

January 13, 2022

New York State Department of Environmental Conservation  
Division of Environmental Remediation  
Remedial Bureau A  
625 Broadway, 12<sup>th</sup> Floor  
Albany, NY 12233-7016

Attn: Benjamin Rung, P.E., Project Manager

Re: Soil Vapor and Indoor/Outdoor Air Sampling Investigation Report  
786 Armonk Road – Mount Kisco, NY  
Tax Lot: 101.15-1-3  
DEC Site No.: 360024

Dear Mr. Rung

On November 17 through November 18, 2021 Tenen Environmental, LLC (Tenen) conducted confirmatory soil vapor, indoor and outdoor air sampling at the above property. The sampling was conducted in accordance with the “Vapor Mitigation System Effluent Air, Soil Vapor and Indoor/Outdoor Air Sampling Work Plan” (Work Plan) dated December 2020. This sampling was performed to confirm the results of the previous sampling conducted in December 2020 and January 2021. This letter report provides a summary of the investigation findings.

#### Background

The Site, located at 786 Armonk Road, is a four-acre residential property located on the west side of Route 128 (Armonk Road) in the Town of New Castle, Village of Mount Kisco, Westchester County, New York. The Site is identified as New York State Department of Environmental Conservation (NYSDEC) Site #360024. The Site location is shown on Figure 1.

Based on information in the August 15, 2007 report prepared by Camp Dresser & McKee (CDM) of Edison, NJ, on behalf of NYSDEC, tenants renting the property were alleged to have utilized the residence as a drug processing facility from September 1987 through September 1989 and discharged organic chemicals into the septic system.

In January 2007, CDM conducted a soil vapor intrusion investigation to determine whether chlorinated volatile organic compounds (cVOCs) were present in the subsurface soil vapor and indoor air. Based on the elevated levels of cVOCs identified, NYSDEC and the New York State Department of Health (NYSDOH) recommended that a vapor mitigation system be installed at the property to mitigate potential impacts to the indoor air quality from cVOCs in the sub-slab soil vapor. An active sub-slab depressurization system (SSDS) was installed by Radon Management Inc. of North Scituate, RI, under contract to CDM, in July 2007. Post-mitigation indoor and ambient air sampling to determine the system’s effectiveness was conducted in December 2007. In December 2020, Tenen submitted the “Vapor Mitigation System Effluent Air, Soil Vapor and Indoor/Outdoor Air Sampling Work Plan” (Work Plan). The Work Plan was subsequently approved by NYSDEC and NYSDOH. The subsequent sampling events are discussed below.

### **December 2020 – January 2021 Sampling**

In December 2020 and January 2021, Tenen performed effluent air, soil vapor, indoor and outdoor air sampling at the Site, as described in the Effluent Air, Soil Vapor and Indoor/Outdoor Air Sampling Investigation Report, dated December 2020. The vapor mitigation system at the Site was turned off on December 1, 2020 and has not been turned back on. Samples were subsequently collected on January 11, 2021. The system The results indicated that the concentrations in soil vapor and indoor air had significantly decreased since the 2007 sampling. A comparison of the January 2021 soil vapor and indoor air results with the New York State Department of Health (NYSDOH) decision matrices indicated that the NYSDOH matrix decision for all cVOCs was No Further Action.

### **November 2021 Sampling**

On November 17, 2021 soil vapor, indoor and ambient air sampling was completed to confirm the results of the prior sampling, continue to assess the effectiveness of the remedial system and identify any residual contaminant concentrations in soil vapor and indoor air at the Site.

#### Sample Collection

Soil vapor, indoor air, and ambient air samples were collected at the following locations:

- one sub-slab soil vapor point beneath the basement slab;
- one co-located indoor air sample in the basement; and,
- one outdoor ambient air sample in the front yard of the Site residence.

Sample designations and locations are summarized below:

<b>Sample Type</b>	<b>Sample ID</b>	<b>Sample Location</b>
Outdoor Air	AMBIENT_20211117	Front yard of the Site
Indoor Air	IA_20211117	Site – co-located with SV_20210111 within the basement
Sub-slab Soil Vapor	SV_20211117	Site – beneath the basement slab

The sub-slab soil vapor sample was collected from within two inches below the slab in a six-liter Summa canister using a 24-hour flow regulator at a rate of 0.2 l/min. Indoor air and ambient samples were collected at breathing height in six-liter Summa canisters using 24-hour flow regulators at a rate of 0.2 l/min. During the sampling event, the door separating the basement from the first floor remained closed.

Field notes were maintained summarizing sample identification, date and time of sample collection, identity of samplers, sampling methods, vacuum of canisters before and after sample collection and chain of custody protocols.

#### Sample Analysis

The samples were sent under chain-of-custody documentation to Alpha Analytical, Inc. (Alpha). Alpha is certified by the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP). All samples were collected in accordance with the Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York (NYSDOH, October 2006) and analyzed for volatile organic compounds (VOCs) using EPA Method TO-15.

### Identification of Regulatory Standards and Guidance Values

Indoor air results were compared to the NYSDOH Air Guideline Values (AGVs). Sub-slab soil vapor and indoor air results were compared to the NYSDOH Matrices.

### Analytical Results

The sub-slab soil vapor, indoor air and outdoor air results are included in Table 1. A comparison of these results with those from the 2007 CDM investigation and the January 2021 sampling are included in Table 2. Laboratory deliverables are included as Attachment 1.

A discussion of the analytical results is provided below.

#### *Sub-slab Soil Vapor, Indoor and Outdoor Air*

PCE in indoor air was detected at 0.393 ug/m<sup>3</sup>, below the NYSDOH AGV of 30 ug/m<sup>3</sup>. PCE was not detected in the outdoor air sample. PCE was detected at a concentration of 21.8 ug/m<sup>3</sup> in the sub-slab soil vapor. Based on the sub-slab soil vapor and indoor air results, the matrix decision for PCE is No Further Action.

TCE was not detected in the indoor air, outdoor air or soil vapor samples. Based on the sub-slab soil vapor and indoor air results, the matrix decision for TCE is No Further Action.

Methylene chloride was not detected in indoor air. Methylene chloride was detected in sub-slab soil vapor at a concentration of 3.54 ug/m<sup>3</sup>. Based on the sub-slab soil vapor and indoor air results, the matrix decision for methylene chloride is No Further Action.

Carbon tetrachloride was detected in indoor air and outdoor air samples at concentrations of 0.472 ug/m<sup>3</sup> and 0.421 ug/m<sup>3</sup>, respectively. Carbon tetrachloride was not detected in sub-slab soil vapor. The matrix decision for carbon tetrachloride is No Further Action.

The following cVOCs included on the NYSDOH Matrices were not detected in any samples: vinyl chloride, 1,1-dichloroethene, cis-1,2-dichloroethene and 1,1,1-trichloroethane. The matrix decisions for the previously stated cVOCs is No Further Action.

### Summary of Findings and Recommendations

Based on the sub-slab soil vapor, indoor and outdoor air sampling completed, Tenen has the following findings and conclusions:

- In the November 2021 sampling, PCE was detected at a concentration of 21.8 ug/m<sup>3</sup> in sub-slab soil vapor and at a concentration of 0.393 ug/m<sup>3</sup> in indoor air. In the January 2021 sampling, PCE was detected at a concentration of 51.4 ug/m<sup>3</sup> in sub-slab soil vapor and at a concentration of 0.258 ug/m<sup>3</sup> in indoor air.
- The pre-remedy (2007) concentrations of PCE at the Site were 3,749 ug/m<sup>3</sup> in sub-slab soil vapor and 1.0 ug/m<sup>3</sup> to 1.36 ug/m<sup>3</sup> in indoor air.
- Based on the historic sampling data, the concentration of PCE indicates a decreasing trend and the results of the November 2021 investigation confirm the findings of the January 2021 sampling.
- The NYSDOH matrix decisions for all cVOCs is No Further Action.

The results of both 2021 sampling events indicate that the concentrations in soil and indoor have decreased significantly from the 2007 sampling results, consistent with the approximate 15-year operation of a vapor mitigation system at the Site. The low levels in the December 2020 effluent sample, collected prior to system shutdown, further support the effective remediation of the pre-existing contamination. The cVOC concentrations identified in the confirmatory November 2021 sampling are consistent with the results of the January 2021 investigation. Please note that the remedial system remains turned off.

Based on the results of the November 2021 sampling, described above, Tenen recommends the following:

- conversion of the vapor mitigation system from an active to a passive system; and,
- delisting of the Site from the New York State Registry of Inactive Hazardous Waste Sites.

Please contact us if you need any additional information.

Sincerely,  
Tenen Environmental, LLC



Matthew Carroll, P.E.  
Principal / Environmental Engineer

Figure 1      Site Location Map  
Figure 2      Sample Location Map

Table 1      Volatile Organic Compounds in Air  
Table 2      Historic Volatile Organic Compounds in Air

Attachment 1    Laboratory Deliverables and Data Usability Summary Report

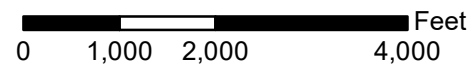
## Figures





Basemap: USGS Topographic Map, 7.5 Minute Quadrangle, Mount Kisco, NY, 2019

Site Location



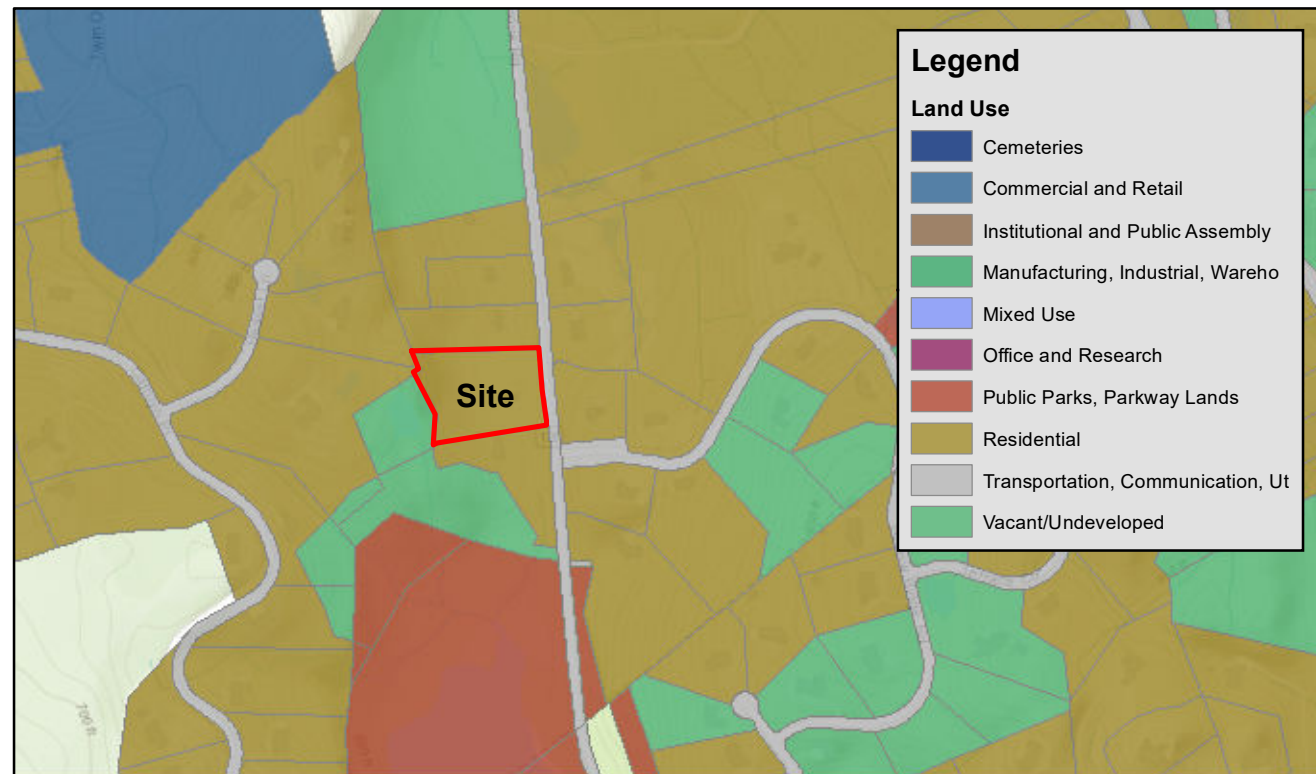
786 ARMONK RD. ID: 101.15-1-3 (New Castle)



