



131 Sunnyside, LLC

Soil Vapor Extraction Interim Remedial Measure Summary Report

Former United Stellar Industries 131 Sunnyside Boulevard Plainview, New York NYSDEC Site Number 1-30-115

March 15, 2023

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Acronyms and Abbreviations

conceptual site model
feet below land surface
hollow-stem auger
interim remedial measure
New York State Department of Environmental Conservation
New York State Department of Health
polyvinyl chloride
radius of influence
soil vapor extraction
Soil Vapor Investigation
volatile organic compound

1 Introduction

On behalf of 131 Sunnyside, LLC, Arcadis has prepared this Soil Vapor Extraction Interim Remedial Measure Summary Report to describe the testing and evaluation of two soil vapor extraction (SVE) systems identified as SVE-1 and SVE-2 that were installed at 131 Sunnyside Boulevard Plainview, New York (Site) as part of an interim remedial measure (IRM) identified in the Soil Vapor Extraction Interim Remedial Measure Work Plan (Work Plan) dated October 7, 2021.

2 Site Background

Based on data that were collected in July 2010 and December 2020, trichloroethene (TCE) was identified in soil vapor at the SV-11 location and cis-1,2-dichloroethene (cis-1,2-DCE) was found in soil vapor at the SV-1 location (Figure 1). As described in the Soil Vapor Screening Evaluation Summary Report (Arcadis 2021), these VOC concentrations in soil vapor appeared to be relatively localized based on data from nearby soil vapor sample locations such as SV-12 (near SV-11) and SV-9 (near SV-1). To further evaluate soil vapor quality in the vicinity of temporary soil vapor point SV-11, two (2) permanent soil vapor probes (SV-13 and SV-14) were installed along the eastern property boundary. These soil vapor probe locations are shown on Figure 1 and are positioned along the edge of the parking lot pavement, which is the furthest east that a drill rig was able to safely access before the topography slopes downward to the adjacent property to the east.

Concentrations of TCE in soil vapor at SV-13 and SV-14 in March 2022 were 1,400 ug/m³ and 23 ug/m³, respectively, which further corroborated the premise that VOC concentrations in soil vapor appeared to be relatively localized and also diminish significantly toward the eastern property boundary. Based on this information, it was determined that a SVE IRM test would be implemented to assess whether the concentrations at SV-1 and SV-11 are the result of residual vapors trapped below the paved surfaces of the parking lot. The purpose of the SVE IRM was to remove, as reasonably as practical, the VOCs that have accumulated in soil vapor beneath the asphalt parking lot surface.

The SVE IRM consists of two SVE systems (SVE-1 and SVE-2) that were installed in the vicinity of the temporary soil vapor points SV-1 and SV-11.M). The location of SVE-1 and SVE-2 is shown on Figure 1.

3 SVE IRM System Design and Construction

Two (2) SVE wells (SVE-1 and SVE-2) were installed on February 17, 2022 to serve as extraction points for removal of VOC-impacted soil vapor. SVE-1 was installed in the vicinity of SV-11 and SVE-2 was installed in the vicinity of SV-1.

The SVE wells were constructed with 4-inch diameter Schedule 40 polyvinyl chloride (PVC) casing and 5 feet of 4-inch diameter Schedule 40 PVC screen. The SVE wells were screened from 5 to 10 ft bls to target the interval where elevated concentrations of VOCs were detected in shallow soil vapor in December 2020 (Arcadis 2021). The SVE wells were installed using hollow-stem auger (HSA) drilling methodology.

Each SVE well was connected to a portable SVE blower skid unit via permanently installed 4-inch diameter Schedule 80 PVC piping located beneath asphalt parking lot areas. Each SVE blower skid unit was equipped with a 7.5 HP, 230 VAC, regenerative blower capable of 68 inches water column (iwc) vacuum at 381 CFM and a moisture knockout tank with high level alarm. SVE blower skid units were staged in parking lot areas away from traffic flow at a landscape island (SVE-1) near the SV-11 soil vapor sample location and at a dumpster enclosure (SVE-2) near the SV-1 soil vapor sample location. A layer of 10 mil polyethylene sheeting was used to cover an exposed soil area at the SVE-1 landscape island location to mitigate potential for "short circuiting" of the SVE vacuum influence to the atmosphere. SVE Design Drawings are included in Appendix A.

Four (4) induced vacuum monitoring points (VMPs) were installed around each SVE well (total of eight [8] vapor monitoring points [VMP-1 through VMP-8]) at distances of approximately 20, 40, 60, and 80 feet and in various directions from the SVE wells to determine the radius of influence (ROI) based on a minimum vacuum level (relative to ambient pressure) of 0.1 inches of water column measured at each monitoring point.

The VMPs were constructed with 1-inch diameter Schedule 40 PVC casing and 5 feet of 1-inch diameter Schedule 40 PVC screen and were screened from 5 to 10 ft bls (i.e., screened in the same interval as the SVE wells). The locations of the SVE wells and induced vacuum monitoring points are shown on Figure 1.

4 SVE IRM System Operation and Soil Gas Sampling

The SVE IRM systems were operated 24 hours per day, 7 days a week (24/7) for a period of approximately 4 weeks each. Monitoring data was collected from the induced vacuum monitoring points during the first week of system operations and during three subsequent sample events to determine the radius of influence (ROI). Influent air samples were collected to evaluate system effectiveness and to assess if there was a decline in VOC mass removal (i.e., asymptotic behavior) during the course of the operational period and during the post-shutdown monitoring period (i.e., to assess rebound in VOC concentrations).

The SVE-2 system experienced a shut down shortly after initial startup due to a condensate knockout tank high level alarm and was off for approximately 6 days. The SVE-2 system was therefore operated for an extra week beyond the SVE-1 system to meet the four (4) week operational plan.

4.1 System Parameter Measurements

SVE system vacuum, pressure, temperature, and air flow velocity parameters were recorded during systems operation. Vacuum was also measured at VMP-1 through VMP-4 to determine the ROI for the SVE-1 system and at VMP-5 through VMP-8 to determine the ROI for the SVE-2 system. System parameter readings are included in Table 1.

4.2 Soil Vapor Sampling

During the operational period, SVE-1 and SVE-2 system influent samples were collected on a weekly basis from the influent sample port on the vacuum side of the blower motor, prior to the moisture knockout tank, to dedicated 5-liter polypropylene Tedlar bags provided by Alpha Analytical, a NYSDOH approved laboratory, located in Westborough, Massachusetts. All samples were delivered to Alpha Analytical via courier service for laboratory analysis by U.S. Environmental Protection Agency (USEPA) Method TO-15. Rebound monitoring (i.e., post shutdown soil vapor sampling) was performed one (1) week following the initial system shutdowns and again at the 5th week of system shutdown for SVE-1 system shutdown and the 6th week of SVE-2 system shutdown.

SVE IRM System Data Evaluation 5

Radius of Influence 5.1

Induced vacuum readings were collected at VMP-1 through VMP-4 to determine the ROI for the SVE-1 system and at VMP-5 through VMP-8 to determine the ROI for the SVE-2 system. The maximum ROI vacuum readings are summarized in the table that follows as well as on Figure 2 of this report.

VMP No.	Distance from SVE-1 (ft)	Direction from SVE-1	Maximum Vacuum (iwc)								
1	20	SE	-0.225								
2	40	SW	-0.032								
3	60	NE	-0.015								
4	80	NW	-0.048								
VMP No.	Distance from SVE-2 (ft)	Direction from SVE-2	Maximum Vacuum (iwc)								
VMP No.	Distance from SVE-2 (ft) 20	Direction from SVE-2 SE	Maximum Vacuum (iwc) -0.558								
VMP No. 5 6	Distance from SVE-2 (ft) 20 40	Direction from SVE-2 SE NE	Maximum Vacuum (iwc) -0.558 -0.114								
VMP No. 5 6 7	Distance from SVE-2 (ft) 20 40 60	Direction from SVE-2 SE NE SW	Maximum Vacuum (iwc) -0.558 -0.114 -0.033								
VMP No. 5 6 7 8	Distance from SVE-2 (ft) 20 40 60 80	Direction from SVE-2 SE NE SW NW	Maximum Vacuum (iwc) -0.558 -0.114 -0.033 -0.014								

Review of VMP vacuum readings indicate that each IRM well maintained greater than -0.1 iwc at a distance of 20 feet from the well and a measurable vacuum was recorded up to 80 feet from each IRM well. The reduced vacuum at some VMP locations, (i.e.,) VMP-3 and VMP-6, may be due to short-circuiting of the induced vacuum at nearby stormwater drywell structures near the VMPs.

5.2 Soil Vapor Analytical Results

A soil vapor sample collected at SVE-1 during initial system startup had a TCE concentration of 134,000 ug/m³. The subsequent soil vapor sample concentrations over time while the SVE-1 system was "ON" and operating were: 16,300 ug/m³; 11,100 ug/m³; 6,130 ug/m³; and 8,060 ug/m³. The results are presented in Table 2 and indicate a declining trend between July 21 and August 18 with the exception of an increase in TCE detected in the final sample collected during system operation. SVE-1 soil vapor sample results during the post-shutdown rebound monitoring period (i.e., system "OFF"), which occurred between August 18 and September 22, 2022, indicated TCE concentrations from 18,600 ug/m³ and 43,700 ug/m³.

As shown in Table 2, additional VOCs were detected at lower concentrations in SVE-1 soil vapor samples, but TCE was the primary VOC that drove the evaluation of VOC trends.

A soil vapor sample collected at SVE-2 during initial system startup had a TCE concentration of 9,730 ug/m³. Subsequent soil vapor sample concentrations over time while the SVE-2 system was "ON" and operating were: 1,200 ug/m³; 36.9 ug/m³; 132 ug/m³; and 548 ug/m³. The results are presented in Table 2 and indicate a declining trend between July 21 and August 25 with the exception of the increase in TCE detected in the final sample collected during system operation. SVE-2 soil vapor sample results during the post-shutdown rebound monitoring period (i.e., system "OFF"), which occurred between August 25 and September 22, 2022, TCE concentrations from 98.3 ug/m³ and 994 ug/m³.

Similar to the results observed at SVE-1, additional VOCs were detected at lower concentrations in SVE-2 soil vapor samples, but TCE was the primary VOC that drove the evaluation of VOC trends.

