



April 24, 2025

Mr. Steve Scharf
Project Engineer – Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway 12th Floor
Albany, New York 12233

**RE: Soil Vapor Intrusion Assessment
2840 Atlantic Avenue, Brooklyn, New York 11207
NYSDEC Project Number: C224255**

Dear Mr. Scharf:

P.W. Grosser Consulting, Inc. (PWGC) has prepared this letter on behalf of Empire State Dairy LLC to document the results of a Soil Vapor Intrusion (SVI) Assessment which was performed at the site on February 18th and 19th, 2025 as well as March 27th and 28th, 2025 when two indoor air sample locations were re-tested. This SVI Assessment was performed in accordance with the December 2022 Site Management Plan which was prepared for the site following remedial activities which were performed in 2022 and documented in the December 2022 Final Engineering Report. This site is currently enrolled in the New York State Department of Environmental Conservation's (NYSDEC) Brownfield Cleanup Program (BCP) and is assigned site number C224255. Empire State Dairy LLC is the owner of the subject property and is a Volunteer in the BCP.

Due to the identification of elevated volatile organic compounds (VOCs) in soil vapor samples collected during the Remedial Investigation (RI) performed at the site prior to redevelopment, namely trichloroethene (TCE) and tetrachloroethene (PCE), the subgrade components of a sub-slab depressurization system (SSDS) including three soil vapor monitoring points were installed at the landmark building on the northern portion of the property. The VOC impact identified in soil vapor at the subject property was reportedly emanating from an unidentified off-site source. As stated in the December 2022 SMP, the activation of the SSDS is predicated on the results of this SVI Assessment and the evaluation of the sample results compared to the New York State Department of Health (NYSDOH) decision matrices included in NYSDOH's Guidance for Evaluating Soil Vapor Intrusion.

Soil Vapor Intrusion Assessment

To evaluate potential vapor intrusion at the subject property and to determine if the SSDS will require activation, a soil vapor intrusion investigation was performed at the landmark building within the subject property. The investigation consisted of the collection of sub-slab soil vapor samples from the three permanent vacuum monitoring points installed through the floor, VMP-1, VMP-2, and VMP-3 along with



three corresponding indoor air samples, AA001, AA002, and AA003. The locations of these samples are detailed below and are also illustrated on the SSDS engineering drawings included as **Appendix A**.

- SV001/AA001 – Located near the electrical room on the northern portion of the landmark building. This area is not occupied on a routine basis.
- SV002/AA002 - Located in the gymnasium within the landmark building.
- SV003/AA003 – Located in an unfinished storage room that is not occupied on a routine basis.

Indoor Air Quality Questionnaire and Building Inventory

Prior to sample collection, an inspection was performed to identify and minimize conditions that may interfere with the evaluation. The inspection evaluated the type of structure, floor layout, air flows and physical conditions of the building being studied. This information, along with information on sources of potential indoor air contamination, is included in a building inventory form (**Appendix B**). Findings of the inspection include the following:

- Minor chemical storage as observed in the vicinity of VMP-2/AA002 and VMP-3/AA003 where common cleaning products, paint cans, and adhesive products were kept.
- Large, high voltage electrical equipment was observed in the vicinity of VMP-1/AA001.
- Large cracks in the concrete slab were not observed at these locations.

Soil Vapor and Air Sampling Point Installation Protocol

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

Tracer Gas Testing

Prior to sampling, the integrity of sub-slab soil vapor sampling point seals was tested using tracer gas analysis. The environment surrounding the seal was enriched with the tracer gas (helium) as readings were collected through the sampling probe with a portable helium detector. The results of the tracer gas test indicated that the seals at each of the three sampling ports were satisfactory performing the analysis.

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

Sub-Slab Soil Vapor Sampling and Indoor Air Sampling

Sub-slab soil vapor samples were collected from the three vacuum monitoring points installed at the ground floor of the landmark building: VMP-1, VMP-2, and VMP-3. Indoor air samples, AA001, AA002, and AA003, were collected concurrently and co-located with sub-slab soil vapor samples.

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



Soil Vapor and Air Sample Collection Protocol

Sub-slab soil vapor and indoor air samples were collected into 6-liter Summa® vacuum canisters fitted with 24-hour flow controllers. Canisters and flow controllers were batch certified clean by the laboratory. Proper quality assurance/quality control (QA/QC) protocol was followed during the collection of soil gas samples to ensure that cross-contamination in the field did not occur.

Sub-slab soil vapor and indoor air samples were shipped under proper chain-of-custody procedures to Pace Analytical Services, LLC for analysis. Soil vapor and air samples were analyzed for the following:

- VOCs by USEPA Method TO-15

Soil Vapor and Air Analytical Results

The primary method for the evaluation of sub-slab vapor and indoor air data is the use of Soil Vapor / Indoor Air Matrices provided in the NYSDOH Guidance document. The matrices incorporate both sub-slab vapor concentrations and their corresponding indoor air concentrations in a table to formulate an appropriate action for a sampling site. Matrices have been developed for the following compounds:

Chlorinated VOCs	Petroleum Related VOCs
Carbon tetrachloride, 1,1-dichloroethene, cis-1,2-dichloroethene, trichloroethene (TCE), methylene chloride tetrachloroethene (PCE), 1,1,1-trichloroethane, vinyl chloride.	Benzene, ethylbenzene, naphthalene, cyclohexane, isoctane, 1,2,4 – trimethylbenzene, 1,3,5 – trimethylbenzene, o – xylene, m&p-xylene, heptane, hexane, toluene.

Analytical results are detailed in **Tables 1**. The NYSDOH Decision Matrices which include are included in **Appendix C** and the full laboratory analytical reports are included in **Appendix D**.

Based on the analytical results of the soil vapor intrusion study, as well as the additional air sampling event, the following assessment is offered based on comparing the data using the NYSDOH Decision Matrices:

- **SV001/AA001:**
 - No further action: *TCE; cis-1,2-dichloroethene; 1,1-dichloroethene; carbon tetrachloride; 1,1,1-trichloroethane; methylene chloride; vinyl chloride; benzene; naphthalene; cyclohexane; 2,2,4-trimethylpentane; 1,2,4-trymethylbenzene; 1,3,5-trimethylbenzene; heptane; hexane; toluene.*
 - Monitor: *ethylbenzene, o-xylene; p/m-xylene.*
 - Mitigate: *PCE.*

- **SV002/AA002:**
 - No further action: *TCE; cis-1,2-dichloroethene; 1,1-dichloroethene; carbon tetrachloride; PCE; 1,1,1-trichloroethane; methylene chloride; vinyl chloride; benzene; ethylbenzene;*





naphthalene; cyclohexane; 2,2,4-trimethylpentane; 1,2,4-trymethylebenzene; 1,3,5-trimethylbenzene; o-xylene; p/m-xylene; heptane; hexane; toluene.

- **SV003/AA003:**

- No further action: *Cis-1,2-dichloroethene; 1,1-dichloroethene; carbon tetrachloride; PCE; 1,1,1-trichloroethane; methylene chloride; vinyl chloride; benzene; ethylbenzene; naphthalene; cyclohexane; 2,2,4-trimethylpentane; 1,2,4-trymethylebenzene; 1,3,5-trimethylbenzene; o-xylene; p/m-xylene; heptane; hexane; toluene.*
- Monitor: *TCE*.

Based on the results of the assessment, namely the PCE results at SV001/AA001, it appears that mitigation measures are warranted at the subject property. As such, Empire State Dairy LLC will begin the process of activating the SSDS beneath the landmark building.

Analytical data has been submitted to a third-party data validator; however, data validation and preparation of a Data Usability Summary Report (DUSR) has not been completed as of the date of this report. Data validation and a DUSR will be submitted to NYSDEC in a revised report upon receipt and will be included as **Appendix E**.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the soil vapor intrusion assessment and additional indoor air sampling documented in this report, it appears that soil vapor intrusion is a concern, primarily the elevated concentrations of PCE at SV001/AA001, located on the northern portion of the landmark building.

As per the SMP which governs the site, PWGC recommends that the SSDS installed at the subject property be made active by installing an electric blower to the riser pipe. Following activation, testing of the SSDS and indoor air will be performed in accordance with the SMP.

Regards,
P.W. Grosser Consulting

A handwritten signature in black ink, appearing to read "RM".

Ryan Morley, PG
Senior Project Manager





TABLES



P.W. GROSSER CONSULTING, INC • P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, PC

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BOHEMIA • MANHATTAN • SARATOGA SPRINGS • SYRACUSE • SHELTON, CT

Table 1
2840 Atlantic Avenue, Brooklyn, New York
Soil Vapor Intrusion Sampling Results

Sample ID:	VMP-1 2/18/2025 L2509015-01	AA001 2/18/2025 L2509015-04		VMP-2 2/18/2025 L2509015-02		AA002 2/18/2025 L2509015-05		VMP-3 2/18/2025 L2509015-03	AA003 2/18/2025 L2509015-06		3/28/2025 L2518779-02	
Volatile Organic Compounds by USEPA Method TO-15 in ug/m³												
1,1,1-Trichloroethane	1.84	U	0.109	U	0.109	U	1.09	U	0.109	U	1.09	U
1,1,2,2-Tetrachloroethane	2.32	U	1.37	U	1.37	U	1.37	U	1.37	U	1.37	U
1,1,2-Trichloroethane	1.84	U	1.09	U	1.09	U	1.09	U	1.09	U	1.09	U
1,1-Dichloroethane	1.37	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U
1,1-Dichloroethene	1.34	U	0.079	U	0.079	U	0.793	U	0.079	U	0.793	U
1,2,4-Trichlorobenzene	2.51	U	1.48	U	1.48	U	1.48	U	1.48	U	1.48	U
1,2,4-Trimethylbenzene	80.1		0.983	U	1.22		61.9		0.983	U	45.8	
1,2-Dibromoethane	2.6	U	1.54	U	1.54	U	1.54	U	1.54	U	1.54	U
1,2-Dichlorobenzene	2.03	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
1,2-Dichloroethane	1.37	U	0.809	U	0.809	U	0.809	U	0.809	U	0.809	U
1,2-Dichloropropane	1.56	U	0.924	U	0.924	U	0.924	U	0.924	U	0.924	U
1,3,5-Trimethylbenzene	16.3		0.983	U	0.983	U	12.8		0.983	U	8.41	
1,3-Butadiene	0.748	U	0.442	U	0.442	U	0.442	U	0.442	U	0.442	U
1,3-Dichlorobenzene	2.03	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
1,4-Dichlorobenzene	2.03	U	1.2	U	1.2	U	1.2	U	1.2	U	1.2	U
1,4-Dioxane	1.22	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U
2,2,4-Trimethylpentane	1.58	U	0.934	U	2.86		0.934	U	0.934	U	0.934	U
2-Butanone	56.9		1.47	U	1.47	U	24.4		1.47	U	27.8	
2-Hexanone	1.39	U	0.82	U	0.82	U	0.82	U	0.82	U	0.82	U
3-Chloropropene	1.06	U	0.626	U	0.626	U	0.626	U	0.626	U	0.626	U
4-Ethyltoluene	25.5		0.983	U	0.983	U	21.6		0.983	U	15.6	
4-Methyl-2-pentanone	3.47	U	2.05	U	2.05	U	2.05	U	2.05	U	2.05	U
Acetone	27.3		9.62		13.2		32.5		4.54		17.8	
Benzene	23.7		0.914		0.904		14.8		0.639	U	8.5	
Benzyl chloride	1.75	U	1.04	U	1.04	U	1.04	U	1.04	U	1.04	U
Bromodichloromethane	2.26	U	1.34	U	1.34	U	1.34	U	1.34	U	2.93	
Bromoform	3.49	U	2.07	U	2.07	U	2.07	U	2.07	U	2.07	U
Bromomethane	1.31	U	0.777	U	0.777	U	0.777	U	0.777	U	0.777	U
Carbon disulfide	1.05	U	0.623	U	0.623	U	0.909		0.623	U	0.623	U
Carbon tetrachloride	2.13	U	0.717		0.44		1.26	U	0.692		1.26	U
Chlorobenzene	1.56	U	0.921	U	0.921	U	0.921	U	0.921	U	0.921	U
Chloroethane	0.892	U	0.528	U	0.528	U	0.528	U	0.528	U	0.528	U
Chloroform	73.7		1.44		0.977	U	2.11		0.977	U	35.1	
Chloromethane	0.991		1.3		1.25		0.944		1.17	U	0.413	
cis-1,2-Dichloroethene	1.34	U	0.079	U	0.079	U	0.793	U	0.079	U	0.079	U
cis-1,3-Dichloropropene	1.53	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U
Cyclohexane	4.2		0.688	U	0.688	U	2.81		0.688	U	1.15	
Dibromochloromethane	2.88	U	1.7	U	1.7	U	1.7	U	1.7	U	1.7	U
Dichlorodifluoromethane	2.85		3.11		2.2		2.22		2.93		2.25	
Ethanol	42.2		27.7		21.9		43		18.8		30.3	
Ethyl Acetate	3.05	U	1.8	U	1.8	U	1.8	U	1.8	U	1.8	U
Ethylbenzene	60.8		0.869	U	3.44		44.7		0.869	U	25.9	
Freon-113	2.59	U	1.53	U	1.53	U	1.53	U	1.53	U	1.53	U
Freon-114	2.36	U	1.4	U	1.4	U	1.4	U	1.4	U	1.4	U
Heptane	32		0.82	U	0.865		19.5		0.82	U	8.2	
Hexachlorobutadiene	3.61	U	2.13	U	2.13	U	2.13	U	2.13	U	2.13	U
Isopropanol	4.15	U	15.5		45.2		9.73		2.46	U	37.6	
Methyl tert butyl ether	1.22	U	0.721	U	0.721	U	0.721	U	0.721	U	0.721	U
Methylene chloride	2.94	U	1.74	U	1.74	U	1.74	U	1.74	U	1.74	U
n-Hexane	42.3		2.15		8.42		24		0.705	U	11.7	
Naphthalene	4.05		0.996	U	0.996	U	1.91		0.996	U	2.5	
o-Xylene	79.9		0.869	U	5.26		57.8		0.869	U	34.3	
p/m-Xylene	249		1.74	U	14.6		181		1.74	U	111	
Styrene	8.39		12.5		0.911		6.94		0.852	U	5.07	
Tertiary butyl Alcohol	2.56	U	1.52	U	1.52	U	2.07		1.52	U	1.52	U
Tetrachloroethene	210		9.29		29		3.32		0.536		13.4	
Tetrahydrofuran	3.69		1.47	U	1.47	U	6.61		1.47	U	1.47	U
Toluene	341		1.39		4.6		251		0.765		149	
trans-1,2-Dichloroethene	1.34	U	0.793	U	0.793	U	0.793	U	0.793	U	0.793	U
trans-1,3-Dichloropropene	1.53	U	0.908	U	0.908	U	0.908	U	0.908	U	0.908	U
Trichloroethene	11.3		0.183		0.107	U	1.07	U	0.172		7.52	
Trichlorofluoromethane	1.9	U	1.36		1.12	U	1.12	U	1.71		1.12	
Vinyl bromide	1.48	U	0.874	U	0.874	U	0.874	U	0.874	U	0.874	U
Vinyl chloride	0.864	U	0.051	U	0.051	U	0.511	U	0.051	U	0.051	U

Notes:

Units are in ug/m³.

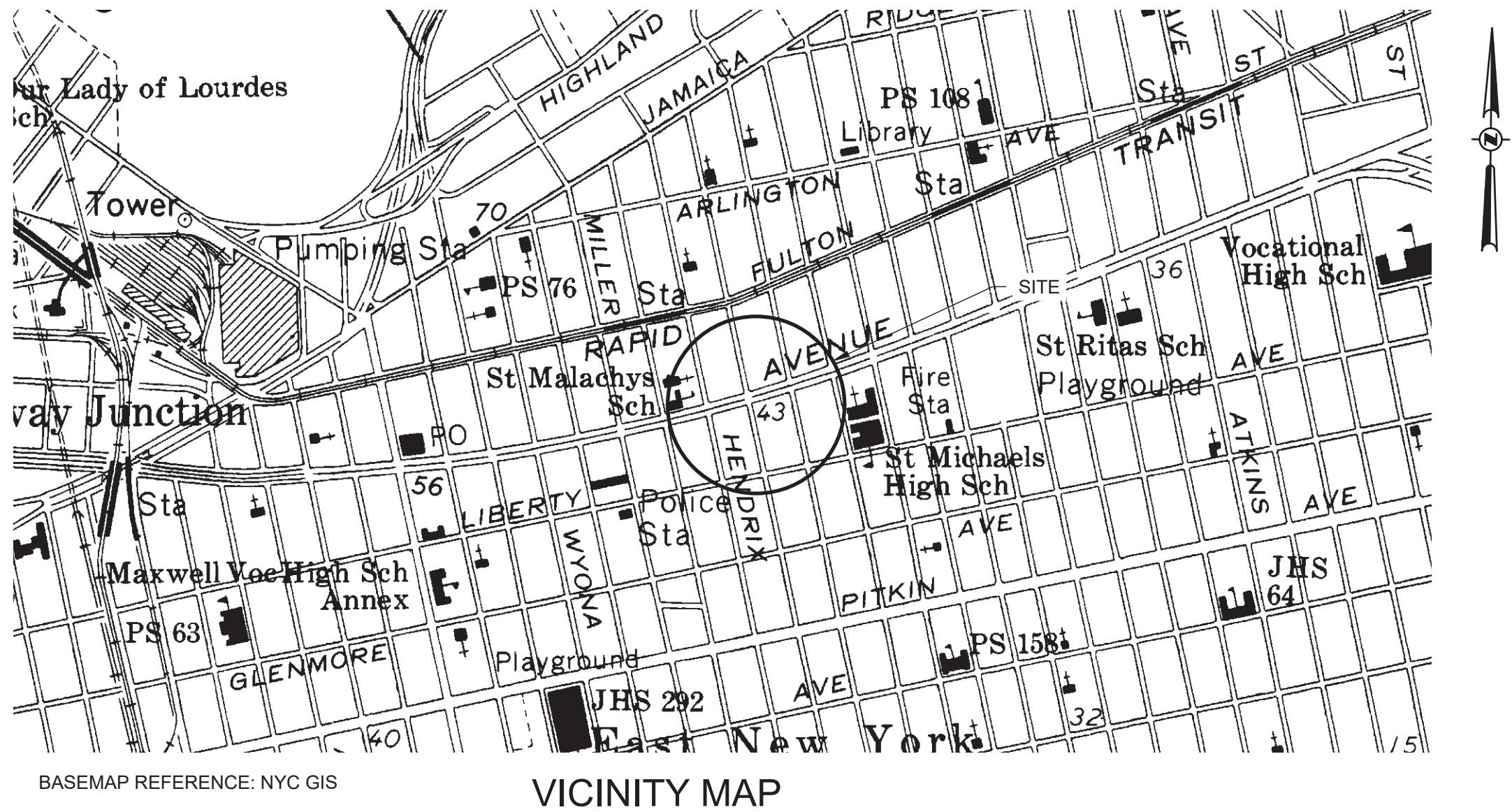
OSHA 8-hour Permissible Exposure Limits (PEL) per Table Z-1 and Z-2

--: NYSDOH Indoor Air Guidance Value does not exist.