December 1, 2020  
 Tax parcel data was provided by local municipality. This map is generated as a public service to Westchester County residents for general information and planning purposes only, and should not be relied upon as a sole informational source. The County of Westchester hereby disclaims any liability from the use of this GIS mapping system by any person or entity. Tax parcel boundaries represent approximate property line location and should NOT be interpreted as or used in lieu of a survey or property boundary description. Property descriptions must be obtained from surveys or deeds. For more information please contact local municipality assessor's office.

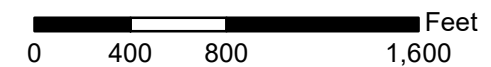


Municipal Tax Parcel Viewer  
 Westchester County Geographic Information Systems



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

Westchester County Dept. of Planning  
 Parcel Based Land Use



Site

786 Armonk Road  
 Mount Kisco, New York  
 Tax Parcel ID 101.15-1-3

TENEN ENVIRONMENTAL

Tenen Environmental, LLC  
 121 West 27th Street  
 Suite 702  
 New York, NY 10001  
 O: (646) 606-2332  
 F: (646) 606-2379

Drawn By LM

Checked By CZ

Date December 2020

Scale As Noted

Site Location Map

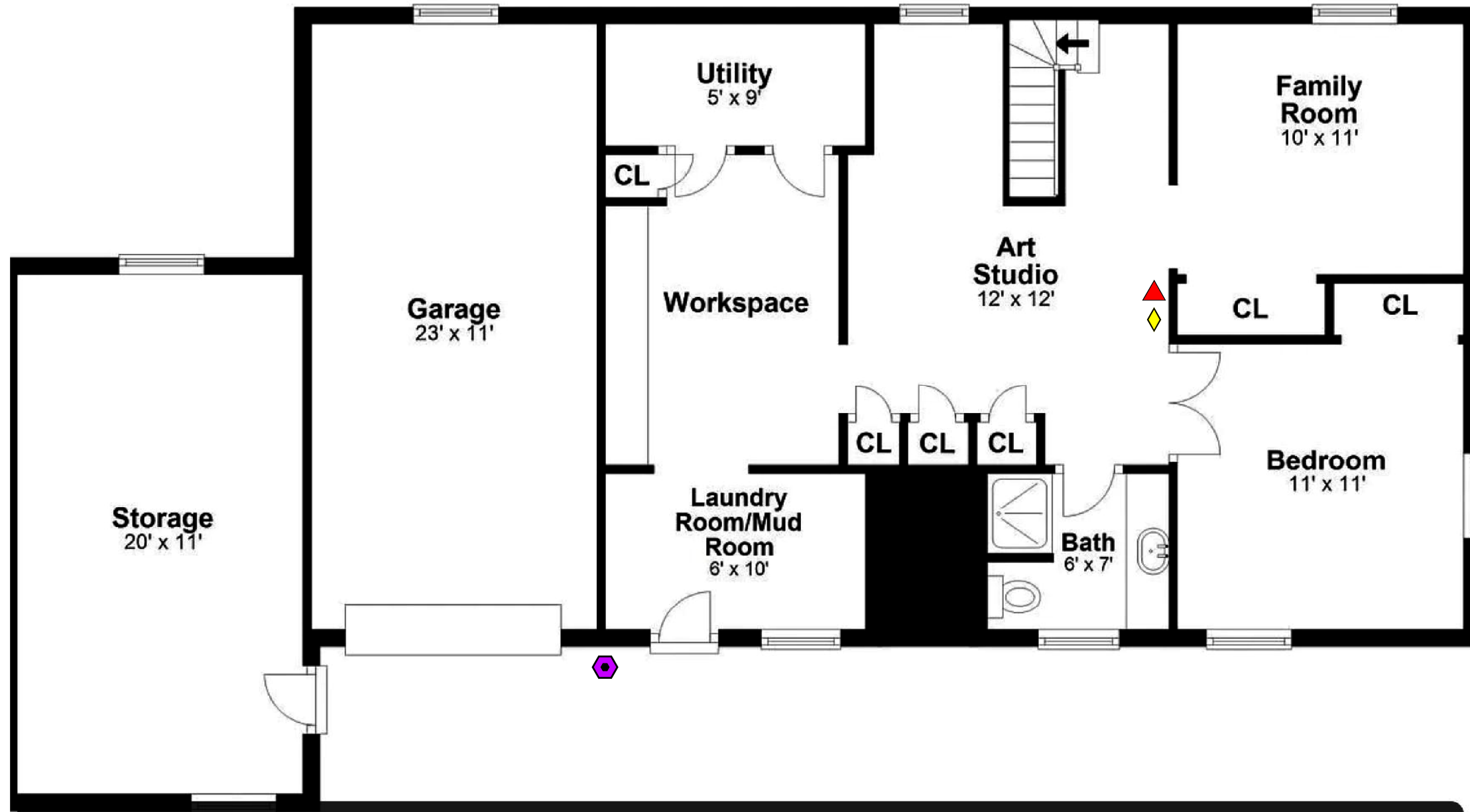
Figure 1

Drawing Title

Drawing No



Lower Level



Legend

- ◆ Indoor Air Sample Location
- ▲ Sub-Slab Soil Vapor Point
- ⬡ Outdoor Air Sample

Not to Scale

Site

786 Armonk Road  
Mount Kisco, New York  
Tax Parcel ID 101.15-1-3

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121 West 27th Street  
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F: (646) 606-2379

Drawn By LM

Checked By CZ

Date December 2020

Scale As Noted

Sample Location Map

Figure 2

Drawing Title

Drawing No

## Tables



**Table 1 - Volatile Organic Compounds in Soil Vapor, Indoor and Outdoor Air  
786 Armonk Road - Mount Kisco, NY**

SAMPLE ID: LAB ID: COLLECTION DATE: Volatile Organic Compounds Units: ug/m3	NYSDOH AGV	Matrix	IA_20211117		SV_20211117		AMBIENT_20211117		Matrix Decision
			L2163765-02		L2163765-03		L2163765-01		
			11/18/2021		11/18/2021		11/18/2021		
		Conc	Q	Conc	Q	Conc	Q		
Dichlorodifluoromethane	--	--	2.41		2.19		2.18		--
Chloromethane	--	--	1.03		0.826	U	1.01		--
Freon-114	--	--	1.4	U	2.8	U	1.4	U	--
1,3-Butadiene	--	--	0.442	U	0.885	U	0.442	U	--
Bromomethane	--	--	0.777	U	1.55	U	0.777	U	--
Chloroethane	--	--	0.528	U	1.06	U	0.528	U	--
Ethanol	--	--	36.4		997		9.42	U	--
Vinyl bromide	--	--	0.874	U	1.75	U	0.874	U	--
Acetone	--	--	10		245		3.56		--
Trichlorofluoromethane	--	--	17.7		7.19		1.12	U	--
Isopropanol	--	--	3.76		465		1.23	U	--
Tertiary butyl Alcohol	--	--	1.52	U	3.03	U	1.52	U	--
Methylene chloride	60	B	1.74	U	3.54		1.74	U	No Further Action
3-Chloropropene	--	--	0.626	U	1.25	U	0.626	U	--
Carbon disulfide	--	--	0.623	U	1.25	U	0.623	U	--
Freon-113	--	--	1.53	U	3.07	U	1.53	U	--
trans-1,2-Dichloroethene	--	--	0.793	U	1.59	U	0.793	U	--
1,1-Dichloroethane	--	--	0.809	U	1.62	U	0.809	U	--
Methyl tert butyl ether	--	--	0.721	U	1.44	U	0.721	U	--
2-Butanone	--	--	1.47	U	3.3		1.47	U	--
Ethyl Acetate	--	--	2.06		10.3		1.8	U	--
Chloroform	--	--	0.977	U	1.95	U	0.977	U	--
Tetrahydrofuran	--	--	1.47	U	2.95	U	1.47	U	--
1,2-Dichloroethane	--	--	0.809	U	1.62	U	0.809	U	--
n-Hexane	--	--	0.885		1.41	U	0.705	U	--
Benzene	--	--	0.639	U	1.28	U	0.639	U	--
Cyclohexane	--	--	0.688	U	1.38	U	0.688	U	--
1,2-Dichloropropane	--	--	0.924	U	1.85	U	0.924	U	--
Bromodichloromethane	--	--	1.34	U	2.68	U	1.34	U	--
1,4-Dioxane	--	--	0.721	U	1.44	U	0.721	U	--
2,2,4-Trimethylpentane	--	--	0.934	U	1.87	U	0.934	U	--
Heptane	--	--	0.82	U	1.64	U	0.82	U	--
cis-1,3-Dichloropropene	--	--	0.908	U	1.82	U	0.908	U	--
4-Methyl-2-pentanone	--	--	2.05	U	4.1	U	2.05	U	--
trans-1,3-Dichloropropene	--	--	0.908	U	1.82	U	0.908	U	--
1,1,2-Trichloroethane	--	--	1.09	U	2.18	U	1.09	U	--
Toluene	--	--	1.33		5.5		0.754	U	--
2-Hexanone	--	--	0.82	U	1.64	U	0.82	U	--
Dibromochloromethane	--	--	1.7	U	3.41	U	1.7	U	--
1,2-Dibromoethane	--	--	1.54	U	3.07	U	1.54	U	--
Chlorobenzene	--	--	0.921	U	1.84	U	0.921	U	--
Ethylbenzene	--	--	0.869	U	1.74	U	0.869	U	--
p/m-Xylene	--	--	1.74	U	3.47	U	1.74	U	--
Bromoform	--	--	2.07	U	4.14	U	2.07	U	--
Styrene	--	--	0.852	U	1.7	U	0.852	U	--
1,1,2,2-Tetrachloroethane	--	--	1.37	U	2.75	U	1.37	U	--
o-Xylene	--	--	0.869	U	1.74	U	0.869	U	--
4-Ethyltoluene	--	--	0.983	U	1.97	U	0.983	U	--
1,3,5-Trimethylbenzene	--	--	0.983	U	1.97	U	0.983	U	--
1,2,4-Trimethylbenzene	--	--	0.983	U	1.97	U	0.983	U	--
Benzyl chloride	--	--	1.04	U	2.07	U	1.04	U	--
1,3-Dichlorobenzene	--	--	1.2	U	2.4	U	1.2	U	--
1,4-Dichlorobenzene	--	--	1.2	U	2.4	U	1.2	U	--
1,2-Dichlorobenzene	--	--	1.2	U	2.4	U	1.2	U	--
1,2,4-Trichlorobenzene	--	--	1.48	U	2.97	U	1.48	U	--
Hexachlorobutadiene	--	--	2.13	U	4.27	U	2.13	U	--
Vinyl chloride	--	C	0.051	U	1.02	U	0.051	U	No Further Action
1,1-Dichloroethene	--	A	0.079	U	1.59	U	0.079	U	No Further Action
cis-1,2-Dichloroethene	--	A	0.079	U	1.59	U	0.079	U	No Further Action
1,1,1-Trichloroethane	--	B	0.109	U	2.18	U	0.109	U	No Further Action
Carbon tetrachloride	--	A	0.472		2.52	U	0.421		No Further Action
Trichloroethene	2	A	0.107	U	2.15	U	0.107	U	No Further Action
Tetrachloroethene	30	B	0.393		21.8		0.136	U	No Further Action

Notes

NYSDOH AGV = New York State Department of Health Air Guidance Values, Table 3.1 in NYSDOH Soil Vapor Guidance with May 2017 Updates

Matrix actions are described in the report narrative and the NYSDOH Soil Vapor Guidance, May 2017

Cells highlighted in yellow indicate a concentration above the NYSDOH AGV.