A summary of soil vapor analytical results is provided in Table 2 and complete laboratory analytical data reports are provided in Appendix B.

Estimated VOC mass flow rates from each system were calculated weekly during system operation based on SVE system average air flow rates and contaminant concentrations as reported in the sample analytical data. Weekly TCE and/or cis-1,2-DCE mass removal were also calculated based on air vapor sample concentrations and SVE IRM air flow rates. SVE-1 removed an estimated 10 lbs of TCE from the vadose zone and 0.02 lbs of cis-1,2-DCE. SVE-2 removed an estimated 0.6 lbs of TCE and 0.03 lbs of cis-1,2-DCE. Mass removal estimates are provided in Table 3.

5.3 Soil Vapor Treatment Evaluation

The potential requirement for soil vapor treatment was evaluated based on TCE and cis-1,2-DCE effluent discharges during the SVE IRM operating period as well as predicted concentrations during future and/or continued operations of the systems. The untreated average influent concentrations for TCE and cis-1,2-DCE and maximum recorded system air flow velocities were utilized to calculate mass emission discharges in lbs/yr in accordance with NYSDEC 6 CRR-NY-212 (Rule 212) requirements to determine if mass emissions from the SVE IRM processes might exceed the permissible annual mass emissions for the air contaminants. Calculations indicated that the annual mass emissions limits for TCE and cis-1, 2-DCE would not be exceeded and therefore system emissions treatment would not be required. Mass emission calculations are included in Appendix C.

6 SVE IRM Conclusions

Both the SVE-1 and SVE-2 IRM systems were found to have vacuum influence greater than -0.1 iwc at a 20 ft ROI and maintained a negative pressure up to an 80 ft ROI. The SVE-1 and SVE-2 IRM systems provided subsurface extraction and mass removal of TCE and other VOC constituents in the vadose zone that exhibited a declining trend while the systems were operating. The SVE IRM test period demonstrated that the technology was effective in removing VOC mass from the vadose zone.

Based upon a thorough review of the analytical results presented above, an additional onsite VOC investigation is warranted to eliminate data gaps and evaluate the potential need for SVE IRM enhancements. A supplemental on-site sampling workplan will be provided to NYSDEC in the near term presenting the proposed approach and rationale.

7 References

- Arcadis 2021. Soil Vapor Extraction Interim Remedial Measure Work Plan, Former United Stellar Industries, 131 Sunnyside Boulevard, Plainview, New York. October 2021.
- Arcadis 2021. Soil Vapor Screening Evaluation Summary Report. Former United Stellar Industries, 131 Sunnyside Boulevard, Plainview, New York. February 2021.
- Arcadis. 2007. *Site Characterization Report*. United Stellar Industries Property. 131 Sunnyside Boulevard, Plainview, New York. June 2007.

Tables

Table 1SVE IRM Operating Parameters131 Sunnyside BoulevardPlainview, New York



Parameter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Result	
Date	9/22/2022 ⁷	9/1/2022 ⁶	8/25/2022 ⁵	8/18/2022 ⁴	8/11/2022	8/3/2022	8/1/2022	7/26/2022 ³	7/21/2022 ²	7/15/2	2022 ¹
SVE-1 BLOWER SKID PARAMETERS											
Blend Valve Position	1/2 Open	1/2 Open	1/2 Open	1/2 Open	1/2 Open	1/2 Open	1/2 Open	3/4 Open	3/4 Open	Full Open	Full Closed
Runtime Hours (HMI Login)	NA	NA	652.1	NA	NA	NA	NA	NA	NA	NA	NA
System ON/OFF on Arrival	OFF	OFF	OFF	ON	ON	ON	ON	ON	OFF	OFF	OFF
System ON/OFF on Departure	OFF	OFF	OFF	OFF	ON	ON	ON	OFF	ON	OFF	OFF
Knockout Tank Level (in)	0	NA	0	0	0	0	0	0	0	0	0
Influent Vaccum (iwc)	-52	NA	-53	-52	-51	-51	-52	-48	-45	-41	-100 +
Influent Temperature (⁰ F)	74	NA	88	87	82	83	72	83	78	80	80
Differential Pressure (iwc)	5.8	NA	6	6	5.8	6	6	6	6	NA	NA
Air Filter Differential Pressure (iwc)	0	NA	0	0	0	0	0	0	0	0	0
Effluent Pressure (iwc)	1	NA	1	1	0.5	2	2	2	4.5	5	< 1
Efffluent Temperature (⁰ F)	120	NA	125	130	125	130	110	125	120	120	120
Effluent Velocity (ft/min)	NA	NA	5,866	5,724	5,874	5,840	NA	6,699	6,162	NA	NA
SVE-2 BLOWER SKID PARAMETERS											
Blend Valve Position	Full Open	Full Open	Full Open	Full Open	Full Open	Full Open	Full Open	Full Open	Full Open	Full Open	Full Closed
Runtime Hours (HMI Login)	NA	681.2	681.2	NA	NA	NA	NA	NA	NA	NA	NA
System ON/OFF on Arrival	OFF	OFF	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF
System ON/OFF on Departure	OFF	OFF	OFF	ON	ON	ON	ON	OFF	ON	OFF	OFF
Knockout Tank Level (in)	0	0	0	0	0	0	0	FULL	0	0	0
Influent Vaccum (iwc)	-22	-22	-21.5	-23	-24	-22	-22	NA	-25	-21	-61
Influent Temperature (⁰ F)	80	88	84	83	82	80	80	NA	81	90	80
Differential Pressure (iwc)	7.2	7.2	7.2	7	7.2	7	7	NA	6	NA	NA
Air Filter Differential Pressure (iwc)	0	0	0	0	0	0	0	NA	0	NA	NA
Effluent Pressure (iwc)	3	2.5	2.5	2.5	2.5	3	2.5	NA	4.5	4	2.3
Efffluent Temperature (°F)	100	110	110	110	125	110	110	NA	110	105	130
Effluent Velocity (ft/min)	NA	7,053	6,624	7,411	6,693	6,777	NA	NA	6,162	NA	NA
SVE Wellhead Readings											
SVE-1 (iwc)	NA	NA	NA	-55	NA	-53	NA	-52	NA	-42	NA
SVE-2 (iwc)	NA	NA	-23	-23	NA	NA	NA	NA	NA	-22	NA

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Table 1 SVE IRM Operating Parameters 131 Sunnyside Boulevard Plainview, New York



Parameter	Result	Result	Result	Result	Result	Result	Result	Result	Result	Res	sult
Date	9/22/2022 ⁷	9/1/2022 ⁶	8/25/2022 ⁵	8/18/2022 ⁴	8/11/2022	8/3/2022	8/1/2022	7/26/2022 ³	7/21/2022 ²	7/15/2022 ¹	
VE-1 Vapor Monitoring Point (VMP) Readings											
VPM-1 (iwc)	NA	NA	NA	-0.209	NA	-0.225	NA	-0.209	-0.213	NA	NA
VPM-2 (iwc)	NA	NA	NA	-0.03	NA	-0.023	NA	-0.032	-0.012	NA	NA
VMP-3 (iwc)	NA	NA	NA	-0.015	NA	-0.006	NA	-0.003	0.019	NA	NA
VMP-4 (iwc)	NA	NA	NA	-0.013	NA	-0.004	NA	-0.048	0.030	NA	NA
SVE-2 Vapor Monitoring Point (VMP) R	eadings										
VPM-5 (iwc)	NA	NA	-0.558	-0.505	NA	-0.525	NA	NA	-0.519	NA	NA
VPM-6 (iwc)	NA	NA	-0.059	-0.05	NA	-0.065	NA	NA	-0.114	NA	NA
VMP-7 (iwc)	NA	NA	-0.05	-0.027	NA	-0.033	NA	NA	-0.006	NA	NA
VMP-8 (iwc)	NA	NA	-0.014	-0.008	NA	-0.006	NA	NA	0.006	NA	NA

Notes:

1. SVE IRM systems temporarily started after installation for shakeout and troubleshooting and initial parameter readings.

2. SVE IRM system startups.

3. SVE-2 system found OFF on 7/26/22. SVE-2 system had shutdown on 7/23/22 due to knockout tank high condensate level and was re-started on 7/29/22.

SVE-1 shutdown of 7/26/22 due to blower motor overload at time of blend valve adjustment. SVE-1 was re-started on 7/29/22.

4. SVE-1 shut OFF after sample collection. SVE-2 remained ON.

5. SVE-2 shut OFF after sample collection. SVE-1 temporarily started for 1 week rebound sample collection and shut OFF.

6. SVE-2 temporarily started for 1 week rebound sample collection and shut OFF. SVE-1 remained OFF.

7. SVE-1 and SVE-2 temporarily started for final rebound sample collection and shut OFF. Both SVE-1 and SVE-2 systems remain OFF.

