APPENDIX C

Table 2
Summary of Sub Slab Vapor Analytical Testing Results
MOD-PAC CORP (O' Connell Building)
July 2020

	NYSDOH Guidline Values (ug/m3)		
Parameter	**Matrix A Sub Slab Vapor Concentrations**	**Matrix B Sub Slab Vapor Concentrations**	**Matrix C Sub Slab Vapor Concentrations**
Volatile Organics in Air (ug/m3)			
Dichlorodifluoromethane			
Chloromethane			
Freon-114			
Vinyl chloride			6
1,3-Butadiene			
Bromomethane			
Chloroethane			
Ethanol			
Vinyl bromide			
Acetone			
Trichlorofluoromethane			
Isopropanol			
1,1-Dichloroethene	6		
Tertiary butyl Alcohol			
Methylene chloride		100	
3-Chloropropene			
Carbon disulfide			
Freon-113			
trans-1,2-Dichloroethene			
1,1-Dichloroethane			
Methyl tert butyl ether			
2-Butanone			
cis-1,2-Dichloroethene	6		
Ethyl Acetate			
Chloroform			
Tetrahydrofuran			
1,2-Dichloroethane			
n-Hexane			
1,1,1-Trichloroethane		100	
Benzene			
Carbon tetrachloride	6		
Cyclohexane			
1,2-Dichloropropane			
Bromodichloromethane			
1,4-Dioxane			

Trichloroethene	6		
2,2,4-Trimethylpentane			
Heptane			
cis-1,3-Dichloropropene			
4-Methyl-2-pentanone			
trans-1,3-Dichloropropene			
1,1,2-Trichloroethane			
Toluene			
2-Hexanone			
Dibromochloromethane			
1,2-Dibromoethane			
Tetrachloroethene		100	
Chlorobenzene			
Ethylbenzene			
p/m-Xylene			
Bromoform			
Styrene			
1,1,2,2-Tetrachloroethane			
o-Xylene			
4-Ethyltoluene			
1,3,5-Trimethylbenzene			
1,2,4-Trimethylbenzene			
Benzyl chloride			
1,3-Dichlorobenzene			
1,4-Dichlorobenzene			
1,2-Dichlorobenzene			
1,2,4-Trichlorobenzene			
Hexachlorobutadiene			

DRAFT: For Discussion Purposes Only

Notes:

1. Compounds detected in one or more samples included in this table. For a list of all compounds, refer to a
2. Analytical testing for VOCs via TO-15 completed by Alpha Analytical.
3. Results present in ug/m^3 or microgram per cubic meter.
4. Samples were collected during a 8-hour sample duration.

Guidance Manual, as indicated for Indoor and Outdoor air only.

State Department of Health.

and updated May 2017.

and updated May 2017.

and updated May 2017.

8. Yellow shaded values represent exceedance of NYSDOH Sub-slab Vapor concentrations.
9. Qualifiers: U = Not detected at the reported detection limit for the sample.
10. NV= No Value

s

Sub Slab Samples	
SS-1 (072820)	SS-2 (072820)
7/28/2020	7/28/2020
L2031178-01	L2031178-02
L2031178	L2031178
2.45	87
0.413 U	12.1 U
1.4 U	41.1 U
0.511 U	15 U
0.442 U	13 U
0.777 U	22.8 U
0.528 U	15.5 U
16.3	277 U
0.874 U	25.7 U
33.5	156
1.81	33 U
3.27	36.1 U
0.793 U	23.3 U
1.76	44.6 U
1.74 U	51.1 U
0.626 U	18.4 U
9.09	48
1.53 U	45.1 U
0.793 U	23.3 U
0.809 U	23.8 U
0.721 U	21.2 U
5.22	43.4 U
0.793 U	23.3 U
1.8 U	53 U
18.7	28.7 U
1.47 U	43.4 U
0.809 U	23.8 U
64.1	7080
1.09 U	32.1 U
19.1	24.8
1.26 U	37 U
22.5	87.1
0.924 U	27.2 U
1.34 U	39.4 U
0.721 U	21.2 U