Q = Laboratory Qualifier

U qualifier indicates the compound was not detected at or above the RL

RL = Reporting Limit

Results and RL values are shown in micrograms per cubic meter (ug/m3)

-- = No standard

**Table 2 - Historic and Recent Chlorinated Volatile Organic Compounds in Air  
786 Armonk Road - Mount Kisco, NY**

January 2007 Sampling Results									
Sample Name	NYSDOH AGV	Matrix	360024-SS-1		360024-BA-1-1		360024-BA-1-2		Matrix Decision
Sample Date			1/29/2007		1/9/2007		1/9/2007		
Volatile Organic Compounds in Air Units: ug/m3			Conc	Q	Conc	Q	Conc	Q	
Methylene chloride	60	B	2.54		2.92	J	0.69	U	No Further Action
Trichloroethene	2	A	41.6	J	0.12	UJ	0.21	U	No Further Action
Tetrachloroethene	30	B	3,749	D	1.36	J	1		Mitigate

January 2021 Sampling Results							
Sample Name	NYSDOH AGV	Matrix	SV_ 20210111		IA_ 20210111		Matrix Decision
Sample Date			1/12/2021		1/12/2021		
Volatile Organic Compounds in Air Units: ug/m3			Conc	Q	Conc	Q	
Methylene chloride	60	B	2.23		1.74	U	No Further Action
Trichloroethene	2	A	1.71		0.107	U	No Further Action
Tetrachloroethene	30	B	51.4		0.258		No Further Action

December 2021 Sampling Results							
Sample Name	NYSDOH AGV	Matrix	SV_ 20211117		IA_ 20211117		Matrix Decision
Sample Date			11/18/2021		11/18/2021		
Volatile Organic Compounds in Air Units: ug/m3			Conc	Q	Conc	Q	
Methylene chloride	60	B	3.54		1.74	U	No Further Action
Trichloroethene	2	A	2.15	U	0.107	U	No Further Action
Tetrachloroethene	30	B	21.8		0.393		No Further Action

Notes

NYSDOH AGV = New York State Department of Health Air Guidance Values, Table 3.1 in NYSDOH Soil Vapor Guidance with May 2017 Updates

Matrix actions are described in the report narrative and the NYSDOH Soil Vapor Guidance, May 2017

Q = Laboratory Qualifier

U qualifier indicates the compound was not detected at or above the RL

RL = Reporting Limit

J qualifier indicates the presence of a compound that meets the identification criteria. The result is less than the qualification limit but greater than zero.

D qualifier indicates the result was obtained by dilution.

Results and RL values are shown in micrograms per cubic meter (ug/m3)

Attachment 1  
*Laboratory Deliverables and DUSR*



## ANALYTICAL REPORT

Lab Number:	L2163765
Client:	Tenen Environmental, LLC 121 West 27th Street Suite 702 New York City, NY 10001
ATTN:	Mary Manto
Phone:	(646) 606-2332
Project Name:	786 ARMONK ROAD
Project Number:	786 ARMONK ROAD
Report Date:	12/06/21

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

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

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





**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L2163765-01	AMBIENT_20211117	AIR	MOUNT KISCO, NY	11/18/21 08:24	11/18/21
L2163765-02	IA_20211117	AIR	MOUNT KISCO, NY	11/18/21 08:17	11/18/21
L2163765-03	SV_20211117	SOIL_VAPOR	MOUNT KISCO, NY	11/18/21 08:18	11/18/21

**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

### Case Narrative

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

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

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

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

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

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

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**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

### Case Narrative (continued)

#### Volatile Organics in Air

Canisters were released from the laboratory on November 15, 2021. The canister certification results are provided as an addendum.

The WG1576835-4 Method Blank, associated with L2163765-01 and -02, has concentrations below the reporting limits and "J" qualified.

L2163765-03D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

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

Authorized Signature:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 12/06/21

**AIR**



**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

**SAMPLE RESULTS**

Lab ID: L2163765-01  
 Client ID: AMBIENT\_20211117  
 Sample Location: MOUNT KISCO, NY

Date Collected: 11/18/21 08:24  
 Date Received: 11/18/21  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 11/30/21 08:36  
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.440	0.200	--	2.18	0.989	--		1
Chloromethane	0.490	0.200	--	1.01	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	1.50	1.00	--	3.56	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1



**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

### SAMPLE RESULTS

Lab ID: L2163765-01  
 Client ID: AMBIENT\_20211117  
 Sample Location: MOUNT KISCO, NY

Date Collected: 11/18/21 08:24  
 Date Received: 11/18/21  
 Field Prep: Not Specified

Sample Depth:

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



**Project Name:** 786 ARMONK ROAD**Lab Number:** L2163765**Project Number:** 786 ARMONK ROAD**Report Date:** 12/06/21**SAMPLE RESULTS**

Lab ID: L2163765-01  
 Client ID: AMBIENT\_20211117  
 Sample Location: MOUNT KISCO, NY

Date Collected: 11/18/21 08:24  
 Date Received: 11/18/21  
 Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	87		60-140
chlorobenzene-d5	86		60-140



**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

**SAMPLE RESULTS**

Lab ID: L2163765-01  
 Client ID: AMBIENT\_20211117  
 Sample Location: MOUNT KISCO, NY

Date Collected: 11/18/21 08:24  
 Date Received: 11/18/21  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 11/30/21 08:36  
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air by SIM - Mansfield Lab</b>								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.067	0.020	--	0.421	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	88		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	86		60-140





**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

### SAMPLE RESULTS

Lab ID: L2163765-02  
 Client ID: IA\_20211117  
 Sample Location: MOUNT KISCO, NY

Date Collected: 11/18/21 08:17  
 Date Received: 11/18/21  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 11/29/21 20:25  
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.487	0.200	--	2.41	0.989	--		1
Chloromethane	0.501	0.200	--	1.03	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	19.3	5.00	--	36.4	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	4.22	1.00	--	10.0	2.38	--		1
Trichlorofluoromethane	3.15	0.200	--	17.7	1.12	--		1
Isopropanol	1.53	0.500	--	3.76	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	0.571	0.500	--	2.06	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1



**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

**SAMPLE RESULTS**

Lab ID: L2163765-02  
 Client ID: IA\_20211117  
 Sample Location: MOUNT KISCO, NY

Date Collected: 11/18/21 08:17  
 Date Received: 11/18/21  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.251	0.200	--	0.885	0.705	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.352	0.200	--	1.33	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1



**Project Name:** 786 ARMONK ROAD**Lab Number:** L2163765**Project Number:** 786 ARMONK ROAD**Report Date:** 12/06/21**SAMPLE RESULTS**

Lab ID: L2163765-02  
 Client ID: IA\_20211117  
 Sample Location: MOUNT KISCO, NY

Date Collected: 11/18/21 08:17  
 Date Received: 11/18/21  
 Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	98		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	95		60-140



**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

### SAMPLE RESULTS

Lab ID: L2163765-02  
 Client ID: IA\_20211117  
 Sample Location: MOUNT KISCO, NY

Date Collected: 11/18/21 08:17  
 Date Received: 11/18/21  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 11/29/21 20:25  
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air by SIM - Mansfield Lab</b>								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.075	0.020	--	0.472	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.058	0.020	--	0.393	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	101		60-140
bromochloromethane	104		60-140
chlorobenzene-d5	97		60-140





**Project Name:** 786 ARMONK ROAD**Lab Number:** L2163765**Project Number:** 786 ARMONK ROAD**Report Date:** 12/06/21**SAMPLE RESULTS**

Lab ID: L2163765-03 D  
 Client ID: SV\_20211117  
 Sample Location: MOUNT KISCO, NY

Date Collected: 11/18/21 08:18  
 Date Received: 11/18/21  
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil\_Vapor  
 Analytical Method: 48,TO-15  
 Analytical Date: 12/02/21 18:39  
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Dichlorodifluoromethane	0.442	0.400	--	2.19	1.98	--		2
Chloromethane	ND	0.400	--	ND	0.826	--		2
Freon-114	ND	0.400	--	ND	2.80	--		2
Vinyl chloride	ND	0.400	--	ND	1.02	--		2
1,3-Butadiene	ND	0.400	--	ND	0.885	--		2
Bromomethane	ND	0.400	--	ND	1.55	--		2
Chloroethane	ND	0.400	--	ND	1.06	--		2
Ethanol	529	10.0	--	997	18.8	--		2
Vinyl bromide	ND	0.400	--	ND	1.75	--		2
Acetone	103	2.00	--	245	4.75	--		2
Trichlorofluoromethane	1.28	0.400	--	7.19	2.25	--		2
Isopropanol	189	1.00	--	465	2.46	--		2
1,1-Dichloroethene	ND	0.400	--	ND	1.59	--		2
Tertiary butyl Alcohol	ND	1.00	--	ND	3.03	--		2
Methylene chloride	1.02	1.00	--	3.54	3.47	--		2
3-Chloropropene	ND	0.400	--	ND	1.25	--		2
Carbon disulfide	ND	0.400	--	ND	1.25	--		2
Freon-113	ND	0.400	--	ND	3.07	--		2
trans-1,2-Dichloroethene	ND	0.400	--	ND	1.59	--		2
1,1-Dichloroethane	ND	0.400	--	ND	1.62	--		2
Methyl tert butyl ether	ND	0.400	--	ND	1.44	--		2
2-Butanone	1.12	1.00	--	3.30	2.95	--		2
cis-1,2-Dichloroethene	ND	0.400	--	ND	1.59	--		2



**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

**SAMPLE RESULTS**

Lab ID: L2163765-03 D  
 Client ID: SV\_20211117  
 Sample Location: MOUNT KISCO, NY