^oF: degrees Fahrenheit NA: not applicable or not available ft/min: feet per minute

iwc: inches of water column

Table 2 Summary of VOC Analyses for SVE IRM Soil Vapor Samples 131 Sunnyside Boulevard Plainview, New York



		Sample ID: Lab ID: Collection Date: Sample Matrix:	SVE-1 L2239129-02 7/21/2022 SOIL_VAPOR	SVE-1 L2240234-01 7/26/2022 SOIL_VAPOR	SVE-1 L2241805-01 8/3/2022 SOIL_VAPOR	SVE-1 L2243287-01 8/11/2022 SOIL_VAPOR	SVE-1 L2244639-01 8/18/2022 SOIL_VAPOR	SVE-1 L2244639-01 8/25/2022 SOIL_VAPOR	SVE-1 L2244639-01 9/22/2022 SOIL_VAPOR
Analvte	CAS	(ug/m3)	Concentration	Concentration	Concentration	Concentration	ON ² Concentration	Concentration	Concentration
Volatile Organics in Air									
Isopropanol	67-63-0		<472	<49.9	52.1	35.4	33.2	<49.9	<134
1,1-Dichloroethane	75-34-3		311	<32.8	<23.4	<13.8	<16.2	<32.9	<86
cis-1,2-Dichloroethene	156-59-2		1,650	<32.1	92.8	47.6	50	122	318
Tetrahydrofuran	109-99-9		3,040	<59.9	59.3	51.9	59.9	501	<160
1,1,1-Trichloroethane	71-55-6		993	<44.2	<31.6	<18.6	22.8	70.9	227
Trichloroethene	79-01-6		134,000	16,300	11,100	6,130	8,060	18,600	43,700
Toluene	108-88-3		<290	<30.5	<21.8	13.9	<15.1	<30.6	<81.8
Tetrachloroethene	127-18-4		128	180	119	80.7	104	128	210

Analyte	CAS	Sample ID: Lab ID: Collection Date: Sample Matrix: SVE IRM Status: (ug/m3)	SVE-2 L2239129-01 7/21/2022 SOIL_VAPOR STARTUP/ BASELINE Concentration	SVE-2 L2241805-02 8/3/2022 SOIL_VAPOR ON Concentration	SVE-2 L2243287-02 8/11/2022 SOIL_VAPOR ON Concentration	SVE-2 L2244639-02 8/18/2022 SOIL_VAPOR ON Concentration	SVE-2 L2244639-02 8/25/2022 SOIL_VAPOR ON ⁵ Concentration	SVE-2 L2244639-02 9/1/2022 SOIL_VAPOR OFF/ REBOUND Concentration	SVE-2 L2244639-02 9/22/2022 SOIL_VAPOR OFF/ REBOUND Concentration
Volatile Organics in Air									
Dichlorodifluoromethane	75-71-8		<23.9	<3.3	2.29	1.96	2.64	<2.6	<2.47
Chloromethane	74-87-3		<9.99	<1.38	0.432	0.425	<0.826	<1.09	<1.03
Ethanol	64-17-5		<228	<31.5	50.3	31.7	23.6	<24.9	<23.6
Acetone	67-64-1		73.6	15.7	21	14.7	13.6	8.86	7.74
Trichlorofluoromethane	75-69-4		<27.2	<3.75	1.42	1.23	<2.25	4.24	6.01
Isopropanol	67-63-0		<29.7	12.9	35.4	2.75	23.9	20.3	12.5
Tertiary butyl Alcohol	75-65-0		<36.7	<5.06	1.69	39.7	<2.02	<4	<3.79
Carbon disulfide	75-15-0		<15.1	<2.08	1.48	1.26	<1.25	5.45	4.48
Freon-113	76-13-1		<37.1	<5.11	4.15	4.78	4.06	<4.03	<3.83
trans-1,2-Dichloroethene	156-60-5		29.6	<2.64	<0.793	<0.793	<1.59	4.04	9.04
2-Butanone	78-93-3		81.7	7.34	6.49	4.93	3.66	15	5.19
cis-1,2-Dichloroethene	156-59-2		440	29.8	19.5	13.3	11.8	40	63.8
Ethyl Acetate	141-78-6		<43.6	12.7	3.64	<1.8	<3.6	<4.76	<4.5

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Table 2 Summary of VOC Analyses for SVE IRM Soil Vapor Samples 131 Sunnyside Boulevard Plainview, New York



		Sample ID:	SVE-2	SVE-2	SVE-2	SVE-2	SVE-2	SVE-2	SVE-2
		Lab ID:	L2239129-01	L2241805-02	L2243287-02	L2244639-02	L2244639-02	L2244639-02	L2244639-02
		Collection Date:	7/21/2022	8/3/2022	8/11/2022	8/18/2022	8/25/2022	9/1/2022	9/22/2022
		Sample Matrix:	SOIL_VAPOR	SOIL_VAPOR	SOIL_VAPOR	SOIL_VAPOR	SOIL_VAPOR	SOIL_VAPOR	SOIL_VAPOR
		SVE IRM Status:	STARTUP/ BASELINE	ON	ON	ON	ON⁵	OFF/ REBOUND	OFF/ REBOUND
Analyte (cont'd)	CAS	(ug/m3)	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration
Chloroform	67-66-3		<23.6	<3.26	0.982	<0.977	<1.95	<2.57	2.89
Tetrahydrofuran	109-99-9		495	17.8	10.1	6.58	12.8	584	284
n-Hexane	110-54-3		<17.1	<2.35	2.18	5.11	<1.41	<1.85	<1.76
1,1,1-Trichloroethane	71-55-6		33.8	<3.64	<1.09	<1.09	<2.18	<2.37	3.64
Benzene	71-43-2		<15.5	<2.13	3.05	1.11	<1.28	<1.68	<1.6
Cyclohexane	110-82-7		<16.7	<2.3	2.8	0.857	<1.38	<1.81	<1.72
Trichloroethene	79-01-6		9,730	1,200	36.9	132	548	98.3	994
2,2,4-Trimethylpentane	540-84-1		<22.6	<3.12	5.51	1.44	3.62	<2.46	<2.34
Heptane	142-82-5		<19.8	4.34	4.06	<0.82	<1.64	<2.16	<2.05
4-Methyl-2-pentanone	108-10-1		<49.6	<6.84	2.95	<2.05	<4.1	<4.51	<5.12
Toluene	108-88-3		23.7	7.39	12.1	5.16	1.55	2.42	<1.88
Tetrachloroethene	127-18-4		99.7	34	19	21.5	20.2	6.78	13.8
Ethylbenzene	100-41-4		<21	3.23	2.86	1.26	<1.74	<2.28	<2.17
p/m-Xylene	179601-23-1		<42	12.9	11.6	5.6	7.17	7.04	<4.34
Styrene	100-42-5		<20.6	<2.84	1.06	<0.852	<1.7	<2.24	<2.13
o-Xylene	95-47-6		<21	4.95	4.47	2.28	2.81	2.5	<2.17
1,3,5-Trimethylbenzene	108-67-8		<23.8	<3.28	1.24	<0.983	<1.97	<2.59	<2.46
1,2,4-Trimethylbenzene	95-63-6		<23.8	3.34	4.62	2.12	<1.97	<2.59	<2.46

Notes:

1. ug/m3 = micrograms per cubic meter of air.

2. CAS = Chemical Abstracts Service number. A unique numerical identifier assigned by the Chemical Abstracts Service (CAS) to every known chemical substance.

3. "<" Indicates the constituent was not detected at a concentration above the minimum laboratory reporting limit (RL) indicated, otherwise reported as non-detect (ND).

4. SVE System IRM Status - Indicates the operating status of the SVE IRM system at the time of air gas sample collection. Startup samples collected immediately upon SVE IRM systems startup. Rebound samples collected when SVE IRM systems were "OFF". Systems were temporarily started to collect rebound samples.

5. SVE IRM System was shutdown following final "ON" operating air vapor sample collection.

Table 3 SVE IRM TCE and cis 1,2 Dichloroethene Mass Removed 131 Sunnyside Boulevard Plainview, New York



SVE-1 TRICHLOROETHYLENE ESTIMATED MASS REMOVAL

Sample Date	Averaged TCE Sample ¹ Concentration (ug/m3)	Air Flow ² Velocity (ft/min)	Estimated Run Time ³ (hours)	Air Flow Volume (ft^3/hour)	Flow Rate (m^3/hr)	Estimated Mass removed TCE (Ibs)
7/26/2022	75,150	6,431	132	18,939	536	3.7
8/3/2022	13,700	6,270	120	18,465	523	2.2
8/11/2022	8,615	5,857	192	17,250	488	1.9
8/18/2022	7,095	5,799	168	17,079	484	2.1
					ΤΟΤΑΙ	10

SVE-1 cis 1,2 DICHLOROETHENE ESTIMATED MASS REMOVAL

Sample Date	Averaged 1,2-DCE Sample ¹ Concentration (ug/m3)	Air Flow ² Velocity (ft/min)	Estimated Run Time ³ (hours)	Air Flow Volume (ft^3/hour)	Flow Rate (m^3/hr)	Estimated Mass removed 1,2 DCE (lbs)
7/26/2022	825	6,431	132	18,939	536	0.00
8/3/2022	46	6,270	120	18,465	523	0.02
8/11/2022	70	5,857	192	17,250	488	0.01
8/18/2022	49	5,799	168	17,079	484	0.01
					TOTAL	0.05

SVE-2 TRICHLOROETHYLENE ESTIMATED MASS REMOVAL

Sample Date	Averaged TCE Sample ¹ Concentration (ug/m3)	Air Flow ² Velocity (ft/min)	Estimated Run Time ³ (hours)	Air Flow Volume (ft^3/hour)	Flow Rate (m^3/hr)	Estimated Mass removed TCE (Ibs)
8/3/2022	5,465	6,470	192	19,054.3	539.6	0.40
8/11/2022	618.5	6,735	192	19,836.2	561.7	0.01
8/18/2022	84.5	7,052	168	20,769.9	588.1	0.04
8/25/2022	340	7,018	168	20,668.2	585.3	0.17
					τοται	0.6

SVE-2 cis 1,2 DICHLOROETHENE ESTIMATED MASS REMOVAL

Sample Date	Averaged 1,2-DCE Sample ¹ Concentration (ug/m3)	Air Flow ² Velocity (ft/min)	Estimated Run Time ³ (hours)	Air Flow Volume (ft^3/hour)	Flow Rate (m^3/hr)	Estimated Mass removed 1,2 DCE (lbs)	
8/3/2022	234.9	6,470	192	19,054	540	0.010	
8/11/2022	24.7	6,735	192	19,836	562	0.007	
8/18/2022	16.4	7,052	168	20,770	588	0.004	
8/25/2022	12.6	7,018	168	20,668	585	0.004	
					TOTAL	0.02	

Notes:

1. Soil vapor sample concentrations are the average of untreated influent sample concentration data from the day of sample collection and the previous week's influent sample concentration data.

2. Air flow velocity used in calculation estimates is the average of the air flow velocity measured at the time of soil vapor sample collection and the previous week's air flow velocity reading.

3. SVE IRM systems run times are estimated based on calendar days operating less days system "OFF" due to alarm conditions indicated in Table 1.





	APPROXIMATE PROPERTY LINE
SV-1 <mark>//</mark>	SOIL VAPOR SAMPLE LOCATION

- SOIL VAPOR EXTRACTION WELL
- SOIL VAPOR PROBE
- VACUUM MONITORING POINT VMP-1

- SITE AERIAL PHOTOGRAPH FROM GOOGLE EARTH PRO, DATED 09.19.2019. 1.
- 2. ALL LOCATIONS ARE APPROXIMATE.







