.5	1.3	1	
Bromomethane	ND		ug/kg	2.7	0.79	1	
Vinyl chloride	ND		ug/kg	1.4	0.46	1	
Chloroethane	ND		ug/kg	2.7	0.62	1	
1,1-Dichloroethene	ND		ug/kg	1.4	0.32	1	
trans-1,2-Dichloroethene	ND		ug/kg	2.0	0.19	1	
Trichloroethene	ND		ug/kg	0.68	0.19	1	
1,2-Dichlorobenzene	ND		ug/kg	2.7	0.20	1	



MDL

Dilution Factor

Project Name: 1168 BROADWAY TOPSOIL L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Qualifier

Units

RL

Lab ID: L2208221-10 Date Collected: 02/16/22 08:15

Client ID: GRAB 6 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Result

Sample Depth:

Parameter

Parameter	Result	Qualifier	Ullita	KL.	MIDE	Dilution Factor	
Volatile Organics by GC/MS - Wes	stborough Lab						
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	0.40	1	
cis-1,2-Dichloroethene	ND		ug/kg	1.4	0.24	1	
Styrene	ND		ug/kg	1.4	0.27	1	
Dichlorodifluoromethane	ND		ug/kg	14	1.2	1	
Acetone	ND		ug/kg	14	6.6	1	
Carbon disulfide	ND		ug/kg	14	6.2	1	
2-Butanone	ND		ug/kg	14	3.0	1	
4-Methyl-2-pentanone	ND		ug/kg	14	1.7	1	
2-Hexanone	ND		ug/kg	14	1.6	1	
Bromochloromethane	ND		ug/kg	2.7	0.28	1	
1,2-Dibromoethane	ND		ug/kg	1.4	0.38	1	
n-Butylbenzene	ND		ug/kg	1.4	0.23	1	
sec-Butylbenzene	ND		ug/kg	1.4	0.20	1	
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.1	1.4	1	
Isopropylbenzene	ND		ug/kg	1.4	0.15	1	
p-Isopropyltoluene	ND		ug/kg	1.4	0.15	1	
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	0.46	1	
Methyl Acetate	ND		ug/kg	5.5	1.3	1	
Cyclohexane	ND		ug/kg	14	0.74	1	
1,4-Dioxane	ND		ug/kg	110	48.	1	
Freon-113	ND		ug/kg	5.5	0.95	1	
Methyl cyclohexane	ND		ug/kg	5.5	0.82	1	

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	117	70-130	
Toluene-d8	94	70-130	
4-Bromofluorobenzene	105	70-130	
Dibromofluoromethane	113	70-130	



L2208221

03/04/22

Not Specified

02/16/22

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

SAMPLE RESULTS

Date Collected: 02/16/22 08:20

Lab Number:

Report Date:

Date Received:

Field Prep:

Lab ID: L2208221-11

Client ID: GRAB 7

Sample Location: BROADWAY & TWO RED RD

Sample Depth:

Matrix: Soil Analytical Method: 1,8260C

Analytical Date: 02/27/22 17:05

Analyst: AJK Percent Solids: 77%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westboroug	h Lab					
Methylene chloride	ND		ug/kg	6.3	2.9	1
1,1-Dichloroethane	ND		ug/kg	1.3	0.18	1
Chloroform	ND		ug/kg	1.9	0.18	1
Carbon tetrachloride	ND		ug/kg	1.3	0.29	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	0.63	0.25	1
Chlorobenzene	ND		ug/kg	0.63	0.16	1
Trichlorofluoromethane	ND		ug/kg	5.1	0.88	1
1,2-Dichloroethane	ND		ug/kg	1.3	0.32	1
1,1,1-Trichloroethane	ND		ug/kg	0.63	0.21	1
Bromodichloromethane	ND		ug/kg	0.63	0.14	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	0.35	1
cis-1,3-Dichloropropene	ND		ug/kg	0.63	0.20	1
Bromoform	ND		ug/kg	5.1	0.31	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.63	0.21	1
Benzene	ND		ug/kg	0.63	0.21	1
Toluene	ND		ug/kg	1.3	0.69	1
Ethylbenzene	ND		ug/kg	1.3	0.18	1
Chloromethane	ND		ug/kg	5.1	1.2	1
Bromomethane	ND		ug/kg	2.5	0.74	1
Vinyl chloride	ND		ug/kg	1.3	0.42	1
Chloroethane	ND		ug/kg	2.5	0.57	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	0.17	1
Trichloroethene	ND		ug/kg	0.63	0.17	1
1,2-Dichlorobenzene	ND		ug/kg	2.5	0.18	1



Project Name: 1168 BROADWAY TOPSOIL L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-11 Date Collected: 02/16/22 08:20

Client ID: GRAB 7 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

1.4-Dichlorobenzene ND	Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1.4-Dichlorobenzene ND	Volatile Organics by GC/MS - Wes	tborough Lab					
1.4-Dichlorobenzene ND ug/kg 2.5 0.22 1 Methyl tert buyl ether ND ug/kg 2.5 0.25 1 p/m-Xylene ND ug/kg 2.5 0.71 1 ox-Xylene ND ug/kg 1.3 0.37 1 ois-1,2-Dichloroethene ND ug/kg 1.3 0.25 1 Styrene ND ug/kg 13 0.25 1 Dichlorodiffuoromethane ND ug/kg 13 1.2 1 Acetone ND ug/kg 13 6.1 1 Carbon disulfide ND ug/kg 13 5.8 1 E-Butanone ND ug/kg 13 1.6 1 4-Methyl-2-pentanone ND ug/kg 13 1.6 1 2-Butanone ND ug/kg 13 1.6 1 2-Butanone ND ug/kg 13 1.6 1 2-Butan	1,3-Dichlorobenzene	ND		ug/kg	2.5	0.19	1
Methyl tert butyl ether ND ug/kg 2.5 0.25 1 p/m-Xylene ND ug/kg 2.5 0.71 1 o-Xylene ND ug/kg 1.3 0.37 1 cis-1,2-Dichlorethene ND ug/kg 1.3 0.22 1 Styrene ND ug/kg 1.3 0.25 1 Dichloredifluoromethane ND ug/kg 13 0.25 1 Acetone ND ug/kg 13 6.1 1 Carbon disulfide ND ug/kg 13 5.8 1 Carbon disulfide ND ug/kg 13 5.8 1 4-Methyl-2-pentanone ND ug/kg 13 1.6 1 2-Eutanone ND ug/kg 13 1.6 1 4-Methyl-2-pentanone ND ug/kg 1.3 0.35 1 8-Decknone ND ug/kg 1.3 0.35 1 <	1,4-Dichlorobenzene	ND			2.5	0.22	1
p/m-Xylene ND ug/kg 2.5 0.71 1 o-Xylene ND ug/kg 1.3 0.37 1 cis-1,2-Dichloroethene ND ug/kg 1.3 0.22 1 Styrene ND ug/kg 1.3 0.25 1 Dichlorodifluoromethane ND ug/kg 1.3 0.25 1 Acetone ND ug/kg 1.3 6.1 1 Carbon disulfide ND ug/kg 1.3 5.8 1 2-Butanone ND ug/kg 1.3 5.8 1 2-Butanone ND ug/kg 1.3 1.6 1 2-Butanone ND ug/kg 1.3 1.6 1 2-Hexanone ND ug/kg 1.3 0.16 1 1-2-Dibromodothane ND ug/kg 1.3 0.35 1 1-2-Dibromodathane ND ug/kg 1.3 0.18 1 1-2-Dibromoda	Methyl tert butyl ether	ND			2.5	0.25	1
ND	p/m-Xylene	ND		ug/kg	2.5	0.71	1
Styrene ND ug/kg 1.3 0.25 1 Dichlorodifluoromethane ND ug/kg 13 1.2 1 Acetone ND ug/kg 13 6.1 1 Carbon disulfide ND ug/kg 13 5.8 1 2-Butanone ND ug/kg 13 2.8 1 4-Methyl-2-pentanone ND ug/kg 13 1.6 1 2-Hexanone ND ug/kg 13 1.5 1 Bromochloromethane ND ug/kg 2.5 0.26 1 1,2-Dibromothane ND ug/kg 1.3 0.35 1 n-Butylbenzene ND ug/kg 1.3 0.21 1 sec-Butylbenzene ND ug/kg 1.3 0.18 1 1,2-Dibromo-3-chloropropane ND ug/kg 3.8 1.3 1 sec-Butylbenzene ND ug/kg 1.3 0.14 1	o-Xylene	ND		ug/kg	1.3	0.37	1
Dichlorodifluoromethane ND	cis-1,2-Dichloroethene	ND			1.3	0.22	1
Acetone ND ug/kg 13 6.1 1 Carbon disulfide ND ug/kg 13 5.8 1 2-Butanone ND ug/kg 13 2.8 1 4-Methyl-2-pentanone ND ug/kg 13 1.6 1 2-Hexanone ND ug/kg 13 1.6 1 2-Hexanone ND ug/kg 13 1.5 1 Bromochloromethane ND ug/kg 13 1.5 1 Bromochloromethane ND ug/kg 13 0.35 1 1.2-Distromoethane ND ug/kg 1.3 0.35 1 1.2-Distromoethane ND ug/kg 1.3 0.21 1 1.2-Distromoethane ND ug/kg 1.3 0.21 1 1.2-Distromoethane ND ug/kg 1.3 0.18 1 1.2-Distromoethane ND ug/kg 1.3 0.18 1 1.2-Distromoethane ND ug/kg 1.3 0.18 1 1.2-Distromoethane ND ug/kg 1.3 0.14 1 1.2-Listromoethane ND ug/kg 1.3 0.14 1 1.2-Listromoethane ND ug/kg 2.5 0.41 1 1.2-A-Triichlorobenzene ND ug/kg 2.5 0.41 1 1.2-A-Triichlorobenzene ND ug/kg 2.5 0.41 1 1.2-A-Triichlorobenzene ND ug/kg 2.5 0.42 1 1.2-A-Triichlorobenzene ND ug/kg 3.1 0.69 1 1.3-Cyclohexane ND ug/kg 3.1 0.69 1 1.4-Dioxane ND ug/kg 3.1 0.69 1 1.4-Dioxane ND ug/kg 3.1 0.69 1 1.4-Dioxane ND ug/kg 3.1 0.69 1	Styrene	ND			1.3	0.25	1
Carbon disulfide ND ug/kg 13 5.8 1 2-Butanone ND ug/kg 13 2.8 1 4-Methyl-2-pentanone ND ug/kg 13 1.6 1 2-Hexanone ND ug/kg 13 1.5 1 Bromochloromethane ND ug/kg 2.5 0.26 1 1,2-Dibromoethane ND ug/kg 1.3 0.35 1 n-Butylbenzene ND ug/kg 1.3 0.21 1 n-Butylbenzene ND ug/kg 1.3 0.18 1 sec-Butylbenzene ND ug/kg 1.3 0.14 1 <tr< td=""><td>Dichlorodifluoromethane</td><td>ND</td><td></td><td>ug/kg</td><td>13</td><td>1.2</td><td>1</td></tr<>	Dichlorodifluoromethane	ND		ug/kg	13	1.2	1
2-Butanone ND ug/kg 13 2.8 1 4-Methyl-2-pentanone ND ug/kg 13 1.6 1 2-Hexanone ND ug/kg 13 1.5 1 Bromochloromethane ND ug/kg 2.5 0.26 1 1,2-Dibromoethane ND ug/kg 1.3 0.35 1 n-Butylbenzene ND ug/kg 1.3 0.21 1 n-Butylbenzene ND ug/kg 1.3 0.18 1 sec-Butylbenzene ND ug/kg 1.3 0.18 1 1,2-Dibromo-3-chloropropane ND ug/kg 3.8 1.3 1 Isopropylbenzene ND ug/kg 1.3 0.14 1 Isopropylbenzene ND ug/kg 1.3 0.14 1 n-Propylbenzene ND ug/kg 2.5 0.41 1 1,2-3-Trichlorobenzene ND ug/kg 2.5 0.41 1	Acetone	ND		ug/kg	13	6.1	1
4-Methyl-2-pentanone ND ug/kg 13 1.6 1 2-Hexanone ND ug/kg 13 1.5 1 Bromochloromethane ND ug/kg 2.5 0.26 1 1,2-Dibromoethane ND ug/kg 1.3 0.35 1 n-Butylbenzene ND ug/kg 1.3 0.21 1 sec-Butylbenzene ND ug/kg 1.3 0.18 1 1,2-Dibromo-3-chloropropane ND ug/kg 3.8 1.3 1 Isopropylbenzene ND ug/kg 1.3 0.14 1 p-Isopropylbenzene ND ug/kg 1.3 0.14 1 n-Propylbenzene ND ug/kg 1.3 0.14 1 n-Propylbenzene ND ug/kg 2.5 0.41 1 1,2,4-Trichlorobenzene ND ug/kg 2.5 0.34 1 1,3,5-Trimethylbenzene ND ug/kg 2.5 0.42	Carbon disulfide	ND		ug/kg	13	5.8	1
ND	2-Butanone	ND		ug/kg	13	2.8	1
Bromochloromethane ND	4-Methyl-2-pentanone	ND		ug/kg	13	1.6	1
1,2-Dibromoethane ND ug/kg 1.3 0.35 1 n-Butylbenzene ND ug/kg 1.3 0.21 1 sec-Butylbenzene ND ug/kg 1.3 0.18 1 1,2-Dibromo-3-chloropropane ND ug/kg 3.8 1.3 1 lsopropylbenzene ND ug/kg 1.3 0.14 1 p-Isopropyltoluene ND ug/kg 1.3 0.14 1 n-Propylbenzene ND ug/kg 1.3 0.14 1 n-Propylbenzene ND ug/kg 1.3 0.14 1 1,2,3-Trichlorobenzene ND ug/kg 1.3 0.22 1 1,2,3-Trichlorobenzene ND ug/kg 2.5 0.41 1 1,2,4-Trichlorobenzene ND ug/kg 2.5 0.34 1 1,2,4-Trimethylbenzene ND ug/kg 2.5 0.24 1 1,2,4-Trimethylbenzene ND ug/kg 2.5 0.24 1 1,2,4-Trimethylbenzene ND ug/kg 2.5 0.42 1 Methyl Acetate ND ug/kg 5.1 1.2 1 Cyclohexane ND ug/kg 13 0.69 1 1,4-Dioxane ND ug/kg 100 44. 1 Freon-113	2-Hexanone	ND		ug/kg	13	1.5	1
ND	Bromochloromethane	ND		ug/kg	2.5	0.26	1
ND	1,2-Dibromoethane	ND		ug/kg	1.3	0.35	1
1,2-Dibromo-3-chloropropane ND ug/kg 3.8 1.3 1 Isopropylbenzene ND ug/kg 1.3 0.14 1 p-Isopropylbenzene ND ug/kg 1.3 0.14 1 n-Propylbenzene ND ug/kg 1.3 0.22 1 1,2,3-Trichlorobenzene ND ug/kg 2.5 0.41 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 0.42 1 Methyl Acetate ND ug/kg 5.1 1.2 1 Cyclohexane ND ug/kg 13 0.69 1 1,4-Dioxane ND ug/kg 100 44 1 Freon-113 ND ug/kg 5.1 0.88 1	n-Butylbenzene	ND		ug/kg	1.3	0.21	1
Sopropylbenzene ND ug/kg 1.3 0.14 1 1 1 1 1 1 1 1 1	sec-Butylbenzene	ND		ug/kg	1.3	0.18	1
p-Isopropyltoluene ND ug/kg 1.3 0.14 1 n-Propylbenzene ND ug/kg 1.3 0.22 1 1,2,3-Trichlorobenzene ND ug/kg 2.5 0.41 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 0.24 1 1,2,4-Trimethylbenzene ND ug/kg 2.5 0.42 1 1,2,4-Trimethylbenzene ND ug/kg 5.1 1.2 1 Cyclohexane ND ug/kg 13 0.69 1 1,4-Dioxane ND ug/kg 100 44. 1 Freon-113 ND ug/kg 5.1 0.88 1	1,2-Dibromo-3-chloropropane	ND		ug/kg	3.8	1.3	1
n-Propylbenzene ND ug/kg 1.3 0.22 1 1,2,3-Trichlorobenzene ND ug/kg 2.5 0.41 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 5.1 1.2 1 Methyl Acetate ND ug/kg 5.1 1.2 1 Cyclohexane ND ug/kg 13 0.69 1 1,4-Dioxane ND ug/kg 100 44 1 Freon-113 ND ug/kg 5.1 0.88 1	Isopropylbenzene	ND		ug/kg	1.3	0.14	1
1,2,3-Trichlorobenzene ND ug/kg 2.5 0.41 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 0.42 1 Methyl Acetate ND ug/kg 5.1 1.2 1 Cyclohexane ND ug/kg 13 0.69 1 1,4-Dioxane ND ug/kg 100 44 1 Freon-113 ND ug/kg 5.1 0.88 1	p-Isopropyltoluene	ND		ug/kg	1.3	0.14	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 0.42 1 Methyl Acetate ND ug/kg 5.1 1.2 1 Cyclohexane ND ug/kg 13 0.69 1 1,4-Dioxane ND ug/kg 100 44 1 Freon-113 ND ug/kg 5.1 0.88 1	n-Propylbenzene	ND		ug/kg	1.3	0.22	1
1,3,5-Trimethylbenzene ND ug/kg 2.5 0.24 1 1,2,4-Trimethylbenzene ND ug/kg 2.5 0.42 1 Methyl Acetate ND ug/kg 5.1 1.2 1 Cyclohexane ND ug/kg 13 0.69 1 1,4-Dioxane ND ug/kg 100 44 1 Freon-113 ND ug/kg 5.1 0.88 1	1,2,3-Trichlorobenzene	ND		ug/kg	2.5	0.41	1
1,2,4-Trimethylbenzene ND ug/kg 2.5 0.42 1 Methyl Acetate ND ug/kg 5.1 1.2 1 Cyclohexane ND ug/kg 13 0.69 1 1,4-Dioxane ND ug/kg 100 44. 1 Freon-113 ND ug/kg 5.1 0.88 1	1,2,4-Trichlorobenzene	ND		ug/kg	2.5	0.34	1
Methyl Acetate ND ug/kg 5.1 1.2 1 Cyclohexane ND ug/kg 13 0.69 1 1,4-Dioxane ND ug/kg 100 44. 1 Freon-113 ND ug/kg 5.1 0.88 1	1,3,5-Trimethylbenzene	ND		ug/kg	2.5	0.24	1
Cyclohexane ND ug/kg 13 0.69 1 1,4-Dioxane ND ug/kg 100 44. 1 Freon-113 ND ug/kg 5.1 0.88 1	1,2,4-Trimethylbenzene	ND		ug/kg	2.5	0.42	1
1,4-Dioxane ND ug/kg 100 44. 1 Freon-113 ND ug/kg 5.1 0.88 1	Methyl Acetate	ND		ug/kg	5.1	1.2	1
Freon-113 ND ug/kg 5.1 0.88 1	Cyclohexane	ND		ug/kg	13	0.69	1
-3-3	1,4-Dioxane	ND		ug/kg	100	44.	1
Methyl cyclohexane ND ug/kg 5.1 0.76 1	Freon-113	ND		ug/kg	5.1	0.88	1
	Methyl cyclohexane	ND		ug/kg	5.1	0.76	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	114	70-130	
Toluene-d8	95	70-130	
4-Bromofluorobenzene	103	70-130	
Dibromofluoromethane	112	70-130	



L2208221

03/04/22

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

SAMPLE RESULTS

Date Collected: 02/16/22 08:25

Lab ID: L2208221-12

Client ID: GRAB 8

Sample Location: BROADWAY & TWO RED RD

Date Received: 02/16/22 Field Prep: Not Specified

Lab Number:

Report Date:

Sample Depth:

Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 03/01/22 16:04

Analyst: NLK Percent Solids: 78%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborou	gh Lab					
Methylene chloride	ND		ug/kg	6.3	2.9	1
1,1-Dichloroethane	ND		ug/kg	1.3	0.18	1
Chloroform	ND		ug/kg	1.9	0.18	1
Carbon tetrachloride	ND		ug/kg	1.3	0.29	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	0.63	0.25	1
Chlorobenzene	ND		ug/kg	0.63	0.16	1
Trichlorofluoromethane	ND		ug/kg	5.1	0.88	1
1,2-Dichloroethane	ND		ug/kg	1.3	0.32	1
1,1,1-Trichloroethane	ND		ug/kg	0.63	0.21	1
Bromodichloromethane	ND		ug/kg	0.63	0.14	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	0.35	1
cis-1,3-Dichloropropene	ND		ug/kg	0.63	0.20	1
Bromoform	ND		ug/kg	5.1	0.31	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.63	0.21	1
Benzene	ND		ug/kg	0.63	0.21	1
Toluene	ND		ug/kg	1.3	0.69	1
Ethylbenzene	ND		ug/kg	1.3	0.18	1
Chloromethane	ND		ug/kg	5.1	1.2	1
Bromomethane	ND		ug/kg	2.5	0.74	1
Vinyl chloride	ND		ug/kg	1.3	0.42	1
Chloroethane	ND		ug/kg	2.5	0.57	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	0.17	1
Trichloroethene	ND		ug/kg	0.63	0.17	1
1,2-Dichlorobenzene	ND		ug/kg	2.5	0.18	1



Project Name: 1168 BROADWAY TOPSOIL L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-12 Date Collected: 02/16/22 08:25

Client ID: GRAB 8 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Volatile Organics by GC/MS - Westborough	h Lab					
1,3-Dichlorobenzene	ND		ug/kg	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/kg	2.5	0.22	1
Methyl tert butyl ether	ND		ug/kg	2.5	0.25	1
p/m-Xylene	ND		ug/kg	2.5	0.71	1
o-Xylene	ND		ug/kg	1.3	0.37	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.22	1
Styrene	ND		ug/kg	1.3	0.25	1
Dichlorodifluoromethane	ND		ug/kg	13	1.2	1
Acetone	ND		ug/kg	13	6.1	1
Carbon disulfide	ND		ug/kg	13	5.8	1
2-Butanone	ND		ug/kg	13	2.8	1
4-Methyl-2-pentanone	ND		ug/kg	13	1.6	1
2-Hexanone	ND		ug/kg	13	1.5	1
Bromochloromethane	ND		ug/kg	2.5	0.26	1
1,2-Dibromoethane	ND		ug/kg	1.3	0.35	1
n-Butylbenzene	ND		ug/kg	1.3	0.21	1
sec-Butylbenzene	ND		ug/kg	1.3	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.8	1.3	1
Isopropylbenzene	ND		ug/kg	1.3	0.14	1
p-Isopropyltoluene	0.39	J	ug/kg	1.3	0.14	1
n-Propylbenzene	ND		ug/kg	1.3	0.22	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.5	0.41	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	0.42	1
Methyl Acetate	ND		ug/kg	5.1	1.2	1
Cyclohexane	ND		ug/kg	13	0.69	1
1,4-Dioxane	ND		ug/kg	100	44.	1
Freon-113	ND		ug/kg	5.1	0.88	1
Methyl cyclohexane	ND		ug/kg	5.1	0.76	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	98	70-130	
Toluene-d8	106	70-130	
4-Bromofluorobenzene	101	70-130	
Dibromofluoromethane	89	70-130	



L2208221

03/04/22

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

SAMPLE RESULTS

Lab Number:

Report Date:

SAMI LE RESOLI

Lab ID: L2208221-13 Date Collected: 02/16/22 08:30

Client ID: GRAB 9 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/27/22 17:30

Analyst: AJK Percent Solids: 74%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborou	gh Lab					
Methylene chloride	ND		ug/kg	6.7	3.1	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	0.67	0.26	1
Chlorobenzene	ND		ug/kg	0.67	0.17	1
Trichlorofluoromethane	ND		ug/kg	5.4	0.93	1
1,2-Dichloroethane	ND		ug/kg	1.3	0.34	1
1,1,1-Trichloroethane	ND		ug/kg	0.67	0.22	1
Bromodichloromethane	ND		ug/kg	0.67	0.15	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	0.37	1
cis-1,3-Dichloropropene	ND		ug/kg	0.67	0.21	1
Bromoform	ND		ug/kg	5.4	0.33	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.67	0.22	1
Benzene	ND		ug/kg	0.67	0.22	1
Toluene	ND		ug/kg	1.3	0.73	1
Ethylbenzene	ND		ug/kg	1.3	0.19	1
Chloromethane	ND		ug/kg	5.4	1.2	1
Bromomethane	ND		ug/kg	2.7	0.78	1
Vinyl chloride	ND		ug/kg	1.3	0.45	1
Chloroethane	ND		ug/kg	2.7	0.61	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.32	1
trans-1,2-Dichloroethene	ND		ug/kg	2.0	0.18	1
Trichloroethene	ND		ug/kg	0.67	0.18	1
1,2-Dichlorobenzene	ND		ug/kg	2.7	0.19	1



Project Name: 1168 BROADWAY TOPSOIL L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-13 Date Collected: 02/16/22 08:30