APPENDIX A





Scope of Work

INSTALLATION OF PASSIVE SUB-SLAB DEPRESSURIZATION SYSTEM (SSDS) AT 2840 ATLANTIC AVENUE, BROOKLYN NEW YORK AS SHOWN ON THESE PLANS. THE BUILDING IS APPROXIMATELY 19,000 SF.

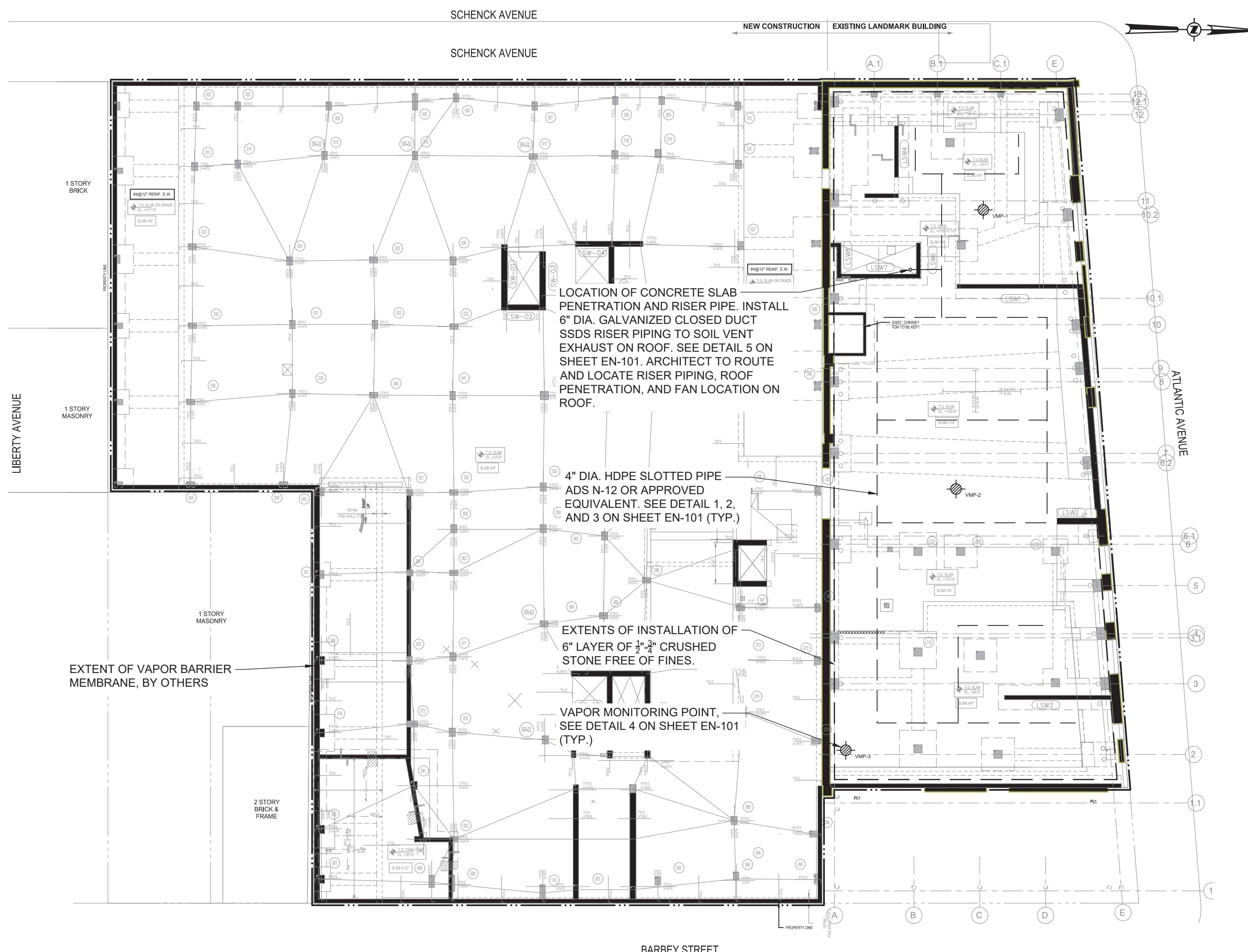
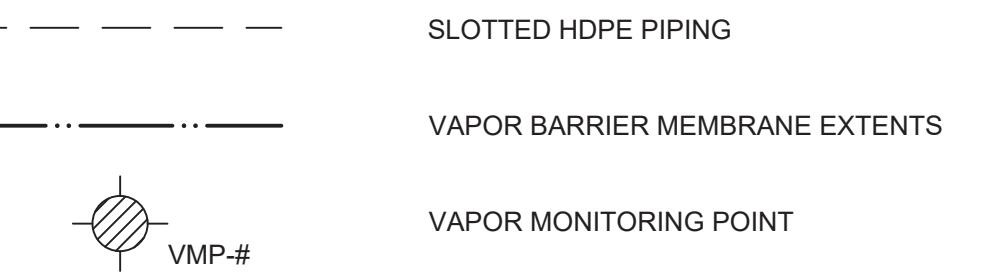
THE WORK INCLUDES:

1. INSTALLATION OF PERFORATED PIPING
2. INSTALLATION OF RISER PIPING AND EQUIPMENT

General Notes

1. DRAWING NOT TO BE USED FOR STRUCTURAL, ARCHITECTURAL OR OTHER REFERENCE EXCEPT FOR SUB-SLAB DEPRESSURIZATION SYSTEM AND GAS VAPOR BARRIER.
2. COORDINATE ALL WORK FOR SUB-SLAB DEPRESSURIZATION SYSTEM, GAS VAPOR BARRIER AND ROOF PENETRATION WITH OTHER TRADES PRIOR TO INSTALLATION.
3. COORDINATE LOCATION OF RISER WITH ARCHITECT.
4. FIELD CONDITIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO ANY WORK.
5. SLOPE SOLID PIPING DOWNWARD TOWARDS SSDS SLOTTED PIPING AT 1/8" PER FT OF PIPING.
6. ALL DUCTING TO BE CLOSED DUCTING NORDFAB OR APPROVED EQUIVALENT.
7. ALL DUCTING TO BE CONNECTED UTILIZING AIR TIGHT QUICK FIT COUPLINGS. NORDFAB OR APPROVED EQUIVALENT.
8. TOP OF EFFLUENT STACK AT LEAST 10' FROM ANY WINDOWS, DOORS OR OTHER BUILDING OPENINGS, OR FROM ANY WINDOWS OR OTHER OPENINGS IN ADJACENT BUILDINGS, INCLUDING AIR INTAKES, LOUVERS, VENTS, ETC.
9. ALL ELECTRICAL TO BE INSTALLED BY LICENSED ELECTRICIAN.
10. PROVIDE DESIGNATED CIRCUIT FOR BLOWER.
11. PROVIDE MINIMUM NEMA 3R PANELS FOR EXTERIOR ELECTRICAL COMPONENTS.
12. ALL EXTERIOR PENETRATIONS FOR ELECTRICAL TO BE BOOTED AND WATER TIGHT.
13. ALL CONCRETE PENETRATIONS SHALL BE SEALED WITH LIQUID BOOT TROWEL GRADE OR ENGINEER APPROVED EQUAL.
14. COMPACT CRUSHED STONE PER GEOTECHNICAL REQUIREMENTS.
15. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR ENGINEERS APPROVAL, INCLUDING BUT NOT LIMITED TO;
 - 15.1. PIPING MATERIALS AND FITTINGS
 - 15.2. FAN MAKE AND MANUFACTURER
 - 15.3. VACUUM MONITORING POINT & FITTINGS
 - 15.4. DUCT SUPPORTS

Legend



REFERENCE:
1. STRUCTURAL PLANS BY WSP USA DATED 09/24/2020 - CELLAR LEVEL AND FOUNDATION REINF. PLAN - F0-301.00

SUB-SLAB DEPRESSURIZATION SITE PLAN

SCALE: 1" = 20'

0 20 40
SCALE: 1" = 20'

CONSULTANTS

Number	Revision Description	Date Submitted
1	CONSTRUCTION DOCUMENTS	2022-06-06
2		
3		
4		
5		
6		
7		

Designed By **WSH** Date Submitted _____
Drawn By **WSH** Date Created **6/6/2022**
Approved By **MS** Scale **AS NOTED**

Client:
2840 ATLANTIC HOLDINGS, LLC
777 LAKE ZURICH ROAD, #195
BARRINGTON, ILLINOIS 60010

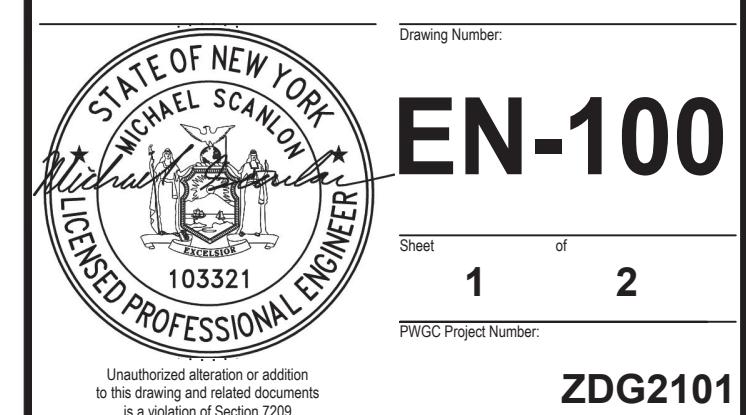
PASSIVE SSDS AND VAPOR BARRIER

Project Address:
2840 ATLANTIC AVENUE
BROOKLYN, NY 11207

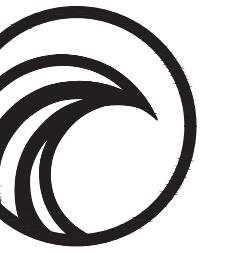
County Tax Map Number: _____ Contract Number: _____
Regulatory Reference Number: _____
Title of Drawing: _____

SSDS AND VAPOR BARRIER SITE PLAN

Drawing Number:
EN-100



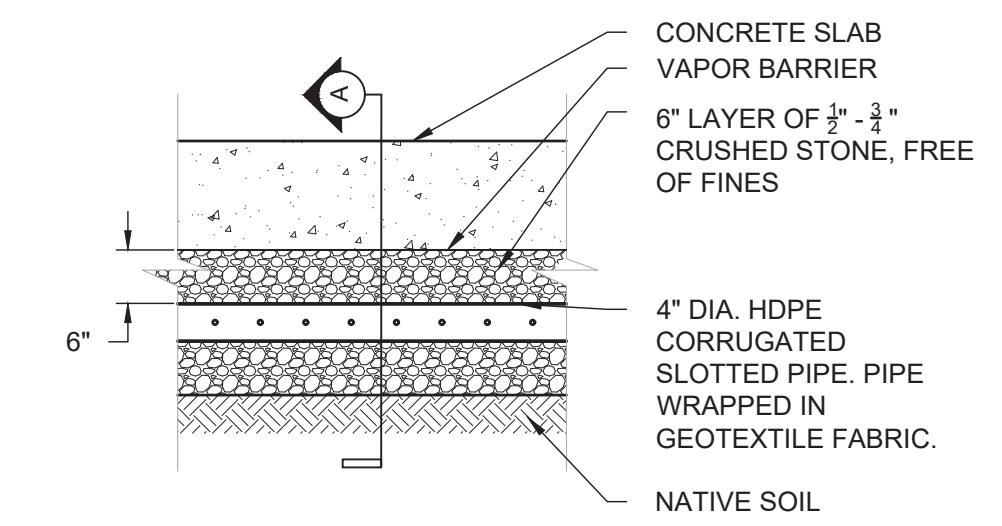
ZDG2101



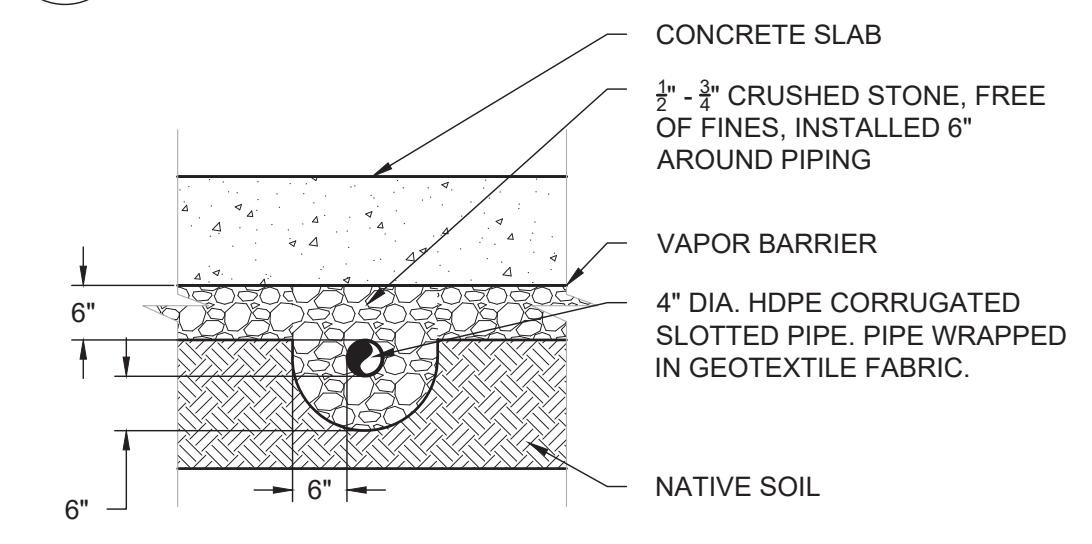
PWGC
CLIENT DRIVEN SOLUTIONS
P.W. GROSSER CONSULTING INC.

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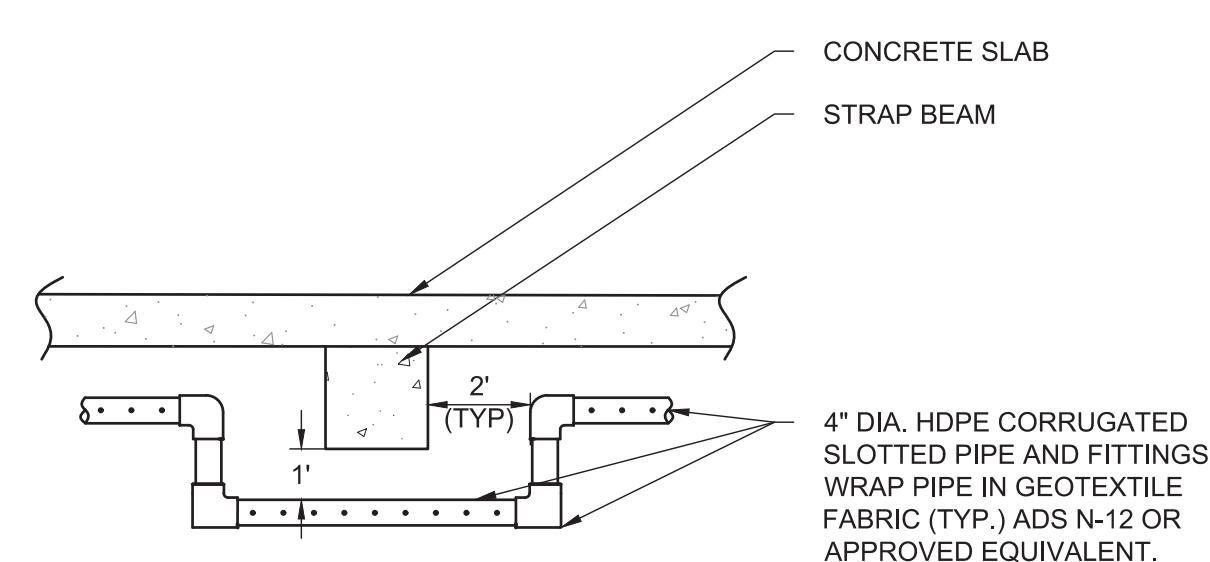
CONSULTANTS