FIGURE 1

SITE MAP AND SVE IRM WELL LOCATIONS

FORMER UNITED STELLAR INDUSTRIES SITE 131 SUNNYSIDE BOULEVARD PLAINVIEW, NEW YORK









131 SUNNYSIDE BOULEVARD TEMPORARY SOIL VAPOR EXTRACTION DESIGN

EXISTING BUILDING





LOCATION MAP

GRAPHIC SCALE

NEW YORK LOCATION



JUNE 2022

131 SUNNYSIDE BOULEVARD PLAINVIEW, NEW YORK 11803



ARCADIS OF NEW YORK, INC.



INDEX TO DRAWINGS

- 1. TITLE SHEET
- 2. OVERHEAD SITE MAP WITH PIPING AND ELECTRICAL CONDUIT LAYOUT
- 3. MISCELLANEOUS DETAILS
- 4. MISCELLANEOUS DETAILS
- 5. MISCELLANEOUS DETAILS
- 6. BLOWER PHOTOS AND SCHEDULE



Date Signed THIS BAR USE TO VERIFY By Ckd No. Date Revisions REPRESENTS ONE FIGURE REPRODUCTION INCH ON THE THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK AND MAY NOT BE REUSED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME. esigned by Drawn by ORIGINAL DRAWING: SCALE BS/KI ST/KC

ELECTRIC AND CTOR INSTALLATION JGH WALL FOR ELECTR

APPROXIMATE LOCATION OF EXISTING 208VAC 3P ELECTRIC SERVICE PANEL ISIDE BUILDING

EXISTING 208VAC 3P ELEC SERVICE PANEL INSIDE SVE CONEX CONTAINER

SAW-CT PARKING LOT AND TRENCH INSTALL 1" SCH 40 PVC ELECTRIC CONDU

UND LANDSCAPE ISLAND WITH NATIVE SPOILS PRIOR TO INSTALLATION OF VAPOR BARRIER COVER. FORM AND OUR IN-PLACE CONCRETE PAD ATOR VAPOR BARRIER COVE

AND SVE WELL

1. URNISH MATERIALS AND INSTALL OIL VAPOR EXTRACTION WELL

LECTRICAL CONNECTIO OWER SKID CONTROL PAN · Put



Project Mg

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NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW



131 SUNNYSIDE LLC. • 131 SUNNYSIDE BOULEVARD, PLAINVIEW, NEW YORK TEMPORARY SOIL VAPOR EXTRACTION DESIGN



APPROXIMATE PROPERTY LINE SOIL VAPOR EXTRACTION WELL HP BLOWER SKID PVC VAPOR EXTRACTION PIPE

PVC ELECTRICAL CONDUIT

NORK TO BE COMPLETED BY ARCADIS

NORK TO BE COMPLETED BY ELECTRICAL CONTRACTOR HIRED BY

WORK TO BE COMPLETED BY GENERA CONTRACTOR HIRED BY OWNER

- SITE AERIAL PHOTOGRAPH FROM GOOGLE EARTH PRO, DATED 8/18/2020.
- ALL LOCATIONS ARE APPROXIMATE.
- OWNER TO PERFORM SAW-CUT & TRENCHING AT ASPHALT PARKING. OWNER TO INSTALL ELECTRICAL PVC & CONDUCTORS FROM EXISTING ELECTRICAL PANELS INSIDE BUILDING TO TERMINATION INSIDE NEMA ENCLOSURE OF (2) TEMPORARY SVE BLOWER TREATMENT SYSTEMS.
- OWNER TO MAKE (2) ELECTRICAL CONNECTIONS IN EXISTING ELECTRICAL PANELS TO PROVIDE 208 VAC 3P POWER TO (2) TEMPORARY SVE BLOWER TREATMENT SYSTEMS
- OWNER TO FURNISH & INSTALL (2) CIRCUIT BREAKERS IN EXISTING ELECTRICAL PANELS.
- ARCADIS TO INSTALL SVE EXTRACTION WELLS SVE 1 AND SVE 2. ARCADIS TO FURNISH AND INSTALL BELOW-GRADE PVC PIPING FROM SVE EXTRACTION WELLS TO SVE TREATMENT
- ARCADIS TO FURNISH AND INSTALL (2) PRE-ENGINEERED & ASSEMBLED TEMPORARY SVE BLOWER TREATMENT
- SYSTEMS. OWNER TO BACKFILL AND COMPACT PIPING AND ELECTRICAL TRENCHES.
- OWNER TO RESTORE ASPHALT PARKING LOT AND STRIPING AT TRENCH LOCATIONS.
- SVE-1 GRASS ISLAND SHALL BE MOUNDED TO A LEVEL AREA ABOVE CONCRETE CURB TO ACCOMMODATE SVE-1 BLOWER SKID INSTALLATION AND TO SHED WATER AWAY FROM BLOWER SKID.
- SVE-1 GRASS ISLAND SHALL BE COVERED WITH 10 MIL POLYETHYLENE SHEETING TO THE TO EDGE OF CONCRETE CURB AFTER LEVEL AND MOUNDING. FASTEN SHEETING ROLLED X 2 ONTO BATTEN BAR AT TOP OF CONCRETE CURB WITH MASONRY NAILS AT MINIMUM EVERY 12" MINIMUM EVERY 12".
- SVE-1 BLOWER SKID SHALL BE INSTALLED ON TOP OF 3/4 MARINE GRADE PLYWOOD PLACED ON LEVEL AREA AND POLYETHYLENE SHEETING.

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ARCADIS Project No. 30022232.ENCD0

Date JUNE 2022

ARCADIS 2 HUNTINGTON QUADRANGLE, SUITE 1S10 MELVILLE, NY 11747

			BILL	OF MATERIALS		
ITEM	QTY	UNIT	MATERIALS	MODEL	MANUFACTURER	INSTALLER
1	10	LF	(2) - 4" Diameter PVC Well Casing	SCH 40 ASTM D1785	JM Eagle or Equivalent	Arcadis
2	10	LF	(2) - 4" Diameter 20 Slot PVC	SCH 40 ASTM D1785	JM Eagle or Equivalent	Arcadis
	050		1" Diameter PVC Electrical		M Facto as Fauivalant	
3	350		Conduit	SCH 40 ASTM D1785		Owner
4	40	LF	1" Diameter Galvanized Electrical RMC w/40-mil thick exterior PVC coating	NEC Article 344	Allied Tube & Conduit or Equivalent	Owner
5	600	LF	SVE-1 - (3) #8 Power Conductor	Type XHHW-2 ASTM B3, B8	Southwire or Equivalent	Owner
	000		SV/E 1 (1) #9 Cround Conductor	Type XHHW-2 ASTM B3. B8	Southwire or Fauturlant	0
6	200		SVE-1 (1)- #8 Ground Conductor	or ASTM B33	Southwire or Equivalent	Owner
7	825	LF	SVE-2 (3) - #6 Power Conductor	ıype XHHW-2 ASTM B3, B8 or ASTM B33	Southwire or Equivalent	Owner
8	275	LF	SVE-2 (1) - #8 Ground Conductor	Type XHHW-2 ASTM B3, B8	Southwire or Equivalent	Owner
			Circit Proglers	ANSI/UL 1449, UL 1283.	Electrician to Field Verify Existing	
9	2	EA	40 Amp, 208VAC 3 Pole	IEEE C62.11, IEEE C62.41 and IEEE C62.45	Service Panel Manufacturer and Select Make and Model	Owner
10	550	LF	4" Wide Foil Detection Tape	400 Series or Equivalent	Scotch or Equivalent	Owner
11	100	LF	4" Diameter PVC Piping	SCH 80 ASTM D1785	JM Eagle or Equivalent	Arcadis
12	12	EA	3" PVC Tees, Threaded Fittings and	SCH 40 ASTM D1785	JM Eagle or Equivalent	Arcadis
10	20		Solvent Weld End Cap Fittings		IM Fadle or Equivalent	Aroadia
13	20		4" PVC Tees 90° Elbows 45° Elbows	осн 40 АбтМ D1785	JIVI EAGLE OF EQUIVAIENT	Arcadis
14	21	EA	Couples and Solvent Weld End Cap	SCH 80 ASTM D1785	JM Eagle or Equivalent	Arcadis
15	Q		3" Dlameter PVC Pining		JM Fagle or Equivalent	Arcadia
10	0				on Lagio or Equivalent	
16	2	EA	Non-Fusible NEMA 4 Disconnect Switch	ANSI/UL 1449, UL 1283.IEEE C62.11, IEEE C62.41 and	Square D or Equivalent	Owner
			00 Amp, 200 VAC, 3 Fole	IEEE C62.45		
17	2	EA	2.5 Inch Vacuum Gauge 0 to -60 IWC 1/4	PGCNBTY630452H60WCV	PRM or Equivalent	Arcadis
			Monitoring Manhole Cover 12" x 12" Bolt	A0721-101		
18	2	EA	Down Lid Galvanized Skirt	AASHTO H20	Enviro Design or Equivalent	Arcadis
19	4	EA	Aluminum 3" Male Camlock X 3" Female NPT	GA30M30FN	Camlock Direct or Equivalent	Arcadis
20	800	SE	Vapor Barrier Black Sheeting	10 MIL	ULINE or Equivalent	Arcadia
20				ASTM E1745		
21	2	EA	Blower Skid Package	7.5 HP TEFC Motor/ FPZ Regenerative Blower	Fliteway	Arcadis
*Note: Q	uantity esti	mations a	re approximate, contractor to provide all mate	rials to construct as shown in dr	awings.	
	Restoratio	n material	s are not included.			
(ISTING - LOT TO			FURNISH AND INSTALL		RNISH AND INSTALL 2.5 INCH 0 T CUUM GAUGE 1/4 INCH NPT BAC	O -60 IWC K M <u>OUNT.</u>
ROUND ASING.			NEW PROTECTIVE COVER FLUSH TO GROUND		P AND THREAD INTO END CAP	
					DEINOTAL L 41 OOL	
<u>riping</u>					REINSTALL 4" SCH PVC THREADED	140
				/	FITTING AND END	CAP
				1' /		
MPORT	.0	<				
	N - 3(
	MIM .			IATE	_ /	
	S 24			MIXC	20 N	
	ARIE					
	\$			AF		- CUT EXISTING
IOVED -						GRADE AFTE
IPACT		<u>SLOPE 0</u> .	5% TOWARD SVE WELL			AND INSTALL
					/	
ISTALL -					OWNER TO	HAND DIG ARC
CPIPE	OWNER	R TO TRE	NCH FROM 24" BELOW		TO 36" BEL	OW GRADE SU
	GRADE	AT SVE-	2 BLOWER SKID TO 30" NEAR SVE-2 WELL TO		PIPING CO	NNECTION BAC
	ACCOM	IODATE S			AND COMP SVE PIPING	ACT FOLLOWIN G. MAINTAIN BA
			OF SVE PIPING.		EVISTING	