Date Collected: 11/18/21 08:18  
 Date Received: 11/18/21  
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
<b>Volatile Organics in Air - Mansfield Lab</b>								
Ethyl Acetate	2.85	1.00	--	10.3	3.60	--		2
Chloroform	ND	0.400	--	ND	1.95	--		2
Tetrahydrofuran	ND	1.00	--	ND	2.95	--		2
1,2-Dichloroethane	ND	0.400	--	ND	1.62	--		2
n-Hexane	ND	0.400	--	ND	1.41	--		2
1,1,1-Trichloroethane	ND	0.400	--	ND	2.18	--		2
Benzene	ND	0.400	--	ND	1.28	--		2
Carbon tetrachloride	ND	0.400	--	ND	2.52	--		2
Cyclohexane	ND	0.400	--	ND	1.38	--		2
1,2-Dichloropropane	ND	0.400	--	ND	1.85	--		2
Bromodichloromethane	ND	0.400	--	ND	2.68	--		2
1,4-Dioxane	ND	0.400	--	ND	1.44	--		2
Trichloroethene	ND	0.400	--	ND	2.15	--		2
2,2,4-Trimethylpentane	ND	0.400	--	ND	1.87	--		2
Heptane	ND	0.400	--	ND	1.64	--		2
cis-1,3-Dichloropropene	ND	0.400	--	ND	1.82	--		2
4-Methyl-2-pentanone	ND	1.00	--	ND	4.10	--		2
trans-1,3-Dichloropropene	ND	0.400	--	ND	1.82	--		2
1,1,2-Trichloroethane	ND	0.400	--	ND	2.18	--		2
Toluene	1.46	0.400	--	5.50	1.51	--		2
2-Hexanone	ND	0.400	--	ND	1.64	--		2
Dibromochloromethane	ND	0.400	--	ND	3.41	--		2
1,2-Dibromoethane	ND	0.400	--	ND	3.07	--		2
Tetrachloroethene	3.22	0.400	--	21.8	2.71	--		2
Chlorobenzene	ND	0.400	--	ND	1.84	--		2
Ethylbenzene	ND	0.400	--	ND	1.74	--		2



**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

**SAMPLE RESULTS**

Lab ID: L2163765-03 D  
 Client ID: SV\_20211117  
 Sample Location: MOUNT KISCO, NY

Date Collected: 11/18/21 08:18  
 Date Received: 11/18/21  
 Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	103		60-140
Bromochloromethane	102		60-140
chlorobenzene-d5	103		60-140



Project Name: 786 ARMONK ROAD

Lab Number: L2163765

Project Number: 786 ARMONK ROAD

Report Date: 12/06/21

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 11/29/21 17:49

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1576835-4								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1



Project Name: 786 ARMONK ROAD

Lab Number: L2163765

Project Number: 786 ARMONK ROAD

Report Date: 12/06/21

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 11/29/21 17:49

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1576835-4								
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1





Project Name: 786 ARMONK ROAD

Lab Number: L2163765

Project Number: 786 ARMONK ROAD

Report Date: 12/06/21

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 11/29/21 17:49

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1576835-4								
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Project Name: 786 ARMONK ROAD

Lab Number: L2163765

Project Number: 786 ARMONK ROAD

Report Date: 12/06/21

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 11/29/21 17:49

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-02 Batch: WG1576837-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Project Name: 786 ARMONK ROAD

Lab Number: L2163765

Project Number: 786 ARMONK ROAD

Report Date: 12/06/21

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 12/02/21 16:31

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 03 Batch: WG1578422-4								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
Vinyl chloride	ND	0.200	--	ND	0.511	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	ND	1.00	--	ND	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1



Project Name: 786 ARMONK ROAD

Lab Number: L2163765

Project Number: 786 ARMONK ROAD

Report Date: 12/06/21

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 12/02/21 16:31

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 03 Batch: WG1578422-4								
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1



Project Name: 786 ARMONK ROAD

Lab Number: L2163765

Project Number: 786 ARMONK ROAD

Report Date: 12/06/21

### Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 12/02/21 16:31

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 03 Batch: WG1578422-4								
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1576835-3								
Dichlorodifluoromethane	99		-		70-130	-		
Chloromethane	100		-		70-130	-		
Freon-114	101		-		70-130	-		
Vinyl chloride	101		-		70-130	-		
1,3-Butadiene	105		-		70-130	-		
Bromomethane	100		-		70-130	-		
Chloroethane	100		-		70-130	-		
Ethanol	89		-		40-160	-		
Vinyl bromide	98		-		70-130	-		
Acetone	103		-		40-160	-		
Trichlorofluoromethane	95		-		70-130	-		
Isopropanol	98		-		40-160	-		
1,1-Dichloroethene	100		-		70-130	-		
Tertiary butyl Alcohol	96		-		70-130	-		
Methylene chloride	100		-		70-130	-		
3-Chloropropene	106		-		70-130	-		
Carbon disulfide	94		-		70-130	-		
Freon-113	100		-		70-130	-		
trans-1,2-Dichloroethene	102		-		70-130	-		
1,1-Dichloroethane	103		-		70-130	-		
Methyl tert butyl ether	104		-		70-130	-		
2-Butanone	101		-		70-130	-		
cis-1,2-Dichloroethene	106		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1576835-3								
Ethyl Acetate	108		-		70-130	-		
Chloroform	104		-		70-130	-		
Tetrahydrofuran	100		-		70-130	-		
1,2-Dichloroethane	100		-		70-130	-		
n-Hexane	105		-		70-130	-		
1,1,1-Trichloroethane	102		-		70-130	-		
Benzene	93		-		70-130	-		
Carbon tetrachloride	102		-		70-130	-		
Cyclohexane	104		-		70-130	-		
1,2-Dichloropropane	103		-		70-130	-		
Bromodichloromethane	104		-		70-130	-		
1,4-Dioxane	105		-		70-130	-		
Trichloroethene	102		-		70-130	-		
2,2,4-Trimethylpentane	108		-		70-130	-		
Heptane	102		-		70-130	-		
cis-1,3-Dichloropropene	107		-		70-130	-		
4-Methyl-2-pentanone	104		-		70-130	-		
trans-1,3-Dichloropropene	93		-		70-130	-		
1,1,2-Trichloroethane	105		-		70-130	-		
Toluene	96		-		70-130	-		
2-Hexanone	103		-		70-130	-		
Dibromochloromethane	107		-		70-130	-		
1,2-Dibromoethane	101		-		70-130	-		



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1576835-3								
Tetrachloroethene	103		-		70-130	-		
Chlorobenzene	102		-		70-130	-		
Ethylbenzene	104		-		70-130	-		
p/m-Xylene	104		-		70-130	-		
Bromoform	108		-		70-130	-		
Styrene	103		-		70-130	-		
1,1,2,2-Tetrachloroethane	107		-		70-130	-		
o-Xylene	106		-		70-130	-		
4-Ethyltoluene	100		-		70-130	-		
1,3,5-Trimethylbenzene	102		-		70-130	-		
1,2,4-Trimethylbenzene	108		-		70-130	-		
Benzyl chloride	111		-		70-130	-		
1,3-Dichlorobenzene	105		-		70-130	-		
1,4-Dichlorobenzene	104		-		70-130	-		
1,2-Dichlorobenzene	105		-		70-130	-		
1,2,4-Trichlorobenzene	118		-		70-130	-		
Hexachlorobutadiene	110		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 786 ARMONK ROAD

**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765

**Report Date:** 12/06/21

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 Batch: WG1576837-3								
Vinyl chloride	100		-		70-130	-		25
1,1-Dichloroethene	97		-		70-130	-		25
cis-1,2-Dichloroethene	104		-		70-130	-		25
1,1,1-Trichloroethane	97		-		70-130	-		25
Carbon tetrachloride	99		-		70-130	-		25
Trichloroethene	99		-		70-130	-		25
Tetrachloroethene	97		-		70-130	-		25

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 03 Batch: WG1578422-3								
Dichlorodifluoromethane	90		-		70-130	-		
Chloromethane	72		-		70-130	-		
Freon-114	80		-		70-130	-		
Vinyl chloride	82		-		70-130	-		
1,3-Butadiene	71		-		70-130	-		
Bromomethane	86		-		70-130	-		
Chloroethane	83		-		70-130	-		
Ethanol	61		-		40-160	-		
Vinyl bromide	76		-		70-130	-		
Acetone	85		-		40-160	-		
Trichlorofluoromethane	91		-		70-130	-		
Isopropanol	74		-		40-160	-		
1,1-Dichloroethene	85		-		70-130	-		
Tertiary butyl Alcohol	77		-		70-130	-		
Methylene chloride	80		-		70-130	-		
3-Chloropropene	93		-		70-130	-		
Carbon disulfide	74		-		70-130	-		
Freon-113	97		-		70-130	-		
trans-1,2-Dichloroethene	92		-		70-130	-		
1,1-Dichloroethane	99		-		70-130	-		
Methyl tert butyl ether	80		-		70-130	-		
2-Butanone	91		-		70-130	-		
cis-1,2-Dichloroethene	101		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 786 ARMONK ROAD

Lab Number: L2163765

Project Number: 786 ARMONK ROAD

Report Date: 12/06/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 03 Batch: WG1578422-3								
Ethyl Acetate	96		-		70-130	-		
Chloroform	98		-		70-130	-		
Tetrahydrofuran	87		-		70-130	-		
1,2-Dichloroethane	103		-		70-130	-		
n-Hexane	77		-		70-130	-		
1,1,1-Trichloroethane	96		-		70-130	-		
Benzene	71		-		70-130	-		
Carbon tetrachloride	106		-		70-130	-		
Cyclohexane	76		-		70-130	-		
1,2-Dichloropropane	87		-		70-130	-		
Bromodichloromethane	88		-		70-130	-		
1,4-Dioxane	79		-		70-130	-		
Trichloroethene	90		-		70-130	-		
2,2,4-Trimethylpentane	78		-		70-130	-		
Heptane	77		-		70-130	-		
cis-1,3-Dichloropropene	84		-		70-130	-		
4-Methyl-2-pentanone	79		-		70-130	-		
trans-1,3-Dichloropropene	74		-		70-130	-		
1,1,2-Trichloroethane	93		-		70-130	-		
Toluene	86		-		70-130	-		
2-Hexanone	78		-		70-130	-		
Dibromochloromethane	109		-		70-130	-		
1,2-Dibromoethane	90		-		70-130	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 03 Batch: WG1578422-3								
Tetrachloroethene	96		-		70-130	-		
Chlorobenzene	85		-		70-130	-		
Ethylbenzene	93		-		70-130	-		
p/m-Xylene	94		-		70-130	-		
Bromoform	124		-		70-130	-		
Styrene	85		-		70-130	-		
1,1,2,2-Tetrachloroethane	95		-		70-130	-		
o-Xylene	95		-		70-130	-		
4-Ethyltoluene	82		-		70-130	-		
1,3,5-Trimethylbenzene	98		-		70-130	-		
1,2,4-Trimethylbenzene	89		-		70-130	-		
Benzyl chloride	100		-		70-130	-		
1,3-Dichlorobenzene	99		-		70-130	-		
1,4-Dichlorobenzene	99		-		70-130	-		
1,2-Dichlorobenzene	101		-		70-130	-		
1,2,4-Trichlorobenzene	96		-		70-130	-		
Hexachlorobutadiene	92		-		70-130	-		