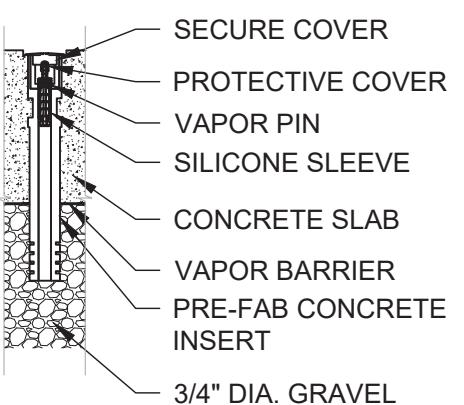
1 PERFORATED PIPE DETAIL



2 PERFORATED PIPE SECTION A

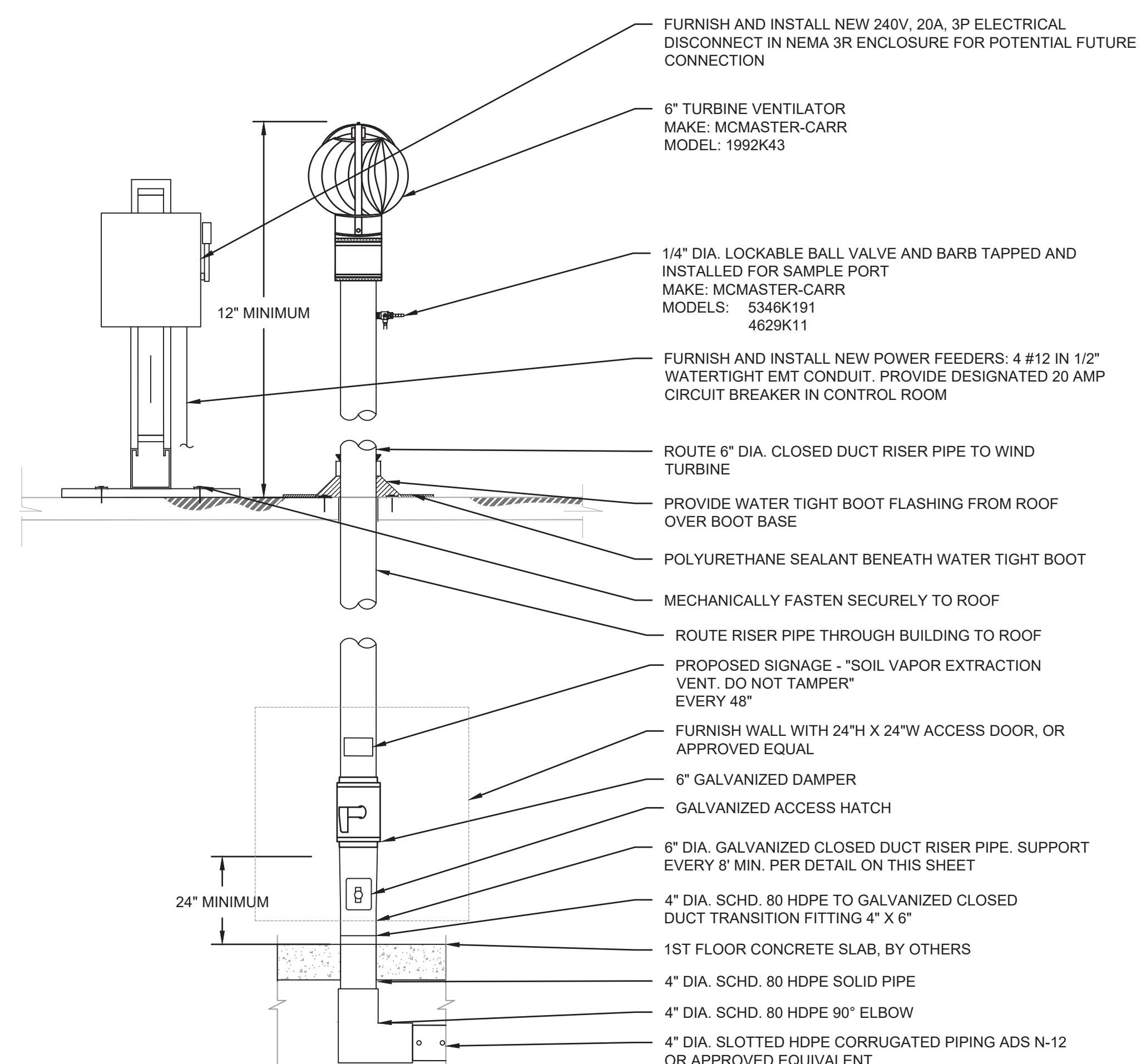


3 SSDS STRAP BEAM DETAIL

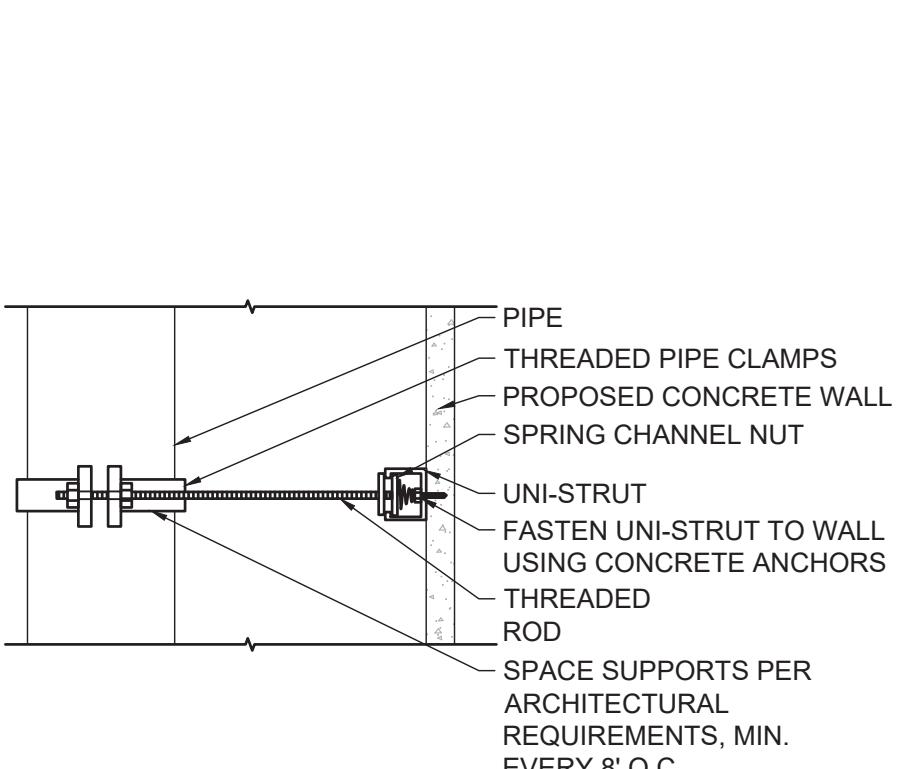


NOTES:
1. BASIS OF DETAIL
MAKE: VAPOR PIN ENTERPRISES, INC
MODEL: VAPOR PIN
2. INSTALL VAPOR PIN PER MANUFACTURER'S INSTRUCTIONS

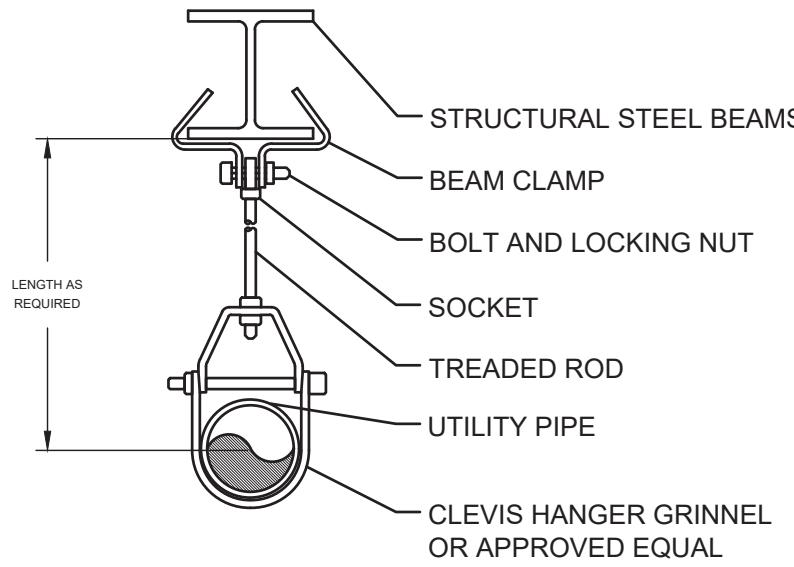
4 TYPICAL MONITORING POINT DETAIL



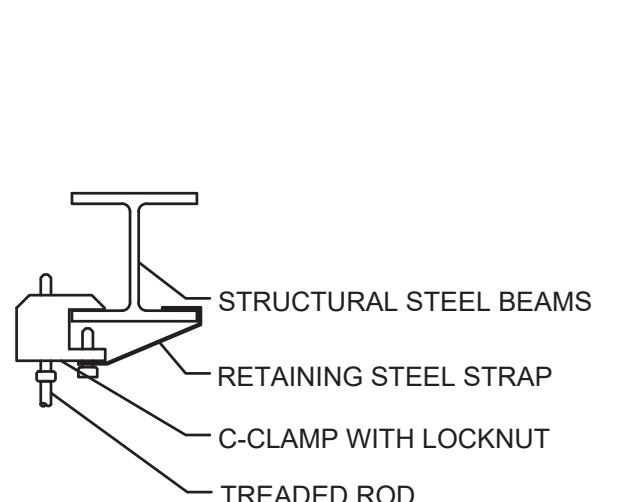
5 RISER DETAIL



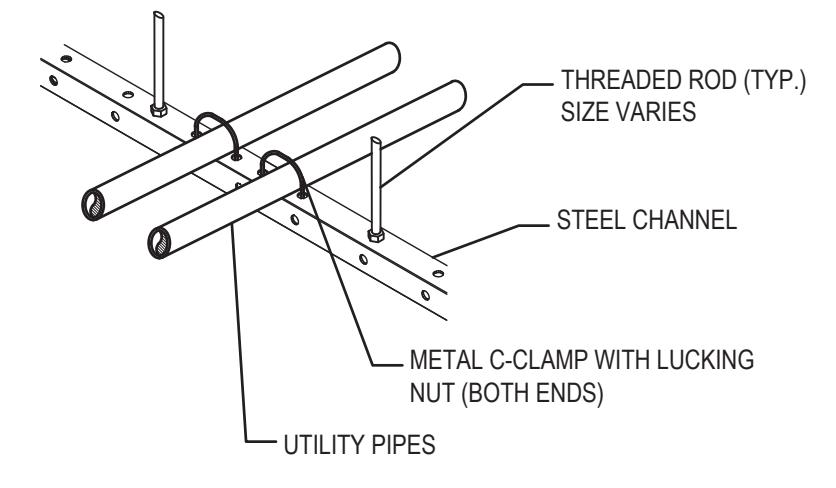
VERTICAL PIPE SUPPORT DETAIL



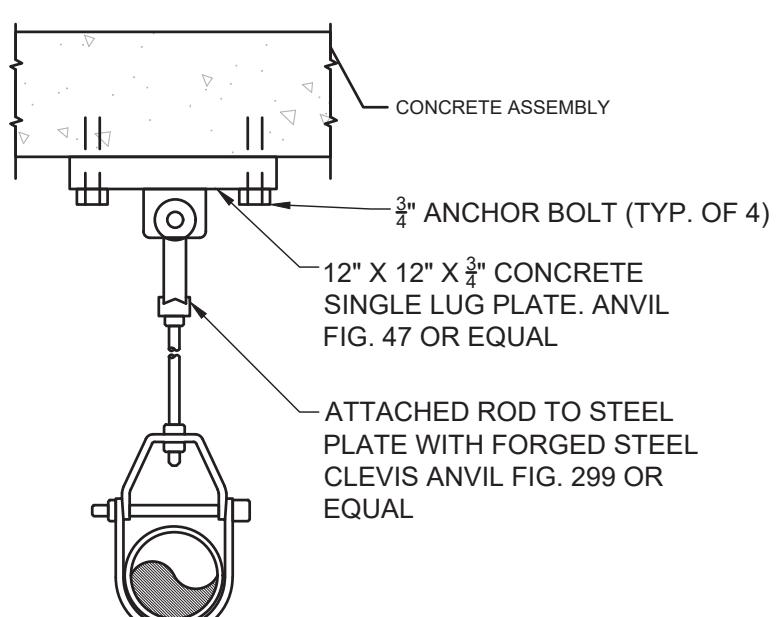
BEAM - HANGER DETAIL



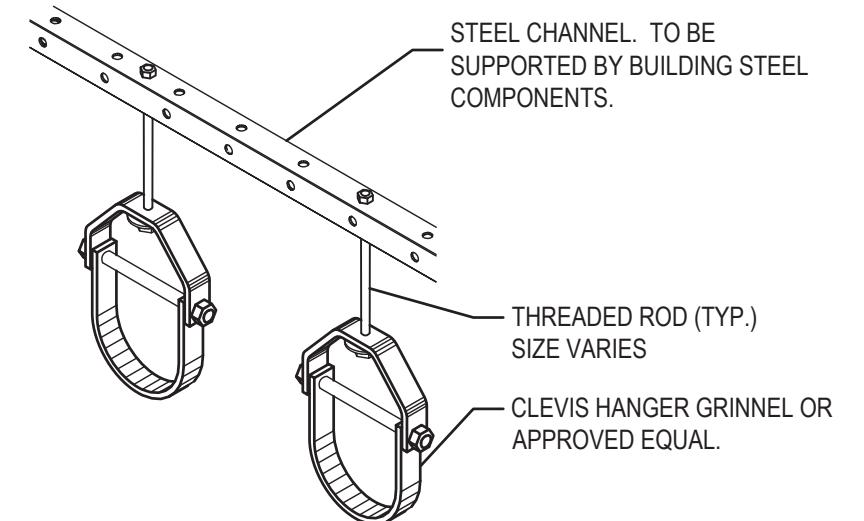
BEAM - HANGER DETAIL #2



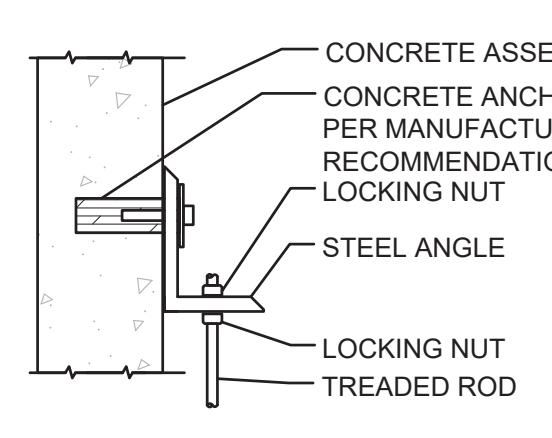
PIPE HANGER DETAIL



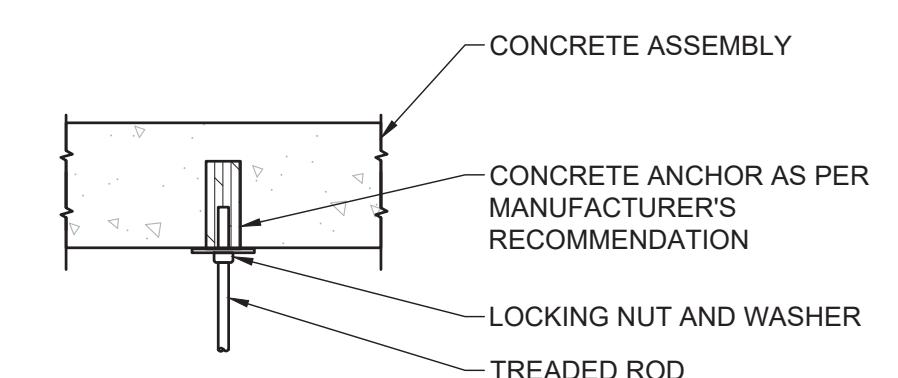
CONCRETE CEILING HANGER DETAIL



CEILING HANGER DETAIL



CONCRETE WALL HANGER DETAIL



CONCRETE CEILING HANGER DETAIL

6 TYPICAL PIPE SUPPORT DETAILS

7		
6		
5		
4		
3		
2		
1	CONSTRUCTION DOCUMENTS	2022-06-06
Number	Revision Description	Revision Date

Designed By	WSH	Date Submitted
Drawn By	WSH	Date Created
Approved By	MS	Scale
Client		AS NOTED

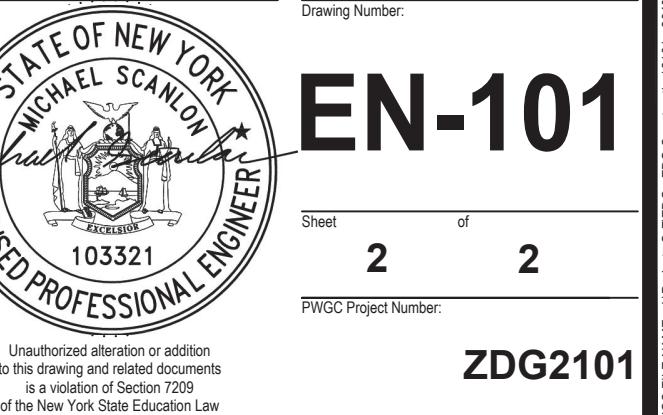
2840 ATLANTIC HOLDINGS, LLC
777 LAKE ZURICH ROAD, #195
BARRINGTON, ILLINOIS 60010

PASSIVE SSDS AND VAPOR BARRIER

Project Address:
2840 ATLANTIC AVENUE
BROOKLYN, NY 11207

County Tax Map Number: _____ Contract Number: _____
Regulatory Reference Number: _____
Title of Drawing: _____

SSDS DETAILS





APPENDIX B



P.W. GROSSER CONSULTING, INC • P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, PC

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**NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH**

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Ryan Morley Date/Time Prepared 2/18/25
Preparer's Affiliation PWCC Phone No. 516-424-4603

Purpose of Investigation Soil vapor intrusion assessment

1. OCCUPANT:

Interviewed: Y N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

Number of Occupants/persons at this location _____ Age of Occupants _____

2. OWNER OR LANDLORD: (Check if same as occupant)

Interviewed: Y N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential
Industrial

School
Church

Commercial/Multi-use
Other: _____

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other: _____

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) Unoccupied / School

Does it include residences (i.e., multi-use)? Y N If yes, how many? _____

Other characteristics:

Number of floors 4 Building age 2

Is the building insulated? Y N How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

Airflow near source

Outdoor air infiltration

Infiltration into air ducts

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

- a. Above grade construction: wood frame concrete stone brick
- b. Basement type: full crawlspace slab other _____
- c. Basement floor: concrete dirt stone other _____
- d. Basement floor: uncovered covered covered with Fiberglass Epoxy
- e. Concrete floor: unsealed sealed sealed with _____
- f. Foundation walls: poured block stone other _____
- g. Foundation walls: unsealed sealed sealed with Vapor Barrier
- h. The basement is: wet damp dry moldy
- i. The basement is: finished unfinished partially finished
- j. Sump present? Y N
- k. Water in sump? Y N not applicable

Basement/Lowest level depth below grade: 10 (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

- | | | |
|----------------------------|------------------|---------------------|
| <u>Hot air circulation</u> | Heat pump | Hot water baseboard |
| Space Heaters | Stream radiation | Radiant floor |
| Electric baseboard | Wood stove | Outdoor wood boiler |
| | | Other _____ |

The primary type of fuel used is:

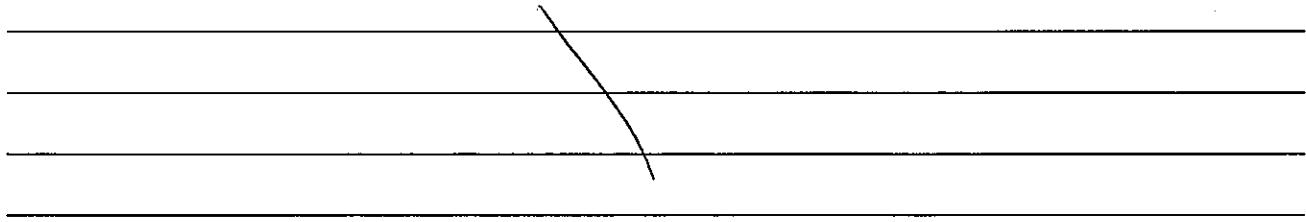
- | | | |
|-----------------|----------|----------|
| Natural Gas | Fuel Oil | Kerosene |
| <u>Electric</u> | Propane | Solar |
| Wood | Coal | |

Domestic hot water tank fueled by: _____

Boiler/furnace located in: Basement Outdoors Main Floor Other _____Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y / N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.