Ъď LYR:ON= 2022/01-Ξï Σ 'n≷ LD:G. AINVIE ERGER LLC-PL TEINBE IYSIDE, ωŻ DB:G. 31 SUN SER AUSi Also Ξğ . ⊃ \overline{O}



131 SUNNYSIDE LLC. • 131 SUNNYSIDE BOULEVARD, PLAINVIEW, NEW YORK TEMPORARY SOIL VAPOR EXTRACTION DESIGN

MISCELLAN

NO ALTERATIONS PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW

ARCADIS Project No. 30022232.ENCD0
Date JUNE 2022
ARCADIS 2 HUNTINGTON QUADRANGI SUITE 1S10

3

EXISTING SOIL VAPOR EXTRACTION WELL NOT TO SCALE



MELVILLE, NY 11747



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TEMPORARY SOIL VAPOR EXTRACTION DESIGN





NEW YORK STATE EDUCATION LAW

MISCELLANEOUS DETAILS

Date JUNE 2022 ARCADIS 2 HUNTINGTON QUADRANGLE, SUITE 1S10 MELVILLE, NY 11747

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	Fliteway Blower Package								
Item	Qty.	Supplier	Description						
1	1	Fliteway	Inlet Vacuum Gauge						
2	1	Fliteway	Inlet Temperaure Gauge						
3	1	Fliteway	Inlet Sample Port						
4	1	Fliteway	Knockout Tank						
5	1	Fliteway	Inlet Pitot Tube Flow Sensor						
6	1	Fliteway	Differential Pressure Gauge						
7	1	Fliteway	10-micron Inline Filter						
8	1	Fliteway	Inline Filter Differential Pressure Gauge						
9	1	Fliteway	2" Manual Dilution Valve						
10	1	FPZ	FPZ K08-MS Regenerative Blower						
11	1	FPZ	7.5 HP 208-230/460 3 Phase TEFC Motor						
12	1	Fliteway	Nema 4 Control Panel						

NOTES:

- 1. ARCADIS SHALL PROVIDE AND INSTALL TWO SKID MOUNTED BLOWER PACKAGES AS MANUFACTURED BY FLITEWAY AND DESCRIBED ABOVE.
- 2. ELECTRIC POWER FOR BLOWER SKID SHALL BE 208 VOLTS AC.
- 3. POWER SUPPLY SHALL BE FROM A LOCATION DESIGNATED BY OWNER.
- 4. WIRE AND CONDUIT SHALL BE SUITABLE FOR OUTDOOR APPLICATIONS.



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BLOWER PHOTOS AND SCHEDULE

ARCADIS Project No. 30022232.ENCD0 Date JUNE 2022 ARCADIS

2 HUNTINGTON QUADRANGLE, SUITE 1S10 MELVILLE, NY 11747

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ANALYTICAL REPORT

Lab Number:	L2239129
Client:	Arcadis of New York, Inc.
	Two Huntington Quadrangle
	Suite 1S10
	Melville, NY 11747
ATTN:	Steven Feldman
Phone:	(631) 249-7600
Project Name:	131 SUNNYSIDE BLVD
Project Number:	30017762.00012
Report Date:	08/03/22

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

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



Serial_No:08032216:22

 Project Name:
 131 SUNNYSIDE BLVD

 Project Number:
 30017762.00012

 Lab Number:
 L2239129

 Report Date:
 08/03/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2239129-01	SVE-2	SOIL_VAPOR	PLAINVIEW NY	07/21/22 16:00	07/21/22
L2239129-02	SVE-1	SOIL_VAPOR	PLAINVIEW NY	07/21/22 15:30	07/21/22



 Project Name:
 131 SUNNYSIDE BLVD

 Project Number:
 30017762.00012

Lab Number: L2239129 Report Date: 08/03/22

Case Narrative

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

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

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

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

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

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



 Project Name:
 131 SUNNYSIDE BLVD

 Project Number:
 30017762.00012

 Lab Number:
 L2239129

 Report Date:
 08/03/22

Case Narrative (continued)

Volatile Organics in Air

L2239129-01D and -02D: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

L2239129-01D and -02D: Samples were transferred from a Tedlar bag into a fused silica lined canister upon receipt in order to extend the holding time for 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.

Christoph J Christopher J. Anderson

Authorized Signature:

Title: Technical Director/Representative

Date: 08/03/22



AIR



Serial_No:08032216:22

Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2239129
Project Number:	30017762.00012	Report Date:	08/03/22

SAMPLE RESULTS

Lab ID: Client ID: Sample Location:	D Y				Date Collected: 07 Date Received: 07 Field Prep: No			/21/22 16:00 /21/22 ot Specified		
Sample Depth: Matrix: Anaytical Method: Analytical Date: Analyst:	Soil_Vapor 48,TO-15 08/02/22 01:44 TS									
			ppbV			ug/m3			Dilution	
Parameter		Results	RL	MDL	Results	RL	MDL	Qualifier	Factor	
Volatile Organics in	Air - Mansfield La	ab								
Dichlorodifluoromethane	•	ND	4.84		ND	23.9			24.18	
Chloromethane		ND	4.84		ND	9.99			24.18	
Freon-114		ND	4.84		ND	33.8			24.18	
Vinyl chloride		ND	4.84		ND	12.4			24.18	
1,3-Butadiene		ND	4.84		ND	10.7			24.18	
Bromomethane		ND	4.84		ND	18.8			24.18	
Chloroethane		ND	4.84		ND	12.8			24.18	
Ethanol		ND	121		ND	228			24.18	
Vinyl bromide		ND	4.84		ND	21.2			24.18	
Acetone		31.0	24.2		73.6	57.5			24.18	
Trichlorofluoromethane		ND	4.84		ND	27.2			24.18	
Isopropanol		12.2	12.1		30.0	29.7			24.18	
1,1-Dichloroethene		ND	4.84		ND	19.2			24.18	
Tertiary butyl Alcohol		ND	12.1		ND	36.7			24.18	
Methylene chloride		ND	12.1		ND	42.0			24.18	
3-Chloropropene		ND	4.84		ND	15.1			24.18	
Carbon disulfide		ND	4.84		ND	15.1			24.18	
Freon-113		ND	4.84		ND	37.1			24.18	
trans-1,2-Dichloroethene	9	7.47	4.84		29.6	19.2			24.18	
1,1-Dichloroethane		ND	4.84		ND	19.6			24.18	
Methyl tert butyl ether		ND	4.84		ND	17.4			24.18	
2-Butanone		27.7	12.1		81.7	35.7			24.18	
cis-1,2-Dichloroethene		111	4.84		440	19.2			24.18	



07/21/22 16:00

Not Specified

07/21/22

Date Collected:

Date Received:

Field Prep:

Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2239129
Project Number:	30017762.00012	Report Date:	08/03/22

SAMPLE RESULTS

Lab ID: L2239129-01 D Client ID: SVE-2 Sample Location: PLAINVIEW NY

Sample Depth:

Campie Deptil.		ppbV			ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor	
Volatile Organics in Air - Mansf	ield Lab								
Ethyl Acetate	ND	12.1		ND	43.6			24.18	
Chloroform	ND	4.84		ND	23.6			24.18	
Tetrahydrofuran	168	12.1		495	35.7			24.18	
1,2-Dichloroethane	ND	4.84		ND	19.6			24.18	
n-Hexane	ND	4.84		ND	17.1			24.18	
1,1,1-Trichloroethane	6.19	4.84		33.8	26.4			24.18	
Benzene	ND	4.84		ND	15.5			24.18	
Carbon tetrachloride	ND	4.84		ND	30.4			24.18	
Cyclohexane	ND	4.84		ND	16.7			24.18	
1,2-Dichloropropane	ND	4.84		ND	22.4			24.18	
Bromodichloromethane	ND	4.84		ND	32.4			24.18	
1,4-Dioxane	ND	4.84		ND	17.4			24.18	
Trichloroethene	1810	4.84		9730	26.0			24.18	
2,2,4-Trimethylpentane	ND	4.84		ND	22.6			24.18	
Heptane	ND	4.84		ND	19.8			24.18	
cis-1,3-Dichloropropene	ND	4.84		ND	22.0			24.18	
4-Methyl-2-pentanone	ND	12.1		ND	49.6			24.18	
trans-1,3-Dichloropropene	ND	4.84		ND	22.0			24.18	
1,1,2-Trichloroethane	ND	4.84		ND	26.4			24.18	
Toluene	6.29	4.84		23.7	18.2			24.18	
2-Hexanone	ND	4.84		ND	19.8			24.18	
Dibromochloromethane	ND	4.84		ND	41.2			24.18	
1,2-Dibromoethane	ND	4.84		ND	37.2			24.18	
Tetrachloroethene	14.7	4.84		99.7	32.8			24.18	
Chlorobenzene	ND	4.84		ND	22.3			24.18	
Ethylbenzene	ND	4.84		ND	21.0			24.18	



07/21/22 16:00

Not Specified

07/21/22

Date Collected:

Date Received:

Field Prep:

Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2239129
Project Number:	30017762.00012	Report Date:	08/03/22