## Lab Duplicate Analysis

### Batch Quality Control

**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1576835-5 QC Sample: L2163765-02 Client ID: IA_20211117						
Dichlorodifluoromethane	0.487	0.485	ppbV	0		25
Chloromethane	0.501	0.503	ppbV	0		25
Freon-114	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethanol	19.3	21.8	ppbV	12		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	4.22	4.13	ppbV	2		25
Trichlorofluoromethane	3.15	3.13	ppbV	1		25
Isopropanol	1.53	1.52	ppbV	1		25
Tertiary butyl Alcohol	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
Freon-113	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	ND	ND	ppbV	NC		25
Ethyl Acetate	0.571	0.545	ppbV	5		25

## Lab Duplicate Analysis

### Batch Quality Control

Project Name: 786 ARMONK ROAD

Project Number: 786 ARMONK ROAD

Lab Number: L2163765

Report Date: 12/06/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1576835-5 QC Sample: L2163765-02 Client ID: IA_20211117						
Chloroform	ND	ND	ppbV	NC		25
Tetrahydrofuran	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	0.251	0.243	ppbV	3		25
Benzene	ND	ND	ppbV	NC		25
Cyclohexane	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC		25
Heptane	ND	ND	ppbV	NC		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	0.352	0.342	ppbV	3		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	ND	ND	ppbV	NC		25



## Lab Duplicate Analysis

Batch Quality Control

Project Name: 786 ARMONK ROAD

Project Number: 786 ARMONK ROAD

Lab Number: L2163765

Report Date: 12/06/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1576835-5 QC Sample: L2163765-02 Client ID: IA_20211117						
p/m-Xylene	ND	ND	ppbV	NC		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	ND	ND	ppbV	NC		25
4-Ethyltoluene	ND	ND	ppbV	NC		25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC		25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

## Lab Duplicate Analysis

Batch Quality Control

Project Name: 786 ARMONK ROAD

Project Number: 786 ARMONK ROAD

Lab Number: L2163765

Report Date: 12/06/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1576837-5 QC Sample: L2163765-02 Client ID: IA_20211117						
Vinyl chloride	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Carbon tetrachloride	0.075	0.072	ppbV	4		25
Trichloroethene	ND	ND	ppbV	NC		25
Tetrachloroethene	0.058	0.057	ppbV	2		25

Project Name: 786 ARMONK ROAD

Project Number: 786 ARMONK ROAD

Serial\_No:12062117:31  
Lab Number: L2163765

Report Date: 12/06/21

### Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2163765-01	AMBIENT_20211117	02087	Flow 5	11/15/21	370442		-	-	-	Pass	3.0	2.7	11
L2163765-01	AMBIENT_20211117	3373	6.0L Can	11/15/21	370442	L2160911-10	Pass	-29.6	-4.1	-	-	-	-
L2163765-02	IA_20211117	01192	Flow 5	11/15/21	370442		-	-	-	Pass	3.0	2.8	7
L2163765-02	IA_20211117	3359	6.0L Can	11/15/21	370442	L2164399-02	-	-	-6.6	-	-	-	-
L2163765-03	SV_20211117	02116	Flow 5	11/15/21	370442		-	-	-	Pass	3.0	2.8	7
L2163765-03	SV_20211117	2323	6.0L Can	11/15/21	370442	L2160911-10	Pass	-27.9	-6.2	-	-	-	-

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

**Lab Number:** L2160911  
**Report Date:** 12/06/21

### Air Canister Certification Results

Lab ID: L2160911-10  
 Client ID: CAN 3263 SHELF 36  
 Sample Location:

Date Collected: 11/05/21 08:00  
 Date Received: 11/05/21  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 11/11/21 20:06  
 Analyst: TS

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

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

**Lab Number:** L2160911  
**Report Date:** 12/06/21

### Air Canister Certification Results

Lab ID: L2160911-10  
 Client ID: CAN 3263 SHELF 36  
 Sample Location:

Date Collected: 11/05/21 08:00  
 Date Received: 11/05/21  
 Field Prep: Not Specified

Sample Depth:

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



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

**Lab Number:** L2160911  
**Report Date:** 12/06/21

### Air Canister Certification Results

Lab ID: L2160911-10  
 Client ID: CAN 3263 SHELF 36  
 Sample Location:

Date Collected: 11/05/21 08:00  
 Date Received: 11/05/21  
 Field Prep: Not Specified

Sample Depth:

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

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

**Lab Number:** L2160911  
**Report Date:** 12/06/21

### Air Canister Certification Results

Lab ID: L2160911-10  
 Client ID: CAN 3263 SHELF 36  
 Sample Location:

Date Collected: 11/05/21 08:00  
 Date Received: 11/05/21  
 Field Prep: Not Specified

Sample Depth:

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



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

**Lab Number:** L2160911  
**Report Date:** 12/06/21

### Air Canister Certification Results

Lab ID: L2160911-10  
 Client ID: CAN 3263 SHELF 36  
 Sample Location:

Date Collected: 11/05/21 08:00  
 Date Received: 11/05/21  
 Field Prep: Not Specified

Sample Depth:

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

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	89		60-140
chlorobenzene-d5	86		60-140





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

**Lab Number:** L2160911  
**Report Date:** 12/06/21

### Air Canister Certification Results

Lab ID: L2160911-10  
 Client ID: CAN 3263 SHELF 36  
 Sample Location:

Date Collected: 11/05/21 08:00  
 Date Received: 11/05/21  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 11/11/21 20:06  
 Analyst: TS

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



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

**Lab Number:** L2160911  
**Report Date:** 12/06/21

### Air Canister Certification Results

Lab ID: L2160911-10  
 Client ID: CAN 3263 SHELF 36  
 Sample Location:

Date Collected: 11/05/21 08:00  
 Date Received: 11/05/21  
 Field Prep: Not Specified

Sample Depth:

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

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

**Lab Number:** L2160911  
**Report Date:** 12/06/21

### Air Canister Certification Results

Lab ID: L2160911-10  
 Client ID: CAN 3263 SHELF 36  
 Sample Location:

Date Collected: 11/05/21 08:00  
 Date Received: 11/05/21  
 Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	90		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	91		60-140

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

**Lab Number:** L2164399  
**Report Date:** 12/06/21

### Air Canister Certification Results

Lab ID: L2164399-02  
 Client ID: CAN 3359 SHELF 8  
 Sample Location:

Date Collected: 11/21/21 10:00  
 Date Received: 11/22/21  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15  
 Analytical Date: 11/22/21 19:21  
 Analyst: TS

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



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

**Lab Number:** L2164399  
**Report Date:** 12/06/21

### Air Canister Certification Results

Lab ID: L2164399-02  
 Client ID: CAN 3359 SHELF 8  
 Sample Location:

Date Collected: 11/21/21 10:00  
 Date Received: 11/22/21  
 Field Prep: Not Specified

Sample Depth:

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



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

**Lab Number:** L2164399  
**Report Date:** 12/06/21

### Air Canister Certification Results

Lab ID: L2164399-02  
 Client ID: CAN 3359 SHELF 8  
 Sample Location:

Date Collected: 11/21/21 10:00  
 Date Received: 11/22/21  
 Field Prep: Not Specified

Sample Depth:

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

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

**Lab Number:** L2164399  
**Report Date:** 12/06/21

### Air Canister Certification Results

Lab ID: L2164399-02  
 Client ID: CAN 3359 SHELF 8  
 Sample Location:

Date Collected: 11/21/21 10:00  
 Date Received: 11/22/21  
 Field Prep: Not Specified

Sample Depth:

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



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

**Lab Number:** L2164399  
**Report Date:** 12/06/21

### Air Canister Certification Results

Lab ID: L2164399-02  
 Client ID: CAN 3359 SHELF 8  
 Sample Location:

Date Collected: 11/21/21 10:00  
 Date Received: 11/22/21  
 Field Prep: Not Specified

Sample Depth:

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

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	91		60-140





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

**Lab Number:** L2164399  
**Report Date:** 12/06/21

### Air Canister Certification Results

Lab ID: L2164399-02  
 Client ID: CAN 3359 SHELF 8  
 Sample Location:

Date Collected: 11/21/21 10:00  
 Date Received: 11/22/21  
 Field Prep: Not Specified

Sample Depth:  
 Matrix: Air  
 Analytical Method: 48,TO-15-SIM  
 Analytical Date: 11/22/21 19:21  
 Analyst: TS

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



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

**Lab Number:** L2164399  
**Report Date:** 12/06/21

### Air Canister Certification Results

Lab ID: L2164399-02  
 Client ID: CAN 3359 SHELF 8  
 Sample Location:

Date Collected: 11/21/21 10:00  
 Date Received: 11/22/21  
 Field Prep: Not Specified

Sample Depth:

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



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

**Lab Number:** L2164399  
**Report Date:** 12/06/21

### Air Canister Certification Results

Lab ID: L2164399-02  
 Client ID: CAN 3359 SHELF 8  
 Sample Location:

Date Collected: 11/21/21 10:00  
 Date Received: 11/22/21  
 Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	98		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	93		60-140

Project Name: 786 ARMONK ROAD

Project Number: 786 ARMONK ROAD

**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

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

NA                                      Absent

**Container Information**

<b>Container ID</b>	<b>Container Type</b>	<b>Cooler</b>	<b>Initial pH</b>	<b>Final pH</b>	<b>Temp deg C</b>	<b>Pres</b>	<b>Seal</b>	<b>Frozen Date/Time</b>	<b>Analysis(*)</b>
L2163765-01A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-SIM(30),TO15-LL(30)
L2163765-02A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2163765-03A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30)

**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

## GLOSSARY

### Acronyms

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

Report Format: Data Usability Report



**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

#### Footnotes

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

#### Terms

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

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

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

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

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

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

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

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

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

#### Data Qualifiers

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

Report Format: Data Usability Report



**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

**Data Qualifiers**

the identification is based on a mass spectral library search.