Client ID: GRAB 9 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

1,4-Dichlorobenzene ND ug/kg 2,7 0,23 1	Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4-Dichlorobenzene ND ug/kg 2,7 0,23 1	Volatile Organics by GC/MS - Wes	tborough Lab					
1.4-Dichlorobenzene ND ug/kg 2.7 0.23 1 Methyl tert buyl ether ND ug/kg 2.7 0.27 1 p/m-Xylene ND ug/kg 2.7 0.75 1 OxYlene ND ug/kg 1.3 0.39 1 cis-1,2-Dichloroethene ND ug/kg 1.3 0.23 1 Styrene ND ug/kg 1.3 0.26 1 Dichlorodifluoromethane ND ug/kg 13 1.2 1 Acetone ND ug/kg 13 6.4 1 Carbon disulfide ND ug/kg 13 6.1 1 Carbon disulfide ND ug/kg 13 1.7 1 Carbon disulfide ND ug/kg 13 1.7 1 Carbon disulfide ND ug/kg 13 1.6 1 Carbon disulfide ND ug/kg 13 1.7 1	1,3-Dichlorobenzene	ND		ug/kg	2.7	0.20	1
Methyl tert buyl ether ND ug/kg 2.7 0.27 1 p/m-Xylene ND ug/kg 2.7 0.75 1 o-Xylene ND ug/kg 1.3 0.39 1 cist-1,2-Dichloroethene ND ug/kg 1.3 0.23 1 Styrene ND ug/kg 1.3 0.26 1 Dichlorodifluoromethane ND ug/kg 1.3 6.4 1 Acetone ND ug/kg 13 6.4 1 Carbon disulfide ND ug/kg 13 6.1 1 Carbon disulfide ND ug/kg 13 6.1 1 2-Butanone ND ug/kg 13 1.7 1 4-Methyl-2-pentanone ND ug/kg 13 1.6 1 Bromochloromethane ND ug/kg 1.3 0.2 1 1,2-Dibromoethane ND ug/kg 1.3 0.2 1	1,4-Dichlorobenzene	ND			2.7	0.23	1
p/m-Xylene ND ug/kg 2.7 0.75 1 o-Xylene ND ug/kg 1.3 0.39 1 cis-1,2-Dichloroethene ND ug/kg 1.3 0.23 1 Styrene ND ug/kg 1.3 0.26 1 Dichlorodifluoromethane ND ug/kg 1.3 0.26 1 Acetone ND ug/kg 13 6.4 1 Carbon disulfide ND ug/kg 13 6.1 1 2-Butanone ND ug/kg 13 3.0 1 4-Methyl-2-pentanone ND ug/kg 13 1.7 1 2-Butanone ND ug/kg 13 1.6 1 2-Hexanone ND ug/kg 13 0.2 1 1-1,2-Dibromochane ND ug/kg 1.3 0.37 1 1-2,Dibromochane ND ug/kg 1.3 0.22 1 1-2,Birbipot	Methyl tert butyl ether	ND			2.7	0.27	1
ND	p/m-Xylene	ND			2.7	0.75	1
Styrene ND ug/kg 1.3 0.26 1 Dichlorodifluoromethane ND ug/kg 13 1.2 1 Acetone ND ug/kg 13 6.4 1 Carbon disulfide ND ug/kg 13 6.1 1 2-Butanone ND ug/kg 13 3.0 1 4-Methyl-2-pentanone ND ug/kg 13 1.7 1 2-Hexanone ND ug/kg 13 1.6 1 2-Hexanone ND ug/kg 13 1.6 1 1,2-Dibromothane ND ug/kg 1.3 0.28 1 1,2-Dibromothane ND ug/kg 1.3 0.22 1 n-Butylbenzene ND ug/kg 1.3 0.22 1 n-Butylbenzene ND ug/kg 1.3 0.15 1 1,2-Dibromo-3-chloropropane ND ug/kg 1.3 0.15 1 1	o-Xylene	ND		ug/kg	1.3	0.39	1
Dichlorodifluoromethane ND	cis-1,2-Dichloroethene	ND			1.3	0.23	1
Acetone ND ug/kg 13 6.4 1 Carbon disulfide ND ug/kg 13 6.1 1 2-Butanone ND ug/kg 13 3.0 1 4-Methyl-2-pentanone ND ug/kg 13 3.0 1 4-Methyl-2-pentanone ND ug/kg 13 1.7 1 2-Hexanone ND ug/kg 13 1.6 1 8-Bromochloromethane ND ug/kg 13 1.6 1 1.2-Dibromoethane ND ug/kg 1.3 0.37 1 1.3-Dibromoethane ND ug/kg 1.3 0.37 1 1.3-Dibromoethane ND ug/kg 1.3 0.22 1 1.2-Dibromoethane ND ug/kg 1.3 0.22 1 1.2-Dibromo-3-chloropropane ND ug/kg 1.3 0.20 1 1.2-Dibromo-3-chloropropane ND ug/kg 1.3 0.20 1 1.2-Dibromo-3-chloropropane ND ug/kg 1.3 0.15 1 1.2-Dispropyltoluene ND ug/kg 1.3 0.15 1 1.2-Dispropyltoluene ND ug/kg 1.3 0.15 1 1.2-Jaspropyltoluene ND ug/kg 1.3 0.15 1 1.2-Jaspropyltoluene ND ug/kg 1.3 0.15 1 1.2-Jaspropyltoluene ND ug/kg 1.3 0.23 1 1.2-3-Trichlorobenzene ND ug/kg 2.7 0.43 1 1.2-3-Trichlorobenzene ND ug/kg 2.7 0.45 1 1.2-4-Trimethylbenzene ND ug/kg 2.7 0.45 1 1.3-4-Trimethylbenzene ND ug/kg 3.1 0.73 1 1.4-2-Trimethylbenzene ND ug/kg 3.1 0.73 1 1.4-Dioxane ND ug/kg 5.4 0.93 1	Styrene	ND			1.3	0.26	1
Carbon disulfide ND ug/kg 13 6.1 1 2-Butanone ND ug/kg 13 3.0 1 4-Methyl-2-pentanone ND ug/kg 13 1.7 1 2-Hexanone ND ug/kg 13 1.6 1 Bromochloromethane ND ug/kg 2.7 0.28 1 1,2-Dibromoethane ND ug/kg 1.3 0.37 1 1,2-Dibromoethane ND ug/kg 1.3 0.22 1 n-Butylbenzene ND ug/kg 1.3 0.22 1 n-Butylbenzene ND ug/kg 1.3 0.20 1 1,2-Dibromo-3-chloropropane ND ug/kg 4.0 1.3 1 Isopropylbenzene ND ug/kg 1.3 0.15 1 p-Isopropylbenzene ND ug/kg 1.3 0.15 1 n-Propylbenzene ND ug/kg 2.7 0.43 1 <	Dichlorodifluoromethane	ND		ug/kg	13	1.2	1
2-Butanone ND ug/kg 13 3.0 1 4-Methyl-2-pentanone ND ug/kg 13 1.7 1 2-Hexanone ND ug/kg 13 1.6 1 Bromochloromethane ND ug/kg 2.7 0.28 1 1,2-Dibromoethane ND ug/kg 1.3 0.37 1 n-Butylbenzene ND ug/kg 1.3 0.22 1 n-Butylbenzene ND ug/kg 1.3 0.20 1 sec-Butylbenzene ND ug/kg 1.3 0.20 1 1,2-Dibromo-3-chloropropane ND ug/kg 4.0 1.3 1 Isopropylbenzene ND ug/kg 1.3 0.15 1 p-Isopropylbenzene ND ug/kg 1.3 0.15 1 n-Propylbenzene ND ug/kg 2.7 0.43 1 1,2-4-Trichlorobenzene ND ug/kg 2.7 0.45 1 <td>Acetone</td> <td>ND</td> <td></td> <td>ug/kg</td> <td>13</td> <td>6.4</td> <td>1</td>	Acetone	ND		ug/kg	13	6.4	1
A-Methyl-2-pentanone ND	Carbon disulfide	ND			13	6.1	1
ND	2-Butanone	ND		ug/kg	13	3.0	1
Bromochloromethane ND	4-Methyl-2-pentanone	ND		ug/kg	13	1.7	1
1,2-Dibromoethane ND ug/kg 1.3 0.37 1 n-Butylbenzene ND ug/kg 1.3 0.22 1 see-Butylbenzene ND ug/kg 1.3 0.20 1 1,2-Dibromo-3-chloropropane ND ug/kg 1.3 0.15 1 lsopropylbenzene ND ug/kg 1.3 0.15 1 p-Isopropyltoluene ND ug/kg 1.3 0.15 1 n-Propylbenzene ND ug/kg 1.3 0.15 1 1 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 1,2,4-Trimethylbenzene ND ug/kg 2.7 0.26 1 1,2,4-Trimethylbenzene ND ug/kg 2.7 0.45 1 Methyl Acetate ND ug/kg 5.4 1.3 1 Cyclohexane ND ug/kg 13 0.73 1 In-Propylenzene ND ug/kg 14 In-Propylenzene ND ug/kg In-Propylenzene ND ug/kg In-Propylenzene ND ug/kg In-Propylenzene In-P	2-Hexanone	ND		ug/kg	13	1.6	1
ND	Bromochloromethane	ND		ug/kg	2.7	0.28	1
ND	1,2-Dibromoethane	ND		ug/kg	1.3	0.37	1
1,2-Dibromo-3-chloropropane ND ug/kg 4.0 1.3 1 Isopropylbenzene ND ug/kg 1.3 0.15 1 p-Isopropylbenzene ND ug/kg 1.3 0.15 1 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 0.45 1 Methyl Acetate ND ug/kg 5.4 1.3 1 Cyclohexane ND ug/kg 13 0.73 1 1,4-Dioxane ND ug/kg 110 47 1 Freon-113 ND ug/kg 5.4 0.93 1	n-Butylbenzene	ND		ug/kg	1.3	0.22	1
Sopropy benzene ND ug/kg 1.3 0.15 1	sec-Butylbenzene	ND		ug/kg	1.3	0.20	1
p-Isopropyltoluene ND ug/kg 1.3 0.15 1 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 0.26 1 1,2,4-Trimethylbenzene ND ug/kg 2.7 0.45 1 Cyclohexane ND ug/kg 5.4 1.3 1 Cyclohexane ND ug/kg 13 0.73 1 1,4-Dioxane ND ug/kg 110 47. 1 Freon-113 ND ug/kg 5.4 0.93 1	1,2-Dibromo-3-chloropropane	ND		ug/kg	4.0	1.3	1
ND	Isopropylbenzene	ND		ug/kg	1.3	0.15	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 0.45 1 Methyl Acetate ND ug/kg 5.4 1.3 1 Cyclohexane ND ug/kg 13 0.73 1 1,4-Dioxane ND ug/kg 110 47 1 Freon-113 ND ug/kg 5.4 0.93 1	p-Isopropyltoluene	ND		ug/kg	1.3	0.15	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 0.45 1 Methyl Acetate ND ug/kg 5.4 1.3 1 Cyclohexane ND ug/kg 13 0.73 1 1,4-Dioxane ND ug/kg 110 47. 1 Freon-113 ND ug/kg 5.4 0.93 1	n-Propylbenzene	ND		ug/kg	1.3	0.23	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 Methyl Acetate ND ug/kg 5.4 1.3 1 Cyclohexane ND ug/kg 13 0.73 1 1,4-Dioxane ND ug/kg 110 47. 1 Freon-113 ND ug/kg 5.4 0.93 1	1,2,3-Trichlorobenzene	ND		ug/kg	2.7	0.43	1
1,2,4-Trimethylbenzene ND ug/kg 2.7 0.45 1 Methyl Acetate ND ug/kg 5.4 1.3 1 Cyclohexane ND ug/kg 13 0.73 1 1,4-Dioxane ND ug/kg 110 47. 1 Freon-113 ND ug/kg 5.4 0.93 1	1,2,4-Trichlorobenzene	ND		ug/kg	2.7	0.36	1
Methyl Acetate ND ug/kg 5.4 1.3 1 Cyclohexane ND ug/kg 13 0.73 1 1,4-Dioxane ND ug/kg 110 47. 1 Freon-113 ND ug/kg 5.4 0.93 1	1,3,5-Trimethylbenzene	ND		ug/kg	2.7	0.26	1
Cyclohexane ND ug/kg 13 0.73 1 1,4-Dioxane ND ug/kg 110 47. 1 Freon-113 ND ug/kg 5.4 0.93 1	1,2,4-Trimethylbenzene	ND		ug/kg	2.7	0.45	1
1,4-Dioxane ND ug/kg 110 47. 1 Freon-113 ND ug/kg 5.4 0.93 1	Methyl Acetate	ND		ug/kg	5.4	1.3	1
Freon-113 ND ug/kg 5.4 0.93 1	Cyclohexane	ND		ug/kg	13	0.73	1
-3-3	1,4-Dioxane	ND		ug/kg	110	47.	1
Methyl cyclohexane ND ug/kg 5.4 0.81 1	Freon-113	ND		ug/kg	5.4	0.93	1
	Methyl cyclohexane	ND		ug/kg	5.4	0.81	1

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	113	70-130	
Toluene-d8	94	70-130	
4-Bromofluorobenzene	103	70-130	
Dibromofluoromethane	111	70-130	



Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

SAMPLE RESULTS

Report Date: 03/04/22

Lab ID: L2208221-14

Client ID: GRAB 10

Sample Location: **BROADWAY & TWO RED RD** Field Prep:

Lab Number:

Date Collected:

Date Received:

02/16/22 Not Specified

02/16/22 08:35

L2208221

Sample Depth:

Matrix: Soil Analytical Method: 1,8260C Analytical Date: 02/27/22 17:55

Analyst: AJK 74% Percent Solids:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by GC/MS - W	estborough Lab						
Methylene chloride	ND		ug/kg	6.7	3.1	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	0.67	0.26	1	
Chlorobenzene	ND		ug/kg	0.67	0.17	1	
Trichlorofluoromethane	ND		ug/kg	5.3	0.93	1	
1,2-Dichloroethane	ND		ug/kg	1.3	0.34	1	
1,1,1-Trichloroethane	ND		ug/kg	0.67	0.22	1	
Bromodichloromethane	ND		ug/kg	0.67	0.14	1	
trans-1,3-Dichloropropene	ND		ug/kg	1.3	0.36	1	
cis-1,3-Dichloropropene	ND		ug/kg	0.67	0.21	1	
Bromoform	ND		ug/kg	5.3	0.33	1	
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.67	0.22	1	
Benzene	ND		ug/kg	0.67	0.22	1	
Toluene	ND		ug/kg	1.3	0.73	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	0.78	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	
Trichloroethene	ND		ug/kg	0.67	0.18	1	
1,2-Dichlorobenzene	ND		ug/kg	2.7	0.19	1	



Project Name: 1168 BROADWAY TOPSOIL L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-14 Date Collected: 02/16/22 08:35

Client ID: GRAB 10 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

1,4-Dichlorobenzene ND ug/kg 2,7 0,23 1	Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Methyl tert buyl ether ND	Volatile Organics by GC/MS - Wes	tborough Lab					
1.4-Dichlorobenzene ND ug/kg 2.7 0.23 1 Methyl tert buyl ether ND ug/kg 2.7 0.27 1 p/m-Xylene ND ug/kg 2.7 0.75 1 ox-Xylene ND ug/kg 1.3 0.39 1 ox-Xylene ND ug/kg 1.3 0.23 1 ox-Yelene ND ug/kg 1.3 0.26 1 Styrene ND ug/kg 13 0.26 1 Styrene ND ug/kg 13 0.26 1 Acetone ND ug/kg 13 6.4 1 Carbon disulfide ND ug/kg 13 6.4 1 Carbon disulfide ND ug/kg 13 1.7 1 2-Bulanone ND ug/kg 13 1.7 1 4-Methyl-2-pentanone ND ug/kg 13 0.7 1 2-Busanone	1,3-Dichlorobenzene	ND		ug/kg	2.7	0.20	1
Methyl tert buyl ether ND ug/kg 2.7 0.27 1 pr/m-Xylene ND ug/kg 2.7 0.75 1 o-Xylene ND ug/kg 1.3 0.39 1 cist-1,2-Dichloroethene ND ug/kg 1.3 0.23 1 Styrene ND ug/kg 1.3 0.26 1 Dichlorodifluoromethane ND ug/kg 1.3 0.26 1 Acetone ND ug/kg 1.3 6.4 1 Carbon disulfide ND ug/kg 1.3 6.4 1 Carbon disulfide ND ug/kg 1.3 6.1 1 Carbon disulfide ND ug/kg 1.3 0.1 1 Carbon disulfide ND ug/kg 1.3 0.1 1 E-Bustonene ND ug/kg 1.3 0.7 1 E-Hexanone ND ug/kg 2.7 0.27 1 <	1,4-Dichlorobenzene	ND			2.7	0.23	1
p/m-Xylene ND ug/kg 2.7 0.75 1 o-Xylene ND ug/kg 1.3 0.39 1 cis-1,2-Dichloroethene ND ug/kg 1.3 0.23 1 Styrene ND ug/kg 1.3 0.26 1 Dichlorodifluoromethane ND ug/kg 1.3 0.26 1 Acetone ND ug/kg 1.3 6.4 1 Carbon disulfide ND ug/kg 1.3 6.1 1 2-Butanone ND ug/kg 1.3 3.0 1 4-Methyl-2-pentanone ND ug/kg 1.3 1.7 1 2-Hexanone ND ug/kg 1.3 0.2 1 1-1,2-Dibromoethane ND ug/kg 1.3 0.37 1 1-2,Dibromoethane ND ug/kg 1.3 0.22 1 1-2,Dibromoethane ND ug/kg 1.3 0.22 1	Methyl tert butyl ether	ND			2.7	0.27	1
ND	p/m-Xylene	ND			2.7	0.75	1
Styrene ND ug/kg 1.3 0.26 1 Dichlorodifluoromethane ND ug/kg 13 1.2 1 Acetone ND ug/kg 13 6.4 1 Carbon disulfide ND ug/kg 13 6.1 1 2-Butanone ND ug/kg 13 3.0 1 4-Methyl-2-pentanone ND ug/kg 13 1.6 1 2-Hexanone ND ug/kg 13 1.6 1 8-Departmentane ND ug/kg 2.7 0.27 1 1,2-Dibromoethane ND ug/kg 1.3 0.37 1 n-Butylbenzene ND ug/kg 1.3 0.22 1 n-Butylbenzene ND ug/kg 1.3 0.20 1 1,2-Dibromo-3-chloropropane ND ug/kg 1.3 0.14 1 1,2-Dibromo-3-chloropropane ND ug/kg 1.3 0.14 1	o-Xylene	ND		ug/kg	1.3	0.39	1
Dichlorodifluoromethane ND	cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.23	1
Acetone ND ug/kg 13 6.4 1 Carbon disulfide ND ug/kg 13 6.1 1 2-Butanone ND ug/kg 13 3.0 1 4-Methyl-2-pentanone ND ug/kg 13 1.7 1 2-Hexanone ND ug/kg 13 1.7 1 2-Hexanone ND ug/kg 13 1.6 1 8-Bromochloromethane ND ug/kg 13 1.6 1 1.2-Dibromoethane ND ug/kg 1.3 0.37 1 1.3-Dibromoethane ND ug/kg 1.3 0.37 1 1.2-Dibromoethane ND ug/kg 1.3 0.22 1 1.2-Dibromoethane ND ug/kg 1.3 0.22 1 1.2-Dibromo-3-chloropropane ND ug/kg 1.3 0.20 1 1.2-Dibromo-3-chloropropane ND ug/kg 1.3 0.20 1 1.2-Dibromo-3-chloropropane ND ug/kg 1.3 0.14 1 1.2-Dibromo-3-chloropropane ND ug/kg 1.3 0.14 1 1.2-Dispropyltoluene ND ug/kg 1.3 0.14 1 1.2-Dispropyltoluene ND ug/kg 1.3 0.14 1 1.2-Dispropyltoluene ND ug/kg 1.3 0.14 1 1.2-Strichlorobenzene ND ug/kg 2.7 0.43 1 1.2-3-Trichlorobenzene ND ug/kg 2.7 0.45 1 1.2-4-Trimethylbenzene ND ug/kg 2.7 0.45 1 1.3-5-Trimethylbenzene ND ug/kg 3.3 1.3 1 Cyclohexane ND ug/kg 5.3 1.3 1 Cyclohexane ND ug/kg 13 0.73 1 1.4-Dioxane ND ug/kg 5.3 0.93 1	Styrene	ND		ug/kg	1.3	0.26	1
Carbon disulfide ND ug/kg 13 6.1 1 2-Butanone ND ug/kg 13 3.0 1 4-Methyl-2-pentanone ND ug/kg 13 1.7 1 2-Hexanone ND ug/kg 13 1.6 1 Bromochloromethane ND ug/kg 2.7 0.27 1 1,2-Dibromoethane ND ug/kg 1.3 0.37 1 1,2-Dibromoethane ND ug/kg 1.3 0.22 1 n-Butylbenzene ND ug/kg 1.3 0.22 1 n-Butylbenzene ND ug/kg 1.3 0.20 1 1,2-Dibromo-3-chloropropane ND ug/kg 4.0 1.3 1 Isopropylbenzene ND ug/kg 1.3 0.14 1 p-Isopropylbenzene ND ug/kg 1.3 0.14 1 n-Propylbenzene ND ug/kg 2.7 0.43 1 <	Dichlorodifluoromethane	ND		ug/kg	13	1.2	1
2-Butanone ND ug/kg 13 3.0 1 4-Methyl-2-pentanone ND ug/kg 13 1.7 1 2-Hexanone ND ug/kg 13 1.6 1 Bromochloromethane ND ug/kg 2.7 0.27 1 1,2-Dibromoethane ND ug/kg 1.3 0.37 1 n-Butylbenzene ND ug/kg 1.3 0.22 1 n-Butylbenzene ND ug/kg 1.3 0.20 1 1,2-Dibromo-3-chloropropane ND ug/kg 4.0 1.3 1 Isopropylbenzene ND ug/kg 4.0 1.3 1 Isopropylbenzene ND ug/kg 1.3 0.14 1 n-Propylbenzene ND ug/kg 1.3 0.14 1 n-Propylbenzene ND ug/kg 2.7 0.43 1 1,2,4-Trichlorobenzene ND ug/kg 2.7 0.45 1	Acetone	ND		ug/kg	13	6.4	1
A-Methyl-2-pentanone ND ug/kg 13 1.7 1 2-Hexanone ND ug/kg 13 1.6 1 Bromochloromethane ND ug/kg 2.7 0.27 1 1.2-Dibromoethane ND ug/kg 1.3 0.37 1 1.2-Dibromoethane ND ug/kg 1.3 0.37 1 1.3-Butylbenzene ND ug/kg 1.3 0.22 1 1.3-Butylbenzene ND ug/kg 1.3 0.20 1 1.2-Dibromo-3-chloropropane ND ug/kg 1.3 0.20 1 1.2-Dibromo-3-chloropropane ND ug/kg 1.3 0.14 1 1.2-In-Propylbenzene ND ug/kg 1.3 0.14 1 1.2-In-Propylbenzene ND ug/kg 1.3 0.23 1 1.2-In-Propylbenzene ND ug/kg 1.3 0.23 1 1.2-In-In-In-In-In-In-In-In-In-In-In-In-In-	Carbon disulfide	ND		ug/kg	13	6.1	1
ND	2-Butanone	ND		ug/kg	13	3.0	1
ND	4-Methyl-2-pentanone	ND		ug/kg	13	1.7	1
1,2-Dibromoethane ND	2-Hexanone	ND		ug/kg	13	1.6	1
ND	Bromochloromethane	ND		ug/kg	2.7	0.27	1
ND	1,2-Dibromoethane	ND		ug/kg	1.3	0.37	1
1,2-Dibromo-3-chloropropane ND ug/kg 4.0 1.3 1 Isopropylbenzene ND ug/kg 1.3 0.14 1 p-Isopropylbenzene ND ug/kg 1.3 0.14 1 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 0.45 1 Methyl Acetate ND ug/kg 5.3 1.3 1 Cyclohexane ND ug/kg 13 0.73 1 1,4-Dioxane ND ug/kg 110 47 1 Freon-113 ND ug/kg 5.3 0.93 1	n-Butylbenzene	ND		ug/kg	1.3	0.22	1
Sopropy benzene ND ug/kg 1.3 0.14 1 1 1 1 1 1 1 1 1	sec-Butylbenzene	ND		ug/kg	1.3	0.20	1
p-Isopropyltoluene ND ug/kg 1.3 0.14 1 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 0.45 1 1,2,4-Trimethylbenzene ND ug/kg 2.7 0.45 1 1,2,4-Trimethylbenzene ND ug/kg 5.3 1.3 1 Cyclohexane ND ug/kg 13 0.73 1 1,4-Dioxane ND ug/kg 110 47. 1 Freon-113 ND ug/kg 5.3 0.93 1	1,2-Dibromo-3-chloropropane	ND		ug/kg	4.0	1.3	1
ND	Isopropylbenzene	ND		ug/kg	1.3	0.14	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 0.45 1 Methyl Acetate ND ug/kg 5.3 1.3 1 Cyclohexane ND ug/kg 13 0.73 1 1,4-Dioxane ND ug/kg 110 47 1 Freon-113 ND ug/kg 5.3 0.93 1	p-Isopropyltoluene	ND		ug/kg	1.3	0.14	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 0.45 1 Methyl Acetate ND ug/kg 5.3 1.3 1 Cyclohexane ND ug/kg 13 0.73 1 1,4-Dioxane ND ug/kg 110 47 1 Freon-113 ND ug/kg 5.3 0.93 1	n-Propylbenzene	ND		ug/kg	1.3	0.23	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 Methyl Acetate ND ug/kg 5.3 1.3 1 Cyclohexane ND ug/kg 13 0.73 1 1,4-Dioxane ND ug/kg 110 47 1 Freon-113 ND ug/kg 5.3 0.93 1	1,2,3-Trichlorobenzene	ND		ug/kg	2.7	0.43	1
1,2,4-Trimethylbenzene ND ug/kg 2.7 0.45 1 Methyl Acetate ND ug/kg 5.3 1.3 1 Cyclohexane ND ug/kg 13 0.73 1 1,4-Dioxane ND ug/kg 110 47. 1 Freon-113 ND ug/kg 5.3 0.93 1	1,2,4-Trichlorobenzene	ND		ug/kg	2.7	0.36	1
Methyl Acetate ND ug/kg 5.3 1.3 1 Cyclohexane ND ug/kg 13 0.73 1 1,4-Dioxane ND ug/kg 110 47. 1 Freon-113 ND ug/kg 5.3 0.93 1	1,3,5-Trimethylbenzene	ND		ug/kg	2.7	0.26	1
Cyclohexane ND ug/kg 13 0.73 1 1,4-Dioxane ND ug/kg 110 47. 1 Freon-113 ND ug/kg 5.3 0.93 1	1,2,4-Trimethylbenzene	ND		ug/kg	2.7	0.45	1
1,4-Dioxane ND ug/kg 110 47. 1 Freon-113 ND ug/kg 5.3 0.93 1	Methyl Acetate	ND		ug/kg	5.3	1.3	1
Freon-113 ND ug/kg 5.3 0.93 1	Cyclohexane	ND		ug/kg	13	0.73	1
-5-5	1,4-Dioxane	ND		ug/kg	110	47.	1
Methyl cyclohexane ND ug/kg 5.3 0.81 1	Freon-113	ND		ug/kg	5.3	0.93	1
	Methyl cyclohexane	ND		ug/kg	5.3	0.81	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	
1,2-Dichloroethane-d4	113		70-130	
Toluene-d8	96		70-130	
4-Bromofluorobenzene	103		70-130	
Dibromofluoromethane	111		70-130	



L2208221

03/04/22

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

SAMPLE RESULTS

Date Collected: 02/16/22 08:40

Lab ID: L2208221-15

Client ID: GRAB 11

Sample Location: BROADWAY & TWO RED RD

Date Received: 02/16/22 Field Prep: Not Specified

Lab Number:

Report Date:

Sample Depth:

Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/27/22 18:20

Analyst: AJK Percent Solids: 71%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westboroug	h Lab					
Methylene chloride	ND		ug/kg	6.8	3.1	1
1,1-Dichloroethane	ND		ug/kg	1.4	0.20	1
Chloroform	ND		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	0.27	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
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	0.46	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	0.19	1
Trichloroethene	ND		ug/kg	0.68	0.19	1
1,2-Dichlorobenzene	ND		ug/kg	2.7	0.20	1



MDL

Dilution Factor

Project Name: 1168 BROADWAY TOPSOIL L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-15 Date Collected: 02/16/22 08:40

Client ID: GRAB 11 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Qualifier

Units

RL

Result

Sample Depth:

Parameter

Parameter	Result	Qualifier	Ullits	KL.	MIDL	Dilution Factor	
Volatile Organics by GC/MS - Wes	stborough Lab						
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	0.40	1	
cis-1,2-Dichloroethene	ND		ug/kg	1.4	0.24	1	
Styrene	ND		ug/kg	1.4	0.27	1	
Dichlorodifluoromethane	ND		ug/kg	14	1.2	1	
Acetone	50		ug/kg	14	6.5	1	
Carbon disulfide	ND		ug/kg	14	6.2	1	
2-Butanone	ND		ug/kg	14	3.0	1	
4-Methyl-2-pentanone	ND		ug/kg	14	1.7	1	
2-Hexanone	ND		ug/kg	14	1.6	1	
Bromochloromethane	ND		ug/kg	2.7	0.28	1	
1,2-Dibromoethane	ND		ug/kg	1.4	0.38	1	
n-Butylbenzene	ND		ug/kg	1.4	0.23	1	
sec-Butylbenzene	ND		ug/kg	1.4	0.20	1	
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.1	1.4	1	
Isopropylbenzene	ND		ug/kg	1.4	0.15	1	
p-Isopropyltoluene	0.51	J	ug/kg	1.4	0.15	1	
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	
Methyl Acetate	ND		ug/kg	5.4	1.3	1	
Cyclohexane	ND		ug/kg	14	0.74	1	
1,4-Dioxane	ND		ug/kg	110	48.	1	
Freon-113	ND		ug/kg	5.4	0.94	1	
Methyl cyclohexane	ND		ug/kg	5.4	0.82	1	

Surrogate	% Recovery	Acceptance Qualifier Criteria	
1,2-Dichloroethane-d4	116	70-130	
Toluene-d8	95	70-130	
4-Bromofluorobenzene	104	70-130	
Dibromofluoromethane	111	70-130	



Project Number: T0006-022-002 **Report Date:** 03/04/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 02/27/22 13:45

Analyst: AJK

Parameter	Result	Qualifier	Units	RL	ı	MDL
olatile Organics by GC/MS -	Westborough Lab	for samp	le(s):	05-11,13-15	Batch:	WG1609940-5
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
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	1.4	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	j 1.5		0.14
Trichloroethene	ND		ug/kg	0.50		0.14
1,2-Dichlorobenzene	ND		ug/kg	2.0		0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0		0.15



Project Number: T0006-022-002 **Report Date:** 03/04/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 02/27/22 13:45

Analyst: AJK

arameter	Result	Qualifier Units	RL	MDL	
olatile Organics by GC/MS - V	Vestborough Lab	for sample(s):	05-11,13-15	Batch: WG1609940)-5
1,4-Dichlorobenzene	ND	ug/kç	2.0	0.17	
Methyl tert butyl ether	ND	ug/kç	2.0	0.20	
p/m-Xylene	ND	ug/kç	2.0	0.56	
o-Xylene	ND	ug/kç	1.0	0.29	
cis-1,2-Dichloroethene	ND	ug/kç	1.0	0.18	
Styrene	ND	ug/ko	1.0	0.20	
Dichlorodifluoromethane	ND	ug/ko	j 10	0.92	
Acetone	ND	ug/kç	g 10	4.8	
Carbon disulfide	ND	ug/kç	g 10	4.6	
2-Butanone	ND	ug/ko	g 10	2.2	
4-Methyl-2-pentanone	ND	ug/ko	g 10	1.3	
2-Hexanone	ND	ug/ko	g 10	1.2	
Bromochloromethane	ND	ug/ko	2.0	0.20	
1,2-Dibromoethane	ND	ug/kç	1.0	0.28	
n-Butylbenzene	ND	ug/kç	1.0	0.17	
sec-Butylbenzene	ND	ug/kç	1.0	0.15	
1,2-Dibromo-3-chloropropane	ND	ug/ko	3.0	1.0	
Isopropylbenzene	ND	ug/ko	1.0	0.11	
p-Isopropyltoluene	ND	ug/ko	1.0	0.11	
n-Propylbenzene	ND	ug/ko	1.0	0.17	
1,2,3-Trichlorobenzene	ND	ug/ko	2.0	0.32	
1,2,4-Trichlorobenzene	ND	ug/kç	2.0	0.27	
1,3,5-Trimethylbenzene	ND	ug/ko	2.0	0.19	
1,2,4-Trimethylbenzene	ND	ug/kç	2.0	0.33	
Methyl Acetate	ND	ug/ko	4.0	0.95	
Cyclohexane	ND	ug/ko	g 10	0.54	
1,4-Dioxane	ND	ug/kç	g 80	35.	
Freon-113	ND	ug/kç	4.0	0.69	
Methyl cyclohexane	ND	ug/kç	9 4.0	0.60	



Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 02/27/22 13:45

Analyst: AJK

Parameter Result Qualifier Units RL MDL

Volatile Organics by GC/MS - Westborough Lab for sample(s): 05-11,13-15 Batch: WG1609940-5

			Acceptance
Surrogate	%Recovery	Qualifier	Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	107		70-130



Project Number: T0006-022-002 **Report Date:** 03/04/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 03/01/22 15:43

Analyst: KJD

arameter	Result	Qualifier	Units		RL	MDL
olatile Organics by GC/MS -	Westborough Lab	for sampl	le(s):	12	Batch:	WG1610741-5
Methylene chloride	ND		ug/kg	ı	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	ı	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	ı	1.0	0.12
Dibromochloromethane	ND		ug/kg		1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	ı	1.0	0.27
Tetrachloroethene	ND		ug/kg	ı	0.50	0.20
Chlorobenzene	ND		ug/kg	ı	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	ı	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	ı	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	ı	0.50	0.17
Bromodichloromethane	ND		ug/kg	ı	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	ı	1.0	0.27
cis-1,3-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	l	1.0	0.54
Ethylbenzene	ND		ug/kg	l	1.0	0.14
Chloromethane	ND		ug/kg	l	4.0	0.93
Bromomethane	0.64	J	ug/kg	l	2.0	0.58
Vinyl chloride	ND		ug/kg	l	1.0	0.34
Chloroethane	ND		ug/kg	ı	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	ı	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	ı	1.5	0.14
Trichloroethene	ND		ug/kg	ı	0.50	0.14
1,2-Dichlorobenzene	ND		ug/kg	ı	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	ı	2.0	0.15



Project Number: T0006-022-002 **Report Date:** 03/04/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 03/01/22 15:43

Analyst: KJD

arameter	Result	Qualifier Units	RL	MDL
olatile Organics by GC/MS	- Westborough Lab	for sample(s):	12 Batch:	WG1610741-5
1,4-Dichlorobenzene	ND	ug/kç	g 2.0	0.17
Methyl tert butyl ether	ND	ug/kç	g 2.0	0.20
p/m-Xylene	ND	ug/ko	g 2.0	0.56
o-Xylene	ND	ug/ko	g 1.0	0.29
cis-1,2-Dichloroethene	ND	ug/ko	g 1.0	0.18
Styrene	ND	ug/kç	g 1.0	0.20
Dichlorodifluoromethane	ND	ug/ko	g 10	0.92
Acetone	ND	ug/ko	g 10	4.8
Carbon disulfide	ND	ug/kç	g 10	4.6
2-Butanone	ND	ug/kç	g 10	2.2
4-Methyl-2-pentanone	ND	ug/kç	g 10	1.3
2-Hexanone	ND	ug/kç	g 10	1.2
Bromochloromethane	ND	ug/kç	2.0	0.20
1,2-Dibromoethane	ND	ug/kç	g 1.0	0.28
n-Butylbenzene	ND	ug/kç	1.0	0.17
sec-Butylbenzene	ND	ug/kç	1.0	0.15
1,2-Dibromo-3-chloropropane	ND	ug/ko	3.0	1.0
Isopropylbenzene	ND	ug/ko	g 1.0	0.11
p-Isopropyltoluene	ND	ug/kç	g 1.0	0.11
n-Propylbenzene	ND	ug/ko	g 1.0	0.17
1,2,3-Trichlorobenzene	ND	ug/kç	2.0	0.32
1,2,4-Trichlorobenzene	ND	ug/ko	g 2.0	0.27
1,3,5-Trimethylbenzene	ND	ug/ko	2.0	0.19
1,2,4-Trimethylbenzene	ND	ug/ko	2.0	0.33
Methyl Acetate	ND	ug/ko	9 4.0	0.95
Cyclohexane	ND	ug/ko	g 10	0.54
1,4-Dioxane	ND	ug/ko	g 80	35.
Freon-113	ND	ug/ko	9 4.0	0.69
Methyl cyclohexane	ND	ug/ko	9 4.0	0.60



Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C Analytical Date: 03/01/22 15:43

Analyst: KJD

Parameter Result Qualifier Units RL MDL

Volatile Organics by GC/MS - Westborough Lab for sample(s): 12 Batch: WG1610741-5