3.33	83.8
0.934 U	27.5 U
44.7	4390
0.908 U	26.7 U
2.05 U	60.2 U
0.908 U	26.7 U
1.09 U	32.1 U
124	180
0.82 U	24.1 U
1.7 U	50.1 U
1.54 U	45.2 U
25.7	39.9 U
0.921 U	27.1 U
34	46.5
170	222
2.07 U	60.8 U
0.852 U	25 U
1.37 U	40.4 U
60.8	86
23.8	28.9 U
32.5	34.1
117	141
1.04 U	30.4 U
1.2 U	35.4 U
1.2 U	35.4 U
1.2 U	35.4 U
1.48 U	43.6 U
2.13 U	62.7 U

analytical report in Appendix.

ANALYTICAL REPORT

Lab Number:	L2031178
Client:	Environmental Advantage, Inc. 3636 North Buffalo Road Orchard Park, NY 14127
ATTN:	Mark Hanna
Phone:	(716) 667-3130
Project Name:	VIM SAMPLING
Project Number:	01306
Report Date:	08/12/20

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).

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

Project Name: VIM SAMPLING
Project Number: 01306

Lab Number: L2031178
Report Date: 08/12/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2031178-01	SS-1(072820)	SOIL_VAPOR	MPC (O'CONNELL)	07/28/20 08:25	07/28/20
L2031178-02	SS-2(072820)	SOIL_VAPOR	MPC (O'CONNELL)	07/28/20 08:45	07/28/20

Project Name:	VIM SAMPLING	**Lab Number:**	L2031178
Project Number:	01306	**Report Date:**	08/12/20

Case Narrative

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

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

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

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

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

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

Project Name:	VIM SAMPLING	**Lab Number:**	L2031178
Project Number:	01306	**Report Date:**	08/12/20

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on July 27, 2020. The canister certification results are provided as an addendum.

L2031178-02: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

Sample Receipt

The canister ID number for the sample designated SS-1(072820) (L2031178-01) is listed on the CoC as 0488 but should be 1728.

The canister ID number for the sample designated SS-2(072820) (L2031178-02) is listed on the CoC as 0655 but should be 488.

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: 08/12/20

AIR

Project Name: VIM SAMPLING
Project Number: 01306
Lab Number: L2031178
Report Date: 08/12/20

SAMPLE RESULTS

Lab ID: L2031178-01
Client ID: SS-1(072820)
Sample Location: MPC (O'CONNELL)

Date Collected: 07/28/20 08:25
Date Received: 07/28/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 08/12/20 04:38
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.495	0.200	--	2.45	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	8.63	5.00	--	16.3	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	14.1	1.00	--	33.5	2.38	--		1
Trichlorofluoromethane	0.322	0.200	--	1.81	1.12	--		1
Isopropanol	1.33	0.500	--	3.27	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	0.581	0.500	--	1.76	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	2.92	0.200	--	9.09	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	1.77	0.500	--	5.22	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1

Project Name: VIM SAMPLING
Project Number: 01306

Lab Number: L2031178
Report Date: 08/12/20

SAMPLE RESULTS

Lab ID: L2031178-01
Client ID: SS-1(072820)
Sample Location: MPC (O'CONNELL)

Date Collected: 07/28/20 08:25
Date Received: 07/28/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	3.82	0.200	--	18.7	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	18.2	0.200	--	64.1	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	5.99	0.200	--	19.1	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	6.55	0.200	--	22.5	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	0.619	0.200	--	3.33	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	10.9	0.200	--	44.7	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	32.9	0.200	--	124	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	3.79	0.200	--	25.7	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	7.82	0.200	--	34.0	0.869	--		1

Project Name: VIM SAMPLING
Project Number: 01306
Lab Number: L2031178
Report Date: 08/12/20

SAMPLE RESULTS

Lab ID: L2031178-01
Client ID: SS-1(072820)
Sample Location: MPC (O'CONNELL)

Date Collected: 07/28/20 08:25
Date Received: 07/28/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	39.1	0.400	--	170	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	14.0	0.200	--	60.8	0.869	--		1
4-Ethyltoluene	4.85	0.200	--	23.8	0.983	--		1
1,3,5-Trimethylbenzene	6.62	0.200	--	32.5	0.983	--		1
1,2,4-Trimethylbenzene	23.9	0.200	--	117	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	85		60-140
chlorobenzene-d5	86		60-140