SAMPLE RESULTS

Lab ID: L2239129-01 D Client ID: SVE-2 Sample Location: PLAINVIEW NY

Sample Depth:

	ppbV			ug/m3				Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor	
Volatile Organics in Air - Mansfield Lab									
p/m-Xylene	ND	9.67		ND	42.0			24.18	
Bromoform	ND	4.84		ND	50.0			24.18	
Styrene	ND	4.84		ND	20.6			24.18	
1,1,2,2-Tetrachloroethane	ND	4.84		ND	33.2			24.18	
o-Xylene	ND	4.84		ND	21.0			24.18	
4-Ethyltoluene	ND	4.84		ND	23.8			24.18	
1,3,5-Trimethylbenzene	ND	4.84		ND	23.8			24.18	
1,2,4-Trimethylbenzene	ND	4.84		ND	23.8			24.18	
Benzyl chloride	ND	4.84		ND	25.1			24.18	
1,3-Dichlorobenzene	ND	4.84		ND	29.1			24.18	
1,4-Dichlorobenzene	ND	4.84		ND	29.1			24.18	
1,2-Dichlorobenzene	ND	4.84		ND	29.1			24.18	
1,2,4-Trichlorobenzene	ND	4.84		ND	35.9			24.18	
Hexachlorobutadiene	ND	4.84		ND	51.6			24.18	

Internal Standard	% Recovery	Qualifier	Acceptance Criteria		
1,4-Difluorobenzene	112		60-140		
Bromochloromethane	111		60-140		
chlorobenzene-d5	104		60-140		



Serial_No:08032216:22

07/21/22 15:30

Not Specified

07/21/22

Date Collected:

Date Received:

Field Prep:

Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2239129
Project Number:	30017762.00012	Report Date:	08/03/22

SAMPLE RESULTS

Lab ID: L2239129-02 D Client ID: SVE-1 Sample Location: PLAINVIEW NY

Sample Depth: Matrix:

Soil_Vapor Anaytical Method: 48,TO-15 08/02/22 02:20 Analytical Date: An

Analyst:	TS								
			ppbV			ug/m3			Dilution
Parameter		Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in	Air - Mansfiel	ld Lab							
Dichlorodifluoromethane	•	ND	76.9		ND	380			384.6
Chloromethane		ND	76.9		ND	159			384.6
Freon-114		ND	76.9		ND	538			384.6
Vinyl chloride		ND	76.9		ND	197			384.6
1,3-Butadiene		ND	76.9		ND	170			384.6
Bromomethane		ND	76.9		ND	299			384.6
Chloroethane		ND	76.9		ND	203			384.6
Ethanol		ND	1920		ND	3620			384.6
Vinyl bromide		ND	76.9		ND	336			384.6
Acetone		ND	385		ND	915			384.6
Trichlorofluoromethane		ND	76.9		ND	432			384.6
Isopropanol		ND	192		ND	472			384.6
1,1-Dichloroethene		ND	76.9		ND	305			384.6
Tertiary butyl Alcohol		ND	192		ND	582			384.6
Methylene chloride		ND	192		ND	667			384.6
3-Chloropropene		ND	76.9		ND	241			384.6
Carbon disulfide		ND	76.9		ND	239			384.6
Freon-113		ND	76.9		ND	589			384.6
trans-1,2-Dichloroethene	9	ND	76.9		ND	305			384.6
1,1-Dichloroethane		76.9	76.9		311	311			384.6
Methyl tert butyl ether		ND	76.9		ND	277			384.6

ND

416

192

76.9

ND

1650

566

305



384.6

384.6

2-Butanone

cis-1,2-Dichloroethene
07/21/22 15:30

Not Specified

07/21/22

Date Collected:

Date Received:

Field Prep:

Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2239129
Project Number:	30017762.00012	Report Date:	08/03/22

SAMPLE RESULTS

Lab ID:L2239129-02DClient ID:SVE-1Sample Location:PLAINVIEW NY

Sample Depth:

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	eld Lab							
Ethyl Acetate	ND	192.		ND	692			384.6
Chloroform	ND	76.9		ND	376			384.6
Tetrahydrofuran	1030	192		3040	566			384.6
1,2-Dichloroethane	ND	76.9		ND	311			384.6
n-Hexane	ND	76.9		ND	271			384.6
1,1,1-Trichloroethane	182	76.9		993	420			384.6
Benzene	ND	76.9		ND	246			384.6
Carbon tetrachloride	ND	76.9		ND	484			384.6
Cyclohexane	ND	76.9		ND	265			384.6
1,2-Dichloropropane	ND	76.9		ND	355			384.6
Bromodichloromethane	ND	76.9		ND	515			384.6
1,4-Dioxane	ND	76.9		ND	277			384.6
Trichloroethene	25000	76.9		134000	413			384.6
2,2,4-Trimethylpentane	ND	76.9		ND	359			384.6
Heptane	ND	76.9		ND	315			384.6
cis-1,3-Dichloropropene	ND	76.9		ND	349			384.6
4-Methyl-2-pentanone	ND	192.		ND	787			384.6
trans-1,3-Dichloropropene	ND	76.9		ND	349			384.6
1,1,2-Trichloroethane	ND	76.9		ND	420			384.6
Toluene	ND	76.9		ND	290			384.6
2-Hexanone	ND	76.9		ND	315			384.6
Dibromochloromethane	ND	76.9		ND	655			384.6
1,2-Dibromoethane	ND	76.9		ND	591			384.6
Tetrachloroethene	ND	76.9		ND	521			384.6
Chlorobenzene	ND	76.9		ND	354			384.6
Ethylbenzene	ND	76.9		ND	334			384.6



Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2239129
Project Number:	30017762.00012	Report Date:	08/03/22

SAMPLE RESULTS

Lab ID: L2239129-02 D Client ID: SVE-1 Sample Location: PLAINVIEW NY

Date Collected:07/21/22 15:30Date Received:07/21/22Field Prep:Not Specified

Sample Depth:

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield L	ab							
p/m-Xylene	ND	154.		ND	669			384.6
Bromoform	ND	76.9		ND	795			384.6
Styrene	ND	76.9		ND	327			384.6
1,1,2,2-Tetrachloroethane	ND	76.9		ND	528			384.6
o-Xylene	ND	76.9		ND	334			384.6
4-Ethyltoluene	ND	76.9		ND	378			384.6
1,3,5-Trimethylbenzene	ND	76.9		ND	378			384.6
1,2,4-Trimethylbenzene	ND	76.9		ND	378			384.6
Benzyl chloride	ND	76.9		ND	398			384.6
1,3-Dichlorobenzene	ND	76.9		ND	462			384.6
1,4-Dichlorobenzene	ND	76.9		ND	462			384.6
1,2-Dichlorobenzene	ND	76.9		ND	462			384.6
1,2,4-Trichlorobenzene	ND	76.9		ND	571			384.6
Hexachlorobutadiene	ND	76.9		ND	820			384.6

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	110		60-140
Bromochloromethane	112		60-140
chlorobenzene-d5	104		60-140



 Lab Number:
 L2239129

 Report Date:
 08/03/22

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 08/01/22 15:22

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	ld Lab for sample	e(s): 01-0	02 Batch:	WG16698	46-4			
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1



 Lab Number:
 L2239129

 Report Date:
 08/03/22

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 08/01/22 15:22

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	d Lab for sampl	e(s): 01-0	02 Batch:	WG16698	46-4			
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



 Lab Number:
 L2239129

 Report Date:
 08/03/22

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 08/01/22 15:22

		ppbV			ug/m3			Dilution			
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor			
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1669846-4											
Bromoform	ND	0.200		ND	2.07			1			
Styrene	ND	0.200		ND	0.852			1			
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1			
o-Xylene	ND	0.200		ND	0.869			1			
4-Ethyltoluene	ND	0.200		ND	0.983			1			
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1			
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1			
Benzyl chloride	ND	0.200		ND	1.04			1			
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1			
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1			
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1			
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1			
Hexachlorobutadiene	ND	0.200		ND	2.13			1			
1,4-Dichlorobenzene 1,2-Dichlorobenzene 1,2,4-Trichlorobenzene Hexachlorobutadiene	ND ND ND ND	0.200 0.200 0.200 0.200 0.200		ND ND ND ND	1.20 1.20 1.48 2.13			1			



Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

 Lab Number:
 L2239129

 Report Date:
 08/03/22

LCSD LCS %Recovery RPD %Recovery Limits RPD %Recovery Limits Parameter Qual Qual Qual Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1669846-3 Dichlorodifluoromethane 90 70-130 --Chloromethane 94 70-130 --Freon-114 93 70-130 --Vinyl chloride 99 70-130 --1,3-Butadiene 96 70-130 --Bromomethane 99 70-130 --Chloroethane 100 70-130 --Ethanol 95 40-160 --Vinyl bromide 80 70-130 --40-160 90 Acetone --Trichlorofluoromethane 72 70-130 --Isopropanol 100 40-160 --1,1-Dichloroethene 97 70-130 --70-130 Tertiary butyl Alcohol 96 --Methylene chloride 100 70-130 --3-Chloropropene 105 70-130 --Carbon disulfide 90 70-130 --Freon-113 70-130 89 -trans-1,2-Dichloroethene 70-130 87 --1,1-Dichloroethane 94 70-130 --Methyl tert butyl ether 84 70-130 --70-130 2-Butanone 96 -cis-1,2-Dichloroethene 95 70-130 --



Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

 Lab Number:
 L2239129

 Report Date:
 08/03/22

LCSD LCS %Recovery RPD %Recovery Limits RPD %Recovery Limits Parameter Qual Qual Qual Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1669846-3 Ethyl Acetate 108 70-130 --Chloroform 94 70-130 --Tetrahydrofuran 97 70-130 --1,2-Dichloroethane 85 70-130 -n-Hexane 108 70-130 --1,1,1-Trichloroethane 106 70-130 --108 70-130 Benzene --Carbon tetrachloride 108 70-130 --Cyclohexane 107 70-130 --1,2-Dichloropropane 111 70-130 --Bromodichloromethane 108 70-130 --1,4-Dioxane 105 70-130 --Trichloroethene 99 70-130 --2,2,4-Trimethylpentane 70-130 107 --Heptane 110 70-130 -cis-1,3-Dichloropropene 116 70-130 --4-Methyl-2-pentanone 123 70-130 -trans-1,3-Dichloropropene 70-130 102 --1,1,2-Trichloroethane 70-130 108 --Toluene 89 70-130 --2-Hexanone 99 70-130 --Dibromochloromethane 70-130 90 --1,2-Dibromoethane 92 70-130 --



Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

 Lab Number:
 L2239129

 Report Date:
 08/03/22

LCSD LCS %Recovery RPD %Recovery %Recovery Limits RPD Limits Qual Qual Qual Parameter Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1669846-3 Tetrachloroethene 85 70-130 --93 70-130 Chlorobenzene --Ethylbenzene 92 70-130 -p/m-Xylene 94 70-130 --Bromoform 91 70-130 --Styrene 85 70-130 --1,1,2,2-Tetrachloroethane 106 70-130 -o-Xylene 91 70-130 --4-Ethyltoluene 81 70-130 --88 70-130 1,3,5-Trimethylbenzene --102 1,2,4-Trimethylbenzene 70-130 --Benzyl chloride 78 70-130 --1,3-Dichlorobenzene 90 70-130 --86 70-130 1,4-Dichlorobenzene --70-130 1,2-Dichlorobenzene 90 --1,2,4-Trichlorobenzene 92 70-130 --Hexachlorobutadiene 90 70-130 --



Project Name: 131 SUNNYSIDE BLVD **Project Number:** 30017762.00012

Serial_No:08032216:22 Lab Number: L2239129 Report Date: 08/03/22

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
NA	Absent

Container Information

Container Info	rmation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	pН	pН	deg C	Pres	Seal	Date/Time	Analysis(*)
L2239129-01A	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2239129-01B	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2239129-01X	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2239129-02A	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2239129-02B	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2239129-02X	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)



Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

Lab Number: L2239129

Report Date: 08/03/22

GLOSSARY

Acronyms

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



Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

Lab Number: L2239129

Report Date: 08/03/22

Footnotes

- 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 Waterpreserved 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(a)+(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, 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 concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the 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 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.