		Acceptance			
Surrogate	%Recovery	Qualifier	Criteria		
1,2-Dichloroethane-d4	97		70-130		
Toluene-d8	103		70-130		
4-Bromofluorobenzene	94		70-130		
Dibromofluoromethane	91		70-130		



Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number: L2208221

Parameter	LCS %Recovery	Qual	LCSD %Recovery	%Recovery Qual Limits	RPD	RPD Qual Limits
/olatile Organics by GC/MS - Westborough	Lab Associated	sample(s):	05-11,13-15 Batc	h: WG1609940-3 WG1609	940-4	
Methylene chloride	79		78	70-130	1	30
1,1-Dichloroethane	93		92	70-130	1	30
Chloroform	79		78	70-130	1	30
Carbon tetrachloride	91		91	70-130	0	30
1,2-Dichloropropane	100		99	70-130	1	30
Dibromochloromethane	87		87	70-130	0	30
1,1,2-Trichloroethane	81		79	70-130	3	30
Tetrachloroethene	87		86	70-130	1	30
Chlorobenzene	89		87	70-130	2	30
Trichlorofluoromethane	91		90	70-139	1	30
1,2-Dichloroethane	95		96	70-130	1	30
1,1,1-Trichloroethane	82		81	70-130	1	30
Bromodichloromethane	81		80	70-130	1	30
trans-1,3-Dichloropropene	87		86	70-130	1	30
cis-1,3-Dichloropropene	89		88	70-130	1	30
Bromoform	81		79	70-130	3	30
1,1,2,2-Tetrachloroethane	85		83	70-130	2	30
Benzene	82		81	70-130	1	30
Toluene	84		82	70-130	2	30
Ethylbenzene	85		83	70-130	2	30
Chloromethane	71		71	52-130	0	30
Bromomethane	90		90	57-147	0	30
Vinyl chloride	77		76	67-130	1	30



Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number: L2208221

Parameter	LCS %Recovery	Qual	LCSD %Recovery		covery mits RPD	RPD Qual Limits	
/olatile Organics by GC/MS - Westborou	ugh Lab Associated	sample(s):	05-11,13-15 Bato	h: WG1609940-3	WG1609940-4		
Chloroethane	86		85	50-	151 1	30	
1,1-Dichloroethene	81		79	65-	135 3	30	
trans-1,2-Dichloroethene	81		81	70-	130 0	30	
Trichloroethene	85		84	70-	130 1	30	
1,2-Dichlorobenzene	91		90	70-	130 1	30	
1,3-Dichlorobenzene	93		91	70-	130 2	30	
1,4-Dichlorobenzene	91		91	70-	130 0	30	
Methyl tert butyl ether	81		80	66-	130 1	30	
p/m-Xylene	91		89	70-	130 2	30	
o-Xylene	90		89	70-	130 1	30	
cis-1,2-Dichloroethene	80		80	70-	130 0	30	
Styrene	87		85	70-	130 2	30	
Dichlorodifluoromethane	34		34	30-	146 0	30	
Acetone	118		117	54-	140 1	30	
Carbon disulfide	66		65	59-	130 2	30	
2-Butanone	102		95	70-	130 7	30	
4-Methyl-2-pentanone	111		110	70-	130 1	30	
2-Hexanone	102		103	70-	130 1	30	
Bromochloromethane	84		85	70-	130 1	30	
1,2-Dibromoethane	92		90	70-	130 2	30	
n-Butylbenzene	96		95	70-	130 1	30	
sec-Butylbenzene	97		96	70-	130 1	30	
1,2-Dibromo-3-chloropropane	84		86	68-	130 2	30	



Project Name: 1168 BROADWAY TOPSOIL

Project Number:

T0006-022-002

Lab Number: L2208221

arameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
olatile Organics by GC/MS - Westborough L	ab Associated	sample(s): (05-11,13-15 Bato	ch: WG16	09940-3 WG1609	940-4		
Isopropylbenzene	96		94		70-130	2		30
p-Isopropyltoluene	97		95		70-130	2		30
n-Propylbenzene	94		91		70-130	3		30
1,2,3-Trichlorobenzene	84		85		70-130	1		30
1,2,4-Trichlorobenzene	89		89		70-130	0		30
1,3,5-Trimethylbenzene	93		91		70-130	2		30
1,2,4-Trimethylbenzene	93		91		70-130	2		30
Methyl Acetate	96		97		51-146	1		30
Cyclohexane	116		114		59-142	2		30
1,4-Dioxane	100		101		65-136	1		30
Freon-113	97		96		50-139	1		30
Methyl cyclohexane	92		90		70-130	2		30

	LCS	LCSD	Acceptance		
Surrogate	%Recovery Qual	%Recovery Qual	Criteria		
1,2-Dichloroethane-d4	103	102	70-130		
Toluene-d8	98	97	70-130		
4-Bromofluorobenzene	104	103	70-130		
Dibromofluoromethane	98	101	70-130		



Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number: L2208221

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough L	ab Associated	sample(s):	12 Batch: WG16	610741-3	WG1610741-4			
Methylene chloride	113		111		70-130	2		30
1,1-Dichloroethane	101		98		70-130	3		30
Chloroform	96		95		70-130	1		30
Carbon tetrachloride	93		88		70-130	6		30
1,2-Dichloropropane	103		101		70-130	2		30
Dibromochloromethane	97		97		70-130	0		30
1,1,2-Trichloroethane	98		96		70-130	2		30
Tetrachloroethene	102		100		70-130	2		30
Chlorobenzene	103		101		70-130	2		30
Trichlorofluoromethane	98		92		70-139	6		30
1,2-Dichloroethane	94		92		70-130	2		30
1,1,1-Trichloroethane	98		93		70-130	5		30
Bromodichloromethane	94		94		70-130	0		30
trans-1,3-Dichloropropene	105		102		70-130	3		30
cis-1,3-Dichloropropene	103		103		70-130	0		30
Bromoform	81		81		70-130	0		30
1,1,2,2-Tetrachloroethane	102		102		70-130	0		30
Benzene	104		100		70-130	4		30
Toluene	100		96		70-130	4		30
Ethylbenzene	105		101		70-130	4		30
Chloromethane	118		110		52-130	7		30
Bromomethane	111		103		57-147	7		30
Vinyl chloride	116		109		67-130	6		30



Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number: L2208221

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	RPD Qual Limits
Volatile Organics by GC/MS - Westborou	igh Lab Associated	sample(s): 1	2 Batch: WG1	610741-3	WG1610741-4		
Chloroethane	107		100		50-151	7	30
1,1-Dichloroethene	103		102		65-135	1	30
trans-1,2-Dichloroethene	110		104		70-130	6	30
Trichloroethene	99		97		70-130	2	30
1,2-Dichlorobenzene	105		103		70-130	2	30
1,3-Dichlorobenzene	106		103		70-130	3	30
1,4-Dichlorobenzene	106		103		70-130	3	30
Methyl tert butyl ether	126		114		66-130	10	30
p/m-Xylene	106		101		70-130	5	30
o-Xylene	105		102		70-130	3	30
cis-1,2-Dichloroethene	104		97		70-130	7	30
Styrene	108		104		70-130	4	30
Dichlorodifluoromethane	104		99		30-146	5	30
Acetone	70		70		54-140	0	30
Carbon disulfide	104		99		59-130	5	30
2-Butanone	114		113		70-130	1	30
4-Methyl-2-pentanone	111		109		70-130	2	30
2-Hexanone	98		101		70-130	3	30
Bromochloromethane	97		94		70-130	3	30
1,2-Dibromoethane	100		98		70-130	2	30
n-Butylbenzene	115		110		70-130	4	30
sec-Butylbenzene	108		105		70-130	3	30
1,2-Dibromo-3-chloropropane	99		91		68-130	8	30



Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number: L2208221

nrameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
platile Organics by GC/MS - Westborough L	ab Associated	sample(s): 1	2 Batch: WG1	610741-3	WG1610741-4			
Isopropylbenzene	105		103		70-130	2		30
p-Isopropyltoluene	110		107		70-130	3		30
n-Propylbenzene	109		104		70-130	5		30
1,2,3-Trichlorobenzene	104		103		70-130	1		30
1,2,4-Trichlorobenzene	109		107		70-130	2		30
1,3,5-Trimethylbenzene	106		102		70-130	4		30
1,2,4-Trimethylbenzene	108		106		70-130	2		30
Methyl Acetate	120		119		51-146	1		30
Cyclohexane	96		93		59-142	3		30
1,4-Dioxane	99		106		65-136	7		30
Freon-113	101		97		50-139	4		30
Methyl cyclohexane	102		99		70-130	3		30

Surrogate	LCS %Recovery Qual	LCSD %Recovery Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93	93	70-130
Toluene-d8	99	100	70-130
4-Bromofluorobenzene	91	94	70-130
Dibromofluoromethane	92	93	70-130



SEMIVOLATILES



L2208221

03/04/22

Project Name: 1168 BROADWAY TOPSOIL

L2208221-01

02/28/22 05:17

Project Number: T0006-022-002

SAMPLE RESULTS

Date Collected: 02/16/22 08:50

Lab Number:

Report Date:

Date Received: Client ID: COMP 1 02/16/22 Sample Location: **BROADWAY & TWO RED RD** Field Prep: Not Specified

Sample Depth:

Lab ID:

Extraction Method: EPA 3546 Matrix: Soil **Extraction Date:** 02/27/22 08:18 Analytical Method: 1,8270D Analytical Date:

Analyst: JRW 78% Percent Solids:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - West	oorough Lab					
Acenaphthene	ND		ug/kg	170	22.	1
Hexachlorobenzene	ND		ug/kg	130	24.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	29.	1
2-Chloronaphthalene	ND		ug/kg	210	21.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	57.	1
2,4-Dinitrotoluene	ND		ug/kg	210	42.	1
2,6-Dinitrotoluene	ND		ug/kg	210	36.	1
Fluoranthene	110	J	ug/kg	130	24.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	23.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	32.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	260	36.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	21.	1
Hexachlorobutadiene	ND		ug/kg	210	31.	1
Hexachlorocyclopentadiene	ND		ug/kg	610	190	1
Hexachloroethane	ND		ug/kg	170	34.	1
Isophorone	ND		ug/kg	190	28.	1
Naphthalene	ND		ug/kg	210	26.	1
Nitrobenzene	ND		ug/kg	190	32.	1
NDPA/DPA	ND		ug/kg	170	24.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	33.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	210	74.	1
Butyl benzyl phthalate	ND		ug/kg	210	54.	1
Di-n-butylphthalate	ND		ug/kg	210	40.	1
Di-n-octylphthalate	ND		ug/kg	210	72.	1
Diethyl phthalate	ND		ug/kg	210	20.	1
Dimethyl phthalate	ND		ug/kg	210	45.	1
Benzo(a)anthracene	49	J	ug/kg	130	24.	1
Benzo(a)pyrene	55	J	ug/kg	170	52.	1



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-01 Date Collected: 02/16/22 08:50

Client ID: COMP 1 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westbe	orough Lab					
Benzo(b)fluoranthene	75	J	ug/kg	130	36.	1
Benzo(k)fluoranthene	ND		ug/kg	130	34.	1
Chrysene	52	J	ug/kg	130	22.	1
Acenaphthylene	ND		ug/kg	170	33.	1
Anthracene	ND		ug/kg	130	42.	1
Benzo(ghi)perylene	33	J	ug/kg	170	25.	1
Fluorene	ND		ug/kg	210	21.	1
Phenanthrene	61	J	ug/kg	130	26.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	25.	1
Indeno(1,2,3-cd)pyrene	40	J	ug/kg	170	30.	1
Pyrene	83	J	ug/kg	130	21.	1
Biphenyl	ND		ug/kg	480	28.	1
4-Chloroaniline	ND		ug/kg	210	39.	1
2-Nitroaniline	ND		ug/kg	210	41.	1
3-Nitroaniline	ND		ug/kg	210	40.	1
4-Nitroaniline	ND		ug/kg	210	88.	1
Dibenzofuran	ND		ug/kg	210	20.	1
2-Methylnaphthalene	ND		ug/kg	260	26.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	22.	1
Acetophenone	ND		ug/kg	210	26.	1
2,4,6-Trichlorophenol	ND		ug/kg	130	40.	1
p-Chloro-m-cresol	ND		ug/kg	210	32.	1
2-Chlorophenol	ND		ug/kg	210	25.	1
2,4-Dichlorophenol	ND		ug/kg	190	34.	1
2,4-Dimethylphenol	ND		ug/kg	210	70.	1
2-Nitrophenol	ND		ug/kg	460	80.	1
4-Nitrophenol	ND		ug/kg	300	87.	1
2,4-Dinitrophenol	ND		ug/kg	1000	99.	1
4,6-Dinitro-o-cresol	ND		ug/kg	550	100	1
Pentachlorophenol	ND		ug/kg	170	47.	1
Phenol	ND		ug/kg	210	32.	1
2-Methylphenol	ND		ug/kg	210	33.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	310	33.	1
2,4,5-Trichlorophenol	ND		ug/kg	210	41.	1
Carbazole	ND		ug/kg	210	21.	1
Atrazine	ND		ug/kg	170	74.	1
Benzaldehyde	ND		ug/kg	280	57.	1



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-01 Date Collected: 02/16/22 08:50

Client ID: COMP 1 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS	- Westborough Lab					
Caprolactam	ND		ug/kg	210	65.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	210	43.	1
1,4-Dioxane	ND		ug/kg	32	9.8	1

Surrogate	% Recovery	Acceptance Qualifier Criteria
2-Fluorophenol	72	25-120
Phenol-d6	73	10-120
Nitrobenzene-d5	89	23-120
2-Fluorobiphenyl	62	30-120
2,4,6-Tribromophenol	86	10-136
4-Terphenyl-d14	57	18-120



L2208221

Project Name: Lab Number: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002 Report Date: 03/04/22

SAMPLE RESULTS

Lab ID: Date Collected: 02/16/22 08:50 L2208221-01

Date Received: Client ID: COMP 1 02/16/22 Sample Location: Field Prep: **BROADWAY & TWO RED RD** Not Specified

Sample Depth:

Extraction Method: ALPHA 23528 Matrix: Soil

Extraction Date: 02/18/22 08:38 Analytical Method: 134,LCMSMS-ID Analytical Date: 02/23/22 02:07

Analyst: RS 78% Percent Solids:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution	on - Mansfiel	d Lab				
Perfluorobutanoic Acid (PFBA)	0.067	J	ng/g	0.576	0.026	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.576	0.053	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.288	0.045	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.576	0.061	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.288	0.052	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.288	0.070	1
Perfluorooctanoic Acid (PFOA)	0.169	J	ng/g	0.288	0.048	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.576	0.207	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.576	0.157	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.288	0.086	1
Perfluorooctanesulfonic Acid (PFOS)	0.480		ng/g	0.288	0.150	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.288	0.077	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.576	0.330	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.576	0.232	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.576	0.054	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.576	0.176	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.576	0.097	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.576	0.081	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.576	0.236	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/g	0.576	0.062	1
PFOA/PFOS, Total	0.649	J	ng/g	0.288	0.048	1



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-01 Date Collected: 02/16/22 08:50

Client ID: COMP 1 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD 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)	101		58-150	
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	95		74-139	
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	86		66-128	
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	98		71-129	
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	93		78-139	
Perfluoro[13C8]Octanoic Acid (M8PFOA)	89		75-130	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	58		20-154	
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	71	Q	72-140	
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	93		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)	56		19-175	
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	44		31-134	
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	104		61-155	
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	36		34-137	
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	109		54-150	
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	40		24-159	



Project Name: Lab Number: 1168 BROADWAY TOPSOIL L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: Date Collected: 02/16/22 08:50 L2208221-01

Date Received: Client ID: COMP 1 02/16/22 Sample Location: Field Prep: **BROADWAY & TWO RED RD** Not Specified

Sample Depth:

Extraction Method: ALPHA 23528 Matrix: Soil

Extraction Date: 02/18/22 08:38 Analytical Method: 134,LCMSMS-ID Analytical Date: 02/23/22 14:32

Analyst: RS 78% Percent Solids:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope	Dilution - Mansfield	l Lab				
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.576	0.113	1
Surrogate (Extracted Internal Standar	rd)		% Recovery	Qualifier		eptance riteria
Perfluoro[13C8]Octanesulfonamide (M8F	OSA)		95		,	10-117



Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

SAMPLE RESULTS

Date Collected: 02/16/22 09:00

Report Date: 03/04/22

Lab ID: L2208221-02 Client ID: COMP 2

Sample Location: BROADWAY & TWO RED RD

Date Received: 02/16/22

Field Prep:

Lab Number:

Not Specified

L2208221

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 02/28/22 04:53

Analyst: JRW Percent Solids: 74%

Extraction Method: EPA 3546
Extraction Date: 02/27/22 07:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Semivolatile Organics by GC/MS - Wes	tborough Lab						
Acenaphthene	ND		ug/kg	170	22.	1	
Hexachlorobenzene	ND		ug/kg	130	24.	1	
Bis(2-chloroethyl)ether	ND		ug/kg	200	29.	1	
2-Chloronaphthalene	ND		ug/kg	220	22.	1	
3,3'-Dichlorobenzidine	ND		ug/kg	220	58.	1	
2,4-Dinitrotoluene	ND		ug/kg	220	43.	1	
2,6-Dinitrotoluene	ND		ug/kg	220	37.	1	
Fluoranthene	78	J	ug/kg	130	25.	1	
4-Chlorophenyl phenyl ether	ND		ug/kg	220	23.	1	
4-Bromophenyl phenyl ether	ND		ug/kg	220	33.	1	
Bis(2-chloroisopropyl)ether	ND		ug/kg	260	37.	1	
Bis(2-chloroethoxy)methane	ND		ug/kg	230	22.	1	
Hexachlorobutadiene	ND		ug/kg	220	32.	1	
Hexachlorocyclopentadiene	ND		ug/kg	620	200	1	
Hexachloroethane	ND		ug/kg	170	35.	1	
Isophorone	ND		ug/kg	200	28.	1	
Naphthalene	ND		ug/kg	220	26.	1	
Nitrobenzene	ND		ug/kg	200	32.	1	
NDPA/DPA	ND		ug/kg	170	25.	1	
n-Nitrosodi-n-propylamine	ND		ug/kg	220	34.	1	
Bis(2-ethylhexyl)phthalate	ND		ug/kg	220	75.	1	
Butyl benzyl phthalate	ND		ug/kg	220	55.	1	
Di-n-butylphthalate	ND		ug/kg	220	41.	1	
Di-n-octylphthalate	ND		ug/kg	220	74.	1	
Diethyl phthalate	ND		ug/kg	220	20.	1	
Dimethyl phthalate	ND		ug/kg	220	46.	1	
Benzo(a)anthracene	36	J	ug/kg	130	24.	1	
Benzo(a)pyrene	ND		ug/kg	170	53.	1	



Project Name: Lab Number: 1168 BROADWAY TOPSOIL L2208221

Project Number: Report Date: T0006-022-002 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-02 Date Collected: 02/16/22 09:00

Client ID: COMP 2 Date Received: 02/16/22 Not Specified

Sample Location: **BROADWAY & TWO RED RD** Field Prep:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - We	estborough Lab					
Daniel (IVI)	54		4	400	07	_
Benzo(b)fluoranthene	51	J	ug/kg	130	37.	1
Benzo(k)fluoranthene	ND		ug/kg	130	35.	1
Chrysene	39	J	ug/kg	130	23.	1
Acenaphthylene	ND		ug/kg	170	34.	<u> </u>
Anthracene	ND		ug/kg	130	42.	1
Benzo(ghi)perylene	ND		ug/kg	170	26.	1
Fluorene	ND		ug/kg	220	21.	1
Phenanthrene	42	J	ug/kg	130	26.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	25.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	170	30.	1
Pyrene	58	J	ug/kg	130	22.	1
Biphenyl	ND		ug/kg	500	28.	1
4-Chloroaniline	ND		ug/kg	220	40.	1
2-Nitroaniline	ND		ug/kg	220	42.	1
3-Nitroaniline	ND		ug/kg	220	41.	1
4-Nitroaniline	ND		ug/kg	220	90.	1
Dibenzofuran	ND		ug/kg	220	20.	1
2-Methylnaphthalene	ND		ug/kg	260	26.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	220	23.	1
Acetophenone	ND		ug/kg	220	27.	1
2,4,6-Trichlorophenol	ND		ug/kg	130	41.	1
p-Chloro-m-cresol	ND		ug/kg	220	32.	1
2-Chlorophenol	ND		ug/kg	220	26.	1
2,4-Dichlorophenol	ND		ug/kg	200	35.	1
2,4-Dimethylphenol	ND		ug/kg	220	72.	1
2-Nitrophenol	ND		ug/kg	470	82.	1
4-Nitrophenol	ND		ug/kg	300	89.	1
2,4-Dinitrophenol	ND		ug/kg	1000	100	1
4,6-Dinitro-o-cresol	ND		ug/kg	560	100	1
Pentachlorophenol	ND		ug/kg	170	48.	1
Phenol	ND		ug/kg	220	33.	1
2-Methylphenol	ND		ug/kg	220	34.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	310	34.	1
2,4,5-Trichlorophenol	ND		ug/kg	220	42.	1
Carbazole	ND		ug/kg	220	21.	1
Atrazine	ND		ug/kg	170	76.	1
Benzaldehyde	ND		ug/kg	290	59.	1
•			- 33			



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-02 Date Collected: 02/16/22 09:00

Client ID: COMP 2 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS	- Westborough Lab					
Caprolactam	ND		ug/kg	220	66.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	220	44.	1
1,4-Dioxane	ND		ua/ka	33	10.	1

Surrogate	% Recovery	Acceptance Qualifier Criteria
2-Fluorophenol	73	25-120
Phenol-d6	73	10-120
Nitrobenzene-d5	89	23-120
2-Fluorobiphenyl	66	30-120
2,4,6-Tribromophenol	85	10-136
4-Terphenyl-d14	62	18-120



L2208221

03/04/22

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

SAMPLE RESULTS

Lab Number:

Report Date:

Lab ID: Date Collected: 02/16/22 09:00 L2208221-02 Date Received:

Client ID: COMP 2 02/16/22 Sample Location: **BROADWAY & TWO RED RD** Field Prep: Not Specified

Sample Depth:

Extraction Method: ALPHA 23528 Matrix: Soil

Extraction Date: 02/18/22 08:38 Analytical Method: 134,LCMSMS-ID Analytical Date: 02/23/22 02:24

Analyst: RS 74% Percent Solids:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution	on - Mansfiel	d Lab				
Perfluorobutanoic Acid (PFBA)	0.064	J	ng/g	0.605	0.028	1
,		<u> </u>				
Perfluoropentanoic Acid (PFPeA)	ND		ng/g	0.605	0.056	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.303	0.047	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.605	0.064	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.303	0.055	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.303	0.073	1
Perfluorooctanoic Acid (PFOA)	0.161	J	ng/g	0.303	0.051	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.605	0.217	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.605	0.165	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.303	0.091	1
Perfluorooctanesulfonic Acid (PFOS)	0.492		ng/g	0.303	0.157	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.303	0.081	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.605	0.348	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.605	0.244	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.605	0.057	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.605	0.185	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.605	0.119	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.605	0.102	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.605	0.085	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.605	0.248	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/g	0.605	0.065	1
PFOA/PFOS, Total	0.653	J	ng/g	0.303	0.051	1



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-02 Date Collected: 02/16/22 09:00

Client ID: COMP 2 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD 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)	100		58-150	
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	92		74-139	
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	91		66-128	
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	103		71-129	
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	95		78-139	
Perfluoro[13C8]Octanoic Acid (M8PFOA)	92		75-130	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	59		20-154	
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	74		72-140	
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	92		79-136	
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	94		75-130	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	64		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)	101		61-155	
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	38		10-117	
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	55		34-137	
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	115		54-150	
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	65		24-159	



L2208221

03/04/22

Project Name: 1168 BROADWAY TOPSOIL

02/28/22 05:41

Project Number: T0006-022-002

SAMPLE RESULTS

Lab Number:

Report Date:

Lab ID: Date Collected: 02/16/22 09:10 L2208221-03

Date Received: Client ID: COMP 3 02/16/22 Sample Location: **BROADWAY & TWO RED RD** Field Prep: Not Specified

Sample Depth:

Analytical Date:

Extraction Method: EPA 3546 Matrix: Soil **Extraction Date:** 02/27/22 07:14 Analytical Method: 1,8270D

Analyst: JRW 74% Percent Solids:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Semivolatile Organics by GC/MS - W	estborough Lab						
Acenaphthene	ND		ug/kg	180	23.	1	
Hexachlorobenzene	ND		ug/kg	130	25.	1	
Bis(2-chloroethyl)ether	ND		ug/kg	200	30.	1	
2-Chloronaphthalene	ND		ug/kg	220	22.	1	
3,3'-Dichlorobenzidine	ND		ug/kg	220	59.	1	
2,4-Dinitrotoluene	ND		ug/kg	220	44.	1	
2,6-Dinitrotoluene	ND		ug/kg	220	38.	1	
Fluoranthene	630		ug/kg	130	26.	1	
4-Chlorophenyl phenyl ether	ND		ug/kg	220	24.	1	
4-Bromophenyl phenyl ether	ND		ug/kg	220	34.	1	
Bis(2-chloroisopropyl)ether	ND		ug/kg	270	38.	1	
Bis(2-chloroethoxy)methane	ND		ug/kg	240	22.	1	
Hexachlorobutadiene	ND		ug/kg	220	33.	1	
Hexachlorocyclopentadiene	ND		ug/kg	640	200	1	
Hexachloroethane	ND		ug/kg	180	36.	1	
Isophorone	ND		ug/kg	200	29.	1	
Naphthalene	ND		ug/kg	220	27.	1	
Nitrobenzene	ND		ug/kg	200	33.	1	
NDPA/DPA	ND		ug/kg	180	25.	1	
n-Nitrosodi-n-propylamine	ND		ug/kg	220	34.	1	
Bis(2-ethylhexyl)phthalate	ND		ug/kg	220	77.	1	
Butyl benzyl phthalate	ND		ug/kg	220	56.	1	
Di-n-butylphthalate	ND		ug/kg	220	42.	1	
Di-n-octylphthalate	ND		ug/kg	220	76.	1	
Diethyl phthalate	ND		ug/kg	220	21.	1	
Dimethyl phthalate	ND		ug/kg	220	47.	1	
Benzo(a)anthracene	280		ug/kg	130	25.	1	
Benzo(a)pyrene	300		ug/kg	180	54.	1	

Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-03 Date Collected: 02/16/22 09:10

Client ID: COMP 3 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - W	estborough Lab					
Benzo(b)fluoranthene	370		ug/kg	130	38.	1
Benzo(k)fluoranthene	130		ug/kg	130	36.	1
Chrysene	260		ug/kg	130	23.	1
Acenaphthylene	ND		ug/kg	180	34.	1
Anthracene	57	J	ug/kg	130	43.	1
Benzo(ghi)perylene	150	J	ug/kg	180	26.	1
Fluorene	ND		ug/kg	220	22.	1
Phenanthrene	220		ug/kg	130	27.	1
Dibenzo(a,h)anthracene	40	J	ug/kg	130	26.	1
Indeno(1,2,3-cd)pyrene	190		ug/kg	180	31.	1
Pyrene	490		ug/kg	130	22.	1
Biphenyl	ND		ug/kg	510	29.	1
4-Chloroaniline	ND		ug/kg	220	40.	1
2-Nitroaniline	ND		ug/kg	220	43.	1
3-Nitroaniline	ND		ug/kg	220	42.	1
4-Nitroaniline	ND		ug/kg	220	92.	1
Dibenzofuran	ND		ug/kg	220	21.	1
2-Methylnaphthalene	ND		ug/kg	270	27.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	220	23.	1
Acetophenone	ND		ug/kg	220	28.	1
2,4,6-Trichlorophenol	ND		ug/kg	130	42.	1
p-Chloro-m-cresol	ND		ug/kg	220	33.	1
2-Chlorophenol	ND		ug/kg	220	26.	1
2,4-Dichlorophenol	ND		ug/kg	200	36.	1
2,4-Dimethylphenol	ND		ug/kg	220	74.	1
2-Nitrophenol	ND		ug/kg	480	84.	1
4-Nitrophenol	ND		ug/kg	310	91.	1
2,4-Dinitrophenol	ND		ug/kg	1100	100	1
4,6-Dinitro-o-cresol	ND		ug/kg	580	110	1
Pentachlorophenol	ND		ug/kg	180	49.	1
Phenol	ND		ug/kg	220	34.	1
2-Methylphenol	ND		ug/kg	220	34.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	320	35.	1
2,4,5-Trichlorophenol	ND		ug/kg	220	43.	1
Carbazole	33	J	ug/kg	220	22.	1
Atrazine	ND		ug/kg	180	78.	1
Benzaldehyde	ND		ug/kg	290	60.	1



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-03 Date Collected: 02/16/22 09:10

Client ID: COMP 3 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS	- Westborough Lab					
Caprolactam	ND		ug/kg	220	68.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	220	45.	1
1.4-Dioxane	ND		ua/ka	33	10.	1

Surrogate	% Recovery	Acceptance Qualifier Criteria
2-Fluorophenol	74	25-120
Phenol-d6	73	10-120
Nitrobenzene-d5	96	23-120
2-Fluorobiphenyl	70	30-120
2,4,6-Tribromophenol	88	10-136
4-Terphenyl-d14	69	18-120



L2208221

03/04/22

02/18/22 08:38

Project Name: 1168 BROADWAY TOPSOIL

L2208221-03

BROADWAY & TWO RED RD

COMP 3

Project Number: T0006-022-002

SAMPLE RESULTS

Date Collected: 02/16/22 09:10

Date Received: 02/16/22

Lab Number:

Report Date:

Extraction Date:

Field Prep: Not Specified

Extraction Method: ALPHA 23528

Sample Depth:

Sample Location:

Lab ID:

Client ID:

Matrix: Soil

Analytical Method: 134,LCMSMS-ID Analytical Date: 02/23/22 02:40

Analyst: RS 74% Percent Solids:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution	on - Mansfield	d Lab				
Perfluorobutanoic Acid (PFBA)	0.127	J	ng/g	0.637	0.029	1
Perfluoropentanoic Acid (PFPeA)	0.061	J	ng/g	0.637	0.059	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/g	0.319	0.050	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/g	0.637	0.067	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/g	0.319	0.058	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/g	0.319	0.077	1
Perfluorooctanoic Acid (PFOA)	0.203	J	ng/g	0.319	0.053	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/g	0.637	0.229	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/g	0.637	0.174	1
Perfluorononanoic Acid (PFNA)	ND		ng/g	0.319	0.096	1
Perfluorooctanesulfonic Acid (PFOS)	0.491		ng/g	0.319	0.166	1
Perfluorodecanoic Acid (PFDA)	ND		ng/g	0.319	0.085	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/g	0.637	0.366	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/g	0.637	0.257	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/g	0.637	0.060	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/g	0.637	0.195	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.637	0.125	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/g	0.637	0.108	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/g	0.637	0.089	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/g	0.637	0.261	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/g	0.637	0.069	1
PFOA/PFOS, Total	0.694	J	ng/g	0.319	0.053	1

Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-03 Date Collected: 02/16/22 09:10