Project Name: VIM SAMPLING
Project Number: 01306

Lab Number: L2031178
Report Date: 08/12/20

SAMPLE RESULTS

Lab ID: L2031178-02 D
Client ID: SS-2(072820)
Sample Location: MPC (O'CONNELL)

Date Collected: 07/28/20 08:45
Date Received: 07/28/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 08/12/20 05:14
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	17.6	5.88	--	87.0	29.1	--		29.41
Chloromethane	ND	5.88	--	ND	12.1	--		29.41
Freon-114	ND	5.88	--	ND	41.1	--		29.41
Vinyl chloride	ND	5.88	--	ND	15.0	--		29.41
1,3-Butadiene	ND	5.88	--	ND	13.0	--		29.41
Bromomethane	ND	5.88	--	ND	22.8	--		29.41
Chloroethane	ND	5.88	--	ND	15.5	--		29.41
Ethanol	ND	147	--	ND	277	--		29.41
Vinyl bromide	ND	5.88	--	ND	25.7	--		29.41
Acetone	65.8	29.4	--	156	69.8	--		29.41
Trichlorofluoromethane	ND	5.88	--	ND	33.0	--		29.41
Isopropanol	ND	14.7	--	ND	36.1	--		29.41
1,1-Dichloroethene	ND	5.88	--	ND	23.3	--		29.41
Tertiary butyl Alcohol	ND	14.7	--	ND	44.6	--		29.41
Methylene chloride	ND	14.7	--	ND	51.1	--		29.41
3-Chloropropene	ND	5.88	--	ND	18.4	--		29.41
Carbon disulfide	15.4	5.88	--	48.0	18.3	--		29.41
Freon-113	ND	5.88	--	ND	45.1	--		29.41
trans-1,2-Dichloroethene	ND	5.88	--	ND	23.3	--		29.41
1,1-Dichloroethane	ND	5.88	--	ND	23.8	--		29.41
Methyl tert butyl ether	ND	5.88	--	ND	21.2	--		29.41
2-Butanone	ND	14.7	--	ND	43.4	--		29.41
cis-1,2-Dichloroethene	ND	5.88	--	ND	23.3	--		29.41

Project Name: VIM SAMPLING
Project Number: 01306

Lab Number: L2031178
Report Date: 08/12/20

SAMPLE RESULTS

Lab ID: L2031178-02 D
Client ID: SS-2(072820)
Sample Location: MPC (O'CONNELL)

Date Collected: 07/28/20 08:45
Date Received: 07/28/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	14.7	--	ND	53.0	--		29.41
Chloroform	ND	5.88	--	ND	28.7	--		29.41
Tetrahydrofuran	ND	14.7	--	ND	43.4	--		29.41
1,2-Dichloroethane	ND	5.88	--	ND	23.8	--		29.41
n-Hexane	2010	5.88	--	7080	20.7	--		29.41
1,1,1-Trichloroethane	ND	5.88	--	ND	32.1	--		29.41
Benzene	7.76	5.88	--	24.8	18.8	--		29.41
Carbon tetrachloride	ND	5.88	--	ND	37.0	--		29.41
Cyclohexane	25.3	5.88	--	87.1	20.2	--		29.41
1,2-Dichloropropane	ND	5.88	--	ND	27.2	--		29.41
Bromodichloromethane	ND	5.88	--	ND	39.4	--		29.41
1,4-Dioxane	ND	5.88	--	ND	21.2	--		29.41
Trichloroethene	15.6	5.88	--	83.8	31.6	--		29.41
2,2,4-Trimethylpentane	ND	5.88	--	ND	27.5	--		29.41
Heptane	1070	5.88	--	4390	24.1	--		29.41
cis-1,3-Dichloropropene	ND	5.88	--	ND	26.7	--		29.41
4-Methyl-2-pentanone	ND	14.7	--	ND	60.2	--		29.41
trans-1,3-Dichloropropene	ND	5.88	--	ND	26.7	--		29.41
1,1,2-Trichloroethane	ND	5.88	--	ND	32.1	--		29.41
Toluene	47.8	5.88	--	180	22.2	--		29.41
2-Hexanone	ND	5.88	--	ND	24.1	--		29.41
Dibromochloromethane	ND	5.88	--	ND	50.1	--		29.41
1,2-Dibromoethane	ND	5.88	--	ND	45.2	--		29.41
Tetrachloroethene	ND	5.88	--	ND	39.9	--		29.41
Chlorobenzene	ND	5.88	--	ND	27.1	--		29.41
Ethylbenzene	10.7	5.88	--	46.5	25.5	--		29.41