7. OCCUPANCY

Is basement/lowest level occupied? Full-time Occasionally Seldom Almost Never

<u>Level</u>	<u>General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)</u>
Basement	- Storage, Gym, Electrical room
1 st Floor	School, Upper gym Area, Commercial
2 nd Floor	School
3 rd Floor	School
4 th Floor	School

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

- a. Is there an attached garage? Y / N
- b. Does the garage have a separate heating unit? Y / N / NA
- c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car)? Y / N / NA
Please specify _____
- d. Has the building ever had a fire? Y / N When? _____
- e. Is a kerosene or unvented gas space heater present? Y / N Where? _____
- f. Is there a workshop or hobby/craft area? Y / N Where & Type? _____
- g. Is there smoking in the building? Y / N How frequently? _____
- h. Have cleaning products been used recently? Y / N When & Type? _____
- i. Have cosmetic products been used recently? Y / N When & Type? _____

- j. Has painting/staining been done in the last 6 months? Y / N Where & When? _____
- k. Is there new carpet, drapes or other textiles? Y / N Where & When? _____
- l. Have air fresheners been used recently? Y / N When & Type? _____
- m. Is there a kitchen exhaust fan? Y / N If yes, where vented? _____
- n. Is there a bathroom exhaust fan? Y / N If yes, where vented? _____
- o. Is there a clothes dryer? Y / N If yes, is it vented outside? Y / N
- p. Has there been a pesticide application? Y / N When & Type? _____

Are there odors in the building? Y / N
If yes, please describe: _____

Do any of the building occupants use solvents at work? Y / N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used? _____ *Unknown*

If yes, are their clothes washed at work? Y / N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

- | | |
|--|----------------------------------|
| Yes, use dry-cleaning regularly (weekly) | <input type="checkbox"/> No |
| Yes, use dry-cleaning infrequently (monthly or less) | <input type="checkbox"/> Unknown |
| Yes, work at a dry-cleaning service | |

Is there a radon mitigation system for the building/structure? Y / N Date of Installation: _____
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

- | | | | | | |
|-------------------------|---|--------------|-------------|----------|--------------|
| Water Supply: | <input checked="" type="radio"/> Public Water | Drilled Well | Driven Well | Dug Well | Other: _____ |
| Sewage Disposal: | <input checked="" type="radio"/> Public Sewer | Septic Tank | Leach Field | Dry Well | Other: _____ |

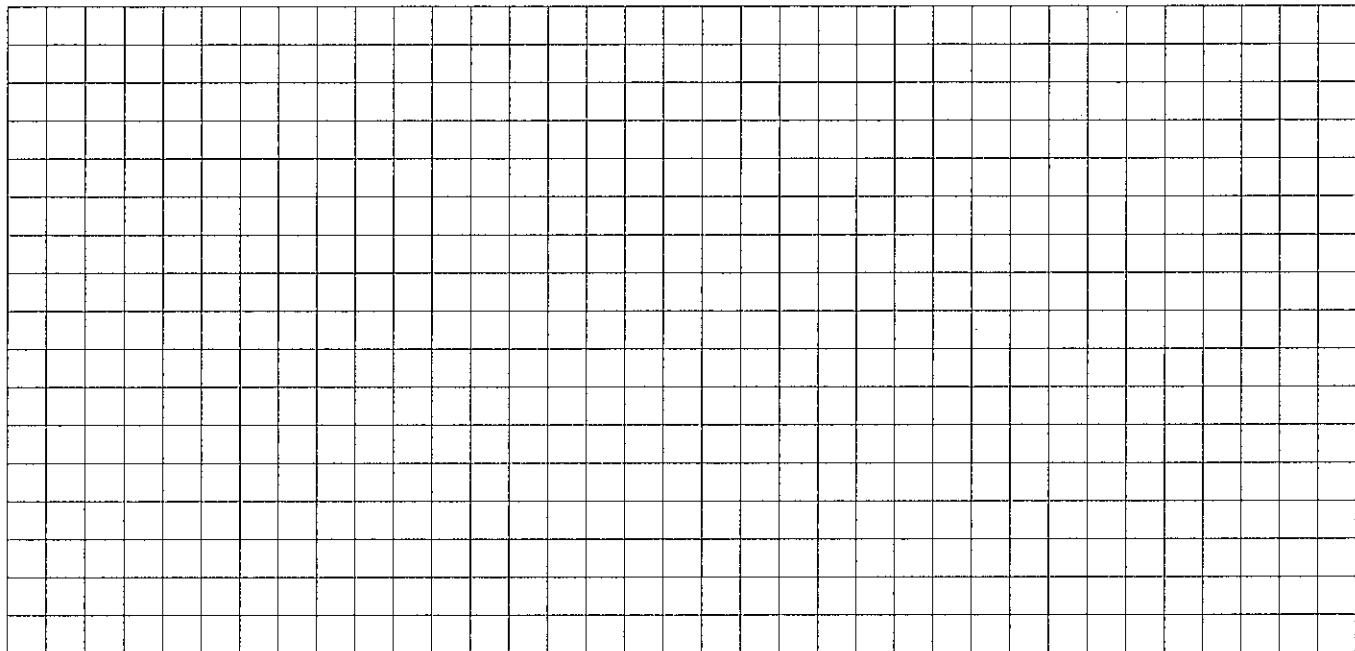
10. RELOCATION INFORMATION (for oil spill residential emergency)

- a. Provide reasons why relocation is recommended: _____
- b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel
- c. Responsibility for costs associated with reimbursement explained? Y / N
- d. Relocation package provided and explained to residents? Y / N

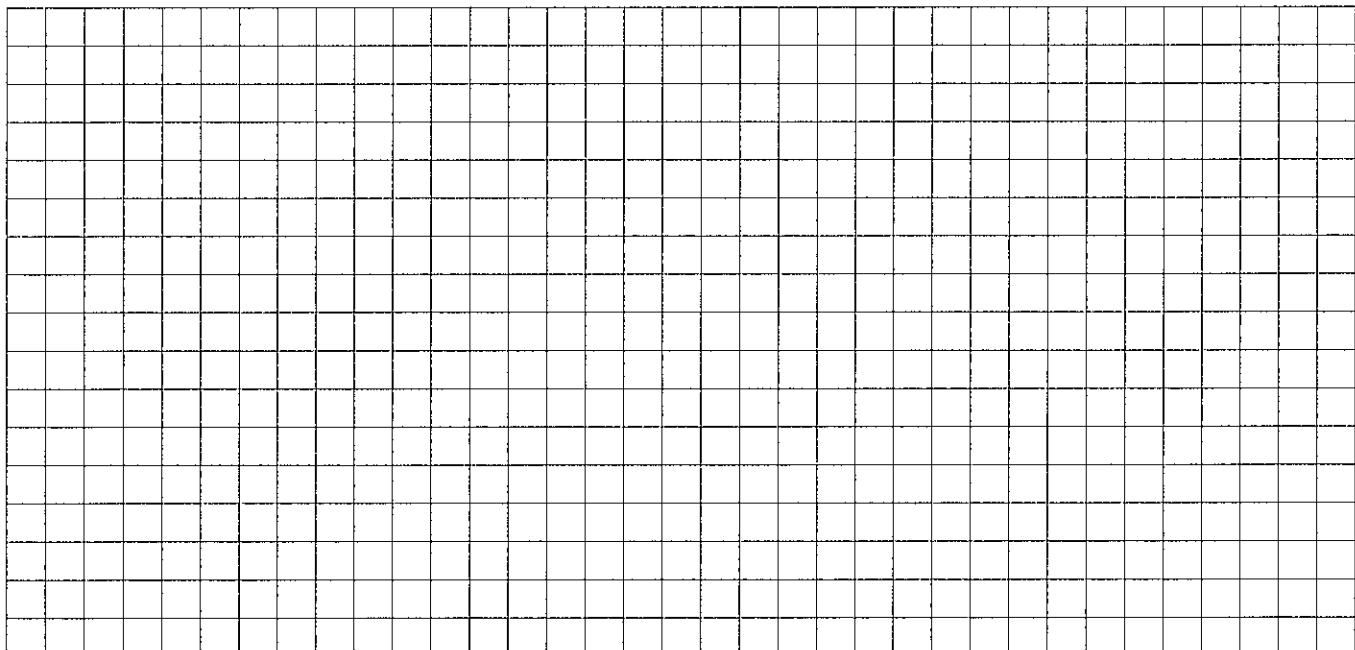
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement:



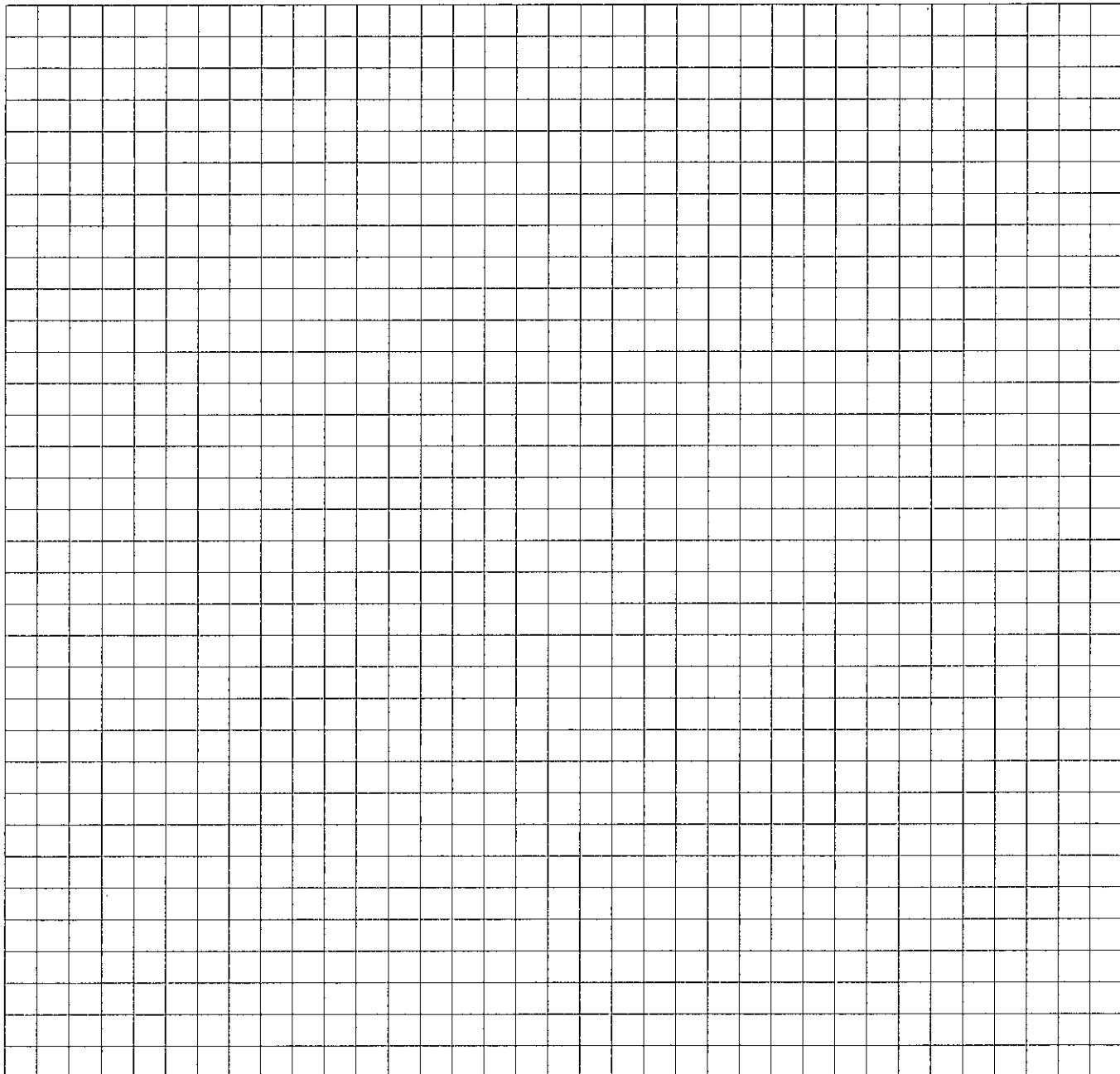
First Floor:



12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: _____

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition*	Chemical Ingredients	Field Instrument Reading (units)	Photo ** <u>Y / N</u>

* Describe the condition of the product containers as Unopened (UO), Used (U), or Deteriorated (D)

** Photographs of the front and back of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.



APPENDIX C



P.W. GROSSER CONSULTING, INC • P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, PC

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NYSDOH Decision Matrix A Sample Location VMP-1/AA001			Indoor Air Concentration - Trichloroethene (TCE) ($\mu\text{g}/\text{m}^3$)		
			< 0.2	0.2 to < 1	1 and Above
			ND/ND		
Sub-Slab Concentration - Trichloroethene (TCE) ($\mu\text{g}/\text{m}^3$)	< 6		1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	6 to < 60	11.3	4. No Further Action	5. MONITOR	6. MITIGATE
	60 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix A Sample Location VMP-1/AA001			Indoor Air Concentration - cis-1,2-Dichloroethene ($\mu\text{g}/\text{m}^3$)		
			< 0.2	0.2 to < 1	1 and Above
			ND/ND		
Sub-Slab Concentration - cis-1,2-Dichloroethene($\mu\text{g}/\text{m}^3$)	< 6	ND	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	6 to < 60		4. No Further Action	5. MONITOR	6. MITIGATE
	60 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix A Sample Location VMP-1/AA001			Indoor Air Concentration - 1,1-Dichloroethene ($\mu\text{g}/\text{m}^3$)		
			< 0.2	0.2 to < 1	1 and Above
			ND/ND		
Sub-Slab Concentration - 1,1-Dichloroethene ($\mu\text{g}/\text{m}^3$)	< 6	ND	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	6 to < 60		4. No Further Action	5. MONITOR	6. MITIGATE
	60 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix A Sample Location VMP-1/AA001			Indoor Air Concentration - Carbon Tetrachloride ($\mu\text{g}/\text{m}^3$)		
			< 0.2	0.2 to < 1	1 and Above
			0.717/0.44		
Sub-Slab Concentration - Carbon Tetrachloride($\mu\text{g}/\text{m}^3$)	< 6	ND	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	6 to < 60		4. No Further Action	5. MONITOR	6. MITIGATE
	60 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix B Sample Location VMP-1/AA001			Indoor Air Concentration - Tetrachloroethene (PCE) ($\mu\text{g}/\text{m}^3$)		
			< 3	3 to < 10	10 and Above
			9.29	29	
Sub-Slab Concentration - Tetrachloroethene (PCE) ($\mu\text{g}/\text{m}^3$)	< 100		1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	100 to < 1,000	210	4. No Further Action	5. MONITOR	6. MITIGATE
	1,000 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix B Sample Location VMP-1/AA001			Indoor Air Concentration - 1,1,1-Trichloroethane ($\mu\text{g}/\text{m}^3$)		
			< 3	3 to < 10	10 and Above
			ND/ND		
Sub-Slab Concentration - 1,1,1-Trichloroethane ($\mu\text{g}/\text{m}^3$)	< 100	ND	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	100 to < 1,000		4. No Further Action	5. MONITOR	6. MITIGATE
	1,000 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix B Sample Location VMP-1/AA001			Indoor Air Concentration - Methylene Chloride ($\mu\text{g}/\text{m}^3$)		
			< 3	3 to < 10	10 and Above
			ND/ND		
Sub-Slab Concentration - Methylene Chloride ($\mu\text{g}/\text{m}^3$)	< 100	ND	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	100 to < 1,000		4. No Further Action	5. MONITOR	6. MITIGATE
	1,000 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix C Sample Location VMP-1/AA001			Indoor Air Concentration - Vinyl Chloride ($\mu\text{g}/\text{m}^3$)	
			< 0.2	0.2 and Above
			ND/ND	
Sub-Slab Concentration - Vinyl Chloride ($\mu\text{g}/\text{m}^3$)	< 6	ND	1. No further Action	2. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	6 to < 60		3. MONITOR	4. MITIGATE
	60 and Above		5. MITIGATE	6. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-1/AA001			Indoor Air Concentration - Benzene ($\mu\text{g}/\text{m}^3$)		
			< 2	2 to < 10	10 and Above
			0.914/0.904		
Sub-Slab Concentration - Benzene ($\mu\text{g}/\text{m}^3$)	< 60	23.7	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
	600 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-1/AA001			Indoor Air Concentration - Ethylbenzene ($\mu\text{g}/\text{m}^3$)		
			< 2	2 to < 10	10 and Above
			ND	3.44	
Sub-Slab Concentration - Ethylbenzene ($\mu\text{g}/\text{m}^3$)	< 60		1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600	60.8	4. No Further Action	5. MONITOR	6. MITIGATE
	600 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-1/AA001			Indoor Air Concentration - Naphthalene ($\mu\text{g}/\text{m}^3$)		
			< 2	2 to < 10	10 and Above
			ND/ND		
Sub-Slab Concentration - Naphthalene ($\mu\text{g}/\text{m}^3$)	< 60	4.05	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
	600 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-1/AA001			Indoor Air Concentration - Cyclohexane ($\mu\text{g}/\text{m}^3$)		
			< 2	2 to < 10	10 and Above
			ND/ND		
Sub-Slab Concentration - Cyclohexane ($\mu\text{g}/\text{m}^3$)	< 60	4.2	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
	600 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-1/AA001			Indoor Air Concentration - Isooctane (2,2,4-Trimethylpentane) ($\mu\text{g}/\text{m}^3$)		
			< 2	2 to < 10	10 and Above
			ND	2.86	
Sub-Slab Concentration - Isooctane (2,2,4-Trimethylpentane) ($\mu\text{g}/\text{m}^3$)	< 60	ND	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
	600 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-1/AA001			Indoor Air Concentration - 1,2,4-Trimethylbenzene ($\mu\text{g}/\text{m}^3$)		
			< 2	2 to < 10	10 and Above
			ND/1.22		
Sub-Slab Concentration - 1,2,4-Trimethylbenzene ($\mu\text{g}/\text{m}^3$)	< 60		1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600	80.1	4. No Further Action	5. MONITOR	6. MITIGATE
	600 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-1/AA001			Indoor Air Concentration - 1,3,5-Trimethylbenzene ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - 1,3,5-Trimethylbenzene ($\mu\text{g}/\text{m}^3$)	< 2		2 to < 10		10 and Above
	ND/ND				
	< 60	16.3	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
600 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-1/AA001			Indoor Air Concentration - O-xylene ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - O-xylene ($\mu\text{g}/\text{m}^3$)	< 2		2 to < 10		10 and Above
	ND		5.26		
	< 60		1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600	79.9	4. No Further Action	5. MONITOR	6. MITIGATE
600 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

ND - Non Detect

1	2	2	3	4	6
NYSDOH Decision Matrix E Sample Location VMP-1/AA001			Indoor Air Concentration - M-xylene ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - M-xylene ($\mu\text{g}/\text{m}^3$)	< 6		6 to < 20	20 and Above	
	ND		14.6		
	<200		1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
200 < 2,000	249	4. No Further Action	5. MONITOR	6. MITIGATE	
2,000 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE	
NYSDOH Decision Matrix E Sample Location VMP-1/AA001			Indoor Air Concentration - P-xylene ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - P-xylene ($\mu\text{g}/\text{m}^3$)	< 6		6 to < 20	20 and Above	
	ND		14.6		
	<200		1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
200 < 2,000	249	4. No Further Action	5. MONITOR	6. MITIGATE	
2,000 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE	
NYSDOH Decision Matrix E Sample Location VMP-1/AA001			Indoor Air Concentration - Heptane ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - Heptane ($\mu\text{g}/\text{m}^3$)	< 6		6 to < 20	20 and Above	
	ND/0.865				
	<200	32	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
200 < 2,000		4. No Further Action	5. MONITOR	6. MITIGATE	
2,000 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE	