¹

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

Lab Number: L2239129

Report Date: 08/03/22

Serial_No:08032216:22

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.)



 Lab Number:
 L2239129

 Report Date:
 08/03/22

REFERENCES

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

LIMITATION OF LIABILITIES

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

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



Certification Information

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

Westborough Facility

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

EPA 625/625.1: alpha-Terpineol

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

EPA 8270D/8270E: <u>NPW:</u> Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; <u>SCM</u>: Dimethylnaphthalene,1,4-Diphenylhydrazine. **SM4500**: <u>NPW</u>: Amenable Cyanide; <u>SCM</u>: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS EPA 8082A: <u>NPW</u>: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187. EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene. Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP. Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics, EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs **EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.

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

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522, EPA 537.1.

Non-Potable Water

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

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

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ANALYTICAL REPORT

Lab Number:	L2240234
Client:	Arcadis of New York, Inc.
	Two Huntington Quadrangle
	Suite 1S10
	Melville, NY 11747
ATTN:	Steven Feldman
Phone:	(631) 249-7600
Project Name:	131 SUNNYSIDE BLVD.
Project Number:	30017762.00012
Report Date:	08/09/22

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

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



Serial_No:08092217:02

Project Name:	131 SUNNYSIDE BLVD.	I
Project Number:	30017762.00012	I

 Lab Number:
 L2240234

 Report Date:
 08/09/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2240234-01	SVE-1	SOIL_VAPOR	PLAINVIEW, NY	07/26/22 15:05	07/27/22

Lab Number: L2240234 Report Date: 08/09/22

Case Narrative

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

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

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

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

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

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



 Lab Number:
 L2240234

 Report Date:
 08/09/22

Case Narrative (continued)

Volatile Organics in Air

L2240234-01D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

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

Christoph J Curdence Christopher J. Anderson

Authorized Signature:

Title: Technical Director/Representative

Date: 08/09/22



AIR



Project Name:	131 SUNNYSIDE BLVD.	Lab Number:	L2240234
Project Number:	30017762.00012	Report Date:	08/09/22

SAMPLE RESULTS

Lab ID: Client ID: Sample Location:	D /				Date Collected: Date Received: Field Prep:			07/26/22 15:05 07/27/22 Not Specified	
Sample Depth: Matrix: Anaytical Method: Analytical Date: Analyst:	Soil_Vapor 48,TO-15 08/09/22 03:14 TS								
			ppbV			ug/m3			Dilution Factor
Parameter		Results	RL	MDL	Results	RL	MDL	Qualifier	
Volatile Organics in	Air - Mansfield La	b							
Dichlorodifluoromethane		ND	8.10		ND	40.1			40.52
Chloromethane		ND	8.10		ND	16.7			40.52
Freon-114		ND	8.10		ND	56.6			40.52
Vinyl chloride		ND	8.10		ND	20.7			40.52
1,3-Butadiene		ND	8.10		ND	17.9			40.52
Bromomethane		ND	8.10		ND	31.5			40.52
Chloroethane		ND	8.10		ND	21.4			40.52
Ethanol		ND	203.		ND	383			40.52
Vinyl bromide		ND	8.10		ND	35.4			40.52
Acetone		ND	40.5		ND	96.2			40.52
Trichlorofluoromethane		ND	8.10		ND	45.5			40.52
Isopropanol		ND	20.3		ND	49.9			40.52
1,1-Dichloroethene		ND	8.10		ND	32.1			40.52
Tertiary butyl Alcohol		ND	20.3		ND	61.5			40.52
Methylene chloride		ND	20.3		ND	70.5			40.52
3-Chloropropene		ND	8.10		ND	25.4			40.52
Carbon disulfide		ND	8.10		ND	25.2			40.52
Freon-113		ND	8.10		ND	62.1			40.52
trans-1,2-Dichloroethene	e	ND	8.10		ND	32.1			40.52
1,1-Dichloroethane		ND	8.10		ND	32.8			40.52
Methyl tert butyl ether		ND	8.10		ND	29.2			40.52
2-Butanone		ND	20.3		ND	59.9			40.52
cis-1,2-Dichloroethene		27.7	8.10		110	32.1			40.52



07/26/22 15:05

Not Specified

07/27/22

Project Name:	131 SUNNYSIDE BLVD.
Project Number:	30017762.00012

 Lab Number:
 L2240234

 Report Date:
 08/09/22

Date Collected:

Date Received:

Field Prep:

SAMPLE RESULTS

Lab ID: L2240234-01 D Client ID: SVE-1 Sample Location: PLAINVIEW, NY

Sample Depth:

Campie Deptil.		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansi	field Lab							
Ethyl Acetate	ND	20.3		ND	73.2			40.52
Chloroform	ND	8.10		ND	39.6			40.52
Tetrahydrofuran	ND	20.3		ND	59.9			40.52
1,2-Dichloroethane	ND	8.10		ND	32.8			40.52
n-Hexane	ND	8.10		ND	28.5			40.52
1,1,1-Trichloroethane	ND	8.10		ND	44.2			40.52
Benzene	ND	8.10		ND	25.9			40.52
Carbon tetrachloride	ND	8.10		ND	51.0			40.52
Cyclohexane	ND	8.10		ND	27.9			40.52
1,2-Dichloropropane	ND	8.10		ND	37.4			40.52
Bromodichloromethane	ND	8.10		ND	54.3			40.52
1,4-Dioxane	ND	8.10		ND	29.2			40.52
Trichloroethene	3030	8.10		16300	43.5			40.52
2,2,4-Trimethylpentane	ND	8.10		ND	37.8			40.52
Heptane	ND	8.10		ND	33.2			40.52
cis-1,3-Dichloropropene	ND	8.10		ND	36.8			40.52
4-Methyl-2-pentanone	ND	20.3		ND	83.2			40.52
trans-1,3-Dichloropropene	ND	8.10		ND	36.8			40.52
1,1,2-Trichloroethane	ND	8.10		ND	44.2			40.52
Toluene	ND	8.10		ND	30.5			40.52
2-Hexanone	ND	8.10		ND	33.2			40.52
Dibromochloromethane	ND	8.10		ND	69.0			40.52
1,2-Dibromoethane	ND	8.10		ND	62.2			40.52
Tetrachloroethene	26.6	8.10		180	54.9			40.52
Chlorobenzene	ND	8.10		ND	37.3			40.52
Ethylbenzene	ND	8.10		ND	35.2			40.52



07/26/22 15:05

Not Specified

07/27/22

Project Name:	131 SUNNYSIDE BLVD.
Project Number:	30017762.00012

 Lab Number:
 L2240234

 Report Date:
 08/09/22

Date Collected:

Date Received:

Field Prep:

SAMPLE RESULTS

Lab ID: L2240234-01 D Client ID: SVE-1 Sample Location: PLAINVIEW, NY

Sample Depth:

Campie Deptil.		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
p/m-Xylene	ND	16.2		ND	70.4			40.52
Bromoform	ND	8.10		ND	83.7			40.52
Styrene	ND	8.10		ND	34.5			40.52
1,1,2,2-Tetrachloroethane	ND	8.10		ND	55.6			40.52
o-Xylene	ND	8.10		ND	35.2			40.52
4-Ethyltoluene	ND	8.10		ND	39.8			40.52
1,3,5-Trimethylbenzene	ND	8.10		ND	39.8			40.52
1,2,4-Trimethylbenzene	ND	8.10		ND	39.8			40.52
Benzyl chloride	ND	8.10		ND	41.9			40.52
1,3-Dichlorobenzene	ND	8.10		ND	48.7			40.52
1,4-Dichlorobenzene	ND	8.10		ND	48.7			40.52
1,2-Dichlorobenzene	ND	8.10		ND	48.7			40.52
1,2,4-Trichlorobenzene	ND	8.10		ND	60.1			40.52
Hexachlorobutadiene	ND	8.10		ND	86.4			40.52

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	97		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	96		60-140



Lab Number: L2240234

Report Date: 08/09/22

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 08/08/22 15:26

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	eld Lab for sampl	le(s): 01	Batch:	WG1672572-4	4			
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1



08/09/22

Lab Number: L2240234

Report Date:

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 08/08/22 15:26

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	d Lab for sampl	e(s): 01	Batch:	WG1672572-4	1			
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



 Lab Number:
 L2240234

 Report Date:
 08/09/22

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 08/08/22 15:26

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mans	field Lab for samp	ole(s): 01	Batch:	WG1672572-4	ļ			
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD.