Client ID: COMP 3 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD 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)	89		74-139	
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	83		66-128	
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	97		71-129	
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	89		78-139	
Perfluoro[13C8]Octanoic Acid (M8PFOA)	88		75-130	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	58		20-154	
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	71	Q	72-140	
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	85		79-136	
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	89		75-130	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	59		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)	100		61-155	
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	33		10-117	
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	42		34-137	
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	104		54-150	
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	33		24-159	



L2208221

03/04/22

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

SAMPLE RESULTS

Date Collected: 02/16/22 09:20

Lab Number:

Report Date:

Date Received:

Lab ID: L2208221-04

Client ID: COMP 4

02/16/22 Sample Location: **BROADWAY & TWO RED RD** Field Prep: Not Specified

Sample Depth:

Matrix: Soil Analytical Method: 1,8270D Analytical Date: 02/28/22 06:04

Analyst: JRW 72% Percent Solids:

Extraction Method: EPA 3546 **Extraction Date:** 02/27/22 09:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Semivolatile Organics by GC/MS - W	estborough Lab						
Acenaphthene	32	J	ug/kg	180	24.	1	
Hexachlorobenzene	ND		ug/kg	140	25.	1	
Bis(2-chloroethyl)ether	ND		ug/kg	200	31.	1	
2-Chloronaphthalene	ND		ug/kg	230	22.	1	
3,3'-Dichlorobenzidine	ND		ug/kg	230	60.	1	
2,4-Dinitrotoluene	ND		ug/kg	230	46.	1	
2,6-Dinitrotoluene	ND		ug/kg	230	39.	1	
Fluoranthene	1200		ug/kg	140	26.	1	
4-Chlorophenyl phenyl ether	ND		ug/kg	230	24.	1	
4-Bromophenyl phenyl ether	ND		ug/kg	230	35.	1	
Bis(2-chloroisopropyl)ether	ND		ug/kg	270	39.	1	
Bis(2-chloroethoxy)methane	ND		ug/kg	240	23.	1	
Hexachlorobutadiene	ND		ug/kg	230	33.	1	
Hexachlorocyclopentadiene	ND		ug/kg	650	210	1	
Hexachloroethane	ND		ug/kg	180	37.	1	
Isophorone	ND		ug/kg	200	30.	1	
Naphthalene	ND		ug/kg	230	28.	1	
Nitrobenzene	ND		ug/kg	200	34.	1	
NDPA/DPA	ND		ug/kg	180	26.	1	
n-Nitrosodi-n-propylamine	ND		ug/kg	230	35.	1	
Bis(2-ethylhexyl)phthalate	ND		ug/kg	230	79.	1	
Butyl benzyl phthalate	ND		ug/kg	230	57.	1	
Di-n-butylphthalate	ND		ug/kg	230	43.	1	
Di-n-octylphthalate	ND		ug/kg	230	77.	1	
Diethyl phthalate	ND		ug/kg	230	21.	1	
Dimethyl phthalate	ND		ug/kg	230	48.	1	
Benzo(a)anthracene	460		ug/kg	140	26.	1	
Benzo(a)pyrene	470		ug/kg	180	56.	1	



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-04 Date Collected: 02/16/22 09:20

Client ID: COMP 4 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - W	estborough Lab					
Benzo(b)fluoranthene	600		ug/kg	140	38.	1
Benzo(k)fluoranthene	220		ug/kg	140	36.	1
Chrysene	460		ug/kg	140	24.	1
Acenaphthylene	61	J	ug/kg	180	35.	1
Anthracene	130	J	ug/kg	140	44.	1
Benzo(ghi)perylene	220		ug/kg	180	27.	1
Fluorene	120	J	ug/kg	230	22.	1
Phenanthrene	880		ug/kg	140	28.	1
Dibenzo(a,h)anthracene	65	J	ug/kg	140	26.	1
Indeno(1,2,3-cd)pyrene	300		ug/kg	180	32.	1
Pyrene	810		ug/kg	140	23.	1
Biphenyl	ND		ug/kg	520	30.	1
4-Chloroaniline	ND		ug/kg	230	41.	1
2-Nitroaniline	ND		ug/kg	230	44.	1
3-Nitroaniline	ND		ug/kg	230	43.	1
4-Nitroaniline	ND		ug/kg	230	94.	1
Dibenzofuran	44	J	ug/kg	230	22.	1
2-Methylnaphthalene	ND		ug/kg	270	27.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	230	24.	1
Acetophenone	ND		ug/kg	230	28.	1
2,4,6-Trichlorophenol	ND		ug/kg	140	43.	1
p-Chloro-m-cresol	ND		ug/kg	230	34.	1
2-Chlorophenol	ND		ug/kg	230	27.	1
2,4-Dichlorophenol	ND		ug/kg	200	37.	1
2,4-Dimethylphenol	ND		ug/kg	230	75.	1
2-Nitrophenol	ND		ug/kg	490	86.	1
4-Nitrophenol	ND		ug/kg	320	93.	1
2,4-Dinitrophenol	ND		ug/kg	1100	110	1
4,6-Dinitro-o-cresol	ND		ug/kg	590	110	1
Pentachlorophenol	ND		ug/kg	180	50.	1
Phenol	ND		ug/kg	230	34.	1
2-Methylphenol	ND		ug/kg	230	35.	1
3-Methylphenol/4-Methylphenol	48	J	ug/kg	330	36.	1
2,4,5-Trichlorophenol	ND		ug/kg	230	44.	1
Carbazole	100	J	ug/kg	230	22.	1
Atrazine	ND		ug/kg	180	80.	1
Benzaldehyde	ND		ug/kg	300	61.	1



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-04 Date Collected: 02/16/22 09:20

Client ID: COMP 4 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Parameter	Result	sult Qualifier Units RL		MDL	Dilution Factor			
Semivolatile Organics by GC/MS - Westborough Lab								
Caprolactam	ND		ug/kg	230	69.	1		
2,3,4,6-Tetrachlorophenol	ND		ug/kg	230	46.	1		
1,4-Dioxane	ND		ug/kg	34	10.	1		

Surrogate	% Recovery	Acceptance Qualifier Criteria
2-Fluorophenol	72	25-120
Phenol-d6	73	10-120
Nitrobenzene-d5	91	23-120
2-Fluorobiphenyl	66	30-120
2,4,6-Tribromophenol	87	10-136
4-Terphenyl-d14	61	18-120



Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

SAMPLE RESULTS

Report Date: 03/04/22

Lab ID: L2208221-04

Client ID: COMP 4

Sample Location: **BROADWAY & TWO RED RD** Date Received: Field Prep:

Date Collected:

Lab Number:

02/16/22 09:20 02/16/22

Not Specified

L2208221

Sample Depth:

Analytical Method:

Matrix: Soil

134.LCMSMS-ID

Analytical Date: 02/23/22 02:57

Analyst: RS 72% Percent Solids:

Extraction Method: ALPHA 23528 **Extraction Date:** 02/18/22 08:38

Result Qualifier Units RL MDL **Dilution Factor Parameter** Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Perfluorobutanoic Acid (PFBA) 0.085 J 0.626 0.028 1 ng/g Perfluoropentanoic Acid (PFPeA) ND 0.626 0.058 ng/g Perfluorobutanesulfonic Acid (PFBS) ND 0.313 0.049 1 ng/g Perfluorohexanoic Acid (PFHxA) ND 0.626 0.066 1 ng/g Perfluoroheptanoic Acid (PFHpA) ND ng/g 0.313 0.057 1 Perfluorohexanesulfonic Acid (PFHxS) ND 0.313 0.076 1 ng/g 0.203 J 0.313 0.053 Perfluorooctanoic Acid (PFOA) 1 ng/g 1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS) ND 0.626 0.225 1 ng/g ND Perfluoroheptanesulfonic Acid (PFHpS) ng/g 0.626 0.171 1 Perfluorononanoic Acid (PFNA) ND 0.313 0.094 1 ng/g Perfluorooctanesulfonic Acid (PFOS) 0.998 0.313 0.163 1 ng/g Perfluorodecanoic Acid (PFDA) ND 0.313 0.084 ng/g 1 1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS) ND 0.626 0.359 1 ng/g N-Methyl Perfluorooctanesulfonamidoacetic Acid ND 0.626 0.252 1 ng/g (NMeFÓSAA) Perfluoroundecanoic Acid (PFUnA) ND 0.626 0.059 1 ng/g Perfluorodecanesulfonic Acid (PFDS) ND 0.626 0.192 1 ng/g Perfluorooctanesulfonamide (FOSA) ND 1 ng/g 0.626 0.123 N-Ethyl Perfluorooctanesulfonamidoacetic Acid ND 0.626 0.106 1 ng/g (NEtFOSAA) ND 1 Perfluorododecanoic Acid (PFDoA) 0.626 0.088 ng/g Perfluorotridecanoic Acid (PFTrDA) ND 0.626 0.256 1 ng/g Perfluorotetradecanoic Acid (PFTA) ND 0.626 0.068 1 ng/g PFOA/PFOS, Total 1.20 J 0.313 0.053 1 ng/g

Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-04 Date Collected: 02/16/22 09:20

Client ID: COMP 4 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD 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)	90		61-135	
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	92		58-150	
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	90		74-139	
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	80		66-128	
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	91		71-129	
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	94		78-139	
Perfluoro[13C8]Octanoic Acid (M8PFOA)	81		75-130	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	57		20-154	
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	64	Q	72-140	
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	87		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)	57		19-175	
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	44		31-134	
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	91		61-155	
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	24		10-117	
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	33	Q	34-137	
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	93		54-150	
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	20	Q	24-159	



Extraction Method: ALPHA 23528

L2208221

02/18/22 08:38

Lab Number:

Extraction Date:

Project Name: 1168 BROADWAY TOPSOIL

Report Date: Project Number: T0006-022-002 03/04/22

Method Blank Analysis

Batch Quality Control

Analytical Method: 134,LCMSMS-ID Analytical Date: 02/22/22 20:20

Analyst: RS

Parameter	Result	Qualifier Units	RL	MDL	
Perfluorinated Alkyl Acids by Isotope	Dilution - I	Mansfield Lab for	sample(s):	01-04 Batch:	WG1606408-1
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)	I 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)	d ND	ng/g	0.500	0.287	
N-Methyl Perfluorooctanesulfonamidoaceti Acid (NMeFOSAA)	c 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	

ng/g

0.250

0.042

ND



PFOA/PFOS, Total

L2208221

Project Name: 1168 BROADWAY TOPSOIL Lab Number:

Method Blank Analysis
Batch Quality Control

Analytical Method: 134,LCMSMS-ID Extraction Method: ALPHA 23528
Analytical Date: 02/22/22 20:20 Extraction Date: 02/18/22 08:38

Analyst: RS

Parameter Result Qualifier Units RL MDL

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-04 Batch: WG1606408-1

Surrogate (Extracted Internal Standard)	%Recovery	Acceptance Qualifier 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)	99	74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	92	66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	106	71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	100	78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	94	75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	59	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)	62	19-175
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	82	31-134
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	111	61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	14	10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	87	34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	129	54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	133	24-159



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

Method Blank Analysis Batch Quality Control

Analytical Method: 134,LCMSMS-ID Extraction Method: ALPHA 23528
Analytical Date: 02/23/22 13:20 Extraction Date: 02/18/22 08:38

Analyst: RS

Parameter	Result	Qualifier	Units	RL	MDL	
Perfluorinated Alkyl Acids by Isotop	e Dilution -	- Mansfield L	_ab for s	sample(s): 01-04	Batch:	WG1606408-1
Perfluorooctanesulfonamide (FOSA)	ND		ng/g	0.500	0.098	

	Acceptance
Surrogate (Extracted Internal Standard)	%Recovery Qualifier Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	138 Q 10-117



L2208221

Lab Number:

Project Name: 1168 BROADWAY TOPSOIL

> Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D Extraction Method: EPA 3546
Analytical Date: 02/27/22 23:48 Extraction Date: 02/27/22 07:14

Analyst: IM

Parameter	Result	Qualifier	Units	RL		MDL
Semivolatile Organics by GC/MS	- Westborough	Lab for s	ample(s):	01-04	Batch:	WG1609453-1
Acenaphthene	ND		ug/kg	130		17.
Hexachlorobenzene	ND		ug/kg	98		18.
Bis(2-chloroethyl)ether	ND		ug/kg	150		22.
2-Chloronaphthalene	ND		ug/kg	160		16.
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	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.
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.



L2208221

Lab Number:

Project Name: 1168 BROADWAY TOPSOIL

> Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D Extraction Method: EPA 3546
Analytical Date: 02/27/22 23:48 Extraction Date: 02/27/22 07:14

Analyst: IM

Parameter	Result	Qualifier	Units	RL		MDL
Semivolatile Organics by GC/MS	- Westborough	Lab for s	sample(s):	01-04	Batch:	WG1609453-1
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.
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.



Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number: L2208221

Report Date: 03/04/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D Analytical Date: 02/27/22 23:48

Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 02/27/22 07:14

Parameter	Result	Qualifier Units	RL	MDL	
Semivolatile Organics by GC/MS	- Westborough	Lab for sample(s)	: 01-04	Batch: WG1609453-1	
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.	
Carbazole	ND	ug/kg	160	16.	
Atrazine	ND	ug/kg	130	57.	
Benzaldehyde	ND	ug/kg	220	44.	
Caprolactam	ND	ug/kg	160	50.	
2,3,4,6-Tetrachlorophenol	ND	ug/kg	160	33.	
1,4-Dioxane	ND	ug/kg	24	7.5	

Surrogate	%Recovery	Acceptance Qualifier Criteria
2-Fluorophenol	71	25-120
Phenol-d6	72	10-120
Nitrobenzene-d5	86	23-120
2-Fluorobiphenyl	68	30-120
2,4,6-Tribromophenol	90	10-136
4-Terphenyl-d14	77	18-120



Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number: L2208221

Parameter	LCS %Recovery	LCSD Qual %Recov		%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution	- Mansfield Lab	Associated sample(s):	01-04 Batch:	WG1606408-2			
Perfluorobutanoic Acid (PFBA)	101	-		71-135	-		30
Perfluoropentanoic Acid (PFPeA)	109	-		69-132	-		30
Perfluorobutanesulfonic Acid (PFBS)	90	-		72-128	-		30
Perfluorohexanoic Acid (PFHxA)	94	-		70-132	-		30
Perfluoroheptanoic Acid (PFHpA)	91	-		71-131	-		30
Perfluorohexanesulfonic Acid (PFHxS)	103	-		67-130	-		30
Perfluorooctanoic Acid (PFOA)	97	-		69-133	-		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	100	-		64-140	-		30
Perfluoroheptanesulfonic Acid (PFHpS)	83	-		70-132	-		30
Perfluorononanoic Acid (PFNA)	129	-		72-129	-		30
Perfluorooctanesulfonic Acid (PFOS)	100	-		68-136	-		30
Perfluorodecanoic Acid (PFDA)	98	-		69-133	•		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	97	-		65-137	-		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	103	-		63-144	-		30
Perfluoroundecanoic Acid (PFUnA)	91	-		64-136	-		30
Perfluorodecanesulfonic Acid (PFDS)	90	-		59-134	-		30
Perfluorooctanesulfonamide (FOSA)	96	-		67-137	-		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	94	-		61-139	-		30
Perfluorododecanoic Acid (PFDoA)	90	-		69-135	-		30
Perfluorotridecanoic Acid (PFTrDA)	92	-		66-139	-		30
Perfluorotetradecanoic Acid (PFTA)	80	-		69-133	-		30



Project Name: 1168 BROADWAY TOPSOIL

Lab Number:

L2208221

Project Number: T0006-022-002

Report Date:

03/04/22

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

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-04 Batch: WG1606408-2

	LCS		LCSD		Acceptance
Surrogate (Extracted Internal Standard)	%Recovery	Qual	%Recovery	Qual	Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	98				61-135
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	101				58-150
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	98				74-139
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	95				66-128
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	107				71-129
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	100				78-139
Perfluoro[13C8]Octanoic Acid (M8PFOA)	98				75-130
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	63				20-154
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	80				72-140
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	100				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)	62				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)	110				61-155
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	13				10-117
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	91				34-137
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	131				54-150
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	130				24-159



Project Name: 1168 BROADWAY TOPSOIL

Lab Number:

L2208221

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Report Date:

03/04/22

Parameter	LCS %Recovery	LCSD Qual %Recovery		%Recovery Qual Limits		RPD	Qual	RPD Limits	
Perfluorinated Alkyl Acids by Isotope Dilution	- Mansfield Lab	Associated s	sample(s): 01-04	Batch:	WG1606408-2				
Perfluorooctanesulfonamide (FOSA)	107		-		67-137	-		30	

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	151	Q			10-117



Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number: L2208221

Parameter	LCS %Recovery	Qual	LCSD %Recove	ery		Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborou	ugh Lab Assoc	iated sample(s):	01-04	Batch:	WG1609453-	-2 WG1609	453-3		
Acenaphthene	82		77			31-137	6		50
Hexachlorobenzene	83		81			40-140	2		50
Bis(2-chloroethyl)ether	72		67			40-140	7		50
2-Chloronaphthalene	77		72			40-140	7		50
3,3'-Dichlorobenzidine	55		54			40-140	2		50
2,4-Dinitrotoluene	101		98			40-132	3		50
2,6-Dinitrotoluene	93		88			40-140	6		50
Fluoranthene	85		81			40-140	5		50
4-Chlorophenyl phenyl ether	79		76			40-140	4		50
4-Bromophenyl phenyl ether	84		82			40-140	2		50
Bis(2-chloroisopropyl)ether	57		52			40-140	9		50
Bis(2-chloroethoxy)methane	80		74			40-117	8		50
Hexachlorobutadiene	70		63			40-140	11		50
Hexachlorocyclopentadiene	84		78			40-140	7		50
Hexachloroethane	76		70			40-140	8		50
Isophorone	79		73			40-140	8		50
Naphthalene	76		70			40-140	8		50
Nitrobenzene	88		81			40-140	8		50
NDPA/DPA	86		83			36-157	4		50
n-Nitrosodi-n-propylamine	76		71			32-121	7		50
Bis(2-ethylhexyl)phthalate	100		95			40-140	5		50
Butyl benzyl phthalate	100		94			40-140	6		50
Di-n-butylphthalate	95		90			40-140	5		50



Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number: L2208221

Parameter	LCS %Recovery	Qual	LCSI %Reco		%Recovery Qual Limits	y RPD	RPD Qual Limits
Semivolatile Organics by GC/MS - Westboro	ough Lab Assoc	iated sample(s):	01-04	Batch:	WG1609453-2 WG1	609453-3	
Di-n-octylphthalate	101		96		40-140	5	50
Diethyl phthalate	88		85		40-140	3	50
Dimethyl phthalate	81		76		40-140	6	50
Benzo(a)anthracene	78		76		40-140	3	50
Benzo(a)pyrene	86		84		40-140	2	50
Benzo(b)fluoranthene	86		84		40-140	2	50
Benzo(k)fluoranthene	81		79		40-140	3	50
Chrysene	78		75		40-140	4	50
Acenaphthylene	83		77		40-140	8	50
Anthracene	84		80		40-140	5	50
Benzo(ghi)perylene	80		78		40-140	3	50
Fluorene	86		82		40-140	5	50
Phenanthrene	81		78		40-140	4	50
Dibenzo(a,h)anthracene	76		75		40-140	1	50
Indeno(1,2,3-cd)pyrene	88		86		40-140	2	50
Pyrene	84		80		35-142	5	50
Biphenyl	80		75		37-127	6	50
4-Chloroaniline	75		68		40-140	10	50
2-Nitroaniline	115		108		47-134	6	50
3-Nitroaniline	84		84		26-129	0	50
4-Nitroaniline	105		101		41-125	4	50
Dibenzofuran	80		76		40-140	5	50
2-Methylnaphthalene	82		74		40-140	10	50



Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number: L2208221

Parameter	LCS %Recovery	Qual	LCSD %Recover	y (ecovery imits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westbo	rough Lab Assoc	iated sample(s):	01-04 B	Batch: \	WG1609453-2	WG1609	453-3		
1,2,4,5-Tetrachlorobenzene	78		73		4	0-117	7		50
Acetophenone	78		73		1	4-144	7		50
2,4,6-Trichlorophenol	89		83		3	0-130	7		50
p-Chloro-m-cresol	93		86		2	6-103	8		50
2-Chlorophenol	86		79		2	5-102	8		50
2,4-Dichlorophenol	89		84		3	0-130	6		50
2,4-Dimethylphenol	88		82		3	0-130	7		50
2-Nitrophenol	122		112		3	0-130	9		50
4-Nitrophenol	121	Q	116		Q 1	1-114	4		50
2,4-Dinitrophenol	47		48		4	1-130	2		50
4,6-Dinitro-o-cresol	111		110		1	0-130	1		50
Pentachlorophenol	94		90		1	7-109	4		50
Phenol	75		69		2	26-90	8		50
2-Methylphenol	84		77		30	0-130.	9		50
3-Methylphenol/4-Methylphenol	92		86		3	0-130	7		50
2,4,5-Trichlorophenol	91		86		3	0-130	6		50
Carbazole	88		84		5	4-128	5		50
Atrazine	84		80		4	0-140	5		50
Benzaldehyde	72		66		4	0-140	9		50
Caprolactam	81		76		1	5-130	6		50
2,3,4,6-Tetrachlorophenol	95		94		4	0-140	1		50
1,4-Dioxane	46		43		4	0-140	7		50



Project Name: 1168 BROADWAY TOPSOIL

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

Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1609453-2 WG1609453-3

Surrogate	LCS %Recovery Qual	LCSD %Recovery Qual	Acceptance Criteria
2-Fluorophenol	78	72	25-120
Phenol-d6	80	74	10-120
Nitrobenzene-d5	94	86	23-120
2-Fluorobiphenyl	73	68	30-120
2,4,6-Tribromophenol	96	93	10-136
4-Terphenyl-d14	79	76	18-120



Matrix Spike Analysis Batch Quality Control

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number:

L2208221

Report Date:

03/04/22

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD Q	RPD ual Limits
Perfluorinated Alkyl Acids by Is Sample	otope Dilution	- Mansfield	I Lab Associ	ated sample(s):	01-04	QC Batch	ID: WG160640	8-3	QC Sample:	L2207938-	03 Client ID: MS
Perfluorobutanoic Acid (PFBA)	0.024J	5.3	5.36	101		-	-		71-135	-	30
Perfluoropentanoic Acid (PFPeA)	0.088J	5.3	5.83	108		-	-		69-132	-	30
Perfluorobutanesulfonic Acid (PFBS)	ND	4.7	4.24	90		-	-		72-128	-	30
1H,1H,2H,2H-Perfluorohexanesulfonic Acid (4:2FTS)	ND	4.96	4.88	98		-	-		62-145	-	30
Perfluorohexanoic Acid (PFHxA)	0.092J	5.3	5.11	95		-	-		70-132	-	30
Perfluoropentanesulfonic Acid (PFPeS)	ND	4.98	4.52	91		-	-		73-123	-	30
Perfluoroheptanoic Acid (PFHpA)	0.060J	5.3	4.79	89		-	-		71-131	-	30
Perfluorohexanesulfonic Acid (PFHxS)	ND	4.84	5.05	104		-	-		67-130	-	30
Perfluorooctanoic Acid (PFOA)	0.216J	5.3	5.29	96		-	-		69-133	-	30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND	5.04	4.87	97		-	-		64-140	-	30
Perfluoroheptanesulfonic Acid (PFHpS)	ND	5.04	4.40	87		-	-		70-132	-	30
Perfluorononanoic Acid (PFNA)	0.114J	5.3	6.96	129		-	-		72-129	-	30
Perfluorooctanesulfonic Acid (PFOS)	0.802	4.92	5.90	104		-	-		68-136	-	30
Perfluorodecanoic Acid (PFDA)	0.105J	5.3	5.08	94		-	-		69-133	-	30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND	5.09	4.08	80		-	-		65-137	-	30
Perfluorononanesulfonic Acid (PFNS)	ND	5.1	4.51	89		-	-		69-125	-	30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND	5.3	5.10	96		-	-		63-144	-	30
Perfluoroundecanoic Acid (PFUnA)	ND	5.3	4.72	89		-	-		64-136	-	30
Perfluorodecanesulfonic Acid (PFDS)	ND	5.11	4.49	88		-	-		59-134	-	30
Perfluorooctanesulfonamide (FOSA)	ND	5.3	4.83	91		-	-		67-137	-	30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	5.3	5.90	111		-	-		61-139	-	30
Perfluorododecanoic Acid (PFDoA)	ND	5.3	4.86	92		-	-		69-135	-	30

Matrix Spike Analysis Batch Quality Control

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number:

L2208221

Report Date: 03/04/22

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 Is Sample	sotope Dilutio	n - Mansfield	Lab Assoc	iated sample(s):	01-04	QC Batch	ID: WG160640	8-3	QC Sample:	L22079	38-03	Client ID: MS
Perfluorotridecanoic Acid (PFTrDA)	ND	5.3	4.63	87		-	-		66-139	-		30
Perfluorotetradecanoic Acid (PFTA)	ND	5.3	4.32	82		-	-		69-133	-		30

	MS	6	MS	SD	Acceptance	
Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	% Recovery	Qualifier	Criteria	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	64				19-175	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	57				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)	48				34-137	
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	48				31-134	
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	96				61-155	
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	85				75-130	
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	78				66-128	
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	90				71-129	
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	89				78-139	
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	106				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)	87				10-117	
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	87				79-136	
Perfluoro[13C8]Octanoic Acid (M8PFOA)	82				75-130	
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	66	Q			72-140	
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	86				74-139	



Lab Duplicate Analysis Batch Quality Control

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number:

L2208221

Report Date: 03/04/22

arameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits
erfluorinated Alkyl Acids by Isotope Dilution D: DUP Sample	- Mansfield Lab Associated sa	ample(s): 01-04 QC Ba	atch ID: WG160	6408-4	QC Sample: L2207938-04 Clier
Perfluorobutanoic Acid (PFBA)	0.038J	0.029J	ng/g	NC	30
Perfluoropentanoic Acid (PFPeA)	0.243J	0.246J	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)	0.209J	0.184J	ng/g	NC	30
Perfluoropentanesulfonic Acid (PFPeS)	ND	ND	ng/g	NC	30
Perfluoroheptanoic Acid (PFHpA)	0.129J	0.119J	ng/g	NC	30
Perfluorohexanesulfonic Acid (PFHxS)	ND	ND	ng/g	NC	30
Perfluorooctanoic Acid (PFOA)	0.520	0.473	ng/g	9	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)	0.184J	0.163J	ng/g	NC	30
Perfluorooctanesulfonic Acid (PFOS)	0.458	0.383	ng/g	18	30
Perfluorodecanoic Acid (PFDA)	0.416	0.334	ng/g	22	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
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND	ND	ng/g	NC	30



L2208221

Lab Number:

Lab Duplicate Analysis Batch Quality Control

1168 BROADWAY TOPSOIL Batch Quality Co

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Qual Limits	
Perfluorinated Alkyl Acids by Isotope Dilution - MID: DUP Sample	lansfield Lab Associated sar	mple(s): 01-04 QC Ba	atch ID: WG16	06408-4 C	QC Sample: L2207938-04	Client
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	

				Acceptance	
Surrogate (Extracted Internal Standard)	%Recovery	Qualifier %Recovery	Qualifier	Criteria	
Perfluoro[13C4]Butanoic Acid (MPFBA)	89	87		61-135	
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	94	91		58-150	
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	95	90		74-139	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Hexanesulfonic Acid (M2-4:2FTS)	55	53		14-167	
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	84	81		66-128	
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	98	93		71-129	
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	99	93		78-139	
Perfluoro[13C8]Octanoic Acid (M8PFOA)	88	85		75-130	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	61	57		20-154	
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	73	70	Q	72-140	
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	95	92		79-136	
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	97	92		75-130	
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	67	60		19-175	
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	60	53		31-134	
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	108	102		61-155	
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	70	62		34-137	
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	123	114		54-150	
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	112	100		24-159	



Project Name:

PCBS



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-01 Date Collected: 02/16/22 08:50

Client ID: COMP 1 Date Received: 02/16/22

Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Matrix: Soil Extraction Method: EPA 3546
Analytical Method: 1,8082A Extraction Date: 03/01/22 02:16
Analytical Date: 03/01/22 14:31 Cleanup Method: EPA 3665A

Analytical Date: 03/01/22 14:31 Cleanup Method: EPA 3665A
Analyst: JM Cleanup Date: 03/01/22
Percent Solids: 78% Cleanup Method: EPA 3660B
Cleanup Method: EPA 3660B
Cleanup Date: 03/01/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC	- Westborough Lab						
Aroclor 1016	ND		ug/kg	42.4	3.76	1	А
Aroclor 1221	ND		ug/kg	42.4	4.24	1	Α
Aroclor 1232	ND		ug/kg	42.4	8.98	1	Α
Aroclor 1242	ND		ug/kg	42.4	5.71	1	Α
Aroclor 1248	ND		ug/kg	42.4	6.35	1	Α
Aroclor 1254	ND		ug/kg	42.4	4.63	1	Α
Aroclor 1260	ND		ug/kg	42.4	7.83	1	Α
Aroclor 1262	ND		ug/kg	42.4	5.38	1	Α
Aroclor 1268	ND		ug/kg	42.4	4.39	1	Α
PCBs, Total	ND		ug/kg	42.4	3.76	1	Α

Currente	0/ -	0	Acceptance	
Surrogate	% Recovery	Qualifier	Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	Α
Decachlorobiphenyl	62		30-150	Α
2,4,5,6-Tetrachloro-m-xylene	67		30-150	В
Decachlorobiphenyl	78		30-150	В



02/16/22 09:00

Date Collected:

Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-02

Client ID: COMP 2 Date Received: 02/16/22

Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Matrix: Soil Extraction Method: EPA 3546
Analytical Method: 1,8082A Extraction Date: 03/01/22 02:16

Analytical Date: 03/01/22 17:38 Cleanup Method: EPA 3665A
Analyst: AWS Cleanup Date: 03/01/22
Percent Solids: 74% Cleanup Method: EPA 3660B

Percent Solids: 74% Cleanup Method: EPA 3660 Cleanup Date: 03/01/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC -	Westborough Lab						
Aroclor 1016	ND		ug/kg	42.7	3.79	1	Α
Aroclor 1221	ND		ug/kg	42.7	4.28	1	Α
Aroclor 1232	ND		ug/kg	42.7	9.06	1	Α
Aroclor 1242	ND		ug/kg	42.7	5.76	1	Α
Aroclor 1248	ND		ug/kg	42.7	6.41	1	Α
Aroclor 1254	ND		ug/kg	42.7	4.67	1	Α
Aroclor 1260	ND		ug/kg	42.7	7.90	1	Α
Aroclor 1262	ND		ug/kg	42.7	5.42	1	Α
Aroclor 1268	ND		ug/kg	42.7	4.43	1	Α
PCBs, Total	ND		ug/kg	42.7	3.79	1	Α

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	Α
Decachlorobiphenyl	83		30-150	Α
2,4,5,6-Tetrachloro-m-xylene	74		30-150	В
Decachlorobiphenyl	100		30-150	В



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-03 Date Collected: 02/16/22 09:10