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

**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

## REFERENCES

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

## LIMITATION OF LIABILITIES

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

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





## Certification Information

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

### Westborough Facility

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

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

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

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

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

### Mansfield Facility

**SM 2540D:** TSS

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

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

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

**Biological Tissue Matrix:** EPA 3050B

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

### Westborough Facility:

#### Drinking Water

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

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

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

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

#### Non-Potable Water

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

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

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

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

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

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

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

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

### Mansfield Facility:

#### Drinking Water

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

**EPA 522, EPA 537.1.**

#### Non-Potable Water

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

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

**EPA 245.1 Hg.**

**SM2340B**

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



# AIR ANALYSIS

CHAIN OF CUSTODY

PAGE 1 OF 1

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

**Client Information**

Client: Tanen Environmental  
 Address: 121 W 27<sup>th</sup> Street  
NY NY 10001  
 Phone: 646-606-2332

Fax:  
 Email: MManto@tanen-env.com  
ezuccheo@tanen-env.com

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List:

**Project Information**

Project Name: 786 ARMONK ROAD  
 Project Location: MANT KISCO, NY  
 Project #: 786 ARMONK ROAD  
 Project Manager: MARY MANTO  
 ALPHA Quote #:

**Turn-Around Time**

Standard  RUSH (only confirmed if pre-approved)

Date Due: \_\_\_\_\_ Time: \_\_\_\_\_

Date Rec'd in Lab: 11/19/21

**Report Information - Data Deliverables**

FAX  
 ADEX  
 Criteria Checker: \_\_\_\_\_  
(Default based on Regulatory Criteria Indicated)  
 Other Formats: \_\_\_\_\_  
 EMAIL (standard pdf report)  
 Additional Deliverables: CAT-B Deliverables  
 Report to: (if different than Project Manager)

ALPHA Job #: L2163765

**Billing Information**

Same as Client info PO #:

**Regulatory Requirements/Report Limits**

State/Fed	Program	Res / Comm

**ANALYSIS**

TO-15  
 TO-15 SIM  
 APH Subtract Non-petroleum HCs  
 Fixed Gases  
 Sulfides & Mercaptans by TO-15

**All Columns Below Must Be Filled Out**

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION					Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH <small>Subtract Non-petroleum HCs</small>	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum											
63765-01	AMBIENT-20211117	11/18/21	0832	0824	-29.63	-5.44	AA	CF	6L	3313	02097	X					
02	IA-20211117	11/18/21	0827	0817	-30.52	-6.85	AA	CF	6L	3359	01192	X					
03	SV-20211117	11/18/21	0828	0819	-28.32	-7.21	SV	CF	6L	2323	02110	X					* the flow regulator was -11.27 when zeroed out at the start of sampling

**\*SAMPLE MATRIX CODES**

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

Container Type

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Relinquished By:

Date/Time

Received By:

Date/Time

[Signature]  
 (ATC)  
[Signature]  
 11/19/21 0830

[Signature]  
 (AMC)  
[Signature]  
 11/19/21 1230  
 11/19/21 20:30  
 11/19/21 0800

**DATA USABILITY SUMMARY REPORT (DUSR)**

**ORGANIC ANALYSIS**

**EPA Compendium Method TO-15  
LOW LEVEL VOLATILES BY GC/MS  
For Soil Vapor and Ambient/Indoor Air Samples  
Collected November 18, 2021  
From 786 Armonk Road, Mount Kisco, New York  
by Tenen Environmental**

**SAMPLE DELIVERY GROUP NUMBER: L2163765  
Alpha Analytical (ELAP #11148)**

**SUBMITTED TO:**

**Ms. Claire Zaccheo  
Tenen Environmental  
121 West 27<sup>th</sup> Street, Suite 702  
New York, NY 10001**

**December 10, 2021**

**PREPARED BY:**

**Lori A. Beyer/President  
L.A.B. Validation Corp.  
14 West Point Drive  
East Northport, NY 11731**

*Lori A. Beyer*

786 Armonk Road, Mount Kisco, New York; November 2021.  
Data Validation Report: Volatile Organics by EPA Method TO15

Table of Contents:

- Introduction
- Data Qualifier Definitions
- Sample Receipt
  
- 1.0 Volatile Organics by GC/MS EPA Compendium Method TO-15
  - 1.1 Holding Time
  - 1.2 Surrogate Standards
  - 1.3 Matrix Spikes (MS), Matrix Spike Duplicates (MSD), Laboratory Duplicate, Field Duplicate Analysis
  - 1.4 Laboratory Control Sample
  - 1.5 Blank Contamination
  - 1.6 GC/MS Instrument Performance Check
  - 1.7 Initial and Continuing Calibrations
  - 1.8 Internal Standards
  - 1.9 Target Compound List Identification
  - 1.10 Tentatively Identified Compounds
  - 1.11 Compound Quantification and Reported Detection Limits
  - 1.12 Overall System Performance

**APPENDICES:**

- A. Chain of Custody Document and Sample Receipt Checklist
- B. Case Narrative
- C. Data Summary Form Is with Qualifications

**Introduction:**

A validation was performed on one soil vapor, one ambient air sample and one indoor air sample for Volatile Organic analysis collected by Tenen Environmental and submitted to Alpha Analytical for subsequent analysis under chain of custody documentation. This report contains the laboratory and validation results for the field samples itemized below. The samples were collected on November 18, 2021.

The samples were analyzed by Alpha Analytical utilizing EPA Method TO-15 and in accordance with NYSDEC Analytical Services Protocol (2005) and submitted under NYSDEC ASP Category B equivalent deliverable requirements for the associated analytical methodology employed. The analytical testing consisted of the TO-15 Compound List. Ambient Air and Indoor Air samples were also analyzed by Selective Ion Monitoring (SIM) techniques for select chlorinated compounds to achieve NYSDOH Guidance Value reporting levels.

The data was evaluated in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (Publication 9240.1-05), EPA SOP #HW31 (Revision 6-Updated September 2016) and in conjunction with the analytical methodology for which the samples were analyzed, where applicable and relevant.

The data validation report pertains to the following field air samples:

<b>Sample Identification</b>	<b>Laboratory Identification</b>	<b>Sample Matrix (Air Type)</b>	<b>Collection Date</b>
AMBIENT_20211117	L2163765-01	Ambient Air	11/18/2021
IA_20211117	L2163765-02	Indoor Air	11/18/2021
SV_20211117	L2163765-03	Soil Vapor	11/18/2021

**Data Qualifier Definitions:**

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

- U - The analyte was analyzed for but was not detected above the reported sample quantitation limit.**
- J - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.**
- J+ - The result is an estimated quantity, but the result may be biased high.**
- J- - The result is an estimated quantity, but the result may be biased low.**
- NJ - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.**
- UJ - The analyte was analyzed for but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.**
- R - The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.**
- D - Analyte concentration was obtained from diluted analysis.**

**Sample Receipt:**

The Chain of Custody document from 11/18/2021 indicates that the air samples were received on 11/19/2021 via laboratory courier following completion of the sampling event. Sample login notes and the chain of custody indicate that at the Validated Time of Sample Receipt (VTSR) at the laboratory no discrepancies were notated and therefore the integrity of the summa canister samples is assumed to be good.

Summa Canisters were leak tested prior to collection of each sample. Initial pressure gauge is recorded on the chain of custody and is required to be approximately 30 psi with zero air. Acceptable canister pressure was observed for these samples. All canisters and flow controllers pass the leak check requirements.

The data summary Form I's included in Appendix C includes all usable (qualified) and unusable (rejected) results for the samples identified above and summarize the detailed narrative section of the report. Data validation qualifications have been reported on the Form I's for ease of review and verification.

**NOTE:**

L.A.B. Validation Corp. believes it is appropriate to note that the data validation criteria utilized for data evaluation is different than the method requirements utilized by the laboratory. Qualified data does not necessarily mean that the laboratory was non-compliant in the analysis that was performed.

## **1.0 Volatile Organics by EPA Compendium Method TO-15**

The following method criteria were reviewed: holding times, surrogate standards, LCS, Blanks, Laboratory Duplicate, Tunes, Calibrations, Internal Standards, Target Component Identification and Quantitation, Reported Quantitation Limits and Overall System Performance. The volatile results are valid and useable as noted on the data summary table in Appendix C and within the following text:

### **1.1 Holding Time**

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J." The non-detects (sample quantitation limits) are required to be flagged as estimated, "J," or unusable, "R," if the holding times are grossly exceeded.

**Air samples were analyzed within the method and technical required holding times of thirty (30) days from sample collection for analysis. No qualifications were required based upon holding time criteria.**

### **1.2 Surrogate Standards**

All samples are spiked with surrogate compounds prior to sample analysis to evaluate overall laboratory performance and efficiency of the analytical technique. If the measure of surrogate concentrations is outside contract specifications, qualifications are required to be applied to associated samples and analytes.

**Samples were not spiked with surrogate standards. Method TO15 does not mandate the addition of surrogate standards.**

### **1.3 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD)/Laboratory Duplicate /Field Duplicate Analysis**

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices.

**Matrix Spike/Matrix Spike Duplicate analysis was not performed on samples pertaining to these SDGs.**

**Laboratory duplicate analysis was performed on IA-20211117. Validation criteria uses <50% as acceptable precision (RPD) as guidance for qualifying data. Acceptable precision was obtained for all detected analytes.**



**Field Duplicate analysis was not required. When performed, acceptable precision for air samples is 25%. The following criteria are utilized for Field/Lab Duplicate analysis when performed:**

Criteria	Detected Compounds	Non-Detected Compounds
The RPD is within the limits of 0 and 25%	No qualification	No qualification
The RPD >25%	J in the parent and duplicate samples	Not applicable
The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample. However, the detected concentration was $\leq 2x$ the reporting limit	No qualification	No qualification
The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample. However, the detected concentration was $> 2x$ the reporting limit.	J in the parent and duplicate sample	UJ in the parent of duplicate sample

**No qualifications to the data were applied based on MS/MSD/Laboratory Duplicate and Field Duplicate analysis.**

#### **1.4 Laboratory Control Sample**

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

The following table summarizes the LCS criteria and the data qualification guidelines for all associated field samples.

LCS	NOT QUALIFIED	J	R
% Recovery:			
Detects	70-130%	<70%, >130%	
Non-Detects	$\geq 130\%$	50-69%	<50%
Absolute RT of LCS Compounds:			
LCS Compounds in samples RT: (min)	$\pm 0.33$		$\geq 0.33$

**Acceptable LCS was analyzed with each analytical batch. Recovery values for all spiked compounds was determined to be  $>70\%$ - $<130\%$  for all analytes.**

#### **1.5 Blank Contamination**

Quality assurance (QA) blanks, i.e., method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field blanks measure cross-contamination of samples during field operations. Storage blanks measure cross-contamination during sample storage of the field samples and are not required for TO15 analysis. Canister blanks measure cross-contamination from the sampling media.

The following table was utilized to qualify target analyte results due to method blank contamination. The largest value from all the associated blanks is required to be utilized. The largest value from all the associated blanks is required to be utilized:

Blank Type	Blank Result	Sample Result	Action for Samples
Method, Storage, field, Trip, Instrument	Detects	Not Detected	No qualification required
	<CRQL*	<CRQL*	Report CRQL value with a U
		>/= CRQL* and <2x the CRQL**	No qualification required
	>CRQL*	</= CRQL*	Report CRQL value with a U
		>/=CRQL* and </= blank concentration	Report blank value for sample concentration with a U
		>/= CRQL* and > blank concentration	No qualification required
	=CRQL*	</= CRQL*	Report CRQL value with a U
		>CRQL*	No qualification required
Gross Contamination**	Detects	Report blank value for sample concentration with a U	

\*2x the CRQL for methylene chloride, 2-butanone, and acetone.

\*\*4x the CRQL for methylene chloride, 2-butanone, and acetone

\*\*\*Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 ug/L.

Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

The table below is utilized to qualify samples with target compound results also present in certification blanks:

Certification Contamination	Sample Result	Action for Sample
>/=detect limit	>5x certification contamination	No qualification required
>/=detect limit	<detect limit	Detection limit "U"
>/=detect limit	>/=detect limit and </= 5x certification contamination level	5x certification contamination "U"
<detect limit	</=detection limit and >/= detection limit	No qualification

Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

**A) Method Blank Contamination:**

**Method and Canister blanks were determined to be free of any contamination. The case narrative indicates that "J" qualified detections were found. Review of the raw data confirms that no target compounds are reportable in the associated method blanks.**

*\*Acetone, Methylene Chloride, and 2-Butanone are common laboratory contaminants. The end user should proceed with caution when making decisions based on these detections since these are common solvents utilized in the organic extraction laboratory and could not be negated due to lack of presence in the corresponding blanks.*

B) **Field Blank Contamination:**  
**Field Blank analysis was not required.**

C) **Trip Blank Contamination:**  
**Trip Blank analysis was not required.**

#### **1.6 GC/MS Instrument Performance Check**

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The Tuning standard for volatile organics is Bromofluorobenzene (BFB).