NYSDOH Decision Matrix E Sample Location VMP-1/AA001			Indoor Air Concentration - Hexane ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - Hexane ($\mu\text{g}/\text{m}^3$)	< 6		6 to < 20		20 and Above
	2.15		8.42		
	<200	4.32	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	200 < 2,000		4. No Further Action	5. MONITOR	6. MITIGATE
2,000 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix F Sample Location VMP-1/AA001			Indoor Air Concentration - Toluene ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - Toluene ($\mu\text{g}/\text{m}^3$)	< 10		10 to < 50		50 and Above
	1.39/4.6				
	<300		1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	300 < 3,000	341	4. No Further Action	5. MONITOR	6. MITIGATE
3,000 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

ND - Non Detect

NYSDOH Decision Matrix A Sample Location VMP-2/AA002			Indoor Air Concentration - Trichloroethene (TCE) ($\mu\text{g}/\text{m}^3$)		
			< 0.2	0.2 to < 1	1 and Above
			0.172		
Sub-Slab Concentration - Trichloroethene (TCE) ($\mu\text{g}/\text{m}^3$)	< 6	ND	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	6 to < 60		4. No Further Action	5. MONITOR	6. MITIGATE
	60 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix A Sample Location VMP-2/AA002			Indoor Air Concentration - cis-1,2-Dichloroethene ($\mu\text{g}/\text{m}^3$)		
			< 0.2	0.2 to < 1	1 and Above
			ND		
Sub-Slab Concentration - cis-1,2-Dichloroethene($\mu\text{g}/\text{m}^3$)	< 6	ND	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	6 to < 60		4. No Further Action	5. MONITOR	6. MITIGATE
	60 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix A Sample Location VMP-2/AA002			Indoor Air Concentration - 1,1-Dichloroethene ($\mu\text{g}/\text{m}^3$)		
			< 0.2	0.2 to < 1	1 and Above
			ND		
Sub-Slab Concentration - 1,1-Dichloroethene ($\mu\text{g}/\text{m}^3$)	< 6	ND	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	6 to < 60		4. No Further Action	5. MONITOR	6. MITIGATE
	60 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix A Sample Location VMP-2/AA002			Indoor Air Concentration - Carbon Tetrachloride ($\mu\text{g}/\text{m}^3$)		
			< 0.2	0.2 to < 1	1 and Above
			0.692		
Sub-Slab Concentration - Carbon Tetrachloride($\mu\text{g}/\text{m}^3$)	< 6	ND	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	6 to < 60		4. No Further Action	5. MONITOR	6. MITIGATE
	60 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix B Sample Location VMP-2/AA002			Indoor Air Concentration - Tetrachloroethene (PCE) ($\mu\text{g}/\text{m}^3$)		
			< 3	3 to < 10	10 and Above
			0.536		
Sub-Slab Concentration - Tetrachloroethene (PCE) ($\mu\text{g}/\text{m}^3$)	< 100	3.32	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	100 to < 1,000		4. No Further Action	5. MONITOR	6. MITIGATE
	1,000 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix B Sample Location VMP-2/AA002			Indoor Air Concentration - 1,1,1-Trichloroethane ($\mu\text{g}/\text{m}^3$)		
			< 3	3 to < 10	10 and Above
			ND		
Sub-Slab Concentration - 1,1,1-Trichloroethane ($\mu\text{g}/\text{m}^3$)	< 100	ND	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	100 to < 1,000		4. No Further Action	5. MONITOR	6. MITIGATE
	1,000 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix B Sample Location VMP-2/AA002			Indoor Air Concentration - Methylene Chloride ($\mu\text{g}/\text{m}^3$)		
			< 3	3 to < 10	10 and Above
			ND		
Sub-Slab Concentration - Methylene Chloride ($\mu\text{g}/\text{m}^3$)	< 100	ND	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	100 to < 1,000		4. No Further Action	5. MONITOR	6. MITIGATE
	1,000 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix C Sample Location VMP-2/AA002			Indoor Air Concentration - Vinyl Chloride ($\mu\text{g}/\text{m}^3$)	
			< 0.2	0.2 and Above
			ND	
Sub-Slab Concentration - Vinyl Chloride ($\mu\text{g}/\text{m}^3$)	< 6	ND	1. No further Action	2. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	6 to < 60		3. MONITOR	4. MITIGATE
	60 and Above		5. MITIGATE	6. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-2/AA002			Indoor Air Concentration - Benzene ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - Benzene ($\mu\text{g}/\text{m}^3$)	< 2		2 to < 10		10 and Above
	ND				
	< 60	14.8	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
600 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-2/AA002			Indoor Air Concentration - Ethylbenzene ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - Ethylbenzene ($\mu\text{g}/\text{m}^3$)	< 2		2 to < 10		10 and Above
	ND				
	< 60	44.7	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
600 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-2/AA002			Indoor Air Concentration - Naphthalene ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - Naphthalene ($\mu\text{g}/\text{m}^3$)	< 2		2 to < 10		10 and Above
	ND				
	< 60	1.91	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
600 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-2/AA002			Indoor Air Concentration - Cyclohexane ($\mu\text{g}/\text{m}^3$)		
			< 2	2 to < 10	10 and Above
			ND		
Sub-Slab Concentration - Cyclohexane ($\mu\text{g}/\text{m}^3$)	< 60	2.81	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
	600 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-2/AA002			Indoor Air Concentration - Isooctane (2,2,4-Trimethylpentane) ($\mu\text{g}/\text{m}^3$)		
			< 2	2 to < 10	10 and Above
			ND		
Sub-Slab Concentration - Isooctane (2,2,4-Trimethylpentane) ($\mu\text{g}/\text{m}^3$)	< 60	ND	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
	600 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-2/AA002			Indoor Air Concentration - 1,2,4-Trimethylbenzene ($\mu\text{g}/\text{m}^3$)		
			< 2	2 to < 10	10 and Above
			ND		
Sub-Slab Concentration - 1,2,4-Trimethylbenzene ($\mu\text{g}/\text{m}^3$)	< 60		1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600	61.9	4. No Further Action	5. MONITOR	6. MITIGATE
	600 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-2/AA002			Indoor Air Concentration - 1,3,5-Trimethylbenzene ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - 1,3,5-Trimethylbenzene ($\mu\text{g}/\text{m}^3$)	< 2		2 to < 10		10 and Above
	ND				
	< 60	12.8	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
600 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE	

NYSDOH Decision Matrix D Sample Location VMP-2/AA002			Indoor Air Concentration - O-xylene ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - O-xylene ($\mu\text{g}/\text{m}^3$)	< 2		2 to < 10		10 and Above
	ND				
	< 60	57.8	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
600 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE	

ND - Non Detect

	1	2	2	3	4	6
NYSDOH Decision Matrix E Sample Location VMP-2/AA002			Indoor Air Concentration - M-xylene ($\mu\text{g}/\text{m}^3$)			
Sub-Slab Concentration - M-xylene ($\mu\text{g}/\text{m}^3$)	< 6		6 to < 20		20 and Above	
	ND					
	<200	181	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE	
	200 < 2,000		4. No Further Action	5. MONITOR	6. MITIGATE	
2,000 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE	

NYSDOH Decision Matrix E Sample Location VMP-2/AA002			Indoor Air Concentration - P-xylene ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - P-xylene ($\mu\text{g}/\text{m}^3$)	< 6		6 to < 20		20 and Above
	ND				
	<200	181	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	200 < 2,000		4. No Further Action	5. MONITOR	6. MITIGATE
2,000 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix E Sample Location VMP-2/AA002			Indoor Air Concentration - Heptane ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - Heptane ($\mu\text{g}/\text{m}^3$)	< 6		6 to < 20		20 and Above
	ND				
	<200	19.5	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	200 < 2,000		4. No Further Action	5. MONITOR	6. MITIGATE
2,000 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix E Sample Location VMP-2/AA002			Indoor Air Concentration - Hexane ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - Hexane ($\mu\text{g}/\text{m}^3$)	< 6		6 to < 20		20 and Above
	ND				
	<200	24	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	200 < 2,000		4. No Further Action	5. MONITOR	6. MITIGATE
2,000 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix F Sample Location VMP-2/AA002			Indoor Air Concentration - Toluene ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - Toluene ($\mu\text{g}/\text{m}^3$)	< 10		10 to < 50		50 and Above
	0.765				
	<300	251	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	300 < 3,000		4. No Further Action	5. MONITOR	6. MITIGATE
3,000 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

ND - Non Detect

NYSDOH Decision Matrix A Sample Location VMP-3/AA003			Indoor Air Concentration - Trichloroethene (TCE) ($\mu\text{g}/\text{m}^3$)		
			< 0.2	0.2 to < 1	1 and Above
Sub-Slab Concentration - Trichloroethene (TCE) ($\mu\text{g}/\text{m}^3$)	ND	0.296			
	< 6	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE	
	6 to < 60	7.52	4. No Further Action	5. MONITOR	6. MITIGATE
	60 and Above	7. MITIGATE	8. MITIGATE	9. MITIGATE	

NYSDOH Decision Matrix A Sample Location VMP-3/AA003			Indoor Air Concentration - cis-1,2-Dichloroethene ($\mu\text{g}/\text{m}^3$)		
			< 0.2	0.2 to < 1	1 and Above
Sub-Slab Concentration - cis-1,2-Dichloroethene($\mu\text{g}/\text{m}^3$)	ND/ND				
	< 6	ND	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	6 to < 60		4. No Further Action	5. MONITOR	6. MITIGATE
	60 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix A Sample Location VMP-3/AA003			Indoor Air Concentration - 1,1-Dichloroethene ($\mu\text{g}/\text{m}^3$)		
			< 0.2	0.2 to < 1	1 and Above
Sub-Slab Concentration - 1,1-Dichloroethene ($\mu\text{g}/\text{m}^3$)	ND/ND				
	< 6	ND	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	6 to < 60		4. No Further Action	5. MONITOR	6. MITIGATE
	60 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix A Sample Location VMP-3/AA003			Indoor Air Concentration - Carbon Tetrachloride ($\mu\text{g}/\text{m}^3$)		
			< 0.2	0.2 to < 1	1 and Above
			0.717/0.428		
Sub-Slab Concentration - Carbon Tetrachloride($\mu\text{g}/\text{m}^3$)	< 6	ND	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	6 to < 60		4. No Further Action	5. MONITOR	6. MITIGATE
	60 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix B Sample Location VMP-3/AA003			Indoor Air Concentration - Tetrachloroethene (PCE) ($\mu\text{g}/\text{m}^3$)		
			< 3	3 to < 10	10 and Above
			1.06/1.35		
Sub-Slab Concentration - Tetrachloroethene (PCE) ($\mu\text{g}/\text{m}^3$)	< 100	13.4	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	100 to < 1,000		4. No Further Action	5. MONITOR	6. MITIGATE
	1,000 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix B Sample Location VMP-3/AA003			Indoor Air Concentration - 1,1,1-Trichloroethane ($\mu\text{g}/\text{m}^3$)		
			< 3	3 to < 10	10 and Above
			ND/ND		
Sub-Slab Concentration - 1,1,1- Trichloroethane ($\mu\text{g}/\text{m}^3$)	< 100	ND	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	100 to < 1,000		4. No Further Action	5. MONITOR	6. MITIGATE
	1,000 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix B Sample Location VMP-3/AA003			Indoor Air Concentration - Methylene Chloride ($\mu\text{g}/\text{m}^3$)		
			< 3	3 to < 10	10 and Above
			ND/ND		
Sub-Slab Concentration - Methylene Chloride ($\mu\text{g}/\text{m}^3$)	< 100	ND	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	100 to < 1,000		4. No Further Action	5. MONITOR	6. MITIGATE
	1,000 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix C Sample Location VMP-3/AA003			Indoor Air Concentration - Vinyl Chloride ($\mu\text{g}/\text{m}^3$)	
			< 0.2	0.2 and Above
			ND/ND	
Sub-Slab Concentration - Vinyl Chloride ($\mu\text{g}/\text{m}^3$)	< 6	ND	1. No further Action	2. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
	6 to < 60		3. MONITOR	4. MITIGATE
	60 and Above		5. MITIGATE	6. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-3/AA003			Indoor Air Concentration - Benzene ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - Benzene ($\mu\text{g}/\text{m}^3$)	< 2		2 to < 10		10 and Above
	0.693/1.41				
	< 60	8.5	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
600 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-3/AA003			Indoor Air Concentration - Ethylbenzene ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - Ethylbenzene ($\mu\text{g}/\text{m}^3$)	< 2		2 to < 10		10 and Above
	ND/1.4				
	< 60	25.9	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
600 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-3/AA003			Indoor Air Concentration - Naphthalene ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - Naphthalene ($\mu\text{g}/\text{m}^3$)	< 2		2 to < 10		10 and Above
	0.996/ND				
	< 60	2.5	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
600 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-3/AA003			Indoor Air Concentration - Cyclohexane ($\mu\text{g}/\text{m}^3$)		
			< 2	2 to < 10	10 and Above
			ND/1.92		
Sub-Slab Concentration - Cyclohexane ($\mu\text{g}/\text{m}^3$)	< 60	1.15	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
	600 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-3/AA003			Indoor Air Concentration - Isooctane (2,2,4-Trimethylpentane) ($\mu\text{g}/\text{m}^3$)		
			< 2	2 to < 10	10 and Above
			ND	2.84	
Sub-Slab Concentration - Isooctane (2,2,4-Trimethylpentane) ($\mu\text{g}/\text{m}^3$)	< 60	ND	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
	600 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-3/AA003			Indoor Air Concentration - 1,2,4-Trimethylbenzene ($\mu\text{g}/\text{m}^3$)		
			< 2	2 to < 10	10 and Above
			ND/1.95		
Sub-Slab Concentration - 1,2,4-Trimethylbenzene ($\mu\text{g}/\text{m}^3$)	< 60	45.8	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
	600 and Above		7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-3/AA003			Indoor Air Concentration - 1,3,5-Trimethylbenzene ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - 1,3,5-Trimethylbenzene ($\mu\text{g}/\text{m}^3$)	< 2		2 to < 10		10 and Above
	ND/ND				
	< 60	8.41	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
600 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix D Sample Location VMP-3/AA003			Indoor Air Concentration - O-xylene ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - O-xylene ($\mu\text{g}/\text{m}^3$)	< 2		2 to < 10		10 and Above
	ND/1.8				
	< 60	34.3	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	60 to < 600		4. No Further Action	5. MONITOR	6. MITIGATE
600 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

ND - Non Detect

	1	2	2	3	4	6
NYSDOH Decision Matrix E Sample Location VMP-3/AA003			Indoor Air Concentration - M-xylene ($\mu\text{g}/\text{m}^3$)			
Sub-Slab Concentration - M-xylene ($\mu\text{g}/\text{m}^3$)			< 6	6 to < 20	20 and Above	
		ND/5.04				
	<200	111	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE	
	200 < 2,000		4. No Further Action	5. MONITOR	6. MITIGATE	
2,000 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE	

NYSDOH Decision Matrix E Sample Location VMP-3/AA003			Indoor Air Concentration - P-xylene ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - P-xylene ($\mu\text{g}/\text{m}^3$)			< 6	6 to < 20	20 and Above
		ND/5.04			
	<200	111	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	200 < 2,000		4. No Further Action	5. MONITOR	6. MITIGATE
2,000 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix E Sample Location VMP-3/AA003			Indoor Air Concentration - Heptane ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - Heptane ($\mu\text{g}/\text{m}^3$)			< 6	6 to < 20	20 and Above
		1.17/1.43			
	<200	8.2	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	200 < 2,000		4. No Further Action	5. MONITOR	6. MITIGATE
2,000 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix E Sample Location VMP-3/AA003			Indoor Air Concentration - Hexane ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - Hexane ($\mu\text{g}/\text{m}^3$)	< 6		6 to < 20		20 and Above
	ND/5.32				
	<200	11.7	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	200 < 2,000		4. No Further Action	5. MONITOR	6. MITIGATE
2,000 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

NYSDOH Decision Matrix F Sample Location VMP-3/AA003			Indoor Air Concentration - Toluene ($\mu\text{g}/\text{m}^3$)		
Sub-Slab Concentration - Toluene ($\mu\text{g}/\text{m}^3$)	< 10		10 to < 50		50 and Above
	0.84/5.35				
	<300	149	1. No further Action	2. No Further Action	3. IDENTIFY SOURCE(S) or RESAMPLE or MITIGATE
	300 < 3,000		4. No Further Action	5. MONITOR	6. MITIGATE
3,000 and Above			7. MITIGATE	8. MITIGATE	9. MITIGATE

ND - Non Detect



APPENDIX D



ANALYTICAL REPORT

Lab Number:	L2509015
Client:	P. W. Grosser 630 Johnson Avenue Suite 7 Bohemia, NY 11716
ATTN:	Ryan Morley
Phone:	(631) 589-6353
Project Name:	ZDG2401
Project Number:	ZDG2401
Report Date:	03/07/25

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Certifications & Approvals: NH ELAP (2249).

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Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2509015-01	VMP-1	SOIL_VAPOR	2840 ATLANTIC	02/18/25 11:20	02/19/25
L2509015-02	VMP-2	SOIL_VAPOR	2840 ATLANTIC	02/18/25 11:10	02/19/25
L2509015-03	VMP-3	SOIL_VAPOR	2840 ATLANTIC	02/18/25 11:00	02/19/25
L2509015-04	AA001	AIR	2840 ATLANTIC	02/18/25 11:20	02/19/25
L2509015-05	AA002	AIR	2840 ATLANTIC	02/18/25 11:10	02/19/25
L2509015-06	AA003	AIR	2840 ATLANTIC	02/18/25 11:00	02/19/25
L2509015-07	UNUSED CAN #4882	AIR	2840 ATLANTIC		02/19/25

Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

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 Pace 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 and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet 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, Pace'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 Pace Project Manager and made arrangements for Pace 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: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on January 20, 2024. The canister certification data is provided as an addendum.

L2509015-01D: Prior to sample analysis, the canisters were pressurized with UHP Nitrogen in order to perform a screen analysis. The pressurization resulted in a dilution of the samples. The reporting limits have been elevated accordingly.

L2509015-01 through -06: The [CCAL or LCS] associated with L2509015 did not meet the acceptance criteria for the [full scan] analysis. The associated compound(s) for those samples were reported from the [SIM] analysis.