Client ID: COMP 3 Date Received: 02/16/22

Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Matrix: Soil Extraction Method: EPA 3546
Analytical Method: 1,8082A Extraction Date: 03/01/22 02:16
Analytical Date: 03/01/22 17:46 Cleanup Method: EPA 3665A

Analytical Date: 03/01/22 17:46 Cleanup Method: EPA 3665A
Analyst: AWS Cleanup Date: 03/01/22
Percent Solids: 74% Cleanup Method: EPA 3660B

Cleanup Date: 03/01/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - W	estborough Lab						
Aroclor 1016	ND		ug/kg	43.6	3.87	1	Α
Aroclor 1221	ND		ug/kg	43.6	4.36	1	Α
Aroclor 1232	ND		ug/kg	43.6	9.23	1	Α
Aroclor 1242	ND		ug/kg	43.6	5.87	1	Α
Aroclor 1248	ND		ug/kg	43.6	6.53	1	Α
Aroclor 1254	ND		ug/kg	43.6	4.76	1	Α
Aroclor 1260	ND		ug/kg	43.6	8.05	1	Α
Aroclor 1262	ND		ug/kg	43.6	5.53	1	Α
Aroclor 1268	59.2		ug/kg	43.6	4.51	1	В
PCBs, Total	59.2		ug/kg	43.6	3.87	1	В

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		30-150	Α
Decachlorobiphenyl	265	Q	30-150	Α
2,4,5,6-Tetrachloro-m-xylene	76		30-150	В
Decachlorobiphenyl	299	Q	30-150	В



Project Name: 1168 BROADWAY TOPSOIL L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-04 Date Collected: 02/16/22 09:20

Client ID: COMP 4 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Matrix: Soil Extraction Method: EPA 3546
Analytical Method: 1.8082A Extraction Date: 03/01/22 02:16

Analytical Method: 1,8082A Extraction Date: 03/01/22 02:16
Analytical Date: 03/01/22 17:55 Cleanup Method: EPA 3665A

Cleanup Date: 03/01/23

Analyst: AWS Cleanup Date: 03/01/22
Percent Solids: 72% Cleanup Method: EPA 3660B
Cleanup Date: 03/01/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC	- Westborough Lab						
Aroclor 1016	ND		ug/kg	45.6	4.05	1	Α
Aroclor 1221	ND		ug/kg	45.6	4.57	1	Α
Aroclor 1232	ND		ug/kg	45.6	9.66	1	Α
Aroclor 1242	ND		ug/kg	45.6	6.14	1	Α
Aroclor 1248	ND		ug/kg	45.6	6.84	1	Α
Aroclor 1254	ND		ug/kg	45.6	4.99	1	Α
Aroclor 1260	ND		ug/kg	45.6	8.42	1	Α
Aroclor 1262	ND		ug/kg	45.6	5.79	1	Α
Aroclor 1268	ND		ug/kg	45.6	4.72	1	Α
PCBs, Total	ND		ug/kg	45.6	4.05	1	Α

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		30-150	Α
Decachlorobiphenyl	86		30-150	Α
2,4,5,6-Tetrachloro-m-xylene	78		30-150	В
Decachlorobiphenyl	116		30-150	В



L2208221

Lab Number:

Project Name: 1168 BROADWAY TOPSOIL

> Method Blank Analysis Batch Quality Control

Analytical Method: 1,8082A Analytical Date: 03/01/22 11:35

Analyst: AWS

Extraction Method: EPA 3546
Extraction Date: 03/01/22 02:16
Cleanup Method: EPA 3665A
Cleanup Date: 03/01/22
Cleanup Method: EPA 3660B
Cleanup Date: 03/01/22

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC -	Westborough	n Lab for s	ample(s):	01-04	Batch: WG160)9962-1
Aroclor 1016	ND		ug/kg	32.6	2.89	А
Aroclor 1221	ND		ug/kg	32.6	3.26	Α
Aroclor 1232	ND		ug/kg	32.6	6.90	Α
Aroclor 1242	ND		ug/kg	32.6	4.39	Α
Aroclor 1248	ND		ug/kg	32.6	4.88	А
Aroclor 1254	ND		ug/kg	32.6	3.56	Α
Aroclor 1260	ND		ug/kg	32.6	6.02	Α
Aroclor 1262	ND		ug/kg	32.6	4.13	Α
Aroclor 1268	ND		ug/kg	32.6	3.37	А
PCBs, Total	ND		ug/kg	32.6	2.89	А

		Acceptance			
Surrogate	%Recovery Qualifie	r Criteria	Column		
2,4,5,6-Tetrachloro-m-xylene	63	30-150	Α		
Decachlorobiphenyl	67	30-150	Α		
2,4,5,6-Tetrachloro-m-xylene	67	30-150	В		
Decachlorobiphenyl	71	30-150	В		



Project Name: 1168 BROADWAY TOPSOIL

Lab Number:

L2208221

Project Number: T0006-022-002

Report Date:

03/04/22

	LCS		LCSD		%Recovery			RPD	
Parameter	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits	Column
Polychlorinated Biphenyls by GC - Westb	orough Lab Associa	ited sample(s)	: 01-04 Batch	: WG16099	962-2 WG160996	62-3			
Aroclor 1016	68		70		40-140	3		50	Α
Aroclor 1260	66		68		40-140	3		50	Α

Surrogate	LCS %Recovery Qu	LCSD al %Recovery Qual	Acceptance Criteria Column
2,4,5,6-Tetrachloro-m-xylene	72	73	30-150 A
Decachlorobiphenyl	75	77	30-150 A
2,4,5,6-Tetrachloro-m-xylene	71	77	30-150 B
Decachlorobiphenyl	72	79	30-150 B

PESTICIDES



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-01 Date Collected: 02/16/22 08:50

Client ID: COMP 1 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Matrix: Soil Extraction Method: EPA 3546
Analytical Method: 1,8081B Extraction Date: 02/28/22 12:11
Analytical Date: 03/02/22 16:18 Cleanup Method: EPA 3620B

Analytical Date: 03/02/22 16:18 Cleanup Method: EPA 3620B
Analyst: MSF Cleanup Date: 03/01/22
Percent Solids: 78% Cleanup Method: EPA 3660B

Cleanup Date: 03/01/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - We	estborough Lab						
Delta-BHC	ND		ug/kg	1.97	0.386	1	А
Lindane	ND		ug/kg	0.821	0.367	1	A
Alpha-BHC	ND		ug/kg	0.821	0.233	1	Α
Beta-BHC	ND		ug/kg	1.97	0.747	1	Α
Heptachlor	ND		ug/kg	0.985	0.442	1	Α
Aldrin	ND		ug/kg	1.97	0.694	1	Α
Heptachlor epoxide	ND		ug/kg	3.69	1.11	1	Α
Endrin	ND		ug/kg	0.821	0.336	1	Α
Endrin aldehyde	ND		ug/kg	2.46	0.862	1	Α
Endrin ketone	ND		ug/kg	1.97	0.507	1	Α
Dieldrin	ND		ug/kg	1.23	0.616	1	Α
4,4'-DDE	7.95		ug/kg	1.97	0.456	1	В
4,4'-DDD	ND		ug/kg	1.97	0.702	1	Α
4,4'-DDT	5.72		ug/kg	3.69	1.58	1	В
Endosulfan I	ND		ug/kg	1.97	0.465	1	Α
Endosulfan II	ND		ug/kg	1.97	0.658	1	А
Endosulfan sulfate	ND		ug/kg	0.821	0.391	1	Α
Methoxychlor	ND		ug/kg	3.69	1.15	1	Α
Toxaphene	ND		ug/kg	36.9	10.3	1	Α
cis-Chlordane	ND		ug/kg	2.46	0.686	1	А
trans-Chlordane	ND		ug/kg	2.46	0.650	1	Α
Chlordane	ND		ug/kg	16.4	6.52	1	Α



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-01 Date Collected: 02/16/22 08:50

Client ID: COMP 1 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD 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	58		30-150	Α
Decachlorobiphenyl	67		30-150	Α
2,4,5,6-Tetrachloro-m-xylene	60		30-150	В
Decachlorobiphenyl	73		30-150	В



Project Name: Lab Number: 1168 BROADWAY TOPSOIL L2208221

Report Date: **Project Number:** T0006-022-002 03/04/22

SAMPLE RESULTS

Lab ID: Date Collected: 02/16/22 08:50 L2208221-01

Date Received: Client ID: COMP 1 02/16/22

Sample Location: **BROADWAY & TWO RED RD** Field Prep: Not Specified

Sample Depth:

Extraction Method: EPA 8151A Matrix: Soil **Extraction Date:** 02/28/22 07:41 Analytical Method: 1,8151A

Analytical Date: 03/01/22 14:55

Analyst: **EJL** 78% Percent Solids:

Methylation Date: 03/01/22 05:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC	- Westborough Lab						
2,4,5-TP (Silvex)	ND		ug/kg	213	5.68	1	Α
Surrogate			% Recovery	Qualifier		eptance riteria Col	lumn

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	86		30-150	Α
DCAA	68		30-150	В



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-02 Date Collected: 02/16/22 09:00

Client ID: COMP 2 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Matrix: Soil Extraction Method: EPA 3546
Analytical Method: 1,8081B Extraction Date: 02/28/22 12:11
Analytical Date: 03/03/22 16:35 Cleanup Method: EPA 3620B

Analytical Date: 03/03/22 16:35 Cleanup Method: EPA 36208
Analyst: AR Cleanup Date: 03/01/22

Percent Solids: 74%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - We	estborough Lab						
Delta-BHC	ND		ug/kg	2.10	0.412	1	Α
Lindane	ND		ug/kg	0.876	0.392	1	Α
Alpha-BHC	ND		ug/kg	0.876	0.249	1	Α
Beta-BHC	ND		ug/kg	2.10	0.797	1	Α
Heptachlor	ND		ug/kg	1.05	0.471	1	Α
Aldrin	ND		ug/kg	2.10	0.740	1	Α
Heptachlor epoxide	ND		ug/kg	3.94	1.18	1	Α
Endrin	ND		ug/kg	0.876	0.359	1	Α
Endrin aldehyde	ND		ug/kg	2.63	0.920	1	Α
Endrin ketone	ND		ug/kg	2.10	0.541	1	Α
Dieldrin	ND		ug/kg	1.31	0.657	1	Α
4,4'-DDE	26.2		ug/kg	2.10	0.486	1	В
4,4'-DDD	0.872	JIP	ug/kg	2.10	0.750	1	В
4,4'-DDT	12.8		ug/kg	3.94	1.69	1	В
Endosulfan I	ND		ug/kg	2.10	0.497	1	Α
Endosulfan II	ND		ug/kg	2.10	0.703	1	Α
Endosulfan sulfate	ND		ug/kg	0.876	0.417	1	Α
Methoxychlor	ND		ug/kg	3.94	1.23	1	Α
Toxaphene	ND		ug/kg	39.4	11.0	1	Α
cis-Chlordane	1.05	J	ug/kg	2.63	0.732	1	В
trans-Chlordane	ND	IP	ug/kg	2.63	0.694	1	В
Chlordane	ND		ug/kg	17.5	6.96	1	Α



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Date Collected: 02/16/22 09:00

Client ID: COMP 2 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

·

L2208221-02

Sample Depth:

Lab ID:

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	41		30-150	Α
Decachlorobiphenyl	58		30-150	Α
2,4,5,6-Tetrachloro-m-xylene	46		30-150	В
Decachlorobiphenyl	66		30-150	В



30-150

В

Project Name: Lab Number: 1168 BROADWAY TOPSOIL L2208221

Report Date: **Project Number:** T0006-022-002 03/04/22

SAMPLE RESULTS

Lab ID: Date Collected: 02/16/22 09:00 L2208221-02

Date Received: Client ID: COMP 2 02/16/22 Sample Location: **BROADWAY & TWO RED RD** Field Prep: Not Specified

Sample Depth:

DCAA

Extraction Method: EPA 8151A Matrix: Soil **Extraction Date:** 02/28/22 07:41

Analytical Method: 1,8151A Analytical Date: 03/01/22 11:16

Analyst: **EJL** 74% Percent Solids:

Methylation Date: 03/01/22 05:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC	- Westborough Lab						
2,4,5-TP (Silvex)	ND		ug/kg	224	5.95	1	А
Surrogate			% Recovery	Qualifier		ptance iteria Co	lumn
DCAA			95		3	0-150	Α

75



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-03 Date Collected: 02/16/22 09:10

Client ID: COMP 3 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Matrix: Soil Extraction Method: EPA 3546
Analytical Method: 1,8081B Extraction Date: 02/28/22 06:47

Analytical Date: 03/02/22 16:29 Cleanup Method: EPA 3620B
Analyst: MSF Cleanup Date: 03/01/22

Percent Solids: 74% Cleanup Method: EPA 3660B Cleanup Date: 03/01/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Wes	tborough Lab						
Delta-BHC	ND		ug/kg	2.08	0.407	1	А
Lindane	ND		ug/kg	0.866	0.387	1	Α
Alpha-BHC	ND		ug/kg	0.866	0.246	1	Α
Beta-BHC	ND		ug/kg	2.08	0.788	1	Α
Heptachlor	ND		ug/kg	1.04	0.466	1	Α
Aldrin	ND		ug/kg	2.08	0.732	1	Α
Heptachlor epoxide	ND		ug/kg	3.90	1.17	1	Α
Endrin	ND		ug/kg	0.866	0.355	1	Α
Endrin aldehyde	ND		ug/kg	2.60	0.909	1	Α
Endrin ketone	ND		ug/kg	2.08	0.535	1	Α
Dieldrin	ND		ug/kg	1.30	0.650	1	Α
4,4'-DDE	62.9		ug/kg	2.08	0.481	1	В
4,4'-DDD	3.07		ug/kg	2.08	0.741	1	В
4,4'-DDT	12.4		ug/kg	3.90	1.67	1	В
Endosulfan I	ND		ug/kg	2.08	0.491	1	А
Endosulfan II	ND		ug/kg	2.08	0.694	1	А
Endosulfan sulfate	ND		ug/kg	0.866	0.412	1	Α
Methoxychlor	ND		ug/kg	3.90	1.21	1	Α
Toxaphene	ND		ug/kg	39.0	10.9	1	Α
cis-Chlordane	ND		ug/kg	2.60	0.724	1	А
trans-Chlordane	ND		ug/kg	2.60	0.686	1	Α
Chlordane	ND		ug/kg	17.3	6.88	1	Α



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-03 Date Collected: 02/16/22 09:10

Client ID: COMP 3 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD 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	72		30-150	Α
Decachlorobiphenyl	68		30-150	Α
2,4,5,6-Tetrachloro-m-xylene	60		30-150	В
Decachlorobiphenyl	79		30-150	В



30-150

В

Project Name: Lab Number: 1168 BROADWAY TOPSOIL L2208221

Report Date: **Project Number:** T0006-022-002 03/04/22

SAMPLE RESULTS

Lab ID: Date Collected: 02/16/22 09:10 L2208221-03

Date Received: Client ID: COMP 3 02/16/22 Sample Location: **BROADWAY & TWO RED RD** Field Prep: Not Specified

Sample Depth:

DCAA

Extraction Method: EPA 8151A Matrix: Soil **Extraction Date:** 02/28/22 07:41

Analytical Method: 1,8151A Analytical Date: 03/01/22 11:34

Analyst: **EJL** 74% Percent Solids:

Methylation Date: 03/01/22 05:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Colum
Chlorinated Herbicides by GC	- Westborough Lab						
2,4,5-TP (Silvex)	ND		ug/kg	222	5.89	1	Α
Surrogate		c,	% Recovery	Qualifier		ptance iteria Co	olumn
DCAA			94		3	30-150	Δ

80



Project Name: 1168 BROADWAY TOPSOIL L2208221

SAMPLE RESULTS

Lab ID: L2208221-04 Date Collected: 02/16/22 09:20

Client ID: COMP 4 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Matrix: Soil Extraction Method: EPA 3546
Analytical Method: 1 8081B Extraction Date: 02/28/22 06:47

Analytical Method: 1,8081B Extraction Date: 02/28/22 06:47
Analytical Date: 03/02/22 16:40 Cleanup Method: EPA 3620B

Analyst: MSF Cleanup Date: 03/01/22
Percent Solids: 72% Cleanup Method: EPA 3660B
Cleanup Date: 03/01/22

Qualifier Result Units RL MDL **Dilution Factor** Column **Parameter** Organochlorine Pesticides by GC - Westborough Lab Delta-BHC ND ug/kg 2.14 0.418 1 Α Lindane ND 0.890 0.398 Α ug/kg Alpha-BHC ND ug/kg 0.890 0.253 1 Α Beta-BHC ND ug/kg 2.14 0.810 1 Α Heptachlor ND ug/kg 1.07 0.479 1 Α Aldrin ND ug/kg 2.14 0.752 1 Α ND 4.00 1.20 Α Heptachlor epoxide ug/kg 1 Endrin ND 0.890 0.365 1 Α ug/kg ND 1 Endrin aldehyde ug/kg 2.67 0.935 Α ND Endrin ketone 2.14 0.550 1 Α ug/kg ND Dieldrin 1.34 0.668 1 Α ug/kg 4,4'-DDE 67.8 0.494 1 ug/kg 2.14 Α 4,4'-DDD 21.4 0.762 В 2.14 1 ug/kg 4,4'-DDT 39.5 ug/kg 4.00 1.72 1 В Endosulfan I ND 2.14 0.505 1 ug/kg Α Endosulfan II ND 2.14 0.714 1 Α ug/kg Endosulfan sulfate ND 0.424 ug/kg 0.890 1 Α ND 1 Methoxychlor 4.00 1.25 Α ug/kg Toxaphene ND 40.0 11.2 1 Α ug/kg cis-Chlordane ND 2.67 0.744 1 Α ug/kg trans-Chlordane ND 2.67 0.705 1 Α ug/kg ND Chlordane ug/kg 17.8 7.08 1 Α



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-04 Date Collected: 02/16/22 09:20

Client ID: COMP 4 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD 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	Α
Decachlorobiphenyl	65		30-150	Α
2,4,5,6-Tetrachloro-m-xylene	61		30-150	В
Decachlorobiphenyl	98		30-150	В



30-150

30-150

Α

В

Project Name: 1168 BROADWAY TOPSOIL L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

SAMPLE RESULTS

Lab ID: L2208221-04 Date Collected: 02/16/22 09:20

Client ID: COMP 4 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Matrix: Soil Extraction Method: EPA 8151A
Analytical Method: 1,8151A Extraction Date: 02/28/22 07:41

Analytical Date: 03/01/22 11:52

Analyst: EJL Percent Solids: 72%

DCAA

DCAA

Methylation Date: 03/01/22 05:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough	Lab						
2,4,5-TP (Silvex)	ND		ug/kg	229	6.10	1	Α
Surrogate			% Recovery	Qualifier		eptance riteria Col	umn

82

66



L2208221

Project Name: 1168 BROADWAY TOPSOIL Lab Number:

Project Number: T0006-022-002 **Report Date:** 03/04/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B Analytical Date: 03/02/22 13:28

Analyst: MSF

Extraction Method: EPA 3546
Extraction Date: 02/28/22 06:47
Cleanup Method: EPA 3620B
Cleanup Date: 03/01/22
Cleanup Date: EPA 3660B
Cleanup Date: 03/01/22

Parameter	Result	Qualifier	Units	RL		MDL	Column
Organochlorine Pesticides by GC -	Westboroug	h Lab for	sample(s):	01-04	Batch:	WG16	09587-1
Delta-BHC	ND		ug/kg	1.53		0.300	Α
Lindane	ND		ug/kg	0.637		0.285	Α
Alpha-BHC	ND		ug/kg	0.637		0.181	А
Beta-BHC	ND		ug/kg	1.53		0.580	Α
Heptachlor	ND		ug/kg	0.765		0.343	А
Aldrin	ND		ug/kg	1.53		0.538	А
Heptachlor epoxide	ND		ug/kg	2.87		0.860	А
Endrin	ND		ug/kg	0.637		0.261	А
Endrin aldehyde	ND		ug/kg	1.91		0.669	А
Endrin ketone	ND		ug/kg	1.53		0.394	Α
Dieldrin	ND		ug/kg	0.956		0.478	Α
4,4'-DDE	ND		ug/kg	1.53		0.354	Α
4,4'-DDD	ND		ug/kg	1.53		0.546	Α
4,4'-DDT	ND		ug/kg	2.87		1.23	Α
Endosulfan I	ND		ug/kg	1.53		0.361	Α
Endosulfan II	ND		ug/kg	1.53		0.511	Α
Endosulfan sulfate	ND		ug/kg	0.637		0.303	Α
Methoxychlor	ND		ug/kg	2.87		0.892	Α
Toxaphene	ND		ug/kg	28.7		8.03	Α
cis-Chlordane	ND		ug/kg	1.91		0.533	Α
trans-Chlordane	ND		ug/kg	1.91		0.505	Α
Chlordane	ND		ug/kg	12.7		5.07	Α



L2208221

Project Name: 1168 BROADWAY TOPSOIL Lab Number:

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B Analytical Date: 03/02/22 13:28

Analyst: MSF

Extraction Method: EPA 3546
Extraction Date: 02/28/22 06:47
Cleanup Method: EPA 3620B
Cleanup Date: 03/01/22
Cleanup Date: EPA 3660B
Cleanup Date: 03/01/22

ParameterResultQualifierUnitsRLMDLColumnOrganochlorine Pesticides by GC - Westborough Lab for sample(s):01-04Batch:WG1609587-1

		Acceptance			
Surrogate	%Recovery Qual	ifier Criteria	Column		
2,4,5,6-Tetrachloro-m-xylene	53	30-150	Α		
Decachlorobiphenyl	57	30-150	A		
2,4,5,6-Tetrachloro-m-xylene	53	30-150	В		
Decachlorobiphenyl	56	30-150	В		



Project Name: 1168 BROADWAY TOPSOIL **Lab Number:** L2208221

Project Number: T0006-022-002 **Report Date:** 03/04/22

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8151A Analytical Date: 03/01/22 08:31

Analyst: EJL

Methylation Date: 03/01/22 05:56

Extraction Method: EPA 8151A Extraction Date: 02/28/22 07:41

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC -	Westborough L	ab for sam	ple(s):	01-04 Batch:	WG1609606	-1
2,4,5-TP (Silvex)	ND		ug/kg	164	4.36	Α

		Acceptance			
Surrogate	%Recovery C	Qualifier	Criteria	Column	
DCAA	100		30-150	Α	
DCAA	80		30-150	В	



Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number: L2208221

Report Date: 03/04/22

arameter	LCS %Recovery	LC. Qual %Rec		%Recovery al Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westbo	rough Lab Assoc	ciated sample(s): 01-0	4 Batch: WO	G1609587-2 WG1609	587-3			
Delta-BHC	58	8	0	30-150	32	Q	30	А
Lindane	72	g	4	30-150	27		30	А
Alpha-BHC	79	10	03	30-150	26		30	Α
Beta-BHC	79	g	3	30-150	16		30	Α
Heptachlor	77	g	8	30-150	24		30	Α
Aldrin	74	g	6	30-150	26		30	Α
Heptachlor epoxide	66	8	7	30-150	27		30	Α
Endrin	76	10	00	30-150	27		30	Α
Endrin aldehyde	54	7	4	30-150	31	Q	30	А
Endrin ketone	65	8	8	30-150	30		30	А
Dieldrin	79	10	04	30-150	27		30	А
4,4'-DDE	68	9	1	30-150	29		30	Α
4,4'-DDD	84	1	11	30-150	28		30	Α
4,4'-DDT	74	9	9	30-150	29		30	Α
Endosulfan I	71	9	2	30-150	26		30	Α
Endosulfan II	75	g	8	30-150	27		30	А
Endosulfan sulfate	60	8	1	30-150	30		30	А
Methoxychlor	74	g	6	30-150	26		30	А
cis-Chlordane	58	7	3	30-150	23		30	А
trans-Chlordane	78	1	03	30-150	28		30	Α



Project Name: 1168 BROADWAY TOPSOIL

Lab Number:

L2208221

Project Number: T0006-022-002

Report Date:

03/04/22

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

Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-04 Batch: WG1609587-2 WG1609587-3

Surrogate	LCS %Recovery Qu	LCSD ual %Recovery Qual	Acceptance Criteria Column
2,4,5,6-Tetrachloro-m-xylene	70	94	30-150 A
Decachlorobiphenyl	80	112	30-150 A
2,4,5,6-Tetrachloro-m-xylene	70	91	30-150 B
Decachlorobiphenyl	77	107	30-150 B

Project Name: 1168 BROADWAY TOPSOIL

Lab Number:

L2208221

Project Number: T0006-022-002 Report Date:

03/04/22

Parameter	LCS %Recovery	Qual	LC %Rec	_	9 Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough	Lab Associated	sample(s):	01-04	Batch:	WG1609606-2	WG1609606-3				
2,4,5-TP (Silvex)	89		8	35		30-150	5		30	Α

Surrogate	LCS %Recovery	LCSD Qual %Recovery	eptance riteria (Column
DCAA	99	99	0-150	A
DCAA	91	90	0-150	B



METALS



Project Name: Lab Number: 1168 BROADWAY TOPSOIL L2208221 **Project Number:** T0006-022-002 03/04/22

Report Date:

SAMPLE RESULTS

Date Collected:

02/16/22 08:50

Client ID: COMP 1 Date Received:

02/16/22

BROADWAY & TWO RED RD Sample Location:

L2208221-01

Field Prep: Not Specified

Sample Depth:

Lab ID:

Matrix: Soil

78% Percent Solids: Analytical Date Dilution Date Prep

Parameter	Result	Qualifier	Units	RL	MDL	Factor	Prepared	Analyzed	Method	Method	Analyst
Total Metals - Mans	sfield Lab										
Arsenic, Total	4.65		mg/kg	0.491	0.102	1	02/22/22 16:02	2 03/04/22 00:16	EPA 3050B	1,6010D	BV
Barium, Total	30.2		mg/kg	0.491	0.086	1	02/22/22 16:02	2 03/04/22 00:16	EPA 3050B	1,6010D	BV
Beryllium, Total	0.246		mg/kg	0.246	0.016	1	02/22/22 16:02	2 03/04/22 00:16	EPA 3050B	1,6010D	BV
Cadmium, Total	0.491		mg/kg	0.491	0.048	1	02/22/22 16:02	2 03/04/22 00:16	EPA 3050B	1,6010D	BV
Chromium, Total	6.17		mg/kg	0.491	0.047	1	02/22/22 16:02	2 03/04/22 00:16	EPA 3050B	1,6010D	BV
Copper, Total	8.13		mg/kg	0.491	0.127	1	02/22/22 16:02	2 03/04/22 00:16	EPA 3050B	1,6010D	BV
Lead, Total	28.6		mg/kg	2.46	0.132	1	02/22/22 16:02	2 03/04/22 00:16	EPA 3050B	1,6010D	BV
Manganese, Total	95.3		mg/kg	0.491	0.078	1	02/22/22 16:02	2 03/04/22 00:16	EPA 3050B	1,6010D	BV
Mercury, Total	0.074	J	mg/kg	0.089	0.058	1	02/22/22 16:20	03/02/22 14:09	EPA 7471B	1,7471B	AC
Nickel, Total	7.08		mg/kg	1.23	0.119	1	02/22/22 16:02	2 03/04/22 00:16	EPA 3050B	1,6010D	BV
Selenium, Total	0.437	J	mg/kg	0.982	0.127	1	02/22/22 16:02	2 03/04/22 00:16	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.491	0.139	1	02/22/22 16:02	2 03/04/22 00:16	EPA 3050B	1,6010D	BV
Zinc, Total	43.4		mg/kg	2.46	0.144	1	02/22/22 16:02	2 03/04/22 00:16	EPA 3050B	1,6010D	BV
General Chemistry	- Mansfie	ld Lab									
Chromium, Trivalent	6.2		mg/kg	1.0	1.0	1		03/04/22 00:16	NA	107,-	



02/16/22 09:00

Date Collected:

Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221 **Report Date:** 03/04/22

Project Number: T0006-022-002

SAMPLE RESULTS

Lab ID: L2208221-02 COMP 2

02/16/22 Client ID: Date Received: **BROADWAY & TWO RED RD** Field Prep: Not Specified Sample Location:

Sample Depth:

Soil Matrix: 74% Percent Solids:

Prep Dilution Date Date Analytical Method Qualifier Factor **Prepared** Analyzed Method **Parameter** Result Units RL MDL Analyst Total Metals - Mansfield Lab Arsenic, Total 4.38 mg/kg 0.508 0.106 1 02/22/22 16:02 03/04/22 00:11 EPA 3050B 1,6010D ΒV 30.0 0.508 0.088 1 02/22/22 16:02 03/04/22 00:11 EPA 3050B 1,6010D ΒV Barium, Total mg/kg J 1 Beryllium, Total 0.213 mg/kg 0.254 0.017 02/22/22 16:02 03/04/22 00:11 EPA 3050B 1,6010D ΒV J Cadmium, Total 0.493 mg/kg 0.508 0.050 1 02/22/22 16:02 03/04/22 00:11 EPA 3050B 1,6010D ΒV 5.71 0.508 0.049 02/22/22 16:02 03/04/22 00:11 EPA 3050B 1,6010D Chromium, Total mg/kg 1 ΒV 12.6 0.508 0.131 1 02/22/22 16:02 03/04/22 00:11 EPA 3050B 1,6010D ΒV Copper, Total mg/kg Lead, Total 40.1 mg/kg 2.54 0.136 1 02/22/22 16:02 03/04/22 00:11 EPA 3050B 1,6010D ΒV 1 1,6010D Manganese, Total 118 mg/kg 0.508 0.081 02/22/22 16:02 03/04/22 00:11 EPA 3050B ΒV J 1 Mercury, Total 0.065 02/22/22 16:20 03/02/22 15:02 EPA 7471B 1,7471B AC 0.091 mg/kg 0.100 1,6010D Nickel, Total 7.08 mg/kg 1.27 0.123 1 02/22/22 16:02 03/04/22 00:11 EPA 3050B ΒV J 1,6010D Selenium, Total 0.315 1.02 0.131 1 02/22/22 16:02 03/04/22 00:11 EPA 3050B ΒV mg/kg ND 1 02/22/22 16:02 03/04/22 00:11 EPA 3050B 1,6010D Silver, Total mg/kg 0.508 0.144 BV 1,6010D Zinc, Total 54.3 mg/kg 2.54 0.149 1 02/22/22 16:02 03/04/22 00:11 EPA 3050B ΒV General Chemistry - Mansfield Lab 107,-Chromium, Trivalent 5.7 mg/kg 1.1 1.1 1 03/04/22 00:11 NA



02/16/22 09:10

Project Name: Lab Number: 1168 BROADWAY TOPSOIL L2208221 **Report Date:** 03/04/22

Project Number: T0006-022-002

SAMPLE RESULTS

Lab ID: L2208221-03 Client ID: COMP 3

BROADWAY & TWO RED RD Sample Location:

Date Received: 02/16/22 Field Prep: Not Specified

Date Collected:

Sample Depth:

Matrix: Soil 74% Percent Solids:

reiterit solius.	7 170					Dilution	Date	Date	Prep	Analytical	
Parameter	Result	Qualifier	Units	RL	MDL	Factor	Prepared	Analyzed	Method	Method	Analys
Tatal Matala Man	- f : - - - -										
Total Metals - Man	stield Lab										
Arsenic, Total	4.00		mg/kg	0.521	0.108	1	02/22/22 16:02	2 03/04/22 00:49	EPA 3050B	1,6010D	BV
Barium, Total	34.8		mg/kg	0.521	0.091	1	02/22/22 16:02	2 03/04/22 00:49	EPA 3050B	1,6010D	BV
Beryllium, Total	0.260		mg/kg	0.260	0.017	1	02/22/22 16:02	2 03/04/22 00:49	EPA 3050B	1,6010D	BV
Cadmium, Total	0.521		mg/kg	0.521	0.051	1	02/22/22 16:02	2 03/04/22 00:49	EPA 3050B	1,6010D	BV
Chromium, Total	7.34		mg/kg	0.521	0.050	1	02/22/22 16:02	2 03/04/22 00:49	EPA 3050B	1,6010D	BV
Copper, Total	14.7		mg/kg	0.521	0.134	1	02/22/22 16:02	2 03/04/22 00:49	EPA 3050B	1,6010D	BV
Lead, Total	24.8		mg/kg	2.60	0.140	1	02/22/22 16:02	2 03/04/22 00:49	EPA 3050B	1,6010D	BV
Manganese, Total	209		mg/kg	0.521	0.083	1	02/22/22 16:02	2 03/04/22 00:49	EPA 3050B	1,6010D	BV
Mercury, Total	0.082	J	mg/kg	0.091	0.059	1	02/22/22 16:20	0 03/02/22 15:05	EPA 7471B	1,7471B	AC
Nickel, Total	9.79		mg/kg	1.30	0.126	1	02/22/22 16:02	2 03/04/22 00:49	EPA 3050B	1,6010D	BV
Selenium, Total	0.234	J	mg/kg	1.04	0.134	1	02/22/22 16:02	2 03/04/22 00:49	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.521	0.147	1	02/22/22 16:02	2 03/04/22 00:49	EPA 3050B	1,6010D	BV
Zinc, Total	59.4		mg/kg	2.60	0.153	1	02/22/22 16:02	2 03/04/22 00:49	EPA 3050B	1,6010D	BV
General Chemistry	- Mansfie	ld Lab									
Chromium, Trivalent	7.3		mg/kg	1.1	1.1	1		03/04/22 00:49	NA	107,-	



02/16/22 09:20

Date Collected:

Project Name: Lab Number: 1168 BROADWAY TOPSOIL L2208221 **Report Date:** 03/04/22

Project Number: T0006-022-002

SAMPLE RESULTS

Lab ID: L2208221-04

Client ID: COMP 4 Date Received: 02/16/22 **BROADWAY & TWO RED RD** Field Prep: Not Specified Sample Location:

Sample Depth:

Matrix: Soil 72% Percent Solids:

reiteill Solius.	. = /0					Dilution	Date	Date	Prep	Analytical	
Parameter	Result	Qualifier	Units	RL	MDL	Factor	Prepared	Analyzed	Method	Method	Analyst
Total Metals - Mans	sfield Lab										
Arsenic, Total	5.90		mg/kg	0.528	0.110	1	02/22/22 16:02	2 03/04/22 00:53	EPA 3050B	1,6010D	BV
Barium, Total	57.2		mg/kg	0.528	0.092	1	02/22/22 16:02	2 03/04/22 00:53	EPA 3050B	1,6010D	BV
Beryllium, Total	0.301		mg/kg	0.264	0.017	1	02/22/22 16:02	2 03/04/22 00:53	EPA 3050B	1,6010D	BV
Cadmium, Total	0.771		mg/kg	0.528	0.052	1	02/22/22 16:02	2 03/04/22 00:53	EPA 3050B	1,6010D	BV
Chromium, Total	8.24		mg/kg	0.528	0.051	1	02/22/22 16:02	2 03/04/22 00:53	EPA 3050B	1,6010D	BV
Copper, Total	24.7		mg/kg	0.528	0.136	1	02/22/22 16:02	2 03/04/22 00:53	EPA 3050B	1,6010D	BV
Lead, Total	58.3		mg/kg	2.64	0.142	1	02/22/22 16:02	2 03/04/22 00:53	EPA 3050B	1,6010D	BV
Manganese, Total	554		mg/kg	0.528	0.084	1	02/22/22 16:02	2 03/04/22 00:53	EPA 3050B	1,6010D	BV
Mercury, Total	0.104		mg/kg	0.104	0.068	1	02/22/22 16:20	0 03/02/22 15:09	EPA 7471B	1,7471B	AC
Nickel, Total	10.8		mg/kg	1.32	0.128	1	02/22/22 16:02	2 03/04/22 00:53	EPA 3050B	1,6010D	BV
Selenium, Total	0.206	J	mg/kg	1.06	0.136	1	02/22/22 16:02	2 03/04/22 00:53	EPA 3050B	1,6010D	BV
Silver, Total	ND		mg/kg	0.528	0.149	1	02/22/22 16:02	2 03/04/22 00:53	EPA 3050B	1,6010D	BV
Zinc, Total	77.3		mg/kg	2.64	0.155	1	02/22/22 16:02	2 03/04/22 00:53	EPA 3050B	1,6010D	BV
General Chemistry	- Mansfie	ld Lab									
Chromium, Trivalent	8.2		mg/kg	1.1	1.1	1		03/04/22 00:53	NA	107,-	



Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number:

L2208221

Report Date: 03/04/22

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfi	ield Lab for sample(s):	01-04 E	atch: W	G16074	32-1				
Arsenic, Total	ND	mg/kg	0.400	0.083	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Barium, Total	ND	mg/kg	0.400	0.070	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Beryllium, Total	ND	mg/kg	0.200	0.013	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Cadmium, Total	ND	mg/kg	0.400	0.039	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Chromium, Total	ND	mg/kg	0.400	0.038	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Copper, Total	ND	mg/kg	0.400	0.103	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Lead, Total	ND	mg/kg	2.00	0.107	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Manganese, Total	ND	mg/kg	0.400	0.064	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Nickel, Total	ND	mg/kg	1.00	0.097	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Selenium, Total	ND	mg/kg	0.800	0.103	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Silver, Total	ND	mg/kg	0.400	0.113	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV
Zinc, Total	ND	mg/kg	2.00	0.117	1	02/22/22 16:02	03/03/22 22:55	1,6010D	BV

Prep Information

Digestion Method: EPA 3050B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	
Total Metals - Mans	sfield Lab for sample(s):	01-04 B	atch: W	G16074	34-1				
Mercury, Total	ND	mg/kg	0.083	0.054	1	02/22/22 16:20	03/02/22 14:03	3 1,7471B	AC

Prep Information

Digestion Method: EPA 7471B



Lab Control Sample Analysis Batch Quality Control

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number: L2208221

Parameter	LCS %Recovery		CSD ecovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample	(s): 01-04 Bat	ch: WG1607432-2	2 SRM Lo	t Number:	D113-540			
Arsenic, Total	99		-		70-130	-		
Barium, Total	94		-		75-125	-		
Beryllium, Total	101		-		75-125	-		
Cadmium, Total	99		-		75-125	-		
Chromium, Total	98		-		70-130	-		
Copper, Total	96		-		75-125	-		
Lead, Total	97		-		72-128	-		
Manganese, Total	97		-		77-123	-		
Nickel, Total	99		-		70-130	-		
Selenium, Total	99		-		66-134	-		
Silver, Total	99		-		70-131	-		
Zinc, Total	97		-		70-130	-		
Total Metals - Mansfield Lab Associated sample	(s): 01-04 Bat	ch: WG1607434-2	2 SRM Lo	t Number:	D113-540			
Mercury, Total	103		-		60-140	-		



Matrix Spike Analysis Batch Quality Control

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number: L2208221

arameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery Qu	Recovery al Limits	RPD	RPD Qual Limits
otal Metals - Mansfield L	_ab Associated san	nple(s): 01-04	QC Bat	ch ID: WG160	7432-3	QC Sam	nple: L2208221-01	Client ID: CC	MP 1	
Arsenic, Total	4.65	11.8	14.8	86		-	-	75-125	-	20
Barium, Total	30.2	196	206	89		-	-	75-125	-	20
Beryllium, Total	0.246	4.91	4.59	93		-	-	75-125	-	20
Cadmium, Total	0.491	5.21	4.70	90		-	-	75-125	-	20
Chromium, Total	6.17	19.6	22.1	81		-	-	75-125	-	20
Copper, Total	8.13	24.6	29.0	85		-	-	75-125	-	20
Lead, Total	28.6	52.1	67.7	75		-	-	75-125	-	20
Manganese, Total	95.3	49.1	152	115		-	-	75-125	-	20
Nickel, Total	7.08	49.1	45.8	79		-	-	75-125	-	20
Selenium, Total	0.437J	11.8	10.4	88		-	-	75-125	-	20
Silver, Total	ND	29.5	25.7	87		-	-	75-125	-	20
Zinc, Total	43.4	49.1	86.2	87		-	-	75-125	-	20
otal Metals - Mansfield L	_ab Associated san	nple(s): 01-04	QC Bat	ch ID: WG160	7434-3	QC Sam	nple: L2208221-01	Client ID: CC	MP 1	
Mercury, Total	0.074J	0.17	0.217	127	Q	-	-	80-120	-	20

Lab Duplicate Analysis Batch Quality Control

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number: L2208221

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-0	4 QC Batch ID:	WG1607432-4 QC Sample:	L2208221-01	Client ID:	COMP 1	
Arsenic, Total	4.65	4.63	mg/kg	0		20
Barium, Total	30.2	29.6	mg/kg	2		20
Beryllium, Total	0.246	0.238J	mg/kg	NC		20
Cadmium, Total	0.491	0.505	mg/kg	3		20
Chromium, Total	6.17	6.08	mg/kg	1		20
Copper, Total	8.13	8.48	mg/kg	4		20
Lead, Total	28.6	30.5	mg/kg	6		20
Manganese, Total	95.3	104	mg/kg	9		20
Nickel, Total	7.08	6.98	mg/kg	1		20
Selenium, Total	0.437J	0.447J	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20
Zinc, Total	43.4	44.3	mg/kg	2		20
otal Metals - Mansfield Lab Associated sample(s): 01-0	4 QC Batch ID:	WG1607434-4 QC Sample:	L2208221-01	Client ID:	COMP 1	
Mercury, Total	0.074J	0.076J	mg/kg	NC		20



L2208221

Lab Serial Dilution
Analysis
Batch Quality Control

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Report Date: 03/04/22

Lab Number:

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-0-	4 QC Batch ID:	WG1607432-6 QC Sample:	L2208221-01	Client ID:	COMP 1	
Barium, Total	30.2	34.8	mg/kg	15		20
Manganese, Total	95.3	112	mg/kg	18		20



INORGANICS & MISCELLANEOUS



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

SAMPLE RESULTS

Lab ID: L2208221-01 Date Collected: 02/16/22 08:50

Client ID: COMP 1 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough Lal)								
Solids, Total	77.7		%	0.100	NA	1	-	02/17/22 12:04	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.2	0.25	1	02/18/22 04:10	02/18/22 09:34	1,9010C/9012B	CS
Chromium, Hexavalent	ND		mg/kg	1.03	0.206	1	02/25/22 17:53	03/01/22 10:23	1,7196A	РВ



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

SAMPLE RESULTS

Lab ID: L2208221-02 Date Collected: 02/16/22 09:00

Client ID: COMP 2 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Parameter	Result (Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - We	estborough Lab									
Solids, Total	74.4		%	0.100	NA	1	-	02/17/22 12:04	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.3	0.27	1	02/18/22 04:10	02/18/22 09:35	1,9010C/9012B	CS
Chromium, Hexavalent	ND		mg/kg	1.08	0.215	1	02/25/22 17:53	03/01/22 10:23	1,7196A	РВ



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

SAMPLE RESULTS

Lab ID: L2208221-03 Date Collected: 02/16/22 09:10

Client ID: COMP 3 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	tborough La	b								
Solids, Total	73.5		%	0.100	NA	1	-	02/17/22 12:04	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.3	0.27	1	02/18/22 04:10	02/18/22 09:46	1,9010C/9012B	CS
Chromium, Hexavalent	ND		mg/kg	1.09	0.218	1	02/25/22 17:53	03/01/22 10:23	1,7196A	PB



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

SAMPLE RESULTS

Lab ID: L2208221-04 Date Collected: 02/16/22 09:20

Client ID: COMP 4 Date Received: 02/16/22

Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - We	estborough Lab)								
Solids, Total	71.6		%	0.100	NA	1	-	02/17/22 12:04	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.4	0.30	1	02/18/22 04:10	02/18/22 09:47	1,9010C/9012B	CS
Chromium, Hexavalent	ND		mg/kg	1.12	0.223	1	02/25/22 17:53	03/01/22 10:23	1,7196A	РВ



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

SAMPLE RESULTS

Lab ID: L2208221-05 Date Collected: 02/16/22 07:50

Client ID: GRAB 1 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Parameter	Result (Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - \	Westborough Lab									
Solids, Total	71.2		%	0.100	NA	1	-	02/17/22 12:04	121,2540G	RI



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

SAMPLE RESULTS

Lab ID: L2208221-06 Date Collected: 02/16/22 07:55

Client ID: GRAB 2 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry -	Westborough Lab)								
Solids, Total	77.2		%	0.100	NA	1	-	02/17/22 12:04	121,2540G	RI



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

SAMPLE RESULTS

Lab ID: L2208221-07 Date Collected: 02/16/22 08:00

Client ID: GRAB 3 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - V	Westborough Lab									
Solids, Total	74.1		%	0.100	NA	1	-	02/17/22 12:04	121,2540G	RI



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

SAMPLE RESULTS

Lab ID: L2208221-08 Date Collected: 02/16/22 08:05

Client ID: GRAB 4 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - '	Westborough Lab)								
Solids, Total	78.6		%	0.100	NA	1	-	02/17/22 12:04	121,2540G	RI



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

SAMPLE RESULTS

Lab ID: L2208221-09 Date Collected: 02/16/22 08:10

Client ID: GRAB 5 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry -	Westborough Lab)								
Solids, Total	72.3		%	0.100	NA	1	-	02/17/22 12:04	121,2540G	RI



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

SAMPLE RESULTS

Lab ID: L2208221-10 Date Collected: 02/16/22 08:15

Client ID: GRAB 6 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry -	Westborough Lab)								
Solids, Total	70.4		%	0.100	NA	1	-	02/17/22 12:04	121,2540G	RI



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

SAMPLE RESULTS

Lab ID: L2208221-11 Date Collected: 02/16/22 08:20

Client ID: GRAB 7 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Parameter	Result Qua	alifier Uni	s RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - \	Westborough Lab								
Solids, Total	76.9	%	0.100	NA	1	=	02/17/22 12:04	121,2540G	RI



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

SAMPLE RESULTS

Lab ID: L2208221-12 Date Collected: 02/16/22 08:25

Client ID: GRAB 8 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry -	Westborough Lab)								
Solids, Total	77.6		%	0.100	NA	1	-	02/17/22 12:04	121,2540G	RI



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

SAMPLE RESULTS

Lab ID: L2208221-13 Date Collected: 02/16/22 08:30

Client ID: GRAB 9 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry -	- Westborough Lab)								
Solids, Total	74.2		%	0.100	NA	1	-	02/17/22 12:04	121,2540G	RI



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

SAMPLE RESULTS

Lab ID: L2208221-14 Date Collected: 02/16/22 08:35

Client ID: GRAB 10 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry -	Westborough Lab)								
Solids, Total	73.6		%	0.100	NA	1	-	02/17/22 12:04	121,2540G	RI



Project Name: 1168 BROADWAY TOPSOIL Lab Number: L2208221

SAMPLE RESULTS

Lab ID: L2208221-15 Date Collected: 02/16/22 08:40

Client ID: GRAB 11 Date Received: 02/16/22 Sample Location: BROADWAY & TWO RED RD Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry -	Westborough Lab)								
Solids, Total	71.2		%	0.100	NA	1	-	02/17/22 12:04	121,2540G	RI



L2208221

Project Name: 1168 BROADWAY TOPSOIL Lab Number:

> Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Factor	Prepared	Analyzed	Method	Analyst
General Chemistry - W	estborough Lab for sam	ple(s): 01	-04 Bat	tch: WG	61606371-	1			
Cyanide, Total	ND	mg/kg	0.87	0.18	1	02/18/22 04:10	02/18/22 09:08	1,9010C/9012E	3 CS
General Chemistry - W	estborough Lab for sam	ple(s): 01	-04 Bat	tch: WG	1609028-	1			
Chromium, Hexavalent	ND	mg/kg	0.800	0.160	1	02/25/22 17:53	03/01/22 10:23	1,7196A	РВ



Lab Control Sample Analysis Batch Quality Control

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number:

L2208221

Report Date:

03/04/22

Parameter	LCS %Recovery Qual	LCSD %Recovery Q	%Recovery ual Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab A	ssociated sample(s): 01-04	Batch: WG1606371-2	2 WG1606371-3			
Cyanide, Total	96	87	80-120	3		35
General Chemistry - Westborough Lab A	ssociated sample(s): 01-04	Batch: WG1609028-2	2			
Chromium, Hexavalent	85	-	80-120	-		20



Matrix Spike Analysis Batch Quality Control

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number: L2208221

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Recovery Qual Limits	RPD C	RPD Qual Limits
General Chemistry - Westbord Sample	ough Lab Asso	ciated samp	le(s): 01-04	QC Batch II	D: WG16	606371-4	WG1606371-5	QC Sample: L22	08346-02	Client ID: MS
Cyanide, Total	ND	11	11	100		11	100	75-125	0	35
General Chemistry - Westbore	ough Lab Asso	ciated samp	le(s): 01-04	QC Batch II	D: WG16	609028-4	QC Sample:	L2208221-02 CI	ient ID: C	OMP 2
Chromium, Hexavalent	ND	1190	681	57	Q	-	-	75-125	-	20

Lab Duplicate Analysis Batch Quality Control

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Lab Number:

L2208221

Report Date:

03/04/22

Parameter	Native Sam	nple D	ouplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab	Associated sample(s): 01-15	QC Batch ID:	WG1606026-1	QC Sample:	L2208221-01	Client ID:	COMP 1
Solids, Total	77.7		76.4	%	2		20
General Chemistry - Westborough Lab	Associated sample(s): 01-04	QC Batch ID:	WG1609028-6	QC Sample:	L2208221-02	Client ID:	COMP 2
Chromium, Hexavalent	ND		ND	mg/kg	NC		20



1168 BROADWAY TOPSOIL L2208221

 Project Number:
 T0006-022-002

 Report Date:
 03/04/22

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Container Information

Project Name:

Cooler Custody Seal

A Absent

Container Info		rmation		Initial		Temp			Frozen				
	Container ID	Container Type	Cooler	pН	рН	deg C	Pres	Seal	Date/Time	Analysis(*)			
	L2208221-01A	Plastic 2oz unpreserved for TS	Α	NA		3.5	Υ	Absent		TS(7)			
	L2208221-01B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.5	Υ	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG- TI(180),NI-TI(180),CR-TI(180),PB-TI(180),CU- TI(180),SE-TI(180),ZN-TI(180),MN-TI(180),HG- T(28),CD-TI(180)			
	L2208221-01C	Glass 120ml/4oz unpreserved	Α	NA		3.5	Υ	Absent		NYTCL-8270(14),TCN-9010(14),HERB- APA(14),NYTCL-8081(14),NYTCL- 8082(365),HEXCR-7196(30)			
	L2208221-01D	Glass 250ml/8oz unpreserved	Α	NA		3.5	Υ	Absent		NYTCL-8270(14),TCN-9010(14),HERB- APA(14),NYTCL-8081(14),NYTCL- 8082(365),HEXCR-7196(30)			
	L2208221-01E	Glass 250ml/8oz unpreserved	A	NA		3.5	Υ	Absent		NYTCL-8270(14),TCN-9010(14),HERB- APA(14),NYTCL-8081(14),NYTCL- 8082(365),HEXCR-7196(30)			
	L2208221-01F	Plastic 8oz unpreserved	Α	NA		3.5	Υ	Absent		A2-NY-537-ISOTOPE(14)			
	L2208221-02A	Plastic 2oz unpreserved for TS	Α	NA		3.5	Υ	Absent		TS(7)			
	L2208221-02B	Metals Only-Glass 60mL/2oz unpreserved	Α	NA		3.5	Υ	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG- TI(180),CR-TI(180),NI-TI(180),CU-TI(180),PB- TI(180),ZN-TI(180),SE-TI(180),MN-TI(180),HG- T(28),CD-TI(180)			
	L2208221-02C	Glass 120ml/4oz unpreserved	Α	NA		3.5	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB- APA(14),NYTCL-8081(14),NYTCL- 8082(365),HEXCR-7196(30)			
	L2208221-02D	Glass 250ml/8oz unpreserved	Α	NA		3.5	Υ	Absent		NYTCL-8270(14),TCN-9010(14),HERB- APA(14),NYTCL-8081(14),NYTCL- 8082(365),HEXCR-7196(30)			
	L2208221-02E	Glass 250ml/8oz unpreserved	Α	NA		3.5	Υ	Absent		NYTCL-8270(14),TCN-9010(14),HERB- APA(14),NYTCL-8081(14),NYTCL- 8082(365),HEXCR-7196(30)			
	L2208221-02F	Plastic 8oz unpreserved	Α	NA		3.5	Υ	Absent		A2-NY-537-ISOTOPE(14)			
	L2208221-03A	Plastic 2oz unpreserved for TS	Α	NA		3.5	Υ	Absent		TS(7)			
	L2208221-03B	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.5	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG- TI(180),CR-TI(180),NI-TI(180),PB-TI(180),ZN- TI(180),CU-TI(180),SE-TI(180),HG-T(28),MN- TI(180),CD-TI(180)			



Lab Number: L2208221

Report Date: 03/04/22

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Container Information				Initial	Final	Temp			Frozen			
	Container ID	Container Type	Cooler	рН	рН		Pres	Seal	Date/Time	Analysis(*)		
	L2208221-03C	Glass 120ml/4oz unpreserved	Α	NA		3.5	Υ	Absent		NYTCL-8270(14),TCN-9010(14),HERB- APA(14),NYTCL-8081(14),NYTCL- 8082(365),HEXCR-7196(30)		
	L2208221-03D	Glass 250ml/8oz unpreserved	Α	NA		3.5	Υ	Absent		NYTCL-8270(14),TCN-9010(14),HERB- APA(14),NYTCL-8081(14),NYTCL- 8082(365),HEXCR-7196(30)		
	L2208221-03E	Glass 250ml/8oz unpreserved	Α	NA		3.5	Υ	Absent		NYTCL-8270(14),TCN-9010(14),HERB- APA(14),NYTCL-8081(14),NYTCL- 8082(365),HEXCR-7196(30)		
	L2208221-03F	Plastic 8oz unpreserved	Α	NA		3.5	Υ	Absent		A2-NY-537-ISOTOPE(14)		
	L2208221-04A	Plastic 2oz unpreserved for TS	Α	NA		3.5	Υ	Absent		TS(7)		
	L2208221-04B	Metals Only-Glass 60mL/2oz unpreserved	Α	NA		3.5	Υ	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG- TI(180),CR-TI(180),NI-TI(180),CU-TI(180),SE- TI(180),PB-TI(180),ZN-TI(180),MN-TI(180),HG- T(28),CD-TI(180)		
	L2208221-04C	Glass 120ml/4oz unpreserved	Α	NA		3.5	Υ	Absent		NYTCL-8270(14),TCN-9010(14),HERB- APA(14),NYTCL-8081(14),NYTCL- 8082(365),HEXCR-7196(30)		
	L2208221-04D	Glass 250ml/8oz unpreserved	Α	NA		3.5	Υ	Absent		NYTCL-8270(14),TCN-9010(14),HERB- APA(14),NYTCL-8081(14),NYTCL- 8082(365),HEXCR-7196(30)		
	L2208221-04E	Glass 250ml/8oz unpreserved	Α	NA		3.5	Υ	Absent		NYTCL-8270(14),TCN-9010(14),HERB- APA(14),NYTCL-8081(14),NYTCL- 8082(365),HEXCR-7196(30)		
	L2208221-04F	Plastic 8oz unpreserved	Α	NA		3.5	Υ	Absent		A2-NY-537-ISOTOPE(14)		
	L2208221-05A	Plastic 2oz unpreserved for TS	Α	NA		3.5	Υ	Absent		TS(7)		
	L2208221-05B	Vial Large Septa unpreserved (4oz)	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)		
	L2208221-05X	Vial MeOH preserved split	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)		
	L2208221-05Y	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)		
	L2208221-05Z	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)		
	L2208221-06A	Plastic 2oz unpreserved for TS	Α	NA		3.5	Υ	Absent		TS(7)		
	L2208221-06B	Vial Large Septa unpreserved (4oz)	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)		
	L2208221-06X	Vial MeOH preserved split	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)		
	L2208221-06Y	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)		
	L2208221-06Z	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)		
	L2208221-07A	Plastic 2oz unpreserved for TS	Α	NA		3.5	Υ	Absent		TS(7)		
	L2208221-07B	Vial Large Septa unpreserved (4oz)	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)		



Lab Number: L2208221

Report Date: 03/04/22

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Container Information			Initial	Final	Temp			Frozen		
Container ID	Container Type	Cooler	рН	рН	•	Pres	Seal	Date/Time	Analysis(*)	
L2208221-07X	Vial MeOH preserved split	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)	
L2208221-07Y	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)	
L2208221-07Z	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)	
L2208221-08A	Plastic 2oz unpreserved for TS	Α	NA		3.5	Υ	Absent		TS(7)	
L2208221-08B	Vial Large Septa unpreserved (4oz)	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)	
L2208221-08X	Vial MeOH preserved split	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)	
L2208221-08Y	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)	
L2208221-08Z	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)	
L2208221-09A	Plastic 2oz unpreserved for TS	Α	NA		3.5	Υ	Absent		TS(7)	
L2208221-09B	Vial Large Septa unpreserved (4oz)	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)	
L2208221-09X	Vial MeOH preserved split	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)	
L2208221-09Y	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)	
L2208221-09Z	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)	
L2208221-10A	Plastic 2oz unpreserved for TS	Α	NA		3.5	Υ	Absent		TS(7)	
L2208221-10B	Vial Large Septa unpreserved (4oz)	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)	
L2208221-10X	Vial MeOH preserved split	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)	
L2208221-10Y	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)	
L2208221-10Z	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)	
L2208221-11A	Plastic 2oz unpreserved for TS	Α	NA		3.5	Υ	Absent		TS(7)	
L2208221-11B	Vial Large Septa unpreserved (4oz)	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)	
L2208221-11X	Vial MeOH preserved split	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)	
L2208221-11Y	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)	
L2208221-11Z	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)	
L2208221-12A	Plastic 2oz unpreserved for TS	Α	NA		3.5	Υ	Absent		TS(7)	
L2208221-12B	Vial Large Septa unpreserved (4oz)	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)	
L2208221-12X	Vial MeOH preserved split	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)	
L2208221-12Y	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)	
L2208221-12Z	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)	



Lab Number: L2208221

Report Date: 03/04/22

Project Name: 1168 BROADWAY TOPSOIL

Project Number: T0006-022-002

Container Information		rmation		Initial	Final	Temp			Frozen	
	Container ID	Container Type	Cooler	рН	рН	deg C	Pres	Seal	Date/Time	Analysis(*)
	L2208221-13A	Plastic 2oz unpreserved for TS	Α	NA		3.5	Υ	Absent		TS(7)
	L2208221-13B	Vial Large Septa unpreserved (4oz)	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)
	L2208221-13X	Vial MeOH preserved split	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)
	L2208221-13Y	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)
	L2208221-13Z	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)
	L2208221-14A	Plastic 2oz unpreserved for TS	Α	NA		3.5	Υ	Absent		TS(7)
	L2208221-14B	Vial Large Septa unpreserved (4oz)	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)
	L2208221-14X	Vial MeOH preserved split	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)
	L2208221-14Y	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)
	L2208221-14Z	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)
	L2208221-15A	Plastic 2oz unpreserved for TS	Α	NA		3.5	Υ	Absent		TS(7)
	L2208221-15B	Vial Large Septa unpreserved (4oz)	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)
	L2208221-15X	Vial MeOH preserved split	Α	NA		3.5	Υ	Absent		NYTCL-8260-R2(14)
	L2208221-15Y	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)
	L2208221-15Z	Vial Water preserved split	Α	NA		3.5	Υ	Absent	22-FEB-22 07:30	NYTCL-8260-R2(14)



Serial_No:03042215:35 **Lab Number:** L2208 L2208221

03/04/22 Report Date:

Project Number: T0006-022-002

1168 BROADWAY TOPSOIL

Project Name:

PFAS PARAMETER SUMMARY

Parameter	Acronym	CAS Number
PERFLUOROALKYL CARBOXYLIC ACIDS (PFCAs)		
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
PERFLUOROALKYL SULFONIC ACIDS (PFSAs)		
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
FLUOROTELOMERS		
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
PERFLUOROALKANE SULFONAMIDES (FASAs)		
Perfluorooctanesulfonamide	FOSA	754-91-6
N-Ethyl Perfluorooctane Sulfonamide	NEtFOSA	4151-50-2
N-Methyl Perfluorooctane Sulfonamide	NMeFOSA	31506-32-8
PERFLUOROALKANE SULFONYL SUBSTANCES		
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
PER- and POLYFLUOROALKYL ETHER CARBOXYLIC ACIDS		
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
CHLORO-PERFLUOROALKYL SULFONIC ACIDS		
11-Chloroeicosafluoro-3-Oxaundecane-1-Sulfonic Acid	11CI-PF3OUdS	763051-92-9
9-Chlorohexadecafluoro-3-Oxanone-1-Sulfonic Acid	9CI-PF3ONS	756426-58-1
PERFLUOROETHER SULFONIC ACIDS (PFESAs)		
Perfluoro(2-Ethoxyethane)Sulfonic Acid	PFEESA	113507-82-7
PERFLUOROETHER/POLYETHER CARBOXYLIC ACIDS (PFPCAs)		
Perfluoro-3-Methoxypropanoic Acid	PFMPA	377-73-1
Perfluoro-4-Methoxybutanoic Acid	PFMBA	
Nonafluoro-3,6-Dioxaheptanoic Acid	NFDHA	863090-89-5 151772-58-6
renandore o, e Diexanoptanole Adia	INI DIIA	151772-58-6



GLOSSARY

Acronyms

EDL

LOQ

MS

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.)

 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.)

- 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.

- 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



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.
- 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).
- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- 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.
- The lower value for the two columns has been reported due to obvious interference.
- 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



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.)

Report Format: DU Report with 'J' Qualifiers



REFERENCES

- Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I VI, 2018.
- 107 Alpha Analytical In-house calculation method.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 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.