Project Name: VIM SAMPLING
Project Number: 01306
Lab Number: L2031178
Report Date: 08/12/20

SAMPLE RESULTS

Lab ID: L2031178-02 D
Client ID: SS-2(072820)
Sample Location: MPC (O'CONNELL)

Date Collected: 07/28/20 08:45
Date Received: 07/28/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	51.1	11.8	--	222	51.3	--		29.41
Bromoform	ND	5.88	--	ND	60.8	--		29.41
Styrene	ND	5.88	--	ND	25.0	--		29.41
1,1,2,2-Tetrachloroethane	ND	5.88	--	ND	40.4	--		29.41
o-Xylene	19.8	5.88	--	86.0	25.5	--		29.41
4-Ethyltoluene	ND	5.88	--	ND	28.9	--		29.41
1,3,5-Trimethylbenzene	6.94	5.88	--	34.1	28.9	--		29.41
1,2,4-Trimethylbenzene	28.6	5.88	--	141	28.9	--		29.41
Benzyl chloride	ND	5.88	--	ND	30.4	--		29.41
1,3-Dichlorobenzene	ND	5.88	--	ND	35.4	--		29.41
1,4-Dichlorobenzene	ND	5.88	--	ND	35.4	--		29.41
1,2-Dichlorobenzene	ND	5.88	--	ND	35.4	--		29.41
1,2,4-Trichlorobenzene	ND	5.88	--	ND	43.6	--		29.41
Hexachlorobutadiene	ND	5.88	--	ND	62.7	--		29.41

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	88		60-140
Bromochloromethane	83		60-140
chlorobenzene-d5	87		60-140

Project Name: VIM SAMPLING
Project Number: 01306
Lab Number: L2031178
Report Date: 08/12/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 08/11/20 16:02

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1397760-4								
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: VIM SAMPLING
Project Number: 01306
Lab Number: L2031178
Report Date: 08/12/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 08/11/20 16:02

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1397760-4								
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: VIM SAMPLING
Project Number: 01306
Lab Number: L2031178
Report Date: 08/12/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 08/11/20 16:02

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1397760-4								
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: VIM SAMPLING
Project Number: 01306

Lab Number: L2031178
Report Date: 08/12/20

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: WG1397760-3								
Dichlorodifluoromethane	111		-		70-130	-		
Chloromethane	92		-		70-130	-		
Freon-114	106		-		70-130	-		
Vinyl chloride	100		-		70-130	-		
1,3-Butadiene	99		-		70-130	-		
Bromomethane	104		-		70-130	-		
Chloroethane	97		-		70-130	-		
Ethanol	100		-		40-160	-		
Vinyl bromide	101		-		70-130	-		
Acetone	80		-		40-160	-		
Trichlorofluoromethane	118		-		70-130	-		
Isopropanol	77		-		40-160	-		
1,1-Dichloroethene	108		-		70-130	-		
Tertiary butyl Alcohol	85		-		70-130	-		
Methylene chloride	103		-		70-130	-		
3-Chloropropene	103		-		70-130	-		
Carbon disulfide	99		-		70-130	-		
Freon-113	114		-		70-130	-		
trans-1,2-Dichloroethene	104		-		70-130	-		
1,1-Dichloroethane	107		-		70-130	-		
Methyl tert butyl ether	95		-		70-130	-		
2-Butanone	118		-		70-130	-		
cis-1,2-Dichloroethene	116		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: VIM SAMPLING