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

Authorized Signature:

 Jennifer Jerome

Title: Technical Director/Representative

Date: 03/07/25

AIR



Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-01 D	Date Collected:	02/18/25 11:20
Client ID:	VMP-1	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 03/06/25 04:42
Analyst: TPH

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab							
Dichlorodifluoromethane	0.577	0.338	--	2.85	1.67	--	1.692
Freon-114	ND	0.338	--	ND	2.36	--	1.692
Vinyl chloride	ND	0.338	--	ND	0.864	--	1.692
1,3-Butadiene	ND	0.338	--	ND	0.748	--	1.692
Bromomethane	ND	0.338	--	ND	1.31	--	1.692
Chloroethane	ND	0.338	--	ND	0.892	--	1.692
Ethanol	22.4	8.46	--	42.2	15.9	--	1.692
Vinyl bromide	ND	0.338	--	ND	1.48	--	1.692
Acetone	11.5	1.69	--	27.3	4.01	--	1.692
Trichlorofluoromethane	ND	0.338	--	ND	1.90	--	1.692
Isopropanol	ND	1.69	--	ND	4.15	--	1.692
1,1-Dichloroethene	ND	0.338	--	ND	1.34	--	1.692
Tertiary butyl Alcohol	ND	0.846	--	ND	2.56	--	1.692
Methylene chloride	ND	0.846	--	ND	2.94	--	1.692
3-Chloropropene	ND	0.338	--	ND	1.06	--	1.692
Carbon disulfide	ND	0.338	--	ND	1.05	--	1.692
Freon-113	ND	0.338	--	ND	2.59	--	1.692
trans-1,2-Dichloroethene	ND	0.338	--	ND	1.34	--	1.692
1,1-Dichloroethane	ND	0.338	--	ND	1.37	--	1.692
Methyl tert butyl ether	ND	0.338	--	ND	1.22	--	1.692
2-Butanone	19.3	0.846	--	56.9	2.50	--	1.692
cis-1,2-Dichloroethene	ND	0.338	--	ND	1.34	--	1.692
Ethyl Acetate	ND	0.846	--	ND	3.05	--	1.692



Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-01 D	Date Collected:	02/18/25 11:20
Client ID:	VMP-1	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab								
Chloroform	15.1	0.338	--	73.7	1.65	--		1.692
Tetrahydrofuran	1.25	0.846	--	3.69	2.50	--		1.692
1,2-Dichloroethane	ND	0.338	--	ND	1.37	--		1.692
n-Hexane	12.0	0.338	--	42.3	1.19	--		1.692
1,1,1-Trichloroethane	ND	0.338	--	ND	1.84	--		1.692
Benzene	7.43	0.338	--	23.7	1.08	--		1.692
Carbon tetrachloride	ND	0.338	--	ND	2.13	--		1.692
Cyclohexane	1.22	0.338	--	4.20	1.16	--		1.692
1,2-Dichloropropane	ND	0.338	--	ND	1.56	--		1.692
Bromodichloromethane	ND	0.338	--	ND	2.26	--		1.692
1,4-Dioxane	ND	0.338	--	ND	1.22	--		1.692
Trichloroethylene	2.11	0.338	--	11.3	1.82	--		1.692
2,2,4-Trimethylpentane	ND	0.338	--	ND	1.58	--		1.692
Heptane	7.81	0.338	--	32.0	1.39	--		1.692
cis-1,3-Dichloropropene	ND	0.338	--	ND	1.53	--		1.692
4-Methyl-2-pentanone	ND	0.846	--	ND	3.47	--		1.692
trans-1,3-Dichloropropene	ND	0.338	--	ND	1.53	--		1.692
1,1,2-Trichloroethane	ND	0.338	--	ND	1.84	--		1.692
Toluene	90.5	0.338	--	341	1.27	--		1.692
2-Hexanone	ND	0.338	--	ND	1.39	--		1.692
Dibromochloromethane	ND	0.338	--	ND	2.88	--		1.692
1,2-Dibromoethane	ND	0.338	--	ND	2.60	--		1.692
Tetrachloroethylene	30.9	0.338	--	210	2.29	--		1.692
Chlorobenzene	ND	0.338	--	ND	1.56	--		1.692
Ethylbenzene	14.0	0.338	--	60.8	1.47	--		1.692
p/m-Xylene	57.4	0.677	--	249	2.94	--		1.692



Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-01 D	Date Collected:	02/18/25 11:20
Client ID:	VMP-1	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab								
Bromoform	ND	0.338	--	ND	3.49	--		1.692
Styrene	1.97	0.338	--	8.39	1.44	--		1.692
1,1,2,2-Tetrachloroethane	ND	0.338	--	ND	2.32	--		1.692
o-Xylene	18.4	0.338	--	79.9	1.47	--		1.692
4-Ethyltoluene	5.18	0.338	--	25.5	1.66	--		1.692
1,3,5-Trimethylbenzene	3.31	0.338	--	16.3	1.66	--		1.692
1,2,4-Trimethylbenzene	16.3	0.338	--	80.1	1.66	--		1.692
Benzyl chloride	ND	0.338	--	ND	1.75	--		1.692
1,3-Dichlorobenzene	ND	0.338	--	ND	2.03	--		1.692
1,4-Dichlorobenzene	ND	0.338	--	ND	2.03	--		1.692
1,2-Dichlorobenzene	ND	0.338	--	ND	2.03	--		1.692
1,2,4-Trichlorobenzene	ND	0.338	--	ND	2.51	--		1.692
Naphthalene	0.772	0.321	--	4.05	1.68	--		1.692
Hexachlorobutadiene	ND	0.338	--	ND	3.61	--		1.692

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	106		60-140



Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-01 D	Date Collected:	02/18/25 11:20
Client ID:	VMP-1	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Matrix: Soil_Vapor
Analytical Method: 48,TO-15-SIM
Analytical Date: 03/06/25 04:42
Analyst: TPH

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Air Lab								
Chloromethane	0.480	0.338	--	0.991	0.698	--		1.692

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	96		60-140
bromochloromethane	98		60-140
chlorobenzene-d5	107		60-140

Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID: L2509015-02
Client ID: VMP-2
Sample Location: 2840 ATLANTIC

Date Collected: 02/18/25 11:10
Date Received: 02/19/25
Field Prep: Not Specified

Sample Depth:

Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 03/06/25 05:20
Analyst: TPH

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab							
Dichlorodifluoromethane	0.449	0.200	--	2.22	0.989	--	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	22.8	5.00	--	43.0	9.42	--	1
Vinyl bromide	ND	0.200	--	ND	0.874	--	1
Acetone	13.7	1.00	--	32.5	2.38	--	1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	1
Isopropanol	3.96	1.00	--	9.73	2.46	--	1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	1
Tertiary butyl Alcohol	0.683	0.500	--	2.07	1.52	--	1
Methylene chloride	ND	0.500	--	ND	1.74	--	1
3-Chloropropene	ND	0.200	--	ND	0.626	--	1
Carbon disulfide	0.292	0.200	--	0.909	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	8.27	0.500	--	24.4	1.47	--	1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	1
Ethyl Acetate	ND	0.500	--	ND	1.80	--	1

Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-02	Date Collected:	02/18/25 11:10
Client ID:	VMP-2	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab							
Chloroform	0.433	0.200	--	2.11	0.977	--	1
Tetrahydrofuran	2.24	0.500	--	6.61	1.47	--	1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	1
n-Hexane	6.82	0.200	--	24.0	0.705	--	1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	1
Benzene	4.63	0.200	--	14.8	0.639	--	1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--	1
Cyclohexane	0.815	0.200	--	2.81	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	4.77	0.200	--	19.5	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	66.6	0.200	--	251	0.754	--	1
2-Hexanone	ND	0.200	--	ND	0.820	--	1
Dibromochloromethane	ND	0.200	--	ND	1.70	--	1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	1
Tetrachloroethene	0.489	0.200	--	3.32	1.36	--	1
Chlorobenzene	ND	0.200	--	ND	0.921	--	1
Ethylbenzene	10.3	0.200	--	44.7	0.869	--	1
p/m-Xylene	41.6	0.400	--	181	1.74	--	1



Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-02	Date Collected:	02/18/25 11:10
Client ID:	VMP-2	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab								
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	1.63	0.200	--	6.94	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	13.3	0.200	--	57.8	0.869	--		1
4-Ethyltoluene	4.40	0.200	--	21.6	0.983	--		1
1,3,5-Trimethylbenzene	2.60	0.200	--	12.8	0.983	--		1
1,2,4-Trimethylbenzene	12.6	0.200	--	61.9	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
Naphthalene	0.365	0.190	--	1.91	0.996	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	76		60-140
Bromochloromethane	80		60-140
chlorobenzene-d5	67		60-140

Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-02	Date Collected:	02/18/25 11:10
Client ID:	VMP-2	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Matrix: Soil_Vapor
Analytical Method: 48,TO-15-SIM
Analytical Date: 03/06/25 05:20
Analyst: TPH

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Air Lab								
Chloromethane	0.457	0.200	--	0.944	0.413	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	77		60-140
bromochloromethane	82		60-140
chlorobenzene-d5	68		60-140

Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-03	Date Collected:	02/18/25 11:00
Client ID:	VMP-3	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 03/06/25 05:57
Analyst: TPH

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab							
Dichlorodifluoromethane	0.456	0.200	--	2.25	0.989	--	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	16.1	5.00	--	30.3	9.42	--	1
Vinyl bromide	ND	0.200	--	ND	0.874	--	1
Acetone	7.48	1.00	--	17.8	2.38	--	1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	1
Isopropanol	15.3	1.00	--	37.6	2.46	--	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	9.44	0.500	--	27.8	1.47	--	1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	1
Ethyl Acetate	ND	0.500	--	ND	1.80	--	1

Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-03	Date Collected:	02/18/25 11:00
Client ID:	VMP-3	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab							
Chloroform	7.19	0.200	--	35.1	0.977	--	1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--	1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	1
n-Hexane	3.33	0.200	--	11.7	0.705	--	1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	1
Benzene	2.66	0.200	--	8.50	0.639	--	1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--	1
Cyclohexane	0.333	0.200	--	1.15	0.688	--	1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	1
Bromodichloromethane	0.438	0.200	--	2.93	1.34	--	1
1,4-Dioxane	ND	0.200	--	ND	0.721	--	1
Trichloroethene	1.40	0.200	--	7.52	1.07	--	1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	1
Heptane	2.00	0.200	--	8.20	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	39.5	0.200	--	149	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	1.98	0.200	--	13.4	1.36	--	1
Chlorobenzene	ND	0.200	--	ND	0.921	--	1
Ethylbenzene	5.97	0.200	--	25.9	0.869	--	1
p/m-Xylene	25.6	0.400	--	111	1.74	--	1



Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-03	Date Collected:	02/18/25 11:00
Client ID:	VMP-3	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab								
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	1.19	0.200	--	5.07	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	7.89	0.200	--	34.3	0.869	--		1
4-Ethyltoluene	3.17	0.200	--	15.6	0.983	--		1
1,3,5-Trimethylbenzene	1.71	0.200	--	8.41	0.983	--		1
1,2,4-Trimethylbenzene	9.32	0.200	--	45.8	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
Naphthalene	0.476	0.190	--	2.50	0.996	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	73		60-140
Bromochloromethane	77		60-140
chlorobenzene-d5	64		60-140

Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-03	Date Collected:	02/18/25 11:00
Client ID:	VMP-3	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Matrix: Soil_Vapor
Analytical Method: 48,TO-15-SIM
Analytical Date: 03/06/25 05:57
Analyst: TPH

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Air Lab								
Chloromethane	ND	0.200	--	ND	0.413	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	74		60-140
bromochloromethane	78		60-140
chlorobenzene-d5	65		60-140

Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-04	Date Collected:	02/18/25 11:20
Client ID:	AA001	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 03/05/25 21:05
Analyst: TPH

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab							
Dichlorodifluoromethane	0.628	0.200	--	3.11	0.989	--	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	14.7	5.00	--	27.7	9.42	--	1
Vinyl bromide	ND	0.200	--	ND	0.874	--	1
Acetone	4.05	1.00	--	9.62	2.38	--	1
Trichlorofluoromethane	0.242	0.200	--	1.36	1.12	--	1
Isopropanol	6.32	1.00	--	15.5	2.46	--	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	0.294	0.200	--	1.44	0.977	--	1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--	1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	1



Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-04	Date Collected:	02/18/25 11:20
Client ID:	AA001	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab							
n-Hexane	0.611	0.200	--	2.15	0.705	--	1
Benzene	0.286	0.200	--	0.914	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	0.370	0.200	--	1.39	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	2.93	0.200	--	12.5	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



Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID: L2509015-04
Client ID: AA001
Sample Location: 2840 ATLANTIC

Date Collected: 02/18/25 11:20
Date Received: 02/19/25
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab								
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
Naphthalene	ND	0.190	--	ND	0.996	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	82		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	89		60-140

Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-04	Date Collected:	02/18/25 11:20
Client ID:	AA001	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 03/05/25 21:05
Analyst: TPH

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Air Lab								
Chloromethane	0.629	0.200	--	1.30	0.413	--		1
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	0.114	0.020	--	0.717	0.126	--		1
Trichloroethene	0.034	0.020	--	0.183	0.107	--		1
Tetrachloroethene	1.37	0.020	--	9.29	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	82		60-140
bromochloromethane	90		60-140
chlorobenzene-d5	90		60-140

Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-05	Date Collected:	02/18/25 11:10
Client ID:	AA002	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 03/05/25 21:43
Analyst: TPH

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab							
Dichlorodifluoromethane	0.592	0.200	--	2.93	0.989	--	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	9.96	5.00	--	18.8	9.42	--	1
Vinyl bromide	ND	0.200	--	ND	0.874	--	1
Acetone	1.91	1.00	--	4.54	2.38	--	1
Trichlorofluoromethane	0.305	0.200	--	1.71	1.12	--	1
Isopropanol	ND	1.00	--	ND	2.46	--	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
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	1



Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-05	Date Collected:	02/18/25 11:10
Client ID:	AA002	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab							
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	0.203	0.200	--	0.765	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
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	1

Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-05	Date Collected:	02/18/25 11:10
Client ID:	AA002	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab							
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
Naphthalene	ND	0.190	--	ND	0.996	--	1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	93		60-140

Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID: L2509015-05
Client ID: AA002
Sample Location: 2840 ATLANTIC

Date Collected: 02/18/25 11:10
Date Received: 02/19/25
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 03/05/25 21:43
Analyst: TPH

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Air Lab								
Chloromethane	0.566	0.200	--	1.17	0.413	--		1
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	0.110	0.020	--	0.692	0.126	--		1
Trichloroethene	0.032	0.020	--	0.172	0.107	--		1
Tetrachloroethene	0.079	0.020	--	0.536	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	86		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	94		60-140

Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-06	Date Collected:	02/18/25 11:00
Client ID:	AA003	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 03/05/25 22:59
Analyst: TPH

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab							
Dichlorodifluoromethane	0.650	0.200	--	3.21	0.989	--	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	10.0	5.00	--	18.8	9.42	--	1
Vinyl bromide	ND	0.200	--	ND	0.874	--	1
Acetone	8.50	1.00	--	20.2	2.38	--	1
Trichlorofluoromethane	0.204	0.200	--	1.15	1.12	--	1
Isopropanol	1.74	1.00	--	4.28	2.46	--	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	0.637	0.200	--	3.11	0.977	--	1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--	1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	1



Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-06	Date Collected:	02/18/25 11:00
Client ID:	AA003	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab							
n-Hexane	ND	0.200	--	ND	0.705	--	1
Benzene	0.217	0.200	--	0.693	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	0.285	0.200	--	1.17	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	0.223	0.200	--	0.840	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
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	1



Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID: L2509015-06
Client ID: AA003
Sample Location: 2840 ATLANTIC

Date Collected: 02/18/25 11:00
Date Received: 02/19/25
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab								
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
Naphthalene	ND	0.190	--	ND	0.996	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	76		60-140
Bromochloromethane	86		60-140
chlorobenzene-d5	80		60-140

Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

SAMPLE RESULTS

Lab ID:	L2509015-06	Date Collected:	02/18/25 11:00
Client ID:	AA003	Date Received:	02/19/25
Sample Location:	2840 ATLANTIC	Field Prep:	Not Specified

Sample Depth:

Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 03/05/25 22:59
Analyst: TPH

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Air Lab								
Chloromethane	0.585	0.200	--	1.21	0.413	--		1
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	0.114	0.020	--	0.717	0.126	--		1
Trichloroethene	0.055	0.020	--	0.296	0.107	--		1
Tetrachloroethene	0.156	0.020	--	1.06	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	77		60-140
bromochloromethane	88		60-140
chlorobenzene-d5	81		60-140

Project Name: ZDG2401

Lab Number: L2509015

Project Number: ZDG2401

Report Date: 03/07/25

Method Blank Analysis

Batch Quality Control

Analytical Method: 48,TO-15
 Analytical Date: 03/05/25 19:12

Parameter	ppbV			ug/m3			Dilution Factor
	Results	RL	MDL	Results	RL	MDL	
Volatile Organics in Air - Mansfield Air Lab for sample(s): 01-06 Batch: WG2037080-4							
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	1.00	--	ND	2.46	--	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: ZDG2401

Lab Number: L2509015

Project Number: ZDG2401

Report Date: 03/07/25

Method Blank Analysis

Batch Quality Control

Analytical Method: 48,TO-15
 Analytical Date: 03/05/25 19:12

Parameter	ppbV			ug/m3			Dilution Factor
	Results	RL	MDL	Results	RL	MDL	
Volatile Organics in Air - Mansfield Air Lab for sample(s): 01-06 Batch: WG2037080-4							
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: ZDG2401

Lab Number: L2509015

Project Number: ZDG2401

Report Date: 03/07/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
 Analytical Date: 03/05/25 19:12

Parameter	ppbV			ug/m3			Dilution Factor
	Results	RL	MDL	Results	RL	MDL	
Volatile Organics in Air - Mansfield Air Lab for sample(s): 01-06 Batch: WG2037080-4							
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
Naphthalene	ND	0.190	--	ND	0.996	--	1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	1

Project Name: ZDG2401

Lab Number: L2509015

Project Number: ZDG2401

Report Date: 03/07/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 03/05/25 19:49

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Air Lab for sample(s): 01-06 Batch: WG2037082-4								
Chloromethane	ND	0.200	--	ND	0.413	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

Parameter	<i>LCS</i> %Recovery	<i>LCSD</i> %Recovery	<i>RPD</i> Qual	<i>%Recovery</i> Limits	<i>RPD</i> Limits
	Qual	Qual			
Volatile Organics in Air - Mansfield Air Lab Associated sample(s): 01-06 Batch: WG2037080-3					
Dichlorodifluoromethane	75	-	-	70-130	-
Chloromethane	68	Q	-	70-130	-
Freon-114	82	-	-	70-130	-
Vinyl chloride	78	-	-	70-130	-
1,3-Butadiene	76	-	-	70-130	-
Bromomethane	83	-	-	70-130	-
Chloroethane	82	-	-	70-130	-
Ethanol	72	-	-	40-160	-
Vinyl bromide	83	-	-	70-130	-
Acetone	74	-	-	40-160	-
Trichlorofluoromethane	116	-	-	70-130	-
Isopropanol	124	-	-	40-160	-
1,1-Dichloroethene	126	-	-	70-130	-
Tertiary butyl Alcohol	110	-	-	70-130	-
Methylene chloride	101	-	-	70-130	-
3-Chloropropene	117	-	-	70-130	-
Carbon disulfide	99	-	-	70-130	-
Freon-113	116	-	-	70-130	-
trans-1,2-Dichloroethene	117	-	-	70-130	-
1,1-Dichloroethane	122	-	-	70-130	-
Methyl tert butyl ether	99	-	-	70-130	-
2-Butanone	107	-	-	70-130	-
cis-1,2-Dichloroethene	122	-	-	70-130	-