Alpha Analytical, Inc. Facility: Company-wide

Department: Quality Assurance

Title: Certificate/Approval Program Summary

ID No.:17873 Revision 19

Published Date: 4/2/2021 1:14:23 PM

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Certification Information

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

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene, 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;

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

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS

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

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

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

Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water

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

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

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

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

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics,

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

Document Type: Form

Pre-Qualtrax Document ID: 08-113

ΔLPHA	NEW YORK CHAIN OF CUSTODY	Service Centers Mahwah, NJ 07430: 35 Whitne Albany, NY 12205: 14 Walker Tonawanda, NY 14150: 275 Co	Way	5	Page		Date Rec'd in Lab				117/12				ALPHA Job# 222 7	
Westborough, MA 01581 8 Walkup Dr.	Mansfield, MA 02048 320 Forbes Blvd	Project Information					Deliverables						Billing Information			
TEL: 508-898-9220 FAX: 508-898-9193	TEL: 508-822-9300 FAX: 508-822-3288	Project Name: 11688	Broadway	Topsoil				ASP-	A			ASP-	В		Same as Client Info	
FAX. 300-098-9193	FAA: 500-022-3250	Project Location: Brook			d		EQuIS (1 File) EQuIS (4 File)					ile)	PO#			
Client Information		Project # Toooc - 05						Other	2						III.	
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	14218	ALPHAQuote #:						AWQ	Standar	ds		NY G	2-51		applicable disposal facilities.	
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Fax: 71/, 85G	6583	Standar	rd 🔲	Due Date:				NY Ur	restrict	ed Use					□ NJ □ NY	
Email: Ewatten @	BM-TK. com	Rush (only if pre approve	d) 🗌	# of Days:				NYC	Sewer D	ischarg	je .				Other	
	been previously analyz	ed by Alpha					ANA	LYSIS							Sample Filtration	
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-23	Comp3			9:10 A			×	X	X	X	X	X				
-64	Comp 4			9:20 A			X	×	X	X	X	X				
105	Gab 1			7:50 A	100				1 = 1				X	X		
-06	Grab 2			7:55 A			-	7 11		7.7			X	X		
-07	Grab 3			8 00 A						5-			X	X		
-00	Grab 4			8:05 A									X	X		
-09	Girah 5		1	8.10 A	Figure	1							X	X		
-10	Grab 6			8:15 A	V	V							X	X		
Preservative Code: A = Norie B = HCl C = HNO ₃ D = H ₂ SO _A E = NaOH	Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup	Westboro: Certification Mansfield: Certification	25 - 174 75 53	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		
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Form No: 01-25 HC (rev. 3	30-Sept-2013)							_	-		_			-	(See reverse side.)	

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TEL 508-898-9220 FAX: 508-898-9193	TEL: 508-822-9300 FAX: 508-822-3288	Project Name: 11628	Broadway	1				ASP-A			ASP-B		Same as Client Info	
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	14218	ALPHAQuote #:		7	37.30%			AWQ Standa	ards		NY CP-5	1	applicable disposal facilities	
Phone: 116 956	0635	Turn-Around Time						NY Restricte	d Use		Other		Disposal Facility:	
Fax: 11, 856	0583	Standard	X	Due Date:		-		NY Unrestric	ded Use				□ NJ □ NY	
Email: Elperceson	BM-TK. com	Rush (only if pre approved		# of Days:				NYC Sewer	Dischar	ge			Other:	
	been previously analyz	ed by Alpha					ANA	LYSIS					Sample Filtration	
Please specify Meta	ic requirements/comm							07.8 -7					☐ Done ☐ Lab to do Preservation ☐ Lab to do (Please Specify below)	
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Preservative Code: A = None B = HCI C = HNO ₃ D = H ₂ SO ₄ E = NaOH	Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative								Please print clearly, legibly and completely. Samples car not be logged in and turnaround time clock will not start until any ambiguities are			
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K/E = Zn Ac/NaOH O = Other	D = BOD Bottle	Jist AL	HL	2/16/22		00	1			-		0070	HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS	
Form No: 01-25 HC (rev.	30-Sept-2013)												(See reverse side.)	

Work Completed on 07.27.22 – 07.29.22

SITE PICTURE
CAMP DATA
WASTE MANIFEST

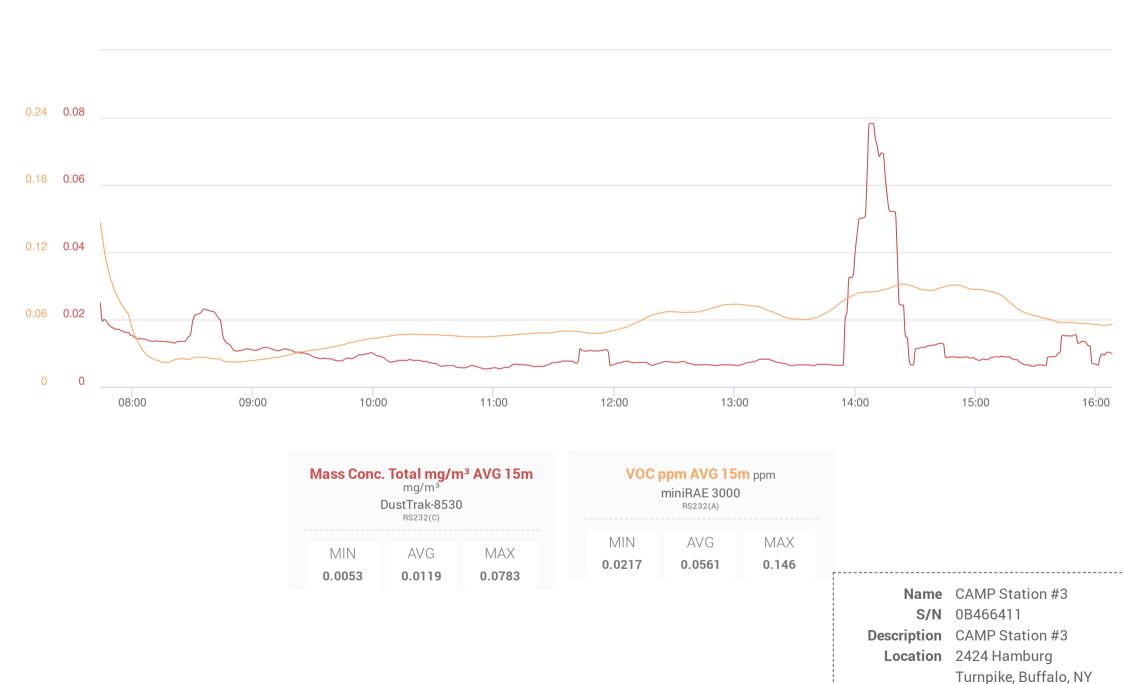


SITE PICTURE



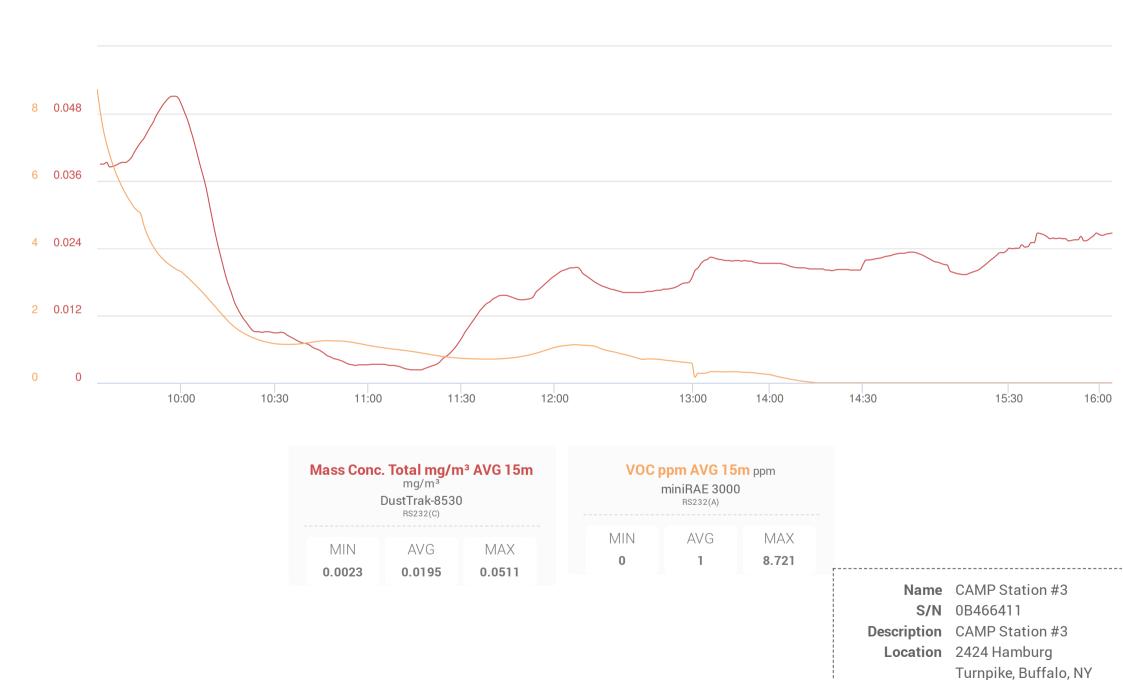
CAMP DATA

Wed, 27th of Jul 2022, 0:00:00 - 23:59:00 (GMT-05:00) Eastern Time (US & Canada)



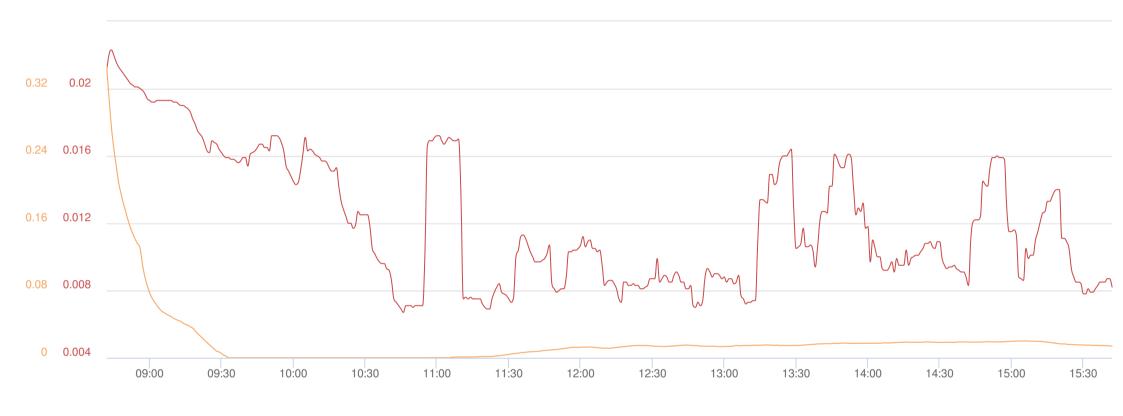
14218, USA

Thu, 28th of Jul 2022, 0:00:00 - 23:59:00 (GMT-05:00) Eastern Time (US & Canada)



14218, USA

Fri, 29th of Jul 2022, 0:00:00 - 23:59:00 (GMT-05:00) Eastern Time (US & Canada)







Name CAMP Station #3

S/N 0B466411

Description CAMP Station #3 **Location** 2424 Hamburg

Turnpike, Buffalo, NY

14218, USA

WASTE MANIFEST



NON-HAZARDOUS MANIFEST

NON-HAZARDOUS MANIFEST	1. Generator's	s US EPA ID No.		Manifest Do	oc No	2.0	71 411		O I	
1000				- Cor Do	ic No.	2. Page	e 1 of			
3. Generator's Mailing Address:										
Uniland Construction Co	rporation					A. Man	ifest Number			
ATTN: Jeff Benderson		Generator's Site	e Address (f different than	mailing):		WMNA	1	155411	.9
100 Corporate Parkway,	Suite 500	8 DONA STRE		Land Accept			B. State	e Genera	tor's ID	
Amherst, NY 14226	Juile 300	LACKAWANN	NA, NY₁14	218						
4.6			.1							
5. Transporter 1 Company Name	-242-9255		1.							
		6.	US EPA	ID Number		- 表: #	4888	14-25-0-10		
Loladz Con	strution)	.,1			C. State	Transporter's	ID C	A /1	Λ.Δ.
7. Transporter 2 Company Name		8.	LIC EDA	ID Number		D. Trans	porter's Phon	e	7 40	19
		1	OJ EPA	ID Number				13.4		D 34.34
9. Designated Facility Name and Site	A 4.1		•			E. State	Transporter's porter's Phone	ID		
Waste Management of N	Address	10.	US EPA	ID Number		1. 114115	Jorter's Phone			
Chaffee Landfill	Y, LLC –					G. State	Facility ID			113
							Facility Phone	716-4	92-3420	
10860 Olean Road		【春春。	LELL	建筑机	RRI	1 桂 代刊	TILLE	र ६ र	JE 3420	
Chaffee, NY 14030			13.56					5.5	e Na In I	
11. Description of Waste Materials			West 1811	12. Co	ntainers					
a. NON HAZARDOUS SO	11			No.	Туре	13. Total Quantity	14. Unit Wt./Vol.	1	l. Misc. Comm	ients
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WM Profile #	3 -12 × 12 × 12 × 12 × 12 × 12 × 12 × 12				E 111 T	Hamilton To			E 100 100	
J. Additional Descriptions for Materia	ils Listed Above			K. Disposa	al Location	200 200 300				
				Cell						
				Grid				Level		
15. Special Handling Instructions and A	dditional Informa	tion								
D. J. O. J. W.			8							
Purchase Order #		EMERO	GENCY CON	TACT / PHO	NE NO.:					-
16. GENERATOR'S CERTIFICATE:										
I hereby certify that the above-describe accurately described, classified and page	ed materials are r	not hazardous was	stes as defir	ned by CFR F	Part 261 or	any applical	ble state law,	have bee	n fully and	4
accurately described, classified and page Printed Name	.kageu anu are in	proper condition	for transpo	rtation acco	ording to a	pplicable reg	gulations.		,	
		Jigilature	On benan	O				Month	Day	Year
17. Transporter 1 Acknowledgement of	0									
Printed Name	Receipt of Mater		-							
(neral (h	ma	Signature	1 / .			1/4 0		Month	Day	Year
18. Transporter 2 Acknowledgement of	Receipt of Materi	ials	-100	uje	_	My	mer	-8	22	22
Printed Name	pc or iviateri	Signature	,	1		1				
Charles OIL	'<	o ngriature	1.1.	1/11				Month	Day	Year
19. Certificate of Final Treatment/Dispo		Ca	ano	veer	V			8	22	22
		CONTROL W. V. C. C.								
certify, on behalf of the above listed tre pplicable laws, regulations, permits and	l licenses on the d	iat to the best of n	my knowled	ge, the abov	ve-describe	ed waste was	s managed in o	complian	ce with all	
0. Facility Owner of Operator: Certifica										
Printed Name	336,6101	Signatare	aterials cov	ered by this	manifest.			23		
_111-1Jaun		J.B.14416	()a	Ker			12	Month	Day	Year
White-REATMENT, STORAGE, DISPOSA	L FACILITY COPY	Blue- GFN	IERATOR #2	COPY	- Sec. 1997	Vall	CENTEDATE	8	22	22
Pink- FACILITY USE ONLY		Gold- TRAN				Tello	ow- GENERATO	NK #T COL	-1	

Gold- TRANSPORTER #1 COPY



KATHY HOCHUL Governor

MARIE THERESE DOMINGUEZ

Commissioner

FRANK P. CIRILLO, SR/WA
Regional Director

June 5, 2023 and auto particular and a significant serior selection own to allow

Ms. Megan Kuczka
New York State Dept. of Environmental Conservation
Division of Environmental Remediation
700 Delaware Avenue
Buffalo, NY 14209

RE: D264672, CPIN 5812.74.321

ERIE COUNTY SHORELINE TRAIL BETHLEHEM STEEL PHASE I

NYSDEC BCP NO. C915197L

ROUTE 5 (HAMBURG TURNPIKE) SIGNAL INSTALLATION

LACKAWANNA, NY

SITE CAP RESTORATION REVISED SUMMARY

Dear Ms. Kuczka,

The New York State Department of Transportation's project D264672, CPIN 5812.74.321, Signal Replacements on NY Rt. 5 in Hamburg, Lackawanna & Amherst was awarded to Concrete Applied Technical Corporation, d/b/a CATCO in January 2022. The project involved excavations for signal pole foundations and installation of new signal poles at various locations in Erie County. On/about October 28, 2022 excavation to prepare an area for a signal pole foundation was occurring along Route 5 in Lackawanna. This excavation was along the edge of the highway in the steep bank between the road and the Erie County Shoreline Trail across from Odell Street.

The New York State Department of Environmental Conservation (NYSDEC) noticed this excavation and notified Erie County Department of Environment and Planning (ECDEP). Subsequent communications revealed that although this excavation was on the edge of the road and within NYSDOT Right-of-Way it was considered to be within the footprint of the adjacent NYSDEC Brownfield Cleanup Program (BCP) Site Number C915197L. ECDEP has oversight of this site. The back edge of the excavation exposed the orange construction fencing demarcation layer of the site cap. Some of the excavated soil was sidecast and incorporated into the existing slope. The remaining soil was stockpiled with other suspect soil from signal pole excavations along Route 5 for sampling and disposal as a contaminated waste. Please see the attached non-hazardous waste manifest.

Subsequently, NYSDOT began coordinating with NYSDEC and ECDEP to comply with the Site Management Plan (SMP) that is in place for this site. According to the SMP soil brought on site to be used to backfill the excavation had to meet the criteria in Table B-1 in accordance with Appendix 5 of DER-10. NYSDOT identified C.J. Krantz located in Clarence Center as a potential source of topsoil that would meet the DER-10 criteria. NYSDOT requested our Hazardous Waste Term Agreement Consultant AECOM to collect two soil samples, one a grab sample to be analyzed for TCL plus CP-51 VOC's and the other a composite sample collected for numerous analyses. Please see the attached "Soil Sampling and Backfill Recommendations" report dated January 2023 for in depth detail regarding the sampling protocols and the laboratory analysis.

Analytical results and a "Request to Import/Reuse Fill or Soil" Form were submitted to NYSDEC. On February 27, 2023 NYSDOT received an approval letter to import this topsoil to the Erie County Shoreline Trail for use as backfill on the excavated slope. Due to winter shutdown for the project, completion of the repair and backfill procedures were delayed until this spring. Upon obtaining all necessary materials and scheduling proper work zone traffic controls, the repair work was completed on April 24, 2023. The repairs included placing orange construction fencing as the base, vegetation mesh as the middle and a minimum of one foot of the approved topsoil as the top layer. Seed and mulch were placed on the topsoil layer. See attached photo of the vegetation mesh layer and a copy of the weigh ticket from the approved topsoil used at the site.

NYSDOT appreciates the guidance and cooperation from NYSDEC and ECDEP during this repair. Please contact Janine Shepherd of my staff with any questions.

Sincerely,

Daniel W. Paskie, P.E. Regional Construction Engineer

Cc: John Hood, ECDEP, w/enclosures
Zackary Scherer, Engineer in Charge D264672

DWP/JHS/jhs



NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

If waste is asbestos waste, complete Sections I, II, III and IV if waste is $\underline{\text{NOT}}$ asbestos waste, complete Sections I, II and III

I. GENERATOR (Gen	erator complete		-				
a. Generator's US EPA ID Number		b. Manifest Docu	ment Number 1347-01		c. Pag	e 1 of	
d. Generator's Name and Location: NYSDOT 3291 LAKE SHIRE DR. BUFFALO, NY., 14219 f. Phone:716 800-9174	40		e. Generator's Ma 100 SNECA STR BUFFALO, NY., 1 g. Phone:	EET			
If owner of the generating facility diff	ers from the general	tor, provide:	g. Filorie.		-		
h. Owner's Name;					- A MARINE TO WAR TO	And the second of the second of the second	Yaraha.
j. Waste Profile #	k. Exp. Date	I Waste Shi	I. Owner's Phone pping Name and		-Animous	TT was	111111111111111111111111111111111111111
		Description	pping Name and	No.	ntainers Type	n. Total Quantity	o. Unit Wt/Vol
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		-		Manager 11	AND CONTRACTOR OF THE PARTY OF	ON COURTER PROPERTY OF THE PRO	Market Carried Commence
PO# 21-110-19							
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Kyan Danna		Thorn the			2/	13/23	
p. Génerator Authorized Agent Name	(Print)	q. Signature			r. Date	13/47	
I. TRANSPORTER (G	enerator comple	tes IIa-b and Tran	snorter complete	es lic.e)	r. Date		
a. Transporter's Name and Address: Catco 1266 TOWNE LINE RD. ALDEN, NY 14004 b. Phone: 716 800-9174	#15						,
Rriau Scharot c. Driver Name (Print)	d. Slá	Harra Man	- Tana	X2	-13-	-23	
III. DESTINATION (Gene	erator complete	Illa-c and Deefina	tion Site complete	/e. Date			
a. Disposal Facility and Site Address: Allied Waste Niagara Falls Landfill 5600 Niagara Falls Blvd, Niagara Falls		c. US EPA Num	ber d. Discrepanc	y Indication Space	9:		·
b. Phone: 716-282-6381							
herby certify that the above named m	aterial has been acc	cepted and to the best	of my knowledge the	e foregoing is true	and accu	rate.	
2) will have been)	11	Pamse	· Comment	2/	10	m 9	
. Name of Authorized Agent (Print)	f. Sign	ature		g. Date	I come	menta white	
V. ASBESTOS (General	or completes IV	a-f and Operator	complete (Va-i)	, g. Date			
a. Operator's Name and Address:			c. Responsible Agen	cy Name and Add	ress:		
. Phone;							
. Special Handling Instructions and Ad	iditional Information	:	d. Phone:				
☐ Friable ☐ Non-Friable ☐ B		- <u></u>					
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PERATOR'S CERTIFICATION: I here nd are classified, packed, marked and ational governmental regulations.	labeled and are in	all respects in proper of	gnment are fully and condition for transpor	accurately describ t by highway acco	ed above rding to a	by proper ship pplicable intern	ping name ational and
Operator's Name and Title (Print)							
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Operator refers to the company which enovation operation or both		controls, or super	vises the facility beir	ng demolished or r	enovated,	or the demoliti	on or

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Generator: NYSDOT	BILL OF L	ADING N/A			
CCATE THE CHOICE WELLEN	·/				
SCALE OUT TARE WEIGHT 29,800 NET WEIGHT	10.67 21,340			INVOICE	
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Have a nice day. Thank you for your business!					NET AMOU
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	customer.	ne anapialatus (ile	terms and condition	ons [CHANGE
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F042UPR (04/19) SIGNATUR NIAGARA FALLS LANDFILL 716-282-6381 5600 Niagara Falls Blvd -Niagara Falls, NY 14304	SITE 5B TI	CKET # 125	32938 CEI 3. 3.46 an DAT	<u> </u>	CHECKA
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APPENDIX 4

PERMANENT EASEMENT AGREEMENT

THIS PERMANENT EASEMENT AGREEMENT (this "Agreement") is made as of this day of _________, 2022 (the "Effective Date") by and between the COUNTY OF ERIE, with offices at 95 Franklin Street, Buffalo, New York, hereinafter referred to as the "County and/or the "Grantor", and BLD VII, LLC, now known as Renaissance 8, LLC, its successors and assigns with an address of University Corporate Centre, 100 Corporate Pkwy, Suite 500, Amherst, NY 14226-1295 (hereinafter referred to as the "Grantee" or "BLD VII," the definition of "BLD VII" or "Grantee" shall include BLD VII now known as Renaissance 8, LLC, and its successors and assigns, as well as its employees, agents, contractors, subcontractors, engineers and invitees) (the County and BLD VII are collectively referred to herein as the "Parties" and individually as a "Party").

RECITALS:

WHEREAS, the County is the owner of certain 6.96 acre parcel of real property situated in the City of Lackawanna, County of Erie and State of New York, which currently bears SBL #141.11-1-48.132 real property, and is more particularly described in deed recorded in the Erie County Clerk's Office in Liber 11353 of Deeds on Page 8397, and serves the public as a bike path (the "Bike Path Property"); and

WHEREAS, BLD VII is in the process of developing a certain 10.26 acre parcel on the property commonly, and hereinafter known "8 Dona Street" (which currently bears SBL # 141.11-1-6) acquired by BLD VII, by virtue of a Deed recorded at Liber 11388, page 7767 in the books of deeds maintained in the Clerk's Office of Erie County New York; and

WHEREAS, BLD VII seeks a permanent easement under a portion of the Bike Path Property for the purpose of establishing, installing, constructing, maintaining, repairing, removing, replacing, operating, inspecting (collectively, the "Work"), in, under, through and across the Bike Path Property, which will receive potential overflow from a storm water infiltration basin being developed at 8 Dona Street to manage storm water at 8 Dona Street in accordance with a municipally approved Storm Water Protection Plan (SWPP); and

WHEREAS, BLD VII has been made aware that the Bike Path Property has been improved in accordance with the New York State Brownfield Cleanup Program (the "BCP"), and its use and development is restricted by an Environmental Easement, and a certain Soils Management Plan (SMP) on file with New York State Department of Environment Region 9 under BCP parcel identification number I-12-BCP-915197L.

Now Therefore, in consideration of the mutual promises contained herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties hereto agree as follows:

- 1. <u>Incorporation of Recitals</u>. The recitals set forth above are incorporated and restated herein as material terms of this Agreement; and
- 2. Grant of Permanent Easement. The County hereby grants to BLD VII a non-exclusive fifteen (15) foot wide permanent easement, centered on the proposed pipeline, over, under and across the portion of the Bike Path Property, at the location identified on the drawing attached hereto as Exhibit A and laying within the area described on the attached Exhibit B (collectively referred to herein as the "Easement Premises") (collectively referred to herein as the "Easement Premises") solely for the purpose of entering the Easement Premises: (a) to perform the Work; (b) to establish, install, construct, maintain, repair, remove, replace and operate a storm sewer and related appurtenances within the Easement Premises at BLD VII's sole cost and expense and with due care to connect to the existing public stormwater line in the Hamburg Turnpike, also known as State Route 5, right of way and (c) to have unimpaired ingress, egress and access to and from the Easement Area as is necessary and/or convenient to the exercise of the rights granted herein (the "Easement"); and
- 3. Compliance with BCP and Soils Management Plan. The Grantee shall strictly comply with all aspects of the SMP governing the site, and BLD VII further expressly acknowledges and agrees this Agreement is expressly subject to that certain Environmental Easement affecting that portion of the Easement Premises as more particularly described in said Environmental Easement as New York State Brownfield Cleanup Program Site No. I-12-BCP-915197L, held by the New York State Department of Environmental Conservation and recorded in the Erie County Clerk's Office on July 14, 2014 in Liber 11266 of Deeds at page 5436 and in Liber 11266 of Deeds at page 5455 (the "Environmental Easement"), and Grantor and Grantee hereby covenant and agree that the Easement Premises shall be utilized in accordance with the terms, conditions and requirements of said Environmental Easement.

The Parties further acknowledge, covenant, and agree that until such time as said Environmental Easement is extinguished in accordance with the requirements of New York State Environmental Conservation Law Article 71, Title 36, this Agreement and all subsequent instruments of conveyance related to the Easement Premises shall state in at least fifteen-point bold face type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation Law; and

- 4. <u>Method of Crossing Bike Path</u>. The Work that takes place under the existent asphalt bike path, on the Bike Path Property shall be pushed under the existing improvement so as not to damage the bike path; and
- 5. Notification of Commencement of Work. At lease thirty days (unless a shorter period agreed to by the County in writing) prior to the commencement of any work involving any disruption of soils at the site, BLD VII shall notify the Erie County Department of Environment and Planning, and the Department of Remediation of Region 9 of the New York State Department of Environmental Conservation; and

- 6. Proof of Insurance Prior to Commencement of any Work. At lease thirty days (unless a shorter period agreed to by the County in writing) prior to commencement of any work, on any occasion, at the Bike Path Property, BLD VII, and any of its contractor's or agents entering the site, shall provide proof of adequate insurance in amounts and form deemed adequate to the Erie County Attorney' Office; and
- days (unless a shorter period agreed to by the County in writing) prior to the commencement of any work at the Site, BLD VII shall be responsible for providing to the County work plans for contemplated work, and proof of obtaining all required approvals from any applicable federal, state, or local authorities, and shall provide the County Department of Environment and Planning proof of obtaining a permit to discharge into the storm sewer underlaying New York State Route 5. The Work shall contain the date for completion of the work, and the plans for protecting any excavations with fencing, and the date for completion of site restoration. Work shall not proceed until plans are approved by County Parks Department; and
- 8. <u>Cost; Restoration</u>. BLD VII shall be responsible for one hundred percent (100%) of all costs and expenses associated with the Work and the performance of its obligations hereunder. Within 14 days of completion of the Work, or other entry into the Easement Premises, unless said time period is extended in writing by the County, BLD VII agrees, at BLD VII's sole cost and expense, and with due diligence, to promptly restore the Easement Premises, the Property and all improvements located on the Property to good condition and state of repair (and to at least as good of a condition which existed immediately prior to the exercise of any of the rights granted herein); and
- 9. <u>Certification of Compliance with BCP</u>; Within thirty (30) days of completion of any work activities authorized in whole or in part on the Bike Path Property the Grantee shall have a Qualified Environmental Professional (as that term is defined at 6 NYCRR 375-1.2) certify to the County that all work was performed, and the site was restored in accordance with the SMP for the Bike Path Property; and
- 10. Ownership of the Improvements. BLD VII hereby agrees and acknowledges that any improvements constructed by BLD VII (i) are the sole property of BLD VII; (ii) shall be BLD VII's sole responsibility to operate, maintain, repair, remove and replace; (iii) shall be under the BLD VII's exclusive control and supervision at all times; and (iv) shall be used by the BLD VII solely for the benefit of 8 Dona Street; and
- Indemnification. BLD VII hereby assumes any and all risks associated with the Work. BLD VII shall indemnify, defend and hold the County harmless from and against any and all liabilities, losses, expenses (including reasonable attorneys' fees), causes of action, damages, claims, suits, judgments and actions to persons or property arising out of, or alleged to arise out of (i) the Work; (ii) the exercise of BLD VII's rights hereunder; or (iii) BLD VII's access or use of the Bike Path Property for the Easement; and

- 12. <u>Duration; Successors and Assigns</u>. This Agreement shall run with the land and shall bind and inure to the benefit of the Parties hereto and their respective successors and assigns; and
- 13. Entire Agreement. This Agreement and the exhibits attached hereto constitute the sole and complete agreement and understanding of the Parties hereto with respect to the rights granted herein and supersede all prior written or oral agreements and understandings with respect to the rights granted herein; and
- 14. <u>Severability</u>. In the event any provision of this Agreement is held to be invalid, illegal or unenforceable for any reason or in any respect, such invalidity, illegality or unenforceability will in no event affect, prejudice or disturb the validity of the remainder of this Agreement, which will be and remain in full force and effect, enforceable in accordance with its terms; and
- 15. <u>Governing Law</u>. This Agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to conflicts of law principles; and
- 16. <u>Modifications</u>. This Agreement shall not be modified or changed except in a writing in recordable form executed by the County, or future public entity who has assumed ownership of the Improvements described herein, and the then-current owner(s) of the Property burdened by the terms of this Agreement which are desired to be so modified or changed; and
- 17. <u>Notices</u>. Any notice, demand, request or other communication required or permitted under this Agreement shall be in writing and shall be deemed to have been properly given if delivered personally, or sent by United States registered or certified mail, return receipt requested, postage prepaid, or by a nationally recognized overnight courier service to the applicable Party at its respective address as set forth below.