**Instrument performance was generated within acceptable limits and frequency (24 hours) for Bromofluorobenzene (BFB) for all analyses.**

#### **1.7 Initial and Continuing Calibrations**

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument can give acceptable performance at the beginning of an experimental sequence.

The continuing calibration checks document that the instrument is giving satisfactory daily performance.

A) Response Factor GC/MS:

The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be  $\geq 0.05$  in both initial and continuing calibrations. A value  $< 0.05$  indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J." All non-detects for that compound in the corresponding samples will be rejected, "R."

The following compounds can be  $> 0.01$  without qualification:

2-Butanone  
Carbon Disulfide  
Chloroethane  
Chloromethane  
1,2-Dibromoethane  
1,2-Dichloropropane  
1,4-Dioxane  
1,2-Dibromo-3-chloropropane  
Methylene Chloride

**Response factors for the target analytes reported were found to be within acceptable limits ( $\geq 0.05$ ) [or  $\geq 0.01$  for the 9 compounds above] and remaining analytes, for the initial and continuing calibrations.**

B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D): Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentrations. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be  $< 30\%$  and %D must be  $< 30\%$ . A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ." If %RSD and %D grossly exceed QC criteria ( $> 90\%$ ), non-detect data may be qualified, "R", unusable. Additionally, in cases where the %RSD is  $> 30\%$  and eliminating either the high or the low point of the curve does not restore the %RSD to less than or equal to 30% then positive results are qualified, "J". In cases where removal of either the low or high point restores the linearity, then only low or high-level results will be qualified, "J" in the portion of the curve where non-linearity exists. Acceptable ICV was analyzed.

**Initial Calibrations: The initial calibrations provided and the %RSD was within acceptable limits (30%) and (40%) for poor responders for all requested target compounds except for Benzyl Chloride (32.61%) in the ICAL associated with SV\_20211117. Non-detects have been qualified, "UJ." Initial calibration verification standard met QC requirements.**

**Continuing Calibrations: The continuing calibrations provided and the %D was within acceptable limits (30%) and (40%) for poor responders for all reported compounds except for Bromoform (43.5%) in the CCV associated with SV-20211117. Non-detects have been qualified, "UJ."**

### **1.8 Internal Standards**

Internal Standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-40% to +40%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than  $\pm 20$  seconds from the associated continuing calibration standard. If the area count is outside the (-40% to +40%) range of the associated standard, all positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity.

If an internal standard retention time varies by more than 20 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction.

**Internal Standard area responses met QC requirements for all analysis pertaining to this data set as compared to the continuing calibration.**

#### **1.9 Target Compound List Identification**

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards.

For the results to be a positive hit, the sample peak must be within  $\pm 0.06RRT$  units of the standard compound and have an ion spectrum which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound.

**GC/MS spectra met the qualitative criteria for identification. All retention times were within required specifications.**

#### **1.10 Tentatively Identified Compounds (TICs)**

TICs were not required for this project. When submitted, the identification must be considered tentative (both quantitative and qualitative) due to the lack of required compound specific response factors. Consequently, all concentrations should be considered estimated, "J" and because of the qualitative uncertainty should be qualified, "N" where an identification has been made.

**TICs were not required with this data set.**

#### **1.11 Compound Quantification and Reported Detection Limits**

GC/MS quantitative analysis are acceptable. Correct internal standards and response factors and air volumes were used to calculate final concentrations.

**Sample results have been presented in ug/m<sup>3</sup> as well as ppbv on the laboratory reporting forms. Ambient and Indoor air samples were analyzed undiluted at 250mls. SV\_20211117 was analyzed at 125mls (1:2 dilution). Reporting limits have been adjusted accordingly based on the dilution that was performed.**

**Ambient and Indoor air sample were also analyzed by SIM (Selective Ion Monitoring) for select chlorinated compounds to achieve required NYSDOH action levels.**

#### **1.12 Overall System Performance**

**GC/MS analytical methodology was acceptable for this analysis. The data reported agrees with the raw data provided in the final report. The laboratory provided a complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package.**

Reviewer's Signature John A. Bely Date 12/10/2021

**Appendix A  
Chain of Custody Document  
And Sample Receipt Checklist**



# AIR ANALYSIS

## CHAIN OF CUSTODY

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

### Client Information

Client: TOWN ENVIRONMENTAL  
Address: 121 W 27th STREET  
NY NY 10001  
Phone: 646-600-2312  
Fax:

Email: MARINO@TOWN-ENV.COM  
CZULINO@TOWN-ENV.COM  
 These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List:

PAGE 1 OF 1

### Project Information

Project Name: 780 ARMONK ROAD  
Project Location: MONTELUPO, NY  
Project #: 780 ARMONK ROAD  
Project Manager: MOEY MARINO  
ALPHA Quote #:

### Turn-Around Time

Standard  RUSH (not combined if pre-approved)

Date Due: \_\_\_\_\_ Time: \_\_\_\_\_

Date Rec'd in Lab: 11/19/21

### Report Information - Data Deliverables

FAX  ADEX  
Criteria Checker: \_\_\_\_\_  
(Default based on Regulatory Criteria indicated)  
Other Formats: \_\_\_\_\_  
 EMAIL (standard pdf report)  
 Additional Deliverables:  
(ATT-B) DELIV (GAS)  
Report to: (if different than Project Manager)

ALPHA Job #: L2163765

### Billing Information

Same as Client info  PO #:

### Regulatory Requirements/Report Limits

State/Fed Program Res/Comm

### ANALYSIS

TO-15  
 APH (Standard Method) TO-15  
 Fixed Gases  
 Solids & Mercaptans by TO-15  
Sample Comments (i.e. PID):

### All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION				Sample Matrix	Sampler's Initials	Can Size	ID - Can	ID - Flow Controller	Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum						
63765-01	AMBIENT-2021117	11/18/21	0832	0824	29.03	-5.44	AA	02	02	02007	X
02	IA-2021117	11/18/21	0827	0817	30.32	1.655	AA	02	02	02010	X
03	SV-2021117	11/18/21	0828	0819	28.32	7.21	SV	02	02	02010	X

\* THE FOLLOWING REQUIREMENTS WERE MET AT THE SITES OF THE SAMPLING

### \*SAMPLE MATRIX CODES

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

### Relinquished By:

MARINO (ATT)  
MOEY MARINO (ATT)

### Container Type

Received By:

MOEY MARINO (ATT)  
MOEY MARINO (ATT)  
MOEY MARINO (ATT)

Date/Time:

11/18/21 12:30  
11/19/21 20:30  
11/19/21 08:00

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.



## Sample Delivery Group Summary

Alpha Job Number : L2163765

Received : 18-NOV-2021

Reviewer : Jennifer Jerome

Account Name : Tenen Environmental, LLC

Project Number : 786 ARMONK ROAD

Project Name : 786 ARMONK ROAD

### Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

### Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
NA	Absent/			

### Condition Information

- |  |     |
|--|-----|
| 1) All samples on COC received?                                  | YES |
| 2) Extra samples received?                                       | NO  |
| 3) Are there any sample container discrepancies?                 | NO  |
| 4) Are there any discrepancies between sample labels & COC?      | NO  |
| 5) Are samples in appropriate containers for requested analysis? | YES |
| 6) Are samples properly preserved for requested analysis?        | YES |
| 7) Are samples within holding time for requested analysis?       | YES |
| 8) All sampling equipment returned?                              | YES |

### Volatile Organics/VPH

- |  |    |
|--|----|
| 1) Reagent Water Vials Frozen by Client? | NA |
|--|----|



**Appendix B  
Case Narrative**

**Project Name:** 786 ARMONK ROAD  
**Project Number:** 786 ARMONK ROAD

**Lab Number:** L2163765  
**Report Date:** 12/06/21

### 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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated 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.

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 table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEX data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### 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 Client Service Representative 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 Client Services at 800-624-9220 with any questions.

Project Name: 786 ARMONK ROAD  
Project Number: 786 ARMONK ROAD

Lab Number: L2163765  
Report Date: 12/06/21

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on November 15, 2021. The canister certification results are provided as an addendum.

The WG1576835-4 Method Blank, associated with ~~L2163765-01~~ and ~~-02~~, has concentrations below the reporting limits and "J" qualified.

*for 12/10/21*


L2163765-03D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

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

Authorized Signature: *Christopher J. Anderson*

Report Date: 12/06/21

Title: Technical Director/Representative

*for 12/9/21* 

**Appendix C  
Validated form I's  
With Qualifications**

**Results Summary  
Form 1  
Volatile Organics in Air**

Client : Tenen Environmental, LLC  
 Project Name : 786 ARMONK ROAD  
 Lab ID : L2163765-01  
 Client ID : AMBIENT\_20211117  
 Sample Location : MOUNT KISCO, NY  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15  
 Lab File ID : R420022  
 Sample Amount : 250 ml

Lab Number : L2163765  
 Project Number : 786 ARMONK ROAD  
 Date Collected : 11/18/21 08:24  
 Date Received : 11/18/21  
 Date Analyzed : 11/30/21 08:36  
 Dilution Factor : 1  
 Analyst : TS  
 Instrument ID : AIRPIANO4  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.440	0.200	--	2.18	0.989	--	
74-87-3	Chloromethane	0.490	0.200	--	1.01	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	ND	5.00	--	ND	9.42	--	U
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	1.50	1.00	--	3.56	2.38	--	
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U



**Results Summary  
Form 1  
Volatile Organics in Air**

Client : Tenen Environmental, LLC  
 Project Name : 786 ARMONK ROAD  
 Lab ID : L2163765-01  
 Client ID : AMBIENT\_20211117  
 Sample Location : MOUNT KISCO, NY  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15  
 Lab File ID : R420022  
 Sample Amount : 250 ml

Lab Number : L2163765  
 Project Number : 786 ARMONK ROAD  
 Date Collected : 11/18/21 08:24  
 Date Received : 11/18/21  
 Date Analyzed : 11/30/21 08:36  
 Dilution Factor : 1  
 Analyst : TS  
 Instrument ID : AIRPIANO4  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



**Results Summary  
Form 1  
Volatile Organics in Air**

Client : Tenen Environmental, LLC  
 Project Name : 786 ARMONK ROAD  
 Lab ID : L2163765-01  
 Client ID : AMBIENT\_20211117  
 Sample Location : MOUNT KISCO, NY  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15  
 Lab File ID : R420022  
 Sample Amount : 250 ml

Lab Number : L2163765  
 Project Number : 786 ARMONK ROAD  
 Date Collected : 11/18/21 08:24  
 Date Received : 11/18/21  
 Date Analyzed : 11/30/21 08:36  
 Dilution Factor : 1  
 Analyst : TS  
 Instrument ID : AIRPIANO4  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