Lab Control Sample Analysis
Batch Quality Control

Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

Parameter	<i>LCS</i> %Recovery	Qual	<i>LCSD</i> %Recovery	Qual	%Recovery Limits	RPD	Qual	<i>RPD</i> Limits
Volatile Organics in Air - Mansfield Air Lab Associated sample(s): 01-06 Batch: WG2037080-3								
Ethyl Acetate	126		-		70-130	-		
Chloroform	117		-		70-130	-		
Tetrahydrofuran	104		-		70-130	-		
1,2-Dichloroethane	126		-		70-130	-		
n-Hexane	117		-		70-130	-		
1,1,1-Trichloroethane	115		-		70-130	-		
Benzene	100		-		70-130	-		
Carbon tetrachloride	126		-		70-130	-		
Cyclohexane	108		-		70-130	-		
1,2-Dichloropropane	116		-		70-130	-		
Bromodichloromethane	121		-		70-130	-		
1,4-Dioxane	113		-		70-130	-		
Trichloroethene	110		-		70-130	-		
2,2,4-Trimethylpentane	113		-		70-130	-		
Heptane	107		-		70-130	-		
cis-1,3-Dichloropropene	108		-		70-130	-		
4-Methyl-2-pentanone	108		-		70-130	-		
trans-1,3-Dichloropropene	116		-		70-130	-		
1,1,2-Trichloroethane	112		-		70-130	-		
Toluene	102		-		70-130	-		
2-Hexanone	95		-		70-130	-		
Dibromochloromethane	123		-		70-130	-		
1,2-Dibromoethane	107		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Volatile Organics in Air - Mansfield Air Lab Associated sample(s): 01-06 Batch: WG2037080-3								
Tetrachloroethene	102		-		70-130	-		
Chlorobenzene	105		-		70-130	-		
Ethylbenzene	105		-		70-130	-		
p/m-Xylene	111		-		70-130	-		
Bromoform	126		-		70-130	-		
Styrene	105		-		70-130	-		
1,1,2,2-Tetrachloroethane	116		-		70-130	-		
o-Xylene	113		-		70-130	-		
4-Ethyltoluene	109		-		70-130	-		
1,3,5-Trimethylbenzene	114		-		70-130	-		
1,2,4-Trimethylbenzene	114		-		70-130	-		
Benzyl chloride	114		-		70-130	-		
1,3-Dichlorobenzene	113		-		70-130	-		
1,4-Dichlorobenzene	113		-		70-130	-		
1,2-Dichlorobenzene	109		-		70-130	-		
1,2,4-Trichlorobenzene	100		-		70-130	-		
Naphthalene	106		-		70-130	-		
Hexachlorobutadiene	102		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

Parameter	<i>LCS</i> %Recovery	<i>LCSD</i> %Recovery	<i>%Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
	<i>Qual</i>	<i>Qual</i>				<i>Qual</i>
Volatile Organics in Air by SIM - Mansfield Air Lab Associated sample(s): 01-06 Batch: WG2037082-3						
Chloromethane	70	-	70-130	-	-	25
Vinyl chloride	75	-	70-130	-	-	25
1,1-Dichloroethene	112	-	70-130	-	-	25
cis-1,2-Dichloroethene	107	-	70-130	-	-	25
1,1,1-Trichloroethane	105	-	70-130	-	-	25
Carbon tetrachloride	118	-	70-130	-	-	25
Trichloroethene	99	-	70-130	-	-	25
Tetrachloroethene	92	-	70-130	-	-	25

Project Name: ZDG2401

Serial_No:03072515:38

Project Number: ZDG2401

Lab Number: L2509015

Report Date: 03/07/25

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	Flow Controller Leak Chk	Flow Out mL/min	Flow In	% RPD
L2509015-01	VMP-1	01727	Flow 5	12/20/24	499140		-	-	-	Pass	3.0	3.2	6
L2509015-01	VMP-1	4884	6.0L Can	12/20/24	499140	L2474579-01	Pass	-29.9	-11.7	-	-	-	-
L2509015-02	VMP-2	0929	Flow 5	12/20/24	499140		-	-	-	Pass	3.0	3.3	10
L2509015-02	VMP-2	4881	6.0L Can	12/20/24	499140	L2474579-01	Pass	-29.7	-6.8	-	-	-	-
L2509015-03	VMP-3	01210	Flow 5	12/20/24	499140		-	-	-	Pass	3.0	3.2	6
L2509015-03	VMP-3	4883	6.0L Can	12/20/24	499140	L2474579-01	Pass	-29.7	-7.4	-	-	-	-
L2509015-04	AA001	02634	Flow 4	12/20/24	499140		-	-	-	Pass	3.0	3.3	10
L2509015-04	AA001	4870	6.0L Can	12/20/24	499140	L2474579-01	Pass	-29.3	-8.7	-	-	-	-
L2509015-05	AA002	02678	Flow 4	12/20/24	499140		-	-	-	Pass	3.0	3.9	26
L2509015-05	AA002	4871	6.0L Can	12/20/24	499140	L2474579-01	Pass	-29.9	-1.5	-	-	-	-
L2509015-06	AA003	02658	Flow 4	12/20/24	499140		-	-	-	Pass	3.0	3.0	0
L2509015-06	AA003	4885	6.0L Can	12/20/24	499140	L2474579-01	Pass	-29.8	-14.1	-	-	-	-
L2509015-07	UNUSED CAN #4882	01490	Flow 5	12/20/24	499140		-	-	-	Pass	3.0	3.3	10
L2509015-07	UNUSED CAN #4882	4882	6.0L Can	12/20/24	499140	L2474579-01	Pass	-29.9	-28.6	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2474579

Project Number: CANISTER QC BAT

Report Date: 03/07/25

Air Canister Certification Results

Lab ID:	L2474579-01	Date Collected:	12/18/24 11:00
Client ID:	CAN 4859 SHELF 36	Date Received:	12/18/24
Sample Location:		Field Prep:	Not Specified

Sample Depth:

Matrix:	Air
Anaytical Method:	48,TO-15
Analytical Date:	12/19/24 00:29
Analyst:	JFI

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



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2474579

Project Number: CANISTER QC BAT

Report Date: 03/07/25

Air Canister Certification Results

Lab ID: L2474579-01 Date Collected: 12/18/24 11:00
 Client ID: CAN 4859 SHELF 36 Date Received: 12/18/24
 Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	Results	RL		
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

Lab Number: L2474579

Project Number: CANISTER QC BAT

Report Date: 03/07/25

Air Canister Certification Results

Lab ID: L2474579-01 Date Collected: 12/18/24 11:00
 Client ID: CAN 4859 SHELF 36 Date Received: 12/18/24
 Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	Results	RL		
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

Lab Number: L2474579

Project Number: CANISTER QC BAT

Report Date: 03/07/25

Air Canister Certification Results

Lab ID: L2474579-01 Date Collected: 12/18/24 11:00
 Client ID: CAN 4859 SHELF 36 Date Received: 12/18/24
 Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	Results	RL		
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

Lab Number: L2474579

Project Number: CANISTER QC BAT

Report Date: 03/07/25

Air Canister Certification Results

Lab ID: L2474579-01 Date Collected: 12/18/24 11:00
 Client ID: CAN 4859 SHELF 36 Date Received: 12/18/24
 Sample Location: Field Prep: Not Specified

Sample Depth:

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

Tentatively Identified Compounds	Results	Qualifier	Units	RDL	Dilution Factor
No Tentatively Identified Compounds					

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	100		60-140
Bromochloromethane	101		60-140
chlorobenzene-d5	99		60-140

Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2474579

Project Number: CANISTER QC BAT

Report Date: 03/07/25

Air Canister Certification Results

Lab ID:	L2474579-01	Date Collected:	12/18/24 11:00
Client ID:	CAN 4859 SHELF 36	Date Received:	12/18/24
Sample Location:		Field Prep:	Not Specified

Sample Depth:

Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 12/19/24 00:29
 Analyst: JFI

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



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2474579

Project Number: CANISTER QC BAT

Report Date: 03/07/25

Air Canister Certification Results

Lab ID: L2474579-01 Date Collected: 12/18/24 11:00
 Client ID: CAN 4859 SHELF 36 Date Received: 12/18/24
 Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	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
Trichloroethylene	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
Tetrachloroethylene	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	0.100	--	ND	0.518	--	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: L2474579

Project Number: CANISTER QC BAT

Report Date: 03/07/25

Air Canister Certification Results

Lab ID: L2474579-01 Date Collected: 12/18/24 11:00
 Client ID: CAN 4859 SHELF 36 Date Received: 12/18/24
 Sample Location: 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	100		60-140
chlorobenzene-d5	97		60-140

Project Name: ZDG2401
Project Number: ZDG2401

Serial_No:03072515:38
Lab Number: L2509015
Report Date: 03/07/25

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(*)
L2509015-01A	Canister - 2.7L (Batch Certified)	NA	NA			Y	Absent		TO15-SIM(30),TO15-LL(30)
L2509015-02A	Canister - 2.7L (Batch Certified)	NA	NA			Y	Absent		TO15-SIM(30),TO15-LL(30)
L2509015-03A	Canister - 2.7L (Batch Certified)	NA	NA			Y	Absent		TO15-SIM(30),TO15-LL(30)
L2509015-04A	Canister - 2.7L (Batch Certified)	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2509015-05A	Canister - 2.7L (Batch Certified)	NA	NA			Y	Absent		TO15-SIM(30),TO15-LL(30)
L2509015-06A	Canister - 2.7L (Batch Certified)	NA	NA			Y	Absent		TO15-SIM(30),TO15-LL(30)
L2509015-07A	Canister - 6L (Batch Certified)	NA	NA			Y	Absent		CLEAN-FEE()

Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

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: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

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.

Chlordane: 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.)

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'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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.

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.

Report Format: Data Usability Report



Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

Data Qualifiers

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

Report Format: Data Usability Report



Project Name: ZDG2401
Project Number: ZDG2401

Lab Number: L2509015
Report Date: 03/07/25

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

Pace Analytical Services 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 Pace Analytical Services shall be to re-perform the work at its own expense. In no event shall Pace Analytical Services 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 Pace Analytical Services.

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 – 8 Walkup Dr. Westborough, MA 01581

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

EPA 625.1: alpha-Terpineol

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

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

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

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

SM 2540D: TSS.

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.

MADEP-APH.

Nonpotable Water: EPA RSK-175 Dissolved Gases

Biological Tissue Matrix: EPA 3050B

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048

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.

Nonpotable Water: EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)

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

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581

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 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).

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

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

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, Na, Sr, Ti, V, 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

Certification IDs:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581

CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048

ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

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



ALPHA ANALYTICAL

320 Forbes Blvd
Mansfield, MA 02048-1806
Tel: 508-822-9300
Fax: 508-822-3288

Serial_No:03072515:38

AIR Chain-of-Custody - NJ

Date Rec'd in Lab 2/20/25ALPHA Job# L2509015

Client Contact Information

Company: Microsser Consulting
Address: 630 Johnson Ave
City/State/Zip: Bohemia, NY 11716
Phone: 631-589-6353
FAX:
Email: Ryan.Morley@microsser.com
Site Contact: Ryan Morley
Site Contact Phone:

Project Information

Project Name: ZDG-2401
Project No: ZDG-2401
Site/Location: 2010 Atlantic
Project Manager: Ryan Morley
Analysis Turn-Around Time
Standard (Specify)
Rush (Specify)

NJ DEP Information

Bureau: _____ Division: _____ Contract No: _____

Report Information - Data Deliverables:

- FAX:
 ADEEx Criteria Checker:
 EMail (standard pdf report)

Cat B Deliverables

Billing Information

Same as Client Info PO #:

of COCs

Analysis

Matrix

Indoor/Ambient Air
Soil Gas

ALPHA LAB ID (Lab Use Only)	Sample Identification	Sample Date(s)	Start Time Start (24 hr clock)	Stop Time Stop (24 hr clock)	Canister Pressure in Field (Hg) (Start)	Canister Pressure in Field (Hg) (Stop)	Interior Temp. (F) (Start)	Interior Temp. (F) (Stop)	Outgoing Canister Pressure (Hg) (Note 1)	Incoming Canister Pressure (Hg) (Note 2)	Flow Reg. ID	Can ID	Can Size (L)	Flow Controller Readout (ml/min) (Note 1)	Batch Cert ID (Note 1)	TO-15	EPA 3C
09015-01	UMP-1	2/19/25	11:20	12:30	30.30	-8.20	70°	70°			01727	4884	6			X	
02	UMP-2		11:10	12:5	-29.83	-7.83					0929	4881	1			X	
03	UMP-3		11:00	11:30	-31.83	-12.21					0929	4883				X	
04	AA001		11:20	12:30	-46.50	0.14					02634	4870				X	
05	AA002		11:10	12:5	-19.32	-4.66	V	V			02607	4871				X	
06	AA003		11:00	11:30	30.63	-15.04					01720	4885				X	

Custody Seals: 47896252
Outgoing Seal No: 47896252
(refer to crate seal)

Incoming Seal No: _____
(if applicable)

Temperature (Fahrenheit)

Individual Preparing Canister/Containers and Laboratory Canister Certification

Name: Hannah Lyle
Signature: Hannah Lyle

Start

Maximum

Minimum

Stop

Pressure (inches of Hg)

Footnotes:

- (1) Refer to equipment tags for these readings.
(2) Readings provided in data deliverable package.

Ambient

Maximum

Minimum

Start

Stop

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:

Date/Time:

Samples Relinquished by:

Date/Time:

Relinquished by:

Date/Time:

Form: 101-06 April, 2013

K. Ahmed 2/19/25

Paul Marzella 2/19/25 11:20

Paul Marzella 2/19/25 11:20

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

Note: Combined External Chain of Custody and NJDEP Field Test Data Sheet



ANALYTICAL REPORT

Lab Number:	L2518779
Client:	P. W. Grosser 630 Johnson Avenue Suite 7 Bohemia, NY 11716
ATTN:	Ryan Morley
Phone:	(631) 589-6353
Project Name:	ZDG2501
Project Number:	ZDG2501
Report Date:	04/18/25

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

Certifications & Approvals: NH ELAP (2249).

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



Project Name: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

Lab Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2518779-01	IA001	AIR	ATLANTIC AVE.	03/28/25 09:31	03/28/25
L2518779-02	IA003	AIR	ATLANTIC AVE.	03/28/25 09:40	03/28/25

Project Name: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

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 Pace 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 and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet 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, Pace'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 Pace Project Manager and made arrangements for Pace 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: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on March 26, 2025. The canister certification data is provided as an addendum.

L2518779-02: The sample was re-analyzed on dilution in order to quantitate the results within the calibration range. The result(s) should be considered estimated, and are qualified with an E flag, for any compound(s) that exceeded the calibration range in the initial analysis. The re-analysis was performed only for the compound(s) that exceeded the calibration range.

L2518779-02D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

The WG2055283-3 LCS recovery associated with L2518779-01, -02, and -02D is outside the acceptance limit for vinyl acetate (69%) and bromoform (138%). All samples associated with this LCS do not have reportable amounts of this analyte.

The WG2055283-2 CC recovery associated with L2518779-01, -02, and -02D is below the acceptance limit for 1,4 dioxane. All samples associated with this CC that have reportable amounts of this analyte will be reported with low bias.

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 Christopher J. Anderson

Title: Technical Director/Representative

Date: 04/18/25

AIR



Project Name: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

SAMPLE RESULTS

Lab ID:	L2518779-01	Date Collected:	03/28/25 09:31
Client ID:	IA001	Date Received:	03/28/25
Sample Location:	ATLANTIC AVE.	Field Prep:	Not Specified

Sample Depth:

Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 04/18/25 02:39
Analyst: TPH

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab								
Dichlorodifluoromethane	0.445	0.200	--	2.20	0.989	--		1
Chloromethane	0.603	0.200	--	1.25	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	116	5.00	--	219	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	5.54	1.00	--	13.2	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	18.4	1.00	--	45.2	2.46	--		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: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

SAMPLE RESULTS

Lab ID:	L2518779-01	Date Collected:	03/28/25 09:31
Client ID:	IA001	Date Received:	03/28/25
Sample Location:	ATLANTIC AVE.	Field Prep:	Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab							
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	1
n-Hexane	2.39	0.200	--	8.42	0.705	--	1
Benzene	0.283	0.200	--	0.904	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	0.612	0.200	--	2.86	0.934	--	1
Heptane	0.211	0.200	--	0.865	0.820	--	1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	1
Toluene	1.22	0.200	--	4.60	0.754	--	1
2-Hexanone	ND	0.200	--	ND	0.820	--	1
Dibromochloromethane	ND	0.200	--	ND	1.70	--	1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	1
Chlorobenzene	ND	0.200	--	ND	0.921	--	1
Ethylbenzene	0.792	0.200	--	3.44	0.869	--	1
p/m-Xylene	3.35	0.400	--	14.6	1.74	--	1
Bromoform	ND	0.200	--	ND	2.07	--	1
Styrene	0.214	0.200	--	0.911	0.852	--	1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	1
o-Xylene	1.21	0.200	--	5.26	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: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

SAMPLE RESULTS

Lab ID:	L2518779-01	Date Collected:	03/28/25 09:31
Client ID:	IA001	Date Received:	03/28/25
Sample Location:	ATLANTIC AVE.	Field Prep:	Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab							
1,2,4-Trimethylbenzene	0.249	0.200	--	1.22	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
Naphthalene	ND	0.190	--	ND	0.996	--	1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	79		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	78		60-140

Project Name: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

SAMPLE RESULTS

Lab ID: L2518779-01
Client ID: IA001
Sample Location: ATLANTIC AVE.