If to the County to:

Erie County Department of Environment and Planning 95 Franklin Street, 10th Floor Buffalo NY 14202 Attn: Commissioner

With a copy to:

Erie County Attorney 95 Franklin Street, Rm. 1634 Buffalo, NY 14202

If to BLD VII to:

University Corporate Centre 100 Corporate Pkwy | Suite 500 Amherst, NY 14226-1295 Attn: Michael J. Montante, President With a copy to:

Uniland Development Company 100 Corporate Parkway, Suite 500 Amherst, NY 14226-1295

Attn: Counsel

Either Party hereto by written notice to the other may change the address or the persons to whom notices or copies thereof will be directed.

- 18. <u>Headings</u>. The headings of the paragraphs contained herein are intended for reference purposes only and shall not be used to interpret the agreements contained herein or the rights granted hereby.
- 19. **Exhibits**. All exhibits referred to herein and attached hereto shall be deemed part of this Agreement.
- 20. <u>Ratification</u>. The County confirms, ratifies and accepts all of the terms and conditions of this Agreement by its execution hereof.
- 21. <u>Counterparts</u>. This Agreement may be executed in multiple counterparts, each of which shall be deemed an original and all of which together shall constitute but one and the same instrument.

[The remainder of this page is intentionally left blank and signature pages follow.]

SIGNATURE PAGE TO PERMANENT EASEMENT AGREEMENT

IN WITNESS WHEREOF, the Parties have executed and delivered this Agreement as of the Effective Date.

BY: 71 Junt 6/10/22

NAME: Mania Waya

TITLE: Dapon Consty Executive

STATE OF NEW YORK)
COUNTY OF ERIE) ss.:

On the day of day of in the year 2022 before me, the undersigned, a Notary Public in and for said State, personally appeared Maria Why to, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

JOYCE L CWIKLINSKI
NOTARY PUBLIC, STATE OF NEW YORK
Registration No. 01CW6304081
Qualified in Erie County
My Commission Expires MAY 19, 2026

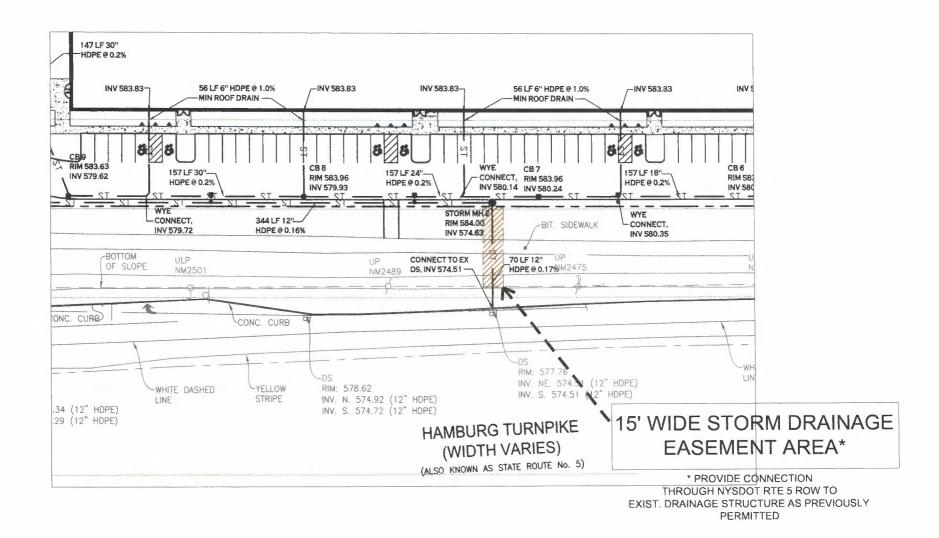
NOTARY PUBLIC

SIGNATURE PAGE TO PERMANENT EASEMENT AGREEMENT

BLD VII, LLC, now known as Renaissance 8, LLC

iname:	Michael J. Miontante
Title:	Authorized Person
State of New York)	
County of Erie) ss.:	
On the 31 day of My Notary Public in and for said State, personally to me or proved to me on the basis of satisfacto subscribed to the within instrument and acknow his/her capacity, and that by his/her signature o upon behalf of which the individual acted, execution	vledged to me that he/she executed the same in in the instrument, the individual, or the person

EXHIBIT A DRAWING OF THE EASEMENT PREMISES



8 Dona Street | Renaissance Commerce Park | Lackawanna, New York



EXHIBIT B

DESCRIPTION OF THE PROPERTY OF THE COUNTY OF ERIE

Schedule B-1 to Declaration <u>Description of Premises</u>

Parcel A:

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Lackawanna, County of Erie, State of New York being part of Lots 24 and 36, Township 10, Range 8 of the Buffalo Creek Reservation (so-called) and part of Lots 20, 21 and 24 of the Ogden Gore Tract, bounded and described as follows:

BEGINNING at a point on westerly boundary of the Hamburg Turnpike, New York State Route 5 at its intersection with the southerly line of Parcel II-8, also known as BCP Site No. C915198H as shown on a Map entitled Lands to be conveyed to Buffalo and Erie County Industrial Land Development Corporation, prepared by Wendel Engineers, P.C., Project No. 411110 date May 3, 2017;

THENCE through the lands of Tecumseh Redevelopment Inc., the following eight (8) courses and distances:

- 1) S-71°-00'-00"-W along the centerline of said easement and the south line of said Parcel II-8 a distance of 49.87 feet;
- 2) N-18°-27-18"-W, a distance of 331.83 feet;
- 3) N-18°-25-54"-W, a distance of 1013.10 feet;
- 4) N-20°-11-07"-W, a distance of 1036.08 feet;
- 5) N-17°-56-46"-W, a distance of 1751.28 feet;
- 6) N-18°-59-27"-W, a distance of 902.93 feet;
- 7) N-16°-10-22"-W, a distance of 184.31 feet to the northerly line of Parcel I-8, also known as BCP Site No. C915197H as shown on a Map entitled Lands to be conveyed to Buffalo and Erie County Industrial Land Development Corporation, prepared by Wendel Engineers, P.C., Project No. 411110 date May 3, 2017;
- 8) N-71°-00'-00"E a distance of 50.05 feet to a point on the first mentioned westerly boundary of the Hamburg Turnpike, New York State Route 5;

THENCE along said westerly boundary the following twenty three (23) courses and distances:

- 1) S-16°-04'-57"-E a distance of 186.30 feet;
- 2) S-18°-29'-00"-E a distance of 30.00 feet;
- 3) S-18°-28'-38"-E a distance of 355.00 feet;
- 4) S-71°-39'-20"-W a distance of 2.00 feet;
- 5) S-18°-28'-44"-E a distance of 223.00 feet;
- 6) S-22°-17'-43"-E a distance of 150.35 feet;
- 7) S-18°-28'-39"-E a distance of 512.00 feet;
- 8) S-16°-37'-53"-E a distance of 260.12 feet;
- 9) S-18°-22'-18"-E a distance of 793.00 feet;
- 10) S-71°-35'-29"-W a distance of 4.00 feet;
- 11) S-18°-01'-20"-E a distance of 132.00 feet;
- 12) N-71°-35'-29"-E a distance of 4.67 feet;
- 13) S-18°-17'-48"-E a distance of 38.00 feet;
- 14) S-71°-35'-29"-W a distance of 4.86 feet;

- 15) S-18°-01'-20"-E a distance of 160.00 feet;
- 16) N-71°-35'-29"-E a distance of 9.80 feet;
- 17) S-18°-24'-31"-E a distance of 159.00 feet;
- 18) S-71°-35'-29"-W a distance of 3.89 feet;
- 19) S-18°-22'-14"-E a distance of 180.00 feet;
- 20) S-20°-44'-09"-E a distance of 8.40 feet;
- 21) S-20°-45'-14"-E a distance of 129.67 feet;
- 22) S-22°-43'-04"-E a distance of 272.45 feet;
- 23) S-18°-25'-27"-E a distance of 1631.09 feet to the POINT OR PLACE OF BEGINNING.

Parcel B:

ALL THAT TRACT OR PARCEL OF LAND situate in the City of Lackawanna, County of Erie, State of New York being part of Lot 36, Township 10, Range 8 of the Buffalo Creek Reservation, bounded and described as follows:

BEGINNING at a point on westerly boundary line of the Hamburg Turnpike, New York State Route 5 at its intersection with the southerly line of Parcel I-11, also known as BCP Site No. C915197K, and which line is also the northerly line of Parcel I-8, also known as BCP Site No. C915197H, as shown on a Map entitled Lands to be conveyed to Buffalo and Erie County Industrial Land Development Corporation, prepared by Wendel Engineers, P.C., Project No. 411110 date May 3, 2017;

THENCE, the following three (3) courses and distances:

- 1) S-71°-00'-00"-W along the south of said Parcel I-II a distance of 50.05 feet to a point;
- 2) N-16°-10-22"-W, a distance of 298.51 feet to a point:
- 3) N-19°-21-42"-W, a distance of 276.67 feet to a point on the southerly line of property conveyed to Gateway Trade Center, Inc. by deed recorded at Liber 10886 of Deeds at page 1115, which line is also the northerly line of Parcel I-11;

THENCE N 70° 59' 36" E along said north line of Parcel I-11, a distance of 49.95 feet to point of the first mentioned westerly boundary line of the Hamburg Turnpike, New York State Route 5:

THENCE along said westerly boundary line of the Hamburg Turnpike the following two (2) courses and distances:

- 1) S-19°-33'-00"-E a distance of 279.01 feet;
- 2) S-16°-04'-57"-E a distance of 296.01 feet to the POINT OR PLACE OF BEGINNING.



Department of Taxation and Finance

Combined Real Estate Transfer Tax Return, Credit Line Mortgage Certificate, and Certification of Exemption from the **Payment of Estimated Personal Income Tax**

Recording office time stamp

See Form TP-584-L Inst	ructions for Form TE	2-584, before completing th	is form. Print or type	9		
Schedule A - Inform			io roini, r mic or typ	<u> </u>		
Grantor/Transferor		, first, middle initial) (mark an X	if more than one grantor	-)	Socia	Security number (SSN)
☐ Individual	County of Erie	,	n more aren ene grante.	,	000.0	
☐ Corporation	0.4 - 111 1.1	/ - / -	, , ,		SSN	
☐ Partnership	95 FAA.	nkla St, B	Lato NY	14707		
Estate/Trust	City	State		ZIP code	Emplo	yer Identification Number (EIN)
	Bodhala	Oldio		Zii oodo	Linpio	yor raonamadaan raamaa (Enty
☐ Single member LLC ☐ Multi-member LLC		e if grantor is a single member	11C (see instructions)		Single	e member EIN or SSN
	Single member s nam	ie ii grantor is a single member	LLO (see msaucaons)		Omigic	S MOMBOL ENVOLOGIV
✓ Other Grantee/Transferee	Nama (if individual last	first, middle initial) (mark an X	if mare then one eventer	-1	SSN	
	Renaissance 8, LL	· · · · · · · · · · · · · · · · · · ·	ii more man one grantes	=)	SSIN	
☐ Individual	Mailing address	C INA BLD VII, LLC			SSN	
Corporation	•	augu Cuita E00			33N	
Partnership	100 Corporate Park			715		
Estate/Trust	City	State		ZIP code	EIN	
Single member LLC	Amherst	NY		14226		06-1743757
☐ Multi-member LLC		e if grantee is a single membe	r LLC (see instructions)		Single	e member EIN or SSN
Other	Uniland Ventures, L					84-3980012
Location and description		ed				
Tax map designation – Section, block & lot (include dots and dashes)	SWIS code (six digits)	Street address		City, town, or vill	age	County
141.15-1-6	140900	8 Dona Street		Lackawanna		Erie
 One- to three-famil Residential cooper Residential condor Vacant land Commercial/indust 	ative 7 ninium 8	☐ Apartment building ☐ Office building ☐ Four-family dwelling ☐ Other	Date of conveys	2022 con	veyed	e of real property which is residential rty0% ee instructions)
Condition of conveyance (mark an X in all that apply) a. Conveyance of fee	interest	f. Conveyance which of mere change of iden ownership or organiz Form TP-584.1, Schedu	tity or form of zation <i>(attach</i>	I. Option assig	ssignm	
 Acquisition of a contribution percentage acquired 	,	g. Conveyance for which previously paid will be Form TP-584.1, Sched	n. ☐ Leasehold grant o. ☑ Conveyance of an easement			
c. Transfer of a contro percentage transfer	*	h. Conveyance of cooper	rative apartment(s)	p. Conveyance from transfer Schedule B,	tax cla	imed (complete
d. Conveyance to coo corporation	perative housing	i. Syndication		q. Conveyance and partly ou	of prop	perty partly within
 Conveyance pursua foreclosure or enfor interest (attach Form) 	cement of security	 j. Conveyance of air rig development rights k. Contract assignment 		r. Conveyance	oursuan	t to divorce or separation
,	,			s. Other (describ	be)	
For recording officer's use	Amount received Schedule B, Part Schedule B, Part		Date received		Transac	tion number
		- Ψ	1			

P	art 1 - Computation of tax due			
	1 Enter amount of consideration for the conveyance (if you are claiming a total exemption from tax, mark an X in the			
	Exemption claimed box, enter consideration and proceed to Part 3)	1.		0
	2 Continuing lien deduction (see instructions if property is taken subject to mortgage or lien)	2.		0
	3 Taxable consideration (subtract line 2 from line 1)	3. 4.		0
	4 Tax: \$2 for each \$500, or fractional part thereof, of consideration on line 3	5.		+
	6 Total tax due* (subtract line 5 from line 4)	6.		-
	o total tax due (subtract line 5 nom line 4)	0.		
Р	art 2 - Computation of additional tax due on the conveyance of residential real property for \$1 million or more			
	1 Enter amount of consideration for conveyance (from Part 1, line 1)	1.		
	2 Taxable consideration (multiply line 1 by the percentage of the premises which is residential real property, as shown in Schedule A)	2.		
	3 Total additional transfer tax due* (multiply line 2 by 1% (.01))			
TI	art 3 – Explanation of exemption claimed on Part 1, line 1 (mark an X in all boxes that apply) ne conveyance of real property is exempt from the real estate transfer tax for the following reason: Conveyance is to the United Nations, the United States of America, New York State, or any of their instrumental or political subdivisions (or any public corporation, including a public corporation created pursuant to agreement with another state or Canada)	or compa	ct	
).	Conveyance is to secure a debt or other obligation	, . ,	b	
).	Conveyance is without additional consideration to confirm, correct, modify, or supplement a prior conveyance		с	
d.	Conveyance of real property is without consideration and not in connection with a sale, including conveyances of realty as bona fide gifts		d	>
≥.	Conveyance is given in connection with a tax sale		e	
	Conveyance is a mere change of identity or form of ownership or organization where there is no change in bene ownership. (This exemption cannot be claimed for a conveyance to a cooperative housing corporation of real procomprising the cooperative dwelling or dwellings.) Attach Form TP-584.1, Schedule F	operty	f	
J.	Conveyance consists of deed of partition		g	
١.	Conveyance is given pursuant to the federal Bankruptcy Act		h	
	Conveyance consists of the execution of a contract to sell real property, without the use or occupancy of such property the granting of an option to purchase real property, without the use or occupancy of such property			
	Conveyance of an option or contract to purchase real property with the use or occupancy of such property where consideration is less than \$200,000 and such property was used solely by the grantor as the grantor's personal and consists of a one-, two-, or three-family house, an individual residential condominium unit, or the sale of stoci in a cooperative housing corporation in connection with the grant or transfer of a proprietary leasehold covering individual residential cooperative apartment.	residence ck an	j	
	Conveyance is not a conveyance within the meaning of Tax Law, Article 31, § 1401(e) (attach documents supporting such claim)			_

^{*} The total tax (from Part 1, line 6 and Part 2, line 3 above) is due within 15 days from the date of conveyance. Make check(s) payable to the county clerk where the recording is to take place. For conveyances of real property within New York City, use Form TP-584-NYC. If a recording is not required, send this return and your check(s) made payable to the NYS Department of Taxation and Finance, directly to the NYS Tax Department, RETT Return Processing, PO Box 5045, Albany NY 12205-0045. If not using U.S. Mail, see Publication 55, Designated Private Delivery Services.

following reason: a A certificate of discharge of the credit line mortgage is being offered at the time of recording the deed. b A check has been drawn payable for transmission to the credit line mortgagee or mortgagee's agent for the balance due, and a satisfaction of such mortgage will be recorded as soon as it is available. 4. The real property being transferred is subject to an outstanding credit line mortgage recorded in	Schedule C – Credit Line Mortgage Certificate (Tax Law Article 11)
2. The real property being sold or transferred is subject to an outstanding credit line mortgage. However, an exemption from the tax is claimed for the following reason: a The transfer of real property is a transfer of a fee simple interest to a person or persons who held a fee simple interest in the real property (whether as a joint tenant, a tenant in common or otherwise) immediately before the transfer. b The transfer of real property is (A) to a person or persons related by blood, marriage or adoption to the original obligor or to one or more of the original obligors or (B) to a person or entity where 50% or more of the beneficial interest in such real property after the transfer is held by the transfer or such related person or persons (as in the case of a transfer to a trustee for the benefit of a minor or the transfer to a truste for the benefit of the transfer or persons (as in the case of a transfer to a trustee for the benefit of a minor or the transfer to a trustee in bankruptcy, a receiver, assignee, or other officer of a court. d The maximum principal amount secured by the credit line mortgage is \$3 million or more, and the real property being sold or transferred is not principally improved nor will it be improved by a one- to six-family owner-occupied residence or dwelling. Note: for purposes of determining whether the maximum principal amount secured is \$3 million or more as described above, the amounts secured by two or more credit line mortgages may be aggregated under certain circumstances. See TSB-M-96(6)-R for more information regarding these aggregation requirements. e Other (attach detailed explanation). 3. The real property being transferred is presently subject to an outstanding credit line mortgage. However, no tax is due for the following reason: a A certificate of discharge of the credit line mortgage is being offered at the time of recording the deed. b A check has been drawn payable for transmission to the credit line mortgage or mortgage's agent for the balance due, and a s	
is claimed for the following reason: a	1. X The real property being sold or transferred is not subject to an outstanding credit line mortgage.
real property (whether as a joint tenant, a tenant in common or otherwise) immediately before the transfer. b	
to one or more of the original obligors or (B) to a person or entity where 50% or more of the beneficial interest in such real property after the transfer is held by the transferor or such related person or persons (as in the case of a transfer to a trustee for the benefit of a minor or the transfer to a trust for the benefit of the transferor). c	a The transfer of real property is a transfer of a fee simple interest to a person or persons who held a fee simple interest in the real property (whether as a joint tenant, a tenant in common or otherwise) immediately before the transfer.
d The maximum principal amount secured by the credit line mortgage is \$3 million or more, and the real property being sold or transferred is not principally improved nor will it be improved by a one- to six-family owner-occupied residence or dwelling. Note: for purposes of determining whether the maximum principal amount secured is \$3 million or more as described above, the amounts secured by two or more credit line mortgages may be aggregated under certain circumstances. See TSB-M-96(6)-R for more information regarding these aggregation requirements. e Other (attach detailed explanation). The real property being transferred is presently subject to an outstanding credit line mortgage. However, no tax is due for the following reason: a A certificate of discharge of the credit line mortgage is being offered at the time of recording the deed. b A check has been drawn payable for transmission to the credit line mortgage or mortgagee's agent for the balance due, and a satisfaction of such mortgage will be recorded as soon as it is available. The real property being transferred is subject to an outstanding credit line mortgage recorded in (insert liber and page or reel or other identification of the mortgage). The maximum principal amount of debt or obligation secured by the mortgage is	to one or more of the original obligors or (B) to a person or entity where 50% or more of the beneficial interest in such real property after the transfer is held by the transfer or such related person or persons (as in the case of a transfer to a trustee for
Note: for purposes of determining whether the maximum principal amount secured is \$3 million or more as described above, the amounts secured by two or more credit line mortgages may be aggregated under certain circumstances. See TSB-M-96(6)-R for more information regarding these aggregation requirements. e Other (attach detailed explanation). The real property being transferred is presently subject to an outstanding credit line mortgage. However, no tax is due for the following reason: a A certificate of discharge of the credit line mortgage is being offered at the time of recording the deed. b A check has been drawn payable for transmission to the credit line mortgagee or mortgagee's agent for the balance due, and a satisfaction of such mortgage will be recorded as soon as it is available. 4. The real property being transferred is subject to an outstanding credit line mortgage recorded in (insert liber and page or reel or other identification of the mortgage). The maximum principal amount of debt or obligation secured by the mortgage is	c The transfer of real property is a transfer to a trustee in bankruptcy, a receiver, assignee, or other officer of a court.
amounts secured by two or more credit line mortgages may be aggregated under certain circumstances. See TSB-M-96(6)-R for more information regarding these aggregation requirements. e Other (attach detailed explanation). The real property being transferred is presently subject to an outstanding credit line mortgage. However, no tax is due for the following reason: a A certificate of discharge of the credit line mortgage is being offered at the time of recording the deed. b A check has been drawn payable for transmission to the credit line mortgage or mortgagee's agent for the balance due, and a satisfaction of such mortgage will be recorded as soon as it is available. The real property being transferred is subject to an outstanding credit line mortgage recorded in (insert liber and page or ere or or deri incompage). The maximum principal amount of debt or obligation secured by the mortgage is	
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following reason: a A certificate of discharge of the credit line mortgage is being offered at the time of recording the deed. b A check has been drawn payable for transmission to the credit line mortgagee or mortgagee's agent for the balance due, and a satisfaction of such mortgage will be recorded as soon as it is available. 4. The real property being transferred is subject to an outstanding credit line mortgage recorded in	e Other (attach detailed explanation).
b A check has been drawn payable for transmission to the credit line mortgagee or mortgagee's agent for the balance due, and a satisfaction of such mortgage will be recorded as soon as it is available. 4. The real property being transferred is subject to an outstanding credit line mortgage recorded in	
satisfaction of such mortgage will be recorded as soon as it is available. 4. The real property being transferred is subject to an outstanding credit line mortgage recorded in	a A certificate of discharge of the credit line mortgage is being offered at the time of recording the deed.
(insert liber and page or reel or other identification of the mortgage). The maximum principal amount of debt or obligation secured by the mortgage is No exemption from tax is claimed and the tax of is being paid herewith. (Make check payable to county clerk where deed will be recorded.) Signature (both the grantors and grantees must sign) The undersigned certify that the above information contained in Schedules A, B, and C, including any return, certification, schedule, or attachment, is to the best of their knowledge, true and complete, and authorize the person(s) submitting such form on their behalf to receive a copy for purposes of recording the deed or other instrument effecting the conveyance County of Erie Renaissance 8, LLC fka BLD VII, LLC By: Authorized Agent	
The undersigned certify that the above information contained in Schedules A, B, and C, including any return, certification, schedule, or attachment, is to the best of their knowledge, true and complete, and authorize the person(s) submitting such form on their behalf to receive a copy for purposes of recording the deed or other instrument effecting the conveyance County of Erie Renaissance 8, LLC fka BLD VII, LLC By: By: By: Authorized Agent	(insert liber and page or reel or other identification of the mortgage). The maximum principal amount of debt or obligation secured by the mortgage is No exemption from tax is claimed and the tax of
attachment, is to the best of their knowledge, true and complete, and authorize the person(s) submitting such form on their behalf to receive a copy for purposes of recording the deed or other instrument effecting the conveyance County of Erie Renaissance 8, LLC fka BLD VII, LLC By: By: By: Authorized Agent	Signature (both the grantors and grantees must sign)
ν	By: On Toto Confession By: Much f. Feet Authorized Agent
Grantor signature Title Grantee signature Title	

Reminder: Did you complete all of the required information in Schedules A, B, and C? Are you required to complete Schedule D? If you marked e, f, or g in Schedule A, did you complete Form TP-584.1? Have you attached your check(s) made payable to the county clerk where recording will take place? If no recording is required, send this return and your check(s), made payable to the NYS Department of Taxation and Finance, directly to the NYS Tax Department, RETT Return Processing, PO Box 5045, Albany NY 12205-0045. If not using U.S. Mail, see Publication 55, Designated Private Delivery Services.

Schedule D - Certification of exemption from the payment of estimated personal income tax (Tax Law, Article 22, § 663)

Complete the following only if a fee simple interest or a cooperative unit is being transferred by an individual or estate or trust.

If the property is being conveyed by a referee pursuant to a foreclosure proceeding, proceed to Part 2, mark an X in the second box under Exemption for nonresident transferors/sellers, and sign at bottom.

Part 1 - New York State residents

If you are a New York State resident transferor/seller listed in Form TP-584, Schedule A (or an attachment to Form TP-584), you must sign the certification below. If one or more transferor/seller of the real property or cooperative unit is a resident of New York State, **each** resident transferor/seller must sign in the space provided. If more space is needed, photocopy this Schedule D and submit as many schedules as necessary to accommodate all resident transferors/sellers.

Certification of resident transferors/sellers

This is to certify that at the time of the sale or transfer of the real property or cooperative unit, the transferor/seller as signed below was a resident of New York State, and therefore is not required to pay estimated personal income tax under Tax Law § 663(a) upon the sale or transfer of this real property or cooperative unit.

Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date

Note: A resident of New York State may still be required to pay estimated tax under Tax Law § 685(c), but not as a condition of recording a deed.

Part 2 - Nonresidents of New York State

If you are a nonresident of New York State listed as a transferor/seller in Form TP-584, Schedule A (or an attachment to Form TP-584) but are not required to pay estimated personal income tax because one of the exemptions below applies under Tax Law § 663(c), mark an X in the box of the appropriate exemption below. If any one of the exemptions below applies to the transferor/seller, that transferor/seller is not required to pay estimated personal income tax to New York State under Tax Law § 663. Each nonresident transferor/seller who qualifies under one of the exemptions below must sign in the space provided. If more space is needed, photocopy this Schedule D and submit as many schedules as necessary to accommodate all nonresident transferors/sellers.

If none of these exemption statements apply, you must complete Form IT-2663, Nonresident Real Property Estimated Income Tax Payment Form, or Form IT-2664, Nonresident Cooperative Unit Estimated Income Tax Payment Form. For more information, see Payment of estimated personal income tax, on Form TP-584-I, page 1.

Exemption for nonresident transferors/sellers

This is to certify that at the time of the sale or transfer of the real property or cooperative unit, the transferor/seller (grantor) of this real property or cooperative unit was a nonresident of New York State, but is not required to pay estimated personal income tax under Tax Law § 663 due to one of the following exemptions:

due	to one of the following exemptions:
	The real property or cooperative unit being sold or transferred qualifies in total as the transferor's/seller's principal residence
	(within the meaning of Internal Revenue Code, section 121) from to (see instructions).
	The transferor/seller is a mortgagor conveying the mortgaged property to a mortgagee in foreclosure, or in lieu of foreclosure with no additional consideration.
	The transferor or transferee is an agency or authority of the United States of America, an agency or authority of New York State, the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Government National Mortgage Association, or a private mortgage insurance company.

Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date

APPENDIX 5



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



Sit	e No.	C915197L	Site Details		Box 1				
Sit	e Name Be	thlehem Shoreline Trail							
Cit Co	e Address: 2 y/Town: Lad unty:Erie e Acreage: 6		Zip Code: 14218						
Re	porting Perio	od: July 17, 2021 to June 8,	, 2023						
					YES	NO			
1.	Is the inforr	mation above correct?			X				
	If NO, inclu	de handwritten above or on	a separate sheet.						
2.		or all of the site property been nendment during this Report	en sold, subdivided, merged, or undergo ting Period?			X			
3.		peen any change of use at the RR 375-1.11(d))?	he site during this Reporting Period			X			
4.	•	ederal, state, and/or local pe property during this Report	ermits (e.g., building, discharge) been iss ting Period?			X			
			thru 4, include documentation or evid						
5.	Is the site of	currently undergoing develor	pment?			X			
					Box 2				
				,	YES	NO			
6.		ent site use consistent with that and Industrial	he use(s) listed below?		X				
7.	Are all ICs	in place and functioning as	designed?	X					
	IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.								
Α (Corrective M	easures Work Plan must be	e submitted along with this form to addr	ess the	ese issu	Jes.			
Sig	nature of Ow	ner, Remedial Party or Desig	gnated Representative D	ate					

		Box 2	A
Has any new information revealed that assumptions made in the Qualitative Exposure		YES	NO
Assessment regarding offsite contamination are no longer valid If you answered YES to question 8, include documentation that documentation has been previously submitted with thi	or evidence		X
Are the assumptions in the Qualitative Exposure Assessment so (The Qualitative Exposure Assessment must be certified every)		X	
If you answered NO to question 9, the Periodic Review Rep updated Qualitative Exposure Assessment based on the ne			
SITE NO. C915197L		Воз	c 3
Description of Institutional Controls			
Parcel Owner	Institutional Contro	<u>ol</u>	
141.11-1-48.132 Erie County Dept. Env. & Planning	IC/EC Plan Ground Water Use Restriction Soil Management Plan Landuse Restriction Site Management Plan		
nstitutional Control Description:			
Adherence to Site Management Plan (SMP) Restriction to commercial re-use Prohibition of groundwater use Allowance for Departmental access Requires a Periodic Review and Report			
		Воз	(4
Description of Engineering Controls			
Parcel Engineering Control			
141.11-1-48.132 Cover System			

Site Cover

	Periodic Review Report (PRR) Certification Statements						
1.	I certify by checking "YES" below that:						
	 a) the Periodic Review report and all attachments were prepared under the direction reviewed by, the party making the Engineering Control certification; 	ection of,	, and				
	b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted						
	engineering practices; and the information presented is accurate and compete.	YES	NO				
		X					
2.	For each Engineering control listed in Box 4, I certify by checking "YES" below that al following statements are true:	of the					
	(a) The Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the De	partmen	nt;				
(b) nothing has occurred that would impair the ability of such Control, to protect pub the environment;							
	(c) access to the site will continue to be provided to the Department, to evaluat remedy, including access to evaluate the continued maintenance of this Contro						
	(d) nothing has occurred that would constitute a violation or failure to comply w Site Management Plan for this Control; and	ith the					
	(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.						
		YES	NO				
		X					
	IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue						
	A Corrective Measures Work Plan must be submitted along with this form to address	these iss	sues.				
	Signature of Owner, Remedial Party or Designated Representative Date						

IC CERTIFICATIONS SITE NO. C915197L

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

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

I John Hood	at 95 Franklin St,	Buffalo, NY 14202
print name	print bus	siness address
am certifying as Owner Re	presentative	(Owner or Remedial Party)
for the Site named in the Site	Details Section of this form.	Im 8, 2023
Signature of Owner, Remedia	al Party, or Designated Represer	

EC CERTIFICATIONS

Box 7

Qualified Environmental Professional Signature

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

_L John Hood	at 95 Franklin St, Buffalo, NY 14202	,
print name	print business address	
am certifying as a Qualified Env	ironmental Professional for the Owner	
, ,	(Owner or Remedial Party)	

Signature of Qualified Environmental Professional, for the Owner or Remedial Party, Rendering Certification Stamp (Required for PE)