Project Number: 01306

Lab Number: L2031178

Report Date: 08/12/20

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: WG1397760-3								
Ethyl Acetate	104		-		70-130	-		
Chloroform	123		-		70-130	-		
Tetrahydrofuran	103		-		70-130	-		
1,2-Dichloroethane	126		-		70-130	-		
n-Hexane	100		-		70-130	-		
1,1,1-Trichloroethane	120		-		70-130	-		
Benzene	101		-		70-130	-		
Carbon tetrachloride	124		-		70-130	-		
Cyclohexane	101		-		70-130	-		
1,2-Dichloropropane	105		-		70-130	-		
Bromodichloromethane	115		-		70-130	-		
1,4-Dioxane	104		-		70-130	-		
Trichloroethene	110		-		70-130	-		
2,2,4-Trimethylpentane	103		-		70-130	-		
Heptane	105		-		70-130	-		
cis-1,3-Dichloropropene	105		-		70-130	-		
4-Methyl-2-pentanone	106		-		70-130	-		
trans-1,3-Dichloropropene	91		-		70-130	-		
1,1,2-Trichloroethane	112		-		70-130	-		
Toluene	106		-		70-130	-		
2-Hexanone	104		-		70-130	-		
Dibromochloromethane	122		-		70-130	-		
1,2-Dibromoethane	112		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: VIM SAMPLING
Project Number: 01306

Lab Number: L2031178
Report Date: 08/12/20

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: WG1397760-3								
Tetrachloroethene	111		-		70-130	-		
Chlorobenzene	110		-		70-130	-		
Ethylbenzene	111		-		70-130	-		
p/m-Xylene	112		-		70-130	-		
Bromoform	116		-		70-130	-		
Styrene	107		-		70-130	-		
1,1,2,2-Tetrachloroethane	111		-		70-130	-		
o-Xylene	112		-		70-130	-		
4-Ethyltoluene	108		-		70-130	-		
1,3,5-Trimethylbenzene	121		-		70-130	-		
1,2,4-Trimethylbenzene	112		-		70-130	-		
Benzyl chloride	97		-		70-130	-		
1,3-Dichlorobenzene	108		-		70-130	-		
1,4-Dichlorobenzene	105		-		70-130	-		
1,2-Dichlorobenzene	109		-		70-130	-		
1,2,4-Trichlorobenzene	92		-		70-130	-		
Hexachlorobutadiene	110		-		70-130	-		

Project Name: VIM SAMPLING

Lab Number: L2031178

Project Number: 01306

Report Date: 08/12/20

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 Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2031178-01	SS-1(072820)	01589	Flow 1	07/27/20	326864		-	-	-	Pass	144	160	11
L2031178-01	SS-1(072820)	1728	2.7L Can	07/27/20	326864	L2029532-02	Pass	-29.5	-2.5	-	-	-	-
L2031178-02	SS-2(072820)	0649	Flow 1	07/27/20	326864		-	-	-	Pass	144	154	7
L2031178-02	SS-2(072820)	488	2.7L Can	07/27/20	326864	L2029532-02	Pass	-29.3	-2.4	-	-	-	-

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

Lab Number: L2029532
Report Date: 08/12/20

Air Canister Certification Results

Lab ID: L2029532-02
Client ID: CAN 2187 SHELF 14
Sample Location:

Date Collected: 07/14/20 09:00
Date Received: 07/14/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 07/17/20 17:52
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
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: L2029532
Report Date: 08/12/20

Air Canister Certification Results

Lab ID: L2029532-02
Client ID: CAN 2187 SHELF 14
Sample Location:

Date Collected: 07/14/20 09:00
Date Received: 07/14/20
Field Prep: Not Specified

Sample Depth:

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2029532
Report Date: 08/12/20

Air Canister Certification Results

Lab ID: L2029532-02
Client ID: CAN 2187 SHELF 14
Sample Location:

Date Collected: 07/14/20 09:00
Date Received: 07/14/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
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: L2029532
Report Date: 08/12/20

Air Canister Certification Results

Lab ID: L2029532-02
Client ID: CAN 2187 SHELF 14
Sample Location:

Date Collected: 07/14/20 09:00
Date Received: 07/14/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
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: L2029532
Report Date: 08/12/20

Air Canister Certification Results

Lab ID: L2029532-02
Client ID: CAN 2187 SHELF 14
Sample Location:

Date Collected: 07/14/20 09:00
Date Received: 07/14/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
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	96		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140

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

Lab Number: L2029532
Report Date: 08/12/20

Air Canister Certification Results

Lab ID: L2029532-02
Client ID: CAN 2187 SHELF 14
Sample Location:

Date Collected: 07/14/20 09:00
Date Received: 07/14/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 07/17/20 17:52
Analyst: TS

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
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 **Lab Number:** L2029532

Project Number: CANISTER QC BAT **Report Date:** 08/12/20

Air Canister Certification Results

Lab ID: L2029532-02
Client ID: CAN 2187 SHELF 14
Sample Location:

Date Collected: 07/14/20 09:00
Date Received: 07/14/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
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	0.050	--	ND	0.188	--		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-Trimethybenzene	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 **Lab Number:** L2029532

Project Number: CANISTER QC BAT **Report Date:** 08/12/20

Air Canister Certification Results

Lab ID: L2029532-02
Client ID: CAN 2187 SHELF 14
Sample Location:

Date Collected: 07/14/20 09:00
Date Received: 07/14/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
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	95		60-140
bromochloromethane	93		60-140
chlorobenzene-d5	90		60-140

Project Name: VIM SAMPLING
Project Number: 01306

Lab Number: L2031178
Report Date: 08/12/20

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
NA	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2031178-01A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30)
L2031178-02A	Canister - 2.7 Liter	NA	NA			Y	Absent		TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name:	VIM SAMPLING	**Lab Number:**	L2031178
Project Number:	01306	**Report Date:**	08/12/20

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report

Project Name:	VIM SAMPLING	**Lab Number:**	L2031178
Project Number:	01306	**Report Date:**	08/12/20

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. 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. (DoD and NYSDEC Part 375 PFAS only.)

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 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

Report Format: Data Usability Report

Project Name:	VIM SAMPLING	**Lab Number:**	L2031178
Project Number:	01306	**Report Date:**	08/12/20

Data Qualifiers

Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: Data Usability Report

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 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
EPA TO-12 Non-methane organics
EPA 3C Fixed gases
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

AIR ANALYSIS

PAGE 1 OF 1

ALPHA ANALYTICAL — CHAIN OF CUSTODY

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

Date Rec'd in Lab: 7/29/20

ALPHA Job #: L2031178

Client Information

Client: Environmental Advantage Inc.
Address: 3636 N. Buffalo Rd
Orchard Park NY 14127
Phone: 716-667-3430
Fax: 716-667-3156
Email: mhanna@envadvantage.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: VIM Sampling
Project Location: MPC (O'Connell)
Project #: 01306
Project Manager: Mark Hanna
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)

Date Due: Time:

Report Information - Data Deliverables

☐ FAX
☒ ADEx
Criteria Checker:
(Default based on Regulatory Criteria Indicated)
Other Formats:
☐ EMAIL (standard pdf report)
☐ Additional Deliverables:
Report to: (if different than Project Manager)

Billing Information

☒ Same as Client info PO #: 01306

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm

Other Project Specific Requirements/Comments: Additionally email results to eletzoid@envadvantage.com

Project-Specific Target Compound List: ☐

All Columns Below Must Be Filled Out

ANALYSIS

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH (Subset non-petroleum HCs ☐)	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
31178-01	SS-1(072820)	7/28/2020	8:05am	8:25am	-29.3"	-1.30"	SV	EB	2.7L	0488	01589	X					23ppm
02	SS-2(072820)	7/28/2020	8:20am	8:45am	-32.3"	-1.20"	SV	EB	2.7L	06550649		X					160ppm

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

Container Type: CS

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:
2			
	7/28/2020 1455		7/28 14:07
	7/28 1522		7/29/20 0005
7/29/20 0400		T. Handschuh	7/29/20 0420

T. Handschuh 7/29/20 0520

7/29/20 0500

Form No: 101-01 Rev: (25-Sep-15)