Date Collected: 03/28/25 09:31
Date Received: 03/28/25
Field Prep: Not Specified

Sample Depth:

Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 04/18/25 02:39
Analyst: TPH

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Air Lab								
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	0.070	0.020	--	0.440	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	4.28	0.020	--	29.0	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	85		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	84		60-140

Project Name: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

SAMPLE RESULTS

Lab ID:	L2518779-02	Date Collected:	03/28/25 09:40
Client ID:	IA003	Date Received:	03/28/25
Sample Location:	ATLANTIC AVE.	Field Prep:	Not Specified

Sample Depth:

Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 04/18/25 03:17
Analyst: TPH

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab							
Dichlorodifluoromethane	0.450	0.200	--	2.23	0.989	--	1
Chloromethane	0.636	0.200	--	1.31	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	987	5.00	--	1860	9.42	--	E 1
Vinyl bromide	ND	0.200	--	ND	0.874	--	1
Acetone	32.2	1.00	--	76.5	2.38	--	1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	1
Isopropanol	60.2	1.00	--	148	2.46	--	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	0.946	0.200	--	2.95	0.623	--	1
Freon-113	ND	0.200	--	ND	1.53	--	1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	1
2-Butanone	0.839	0.500	--	2.47	1.47	--	1
Ethyl Acetate	1.28	0.500	--	4.61	1.80	--	1
Chloroform	0.253	0.200	--	1.24	0.977	--	1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--	1



Project Name: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

SAMPLE RESULTS

Lab ID:	L2518779-02	Date Collected:	03/28/25 09:40
Client ID:	IA003	Date Received:	03/28/25
Sample Location:	ATLANTIC AVE.	Field Prep:	Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab							
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	1
n-Hexane	1.51	0.200	--	5.32	0.705	--	1
Benzene	0.440	0.200	--	1.41	0.639	--	1
Cyclohexane	0.559	0.200	--	1.92	0.688	--	1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	1
Bromodichloromethane	ND	0.200	--	ND	1.34	--	1
1,4-Dioxane	ND	0.200	--	ND	0.721	--	1
2,2,4-Trimethylpentane	0.607	0.200	--	2.84	0.934	--	1
Heptane	0.348	0.200	--	1.43	0.820	--	1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	1
4-Methyl-2-pentanone	0.897	0.500	--	3.68	2.05	--	1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	1
Toluene	1.42	0.200	--	5.35	0.754	--	1
2-Hexanone	ND	0.200	--	ND	0.820	--	1
Dibromochloromethane	ND	0.200	--	ND	1.70	--	1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	1
Chlorobenzene	ND	0.200	--	ND	0.921	--	1
Ethylbenzene	0.322	0.200	--	1.40	0.869	--	1
p/m-Xylene	1.16	0.400	--	5.04	1.74	--	1
Bromoform	ND	0.200	--	ND	2.07	--	1
Styrene	ND	0.200	--	ND	0.852	--	1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	1
o-Xylene	0.414	0.200	--	1.80	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: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

SAMPLE RESULTS

Lab ID:	L2518779-02	Date Collected:	03/28/25 09:40
Client ID:	IA003	Date Received:	03/28/25
Sample Location:	ATLANTIC AVE.	Field Prep:	Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab							
1,2,4-Trimethylbenzene	0.396	0.200	--	1.95	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
Naphthalene	ND	0.190	--	ND	0.996	--	1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	86		60-140

Project Name: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

SAMPLE RESULTS

Lab ID:	L2518779-02	Date Collected:	03/28/25 09:40
Client ID:	IA003	Date Received:	03/28/25
Sample Location:	ATLANTIC AVE.	Field Prep:	Not Specified

Sample Depth:

Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 04/18/25 03:17
Analyst: TPH

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Air Lab								
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	0.068	0.020	--	0.428	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.199	0.020	--	1.35	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	98		60-140
bromochloromethane	92		60-140
chlorobenzene-d5	93		60-140

Project Name: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

SAMPLE RESULTS

Lab ID: L2518779-02 D
Client ID: IA003
Sample Location: ATLANTIC AVE.

Date Collected: 03/28/25 09:40
Date Received: 03/28/25
Field Prep: Not Specified

Sample Depth:

Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 04/18/25 07:30
Analyst: TPH

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab								
Ethanol	1120	50.0	--	2110	94.2	--		10

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	78		60-140
Bromochloromethane	85		60-140
chlorobenzene-d5	75		60-140

Project Name: ZDG2501

Lab Number: L2518779

Project Number: ZDG2501

Report Date: 04/18/25

Method Blank Analysis

Batch Quality Control

Analytical Method: 48,TO-15
 Analytical Date: 04/17/25 13:45

Parameter	ppbV			ug/m3			Dilution Factor
	Results	RL	MDL	Results	RL	MDL	
Volatile Organics in Air - Mansfield Air Lab for sample(s): 01-02 Batch: WG2055283-4							
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	1.00	--	ND	2.46	--	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: ZDG2501

Lab Number: L2518779

Project Number: ZDG2501

Report Date: 04/18/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
 Analytical Date: 04/17/25 13:45

Parameter	ppbV			ug/m3			Dilution Factor
	Results	RL	MDL	Results	RL	MDL	
Volatile Organics in Air - Mansfield Air Lab for sample(s): 01-02 Batch: WG2055283-4							
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: ZDG2501

Lab Number: L2518779

Project Number: ZDG2501

Report Date: 04/18/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
 Analytical Date: 04/17/25 13:45

Parameter	ppbV			ug/m3			Dilution Factor
	Results	RL	MDL	Results	RL	MDL	
Volatile Organics in Air - Mansfield Air Lab for sample(s): 01-02 Batch: WG2055283-4							
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
Naphthalene	ND	0.190	--	ND	0.996	--	1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	1

Project Name: ZDG2501

Lab Number: L2518779

Project Number: ZDG2501

Report Date: 04/18/25

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 04/17/25 14:23

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Air Lab for sample(s): 01-02 Batch: WG2055284-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis
Batch Quality Control

Project Name: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

Parameter	<i>LCS</i> %Recovery	Qual	<i>LCSD</i> %Recovery	Qual	%Recovery Limits	RPD	Qual	<i>RPD</i> Limits
Volatile Organics in Air - Mansfield Air Lab Associated sample(s): 01-02 Batch: WG2055283-3								
Dichlorodifluoromethane	85		-		70-130	-		
Chloromethane	90		-		70-130	-		
Freon-114	105		-		70-130	-		
Vinyl chloride	99		-		70-130	-		
1,3-Butadiene	98		-		70-130	-		
Bromomethane	109		-		70-130	-		
Chloroethane	101		-		70-130	-		
Ethanol	83		-		40-160	-		
Vinyl bromide	106		-		70-130	-		
Acetone	87		-		40-160	-		
Trichlorofluoromethane	80		-		70-130	-		
Isopropanol	71		-		40-160	-		
1,1-Dichloroethene	97		-		70-130	-		
Tertiary butyl Alcohol	82		-		70-130	-		
Methylene chloride	99		-		70-130	-		
3-Chloropropene	99		-		70-130	-		
Carbon disulfide	98		-		70-130	-		
Freon-113	98		-		70-130	-		
trans-1,2-Dichloroethene	97		-		70-130	-		
1,1-Dichloroethane	95		-		70-130	-		
Methyl tert butyl ether	93		-		70-130	-		
2-Butanone	96		-		70-130	-		
cis-1,2-Dichloroethene	98		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Air Lab Associated sample(s): 01-02 Batch: WG2055283-3								
Ethyl Acetate	104		-		70-130	-		
Chloroform	94		-		70-130	-		
Tetrahydrofuran	108		-		70-130	-		
1,2-Dichloroethane	91		-		70-130	-		
n-Hexane	94		-		70-130	-		
1,1,1-Trichloroethane	99		-		70-130	-		
Benzene	91		-		70-130	-		
Carbon tetrachloride	108		-		70-130	-		
Cyclohexane	96		-		70-130	-		
1,2-Dichloropropane	96		-		70-130	-		
Bromodichloromethane	104		-		70-130	-		
1,4-Dioxane	93		-		70-130	-		
Trichloroethene	97		-		70-130	-		
2,2,4-Trimethylpentane	97		-		70-130	-		
Heptane	102		-		70-130	-		
cis-1,3-Dichloropropene	106		-		70-130	-		
4-Methyl-2-pentanone	103		-		70-130	-		
trans-1,3-Dichloropropene	115		-		70-130	-		
1,1,2-Trichloroethane	97		-		70-130	-		
Toluene	105		-		70-130	-		
2-Hexanone	108		-		70-130	-		
Dibromochloromethane	127		-		70-130	-		
1,2-Dibromoethane	110		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

Parameter	<i>LCS</i> %Recovery	<i>LCSD</i> %Recovery	<i>RPD</i> Qual	<i>%Recovery</i> Limits	<i>RPD</i> Limits
	Qual	Qual			
Volatile Organics in Air - Mansfield Air Lab Associated sample(s): 01-02 Batch: WG2055283-3					
Tetrachloroethene	106	-	-	70-130	-
Chlorobenzene	103	-	-	70-130	-
Ethylbenzene	104	-	-	70-130	-
p/m-Xylene	106	-	-	70-130	-
Bromoform	138	Q	-	70-130	-
Styrene	103	-	-	70-130	-
1,1,2,2-Tetrachloroethane	110	-	-	70-130	-
o-Xylene	109	-	-	70-130	-
4-Ethyltoluene	106	-	-	70-130	-
1,3,5-Trimethylbenzene	110	-	-	70-130	-
1,2,4-Trimethylbenzene	114	-	-	70-130	-
Benzyl chloride	102	-	-	70-130	-
1,3-Dichlorobenzene	110	-	-	70-130	-
1,4-Dichlorobenzene	108	-	-	70-130	-
1,2-Dichlorobenzene	108	-	-	70-130	-
1,2,4-Trichlorobenzene	103	-	-	70-130	-
Naphthalene	104	-	-	70-130	-
Hexachlorobutadiene	104	-	-	70-130	-

Lab Control Sample Analysis
Batch Quality Control

Project Name: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

Parameter	<i>LCS</i> %Recovery	<i>LCSD</i> %Recovery	<i>%Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
	<i>Qual</i>	<i>Qual</i>				<i>Qual</i>
Volatile Organics in Air by SIM - Mansfield Air Lab Associated sample(s): 01-02 Batch: WG2055284-3						
Vinyl chloride	93	-	70-130	-	-	25
1,1-Dichloroethene	92	-	70-130	-	-	25
cis-1,2-Dichloroethene	91	-	70-130	-	-	25
1,1,1-Trichloroethane	89	-	70-130	-	-	25
Carbon tetrachloride	98	-	70-130	-	-	25
Trichloroethene	96	-	70-130	-	-	25
Tetrachloroethene	99	-	70-130	-	-	25

Project Name: ZDG2501

Serial_No:04182516:50

Project Number: ZDG2501

Lab Number: L2518779

Report Date: 04/18/25

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	Flow Controller Leak Chk	Flow Out mL/min	Flow In	% RPD
L2518779-01	IA001	02272	Flow 5	03/26/25	511327		-	-	-	Pass	3.0	3.4	13
L2518779-01	IA001	4991	6.0L Can	03/26/25	511327	L2517036-09	Pass	-29.2	-10.1	-	-	-	-
L2518779-02	IA003	0240	Flow 5	03/26/25	511327		-	-	-	Pass	3.0	3.0	0
L2518779-02	IA003	3650	6.0L Can	03/26/25	511327	L2517036-09	Pass	-29.5	-8.5	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2517036

Project Number: CANISTER QC BAT

Report Date: 04/18/25

Air Canister Certification Results

Lab ID:	L2517036-09	Date Collected:	03/24/25 13:00
Client ID:	CAN 3013 SHELF 37	Date Received:	03/24/25
Sample Location:		Field Prep:	Not Specified

Sample Depth:

Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/25/25 07:04
 Analyst: KJD

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab							
Chlorodifluoromethane	ND	0.200	--	0.707	--		1
Propylene	ND	0.500	--	0.861	--		1
Propane	ND	0.500	--	0.902	--		1
Dichlorodifluoromethane	ND	0.200	--	0.989	--		1
Chloromethane	ND	0.200	--	0.413	--		1
Freon-114	ND	0.200	--	1.40	--		1
Vinyl chloride	ND	0.200	--	0.511	--		1
1,3-Butadiene	ND	0.200	--	0.442	--		1
Butane	ND	0.200	--	0.475	--		1
Bromomethane	ND	0.200	--	0.777	--		1
Chloroethane	ND	0.200	--	0.528	--		1
Ethanol	ND	5.00	--	9.42	--		1
Dichlorofluoromethane	ND	0.200	--	0.842	--		1
Vinyl bromide	ND	0.200	--	0.874	--		1
Acrolein	ND	0.500	--	1.15	--		1
Acetone	ND	1.00	--	2.38	--		1
Acetonitrile	ND	0.200	--	0.336	--		1
Trichlorofluoromethane	ND	0.200	--	1.12	--		1
Isopropanol	ND	1.00	--	2.46	--		1
Acrylonitrile	ND	0.500	--	1.09	--		1
Pentane	ND	0.200	--	0.590	--		1
Ethyl ether	ND	0.200	--	0.606	--		1
1,1-Dichloroethene	ND	0.200	--	0.793	--		1
Tertiary butyl Alcohol	ND	0.500	--	1.52	--		1



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2517036

Project Number: CANISTER QC BAT

Report Date: 04/18/25

Air Canister Certification Results

Lab ID: L2517036-09 Date Collected: 03/24/25 13:00
 Client ID: CAN 3013 SHELF 37 Date Received: 03/24/25
 Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	Results	RL		
Volatile Organics in Air - Mansfield Air Lab							
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
Dibromomethane	ND	0.200	--	ND	1.42	--	1



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2517036

Project Number: CANISTER QC BAT

Report Date: 04/18/25

Air Canister Certification Results

Lab ID: L2517036-09 Date Collected: 03/24/25 13:00
 Client ID: CAN 3013 SHELF 37 Date Received: 03/24/25
 Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	Results	RL		
Volatile Organics in Air - Mansfield Air Lab							
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
o-Xylene	ND	0.200	--	ND	0.869	--	1



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2517036

Project Number: CANISTER QC BAT

Report Date: 04/18/25

Air Canister Certification Results

Lab ID: L2517036-09 Date Collected: 03/24/25 13:00
 Client ID: CAN 3013 SHELF 37 Date Received: 03/24/25
 Sample Location: Field Prep: Not Specified

Sample Depth:

Parameter	Results	ppbV		ug/m3		Qualifier	Dilution Factor
		RL	MDL	RL	MDL		
Volatile Organics in Air - Mansfield Air Lab							
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	0.996	--	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

Serial_No:04182516:50

Lab Number: L2517036
Report Date: 04/18/25

Air Canister Certification Results

Lab ID: L2517036-09 Date Collected: 03/24/25 13:00
Client ID: CAN 3013 SHELF 37 Date Received: 03/24/25
Sample Location: Field Prep: Not Specified

Sample Depth:

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

Tentatively Identified Compounds

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Units	RDL	Dilution Factor
1,4-Difluorobenzene	84			60-140	
Bromochloromethane	91			60-140	
chlorobenzene-d5	78			60-140	

Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2517036

Project Number: CANISTER QC BAT

Report Date: 04/18/25

Air Canister Certification Results

Lab ID:	L2517036-09	Date Collected:	03/24/25 13:00
Client ID:	CAN 3013 SHELF 37	Date Received:	03/24/25
Sample Location:		Field Prep:	Not Specified

Sample Depth:

Matrix:	Air
Anaytical Method:	48,TO-15-SIM
Analytical Date:	03/25/25 07:04
Analyst:	KJD

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



Project Name: BATCH CANISTER CERTIFICATION

Lab Number: L2517036

Project Number: CANISTER QC BAT

Report Date: 04/18/25

Air Canister Certification Results

Lab ID: L2517036-09 Date Collected: 03/24/25 13:00
 Client ID: CAN 3013 SHELF 37 Date Received: 03/24/25
 Sample Location: 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 Air 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	0.100	--	ND	0.518	--		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: L2517036

Project Number: CANISTER QC BAT

Report Date: 04/18/25

Air Canister Certification Results

Lab ID: L2517036-09 Date Collected: 03/24/25 13:00
 Client ID: CAN 3013 SHELF 37 Date Received: 03/24/25
 Sample Location: 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 Air 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	71		60-140
bromochloromethane	78		60-140
chlorobenzene-d5	72		60-140

Project Name: ZDG2501
Project Number: ZDG2501

Serial_No:04182516:50
Lab Number: L2518779
Report Date: 04/18/25

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(*)
L2518779-01A	Canister - 6L (Batch Certified)	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2518779-02A	Canister - 6L (Batch Certified)	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)

Project Name: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

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: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

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.

Chlordane: 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.)

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'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

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.

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.

Report Format: Data Usability Report



Project Name: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

Data Qualifiers

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

Report Format: Data Usability Report



Project Name: ZDG2501
Project Number: ZDG2501

Lab Number: L2518779
Report Date: 04/18/25

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

Pace Analytical Services 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 Pace Analytical Services shall be to re-perform the work at its own expense. In no event shall Pace Analytical Services 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 Pace Analytical Services.

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 – 8 Walkup Dr. Westborough, MA 01581

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

EPA 625.1: alpha-Terpineol

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

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

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

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

SM 2540D: TSS.

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.

MADEP-APH.

Nonpotable Water: EPA RSK-175 Dissolved Gases

Biological Tissue Matrix: EPA 3050B

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048

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.

Nonpotable Water: EPA RSK-175 Dissolved Gases

The following test method is not included in our New Jersey Secondary NELAP Scope of Accreditation:

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

Determination of Selected Perfluorinated Alkyl Substances by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry Isotope Dilution (via Alpha SOP 23528)

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

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581

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 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).

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

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

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, Na, Sr, Ti, V, 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

Certification IDs:

Westborough Facility – 8 Walkup Dr. Westborough, MA 01581

CT PH-0826, IL 200077, IN C-MA-03, KY JY98045, ME MA00086, MD 348, MA M-MA086, NH 2064, NJ MA935, NY 11148, NC (DW) 25700, NC (NPW/SCM) 666, OR MA-1316, PA 68-03671, RI LAO00065, TX T104704476, VT VT-0935, VA 460195

Mansfield Facility – 320 Forbes Blvd. Mansfield, MA 02048

CT PH-0825, ANAB/DoD L2474, IL 200081, IN C-MA-04, KY KY98046, LA 3090, ME MA00030, MI 9110, MN 025-999-495, NH 2062, NJ MA015, NY 11627, NC (NPW/SCM) 685, OR MA-0262, PA 68-02089, RI LAO00299, TX T-104704419, VT VT-0015, VA 460194, WA C954

Mansfield Facility – 120 Forbes Blvd. Mansfield, MA 02048

ANAB/DoD L2474, ME MA01156, MN 025-999-498, NH 2249, NJ MA025, NY 12191, OR 4203, TX T104704583, VA 460311, WA C1104.

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



AIR ANALYSIS

CHAIN OF CUSTODY

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

Client Information

Client: P.W. Grosser consulting

Address: 630 Johnson Ave.
Bohemia NY 11716

Phone: 631-589-6353

Fax: —

Email: RMorley@PWGrosser.com

These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List:

ALPHA Lab ID:
(Lab Use Only)

Sample ID

COLLECTION

End Date	Start Time	End Time	Initial Vacuum	Final Vacuum
03/28	10:10	09:31	-30.78	-10.50

Sample Matrix*
Initial Air
Ambient

Sampler's Initials

Can Size

ID Can

ID - Flow Controller

TO-15

TO-15 SIM

AP4

Fixed Gases

Sulfides & Mercaptans by TO-15

Sample Comments (i.e. PID)

18779-01
02 1A001
1A003

03/28 10:10 09:31 -30.78 -10.50
03/28 10:21 09:40 -32.25 -9.28

VC
VC

4991
3650

X X

X X

Please email results to
RMorley@PWGrosser.com

All Columns Below Must Be Filled Out

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

*SAMPLE MATRIX CODES

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:
Valentina Curda
Anthony Green

Date/Time:
03/28/25 10:00
3/28 12:40

Received By:
Anthony Green

Date/Time:
3/28 10:40
MAR 28 2025 2015

3/28/25 03:00
3/29/25 07:30



APPENDIX E



P.W. GROSSER CONSULTING, INC • P.W. GROSSER CONSULTING ENGINEER & HYDROGEOLOGIST, PC

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