**Results Summary**  
**Form 1**  
**Volatile Organics in Air by SIM**

Client : Tenen Environmental, LLC  
 Project Name : 786 ARMONK ROAD  
 Lab ID : L2163765-01  
 Client ID : AMBIENT\_20211117  
 Sample Location : MOUNT KISCO, NY  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15-SIM  
 Lab File ID : R420022\_EV2  
 Sample Amount : 250 ml

Lab Number : L2163765  
 Project Number : 786 ARMONK ROAD  
 Date Collected : 11/18/21 08:24  
 Date Received : 11/18/21  
 Date Analyzed : 11/30/21 08:36  
 Dilution Factor : 1  
 Analyst : TS  
 Instrument ID : AIRPIANO4  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.067	0.020	--	0.421	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	ND	0.020	--	ND	0.136	--	U





**Results Summary  
Form 1  
Volatile Organics in Air**

Client : Tenen Environmental, LLC  
 Project Name : 786 ARMONK ROAD  
 Lab ID : L2163765-02  
 Client ID : IA\_20211117  
 Sample Location : MOUNT KISCO, NY  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15  
 Lab File ID : R420004  
 Sample Amount : 250 ml

Lab Number : L2163765  
 Project Number : 786 ARMONK ROAD  
 Date Collected : 11/18/21 08:17  
 Date Received : 11/18/21  
 Date Analyzed : 11/29/21 20:25  
 Dilution Factor : 1  
 Analyst : TS  
 Instrument ID : AIRPIANO4  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.487	0.200	--	2.41	0.989	--	
74-87-3	Chloromethane	0.501	0.200	--	1.03	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	19.3	5.00	--	36.4	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	4.22	1.00	--	10.0	2.38	--	
75-69-4	Trichlorofluoromethane	3.15	0.200	--	17.7	1.12	--	
67-63-0	Isopropanol	1.53	0.500	--	3.76	1.23	--	
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
141-78-6	Ethyl Acetate	0.571	0.500	--	2.06	1.80	--	
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	0.251	0.200	--	0.885	0.705	--	
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U



**Results Summary  
Form 1  
Volatile Organics in Air**

Client : Tenen Environmental, LLC  
 Project Name : 786 ARMONK ROAD  
 Lab ID : L2163765-02  
 Client ID : IA\_20211117  
 Sample Location : MOUNT KISCO, NY  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15  
 Lab File ID : R420004  
 Sample Amount : 250 ml

Lab Number : L2163765  
 Project Number : 786 ARMONK ROAD  
 Date Collected : 11/18/21 08:17  
 Date Received : 11/18/21  
 Date Analyzed : 11/29/21 20:25  
 Dilution Factor : 1  
 Analyst : TS  
 Instrument ID : AIRPIANO4  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	0.352	0.200	--	1.33	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



**Results Summary**  
**Form 1**  
**Volatile Organics in Air**

Client : Tenen Environmental, LLC  
 Project Name : 786 ARMONK ROAD  
 Lab ID : L2163765-02  
 Client ID : IA\_20211117  
 Sample Location : MOUNT KISCO, NY  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15  
 Lab File ID : R420004  
 Sample Amount : 250 ml

Lab Number : L2163765  
 Project Number : 786 ARMONK ROAD  
 Date Collected : 11/18/21 08:17  
 Date Received : 11/18/21  
 Date Analyzed : 11/29/21 20:25  
 Dilution Factor : 1  
 Analyst : TS  
 Instrument ID : AIRPIANO4  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifler
		Results	RL	MDL	Results	RL	MDL	
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



**Results Summary  
Form 1  
Volatile Organics in Air by SIM**

Client : Tenen Environmental, LLC  
 Project Name : 786 ARMONK ROAD  
 Lab ID : L2163765-02  
 Client ID : IA\_20211117  
 Sample Location : MOUNT KISCO, NY  
 Sample Matrix : AIR  
 Analytical Method : 48,TO-15-SIM  
 Lab File ID : R420004\_EV2  
 Sample Amount : 250 ml

Lab Number : L2163765  
 Project Number : 786 ARMONK ROAD  
 Date Collected : 11/18/21 08:17  
 Date Received : 11/18/21  
 Date Analyzed : 11/29/21 20:25  
 Dilution Factor : 1  
 Analyst : TS  
 Instrument ID : AIRPIANO4  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifler
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.075	0.020	--	0.472	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.058	0.020	--	0.393	0.136	--	



**Results Summary  
Form 1  
Volatile Organics in Air**

Client : Tenen Environmental, LLC  
 Project Name : 786 ARMONK ROAD  
 Lab ID : L2163765-03D  
 Client ID : SV\_20211117  
 Sample Location : MOUNT KISCO, NY  
 Sample Matrix : SOIL\_VAPOR  
 Analytical Method : 48,TO-15  
 Lab File ID : R1627626  
 Sample Amount : 125 ml

Lab Number : L2163765  
 Project Number : 786 ARMONK ROAD  
 Date Collected : 11/18/21 08:18  
 Date Received : 11/18/21  
 Date Analyzed : 12/02/21 18:39  
 Dilution Factor : 2  
 Analyst : TS  
 Instrument ID : AIRLAB16  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.442	0.400	--	2.19	1.98	--	
74-87-3	Chloromethane	ND	0.400	--	ND	0.826	--	U
76-14-2	Freon-114	ND	0.400	--	ND	2.80	--	U
75-01-4	Vinyl chloride	ND	0.400	--	ND	1.02	--	U
106-99-0	1,3-Butadiene	ND	0.400	--	ND	0.885	--	U
74-83-9	Bromomethane	ND	0.400	--	ND	1.55	--	U
75-00-3	Chloroethane	ND	0.400	--	ND	1.06	--	U
64-17-5	Ethanol	529	10.0	--	997	18.8	--	
593-60-2	Vinyl bromide	ND	0.400	--	ND	1.75	--	U
67-64-1	Acetone	103	2.00	--	245	4.75	--	
75-69-4	Trichlorofluoromethane	1.28	0.400	--	7.19	2.25	--	
67-63-0	Isopropanol	189	1.00	--	465	2.46	--	
75-35-4	1,1-Dichloroethene	ND	0.400	--	ND	1.59	--	U
75-65-0	Tertiary butyl Alcohol	ND	1.00	--	ND	3.03	--	U
75-09-2	Methylene chloride	1.02	1.00	--	3.54	3.47	--	
107-05-1	3-Chloropropene	ND	0.400	--	ND	1.25	--	U
75-15-0	Carbon disulfide	ND	0.400	--	ND	1.25	--	U
76-13-1	Freon-113	ND	0.400	--	ND	3.07	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.400	--	ND	1.59	--	U
75-34-3	1,1-Dichloroethane	ND	0.400	--	ND	1.62	--	U
1634-04-4	Methyl tert butyl ether	ND	0.400	--	ND	1.44	--	U
78-93-3	2-Butanone	1.12	1.00	--	3.30	2.95	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.400	--	ND	1.59	--	U
141-78-6	Ethyl Acetate	2.85	1.00	--	10.3	3.60	--	
67-66-3	Chloroform	ND	0.400	--	ND	1.95	--	U
109-99-9	Tetrahydrofuran	ND	1.00	--	ND	2.95	--	U



# Results Summary Form 1 Volatile Organics in Air

Client : Tenen Environmental, LLC  
 Project Name : 786 ARMONK ROAD  
 Lab ID : L2163765-03D  
 Client ID : SV\_20211117  
 Sample Location : MOUNT KISCO, NY  
 Sample Matrix : SOIL\_VAPOR  
 Analytical Method : 48,TO-15  
 Lab File ID : R1627626  
 Sample Amount : 125 ml

Lab Number : L2163765  
 Project Number : 786 ARMONK ROAD  
 Date Collected : 11/18/21 08:18  
 Date Received : 11/18/21  
 Date Analyzed : 12/02/21 18:39  
 Dilution Factor : 2  
 Analyst : TS  
 Instrument ID : AIRLAB16  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.400	--	ND	1.62	--	U
110-54-3	n-Hexane	ND	0.400	--	ND	1.41	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.400	--	ND	2.18	--	U
71-43-2	Benzene	ND	0.400	--	ND	1.28	--	U
56-23-5	Carbon tetrachloride	ND	0.400	--	ND	2.52	--	U
110-82-7	Cyclohexane	ND	0.400	--	ND	1.38	--	U
78-87-5	1,2-Dichloropropane	ND	0.400	--	ND	1.85	--	U
75-27-4	Bromodichloromethane	ND	0.400	--	ND	2.68	--	U
123-91-1	1,4-Dioxane	ND	0.400	--	ND	1.44	--	U
79-01-6	Trichloroethene	ND	0.400	--	ND	2.15	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.400	--	ND	1.87	--	U
142-82-5	Heptane	ND	0.400	--	ND	1.64	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.400	--	ND	1.82	--	U
108-10-1	4-Methyl-2-pentanone	ND	1.00	--	ND	4.10	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.400	--	ND	1.82	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.400	--	ND	2.18	--	U
108-88-3	Toluene	1.46	0.400	--	5.50	1.51	--	
591-78-6	2-Hexanone	ND	0.400	--	ND	1.64	--	U
124-48-1	Dibromochloromethane	ND	0.400	--	ND	3.41	--	U
106-93-4	1,2-Dibromoethane	ND	0.400	--	ND	3.07	--	U
127-18-4	Tetrachloroethene	3.22	0.400	--	21.8	2.71	--	
108-90-7	Chlorobenzene	ND	0.400	--	ND	1.84	--	U
100-41-4	Ethylbenzene	ND	0.400	--	ND	1.74	--	U
179601-23-1	p/m-Xylene	ND	0.800	--	ND	3.47	--	U
75-25-2	Bromoforn	ND	0.400	--	ND	4.14	--	U - UJ
100-42-5	Styrene	ND	0.400	--	ND	1.70	--	U

for 12/9/21



**Results Summary  
Form 1  
Volatile Organics in Air**

Client : Tenen Environmental, LLC  
 Project Name : 786 ARMONK ROAD  
 Lab ID : L2163765-03D  
 Client ID : SV\_20211117  
 Sample Location : MOUNT KISCO, NY  
 Sample Matrix : SOIL\_VAPOR  
 Analytical Method : 48,TO-15  
 Lab File ID : R1627626  
 Sample Amount : 125 ml

Lab Number : L2163765  
 Project Number : 786 ARMONK ROAD  
 Date Collected : 11/18/21 08:18  
 Date Received : 11/18/21  
 Date Analyzed : 12/02/21 18:39  
 Dilution Factor : 2  
 Analyst : TS  
 Instrument ID : AIRLAB16  
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.400	--	ND	2.75	--	U
95-47-6	o-Xylene	ND	0.400	--	ND	1.74	--	U
622-96-8	4-Ethyltoluene	ND	0.400	--	ND	1.97	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.400	--	ND	1.97	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.400	--	ND	1.97	--	U
100-44-7	Benzyl chloride	ND	0.400	--	ND	2.07	--	<del>U</del> UJ
541-73-1	1,3-Dichlorobenzene	ND	0.400	--	ND	2.40	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.400	--	ND	2.40	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.400	--	ND	2.40	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.400	--	ND	2.97	--	U
87-68-3	Hexachlorobutadiene	ND	0.400	--	ND	4.27	--	U

*for 12/9/21*  