Project Number: 30017762.00012

 Lab Number:
 L2240234

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LCSD LCS %Recovery RPD %Recovery Limits RPD %Recovery Limits Parameter Qual Qual Qual Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1672572-3 Dichlorodifluoromethane 83 70-130 --Chloromethane 86 70-130 --Freon-114 91 70-130 --Vinyl chloride 99 70-130 --1,3-Butadiene 86 70-130 --70-130 Bromomethane 99 --Chloroethane 91 70-130 --Ethanol 79 40-160 --Vinyl bromide 81 70-130 --40-160 94 Acetone --Trichlorofluoromethane 80 70-130 --Isopropanol 80 40-160 --1,1-Dichloroethene 90 70-130 --70-130 Tertiary butyl Alcohol 82 --Methylene chloride 99 70-130 --3-Chloropropene 96 70-130 --Carbon disulfide 80 70-130 --Freon-113 70-130 92 -trans-1,2-Dichloroethene 70-130 84 --1,1-Dichloroethane 90 70-130 --Methyl tert butyl ether 71 70-130 --86 70-130 2-Butanone --70-130 cis-1,2-Dichloroethene 93 --



Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD.

Project Number: 30017762.00012

 Lab Number:
 L2240234

 Report Date:
 08/09/22

LCSD LCS %Recovery RPD %Recovery Limits RPD %Recovery Limits Parameter Qual Qual Qual Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1672572-3 Ethyl Acetate 94 70-130 --Chloroform 90 70-130 --Tetrahydrofuran 78 70-130 --1,2-Dichloroethane 79 70-130 -n-Hexane 86 70-130 --70-130 1,1,1-Trichloroethane 84 --Benzene 84 70-130 --Carbon tetrachloride 90 70-130 --Cyclohexane 86 70-130 --70-130 1,2-Dichloropropane 95 --Bromodichloromethane 86 70-130 --1,4-Dioxane 88 70-130 --Trichloroethene 94 70-130 --2,2,4-Trimethylpentane 70-130 87 --Heptane 85 70-130 -cis-1,3-Dichloropropene 91 70-130 --4-Methyl-2-pentanone 86 70-130 -trans-1,3-Dichloropropene 70-130 78 --1,1,2-Trichloroethane 70-130 96 --Toluene 93 70-130 --2-Hexanone 84 70-130 --Dibromochloromethane 70-130 95 --70-130 1,2-Dibromoethane 94 --



Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD.

Project Number: 30017762.00012

 Lab Number:
 L2240234

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LCSD LCS %Recovery RPD %Recovery %Recovery Limits RPD Limits Qual Qual Qual Parameter Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1672572-3 Tetrachloroethene 91 70-130 --92 70-130 Chlorobenzene --Ethylbenzene 98 70-130 -p/m-Xylene 97 70-130 --Bromoform 102 70-130 --Styrene 70-130 96 --1,1,2,2-Tetrachloroethane 108 70-130 -o-Xylene 98 70-130 --4-Ethyltoluene 85 70-130 --95 70-130 1,3,5-Trimethylbenzene --97 1,2,4-Trimethylbenzene 70-130 --Benzyl chloride 88 70-130 --1,3-Dichlorobenzene 105 70-130 --105 70-130 1,4-Dichlorobenzene --70-130 1,2-Dichlorobenzene 102 --70-130 1,2,4-Trichlorobenzene 87 --Hexachlorobutadiene 80 70-130 --



Project Name: 131 SUNNYSIDE BLVD. Project Number: 30017762.00012

Serial_No:08092217:02 *Lab Number:* L2240234 *Report Date:* 08/09/22

Sample Receipt and Container Information

Were project specific reporting limits specified?

Cooler Information

Cooler	Custody Seal
NA	Present/Intact

Container Information

Container Information			Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler		pН	deg C	Pres	Seal	Date/Time	Analysis(*)
L2240234-01A	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2240234-01B	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2240234-01X	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2240234-01Y	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)

YES



Serial_No:08092217:02

Project Name: 131 SUNNYSIDE BLVD.

Project Number: 30017762.00012

Lab Number: L2240234

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GLOSSARY

Acronyms

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



Project Name: 131 SUNNYSIDE BLVD.

Project Number: 30017762.00012

Lab Number: L2240234 **Report Date:** 08/09/22

Footnotes

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

Terms

1

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 Waterpreserved 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).
- С - 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.
- Е - 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.
- н - 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).
- Μ - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.



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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.)



Project Name:131 SUNNYSIDE BLVD.Project Number:30017762.00012

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REFERENCES

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

LIMITATION OF LIABILITIES

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

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



Certification Information

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

Westborough Facility

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

EPA 625/625.1: alpha-Terpineol

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

EPA 8270D/8270E: <u>NPW:</u> Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; <u>SCM</u>: Dimethylnaphthalene,1,4-Diphenylhydrazine. **SM4500**: <u>NPW</u>: Amenable Cyanide; <u>SCM</u>: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS EPA 8082A: <u>NPW</u>: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187. EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene. Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP. Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics, EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II.

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs **EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.

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

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522, EPA 537.1.

Non-Potable Water

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

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

														Seri	al_N	o:080922	217:02		
Διρήα	AIR A	NALY	′SIS	P	AGE	_0F	- Date I	Rec'd in L	.ab: 7	126	122		AL	.PH/	A Jot	,#: La:	4023	.4	
320 Forbes Blvd N	ansfield MA 02048	Project	Informa	tion			Repo	ort Inform	nation	Data	Delivera	ables	Bi	Iling	Infor	mation		100	
TEL: 508-822-930	FAX: 508-822-3288	Project Name: 131 Sungside Blud. Project Location: Plainview, NY Project #: 360/7762,00012					D FA	x					08	Same as Client info PO # 300/1762 00					
Client Information	on													Dreadis- Accounts Parothe					
Client: Arc	indis							(Default based on Regulatory Criteria Indicated)						Highlands Panel CO					
Address: 2 Huntington Quadrangle			Project Manager: Steve Feldwar					Other Formats:						Regulatory Requirements/Report Limi					
			ALPHA Quote #:						eliverable	es:			Sta	te/Fe	d	Program	Program Res / Comm		
hone: 631-	245-0700	Turn-Around Time					Repor	t to: pramer	ent than Proje	:t Manager)	11				1				
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Other Project S	pecific Requirements/Com	ments:			and server.								1	1	1/	0.15	0		
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ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION Initial Final					Sample Sampler's Can I D ID-Flow						APH	Fixed	onue	Sample	e Commen	s (i.e. PID	
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*SAMPLE	MATRIX CODES	A = Ambien / = Soil Vap her = Please	t Air (Indoor or/Landfill (Specify	/Outdoor) Fas/SVE				6	Container	Туре		Edler		+		Please p complete	rint clearly, ler ly. Samples	gibly and can not be	
		Relinquished By: Date/Time				Received By:					Date/Tir	ne:		clock will	logged in and turnaround time clock will not start until any ambi				
	The	7/27/2 1550				1431	USMos free 2/21						1550 submitted are sub				to Alpha's		
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ANALYTICAL REPORT

Lab Number:	L2241805
Client:	Arcadis of New York, Inc.
	Two Huntington Quadrangle
	Suite 1S10
	Melville, NY 11747
ATTN:	Steven Feldman
Phone:	(631) 249-7600
Project Name:	131 SUNNYSIDE BLVD
Project Number:	30017762.00012
Report Date:	08/17/22

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

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



Serial_No:08172216:32

 Project Name:
 131 SUNNYSIDE BLVD

 Project Number:
 30017762.00012

 Lab Number:
 L2241805

 Report Date:
 08/17/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2241805-01	SVE-1	SOIL_VAPOR	PLAINVIEW, NY	08/03/22 14:25	08/03/22
L2241805-02	SVE-2	SOIL_VAPOR	PLAINVIEW, NY	08/03/22 14:35	08/03/22



 Project Name:
 131 SUNNYSIDE BLVD

 Project Number:
 30017762.00012

Lab Number: L2241805 Report Date: 08/17/22

Case Narrative

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

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

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

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

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

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



 Project Name:
 131 SUNNYSIDE BLVD

 Project Number:
 30017762.00012

 Lab Number:
 L2241805

 Report Date:
 08/17/22

Case Narrative (continued)

Volatile Organics in Air

L2241805-01D and -02D: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

L2241805-01D and -02D: Samples were transferred from a Tedlar bag into a fused silica lined canister upon receipt in order to extend the holding time for 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.

Christoph J Christopher J. Anderson

Authorized Signature:

Title: Technical Director/Representative

Date: 08/17/22



AIR



08/03/22 14:25

Not Specified

08/03/22

Date Collected:

Date Received:

Field Prep:

Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2241805
Project Number:	30017762.00012	Report Date:	08/17/22

SAMPLE RESULTS

Lab ID:	L2241805-01	D
Client ID:	SVE-1	
Sample Location:	PLAINVIEW, N	١Y

Sample Depth: Matrix: Soil_Vapor

Anaytical Method: 48,TO-15 Analytical Date: 08/17/22 07.02 An

Analyst:	08/17/22 07:02 TS								
			ppbV			ug/m3			Dilution
Parameter		Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics ir	n Air - Mansfield La	ab							
Dichlorodifluoromethan	e	ND	5.79		ND	28.6			28.94
Chloromethane		ND	5.79		ND	12.0			28.94
Freon-114		ND	5.79		ND	40.5			28.94
Vinyl chloride		ND	5.79		ND	14.8			28.94
1,3-Butadiene		ND	5.79		ND	12.8			28.94
Bromomethane		ND	5.79		ND	22.5			28.94
Chloroethane		ND	5.79		ND	15.3			28.94
Ethanol		ND	145		ND	273			28.94
Vinyl bromide		ND	5.79		ND	25.3			28.94
Acetone		ND	28.9		ND	68.7			28.94
Trichlorofluoromethane		ND	5.79		ND	32.5			28.94
Isopropanol		21.2	14.5		52.1	35.6			28.94
1,1-Dichloroethene		ND	5.79		ND	23.0			28.94
Tertiary butyl Alcohol		ND	14.5		ND	44.0			28.94
Methylene chloride		ND	14.5		ND	50.4			28.94
3-Chloropropene		ND	5.79		ND	18.1			28.94
Carbon disulfide		ND	5.79		ND	18.0			28.94
Freon-113		ND	5.79		ND	44.4			28.94
trans-1,2-Dichloroethen	e	ND	5.79		ND	23.0			28.94
1,1-Dichloroethane		ND	5.79		ND	23.4			28.94
Methyl tert butyl ether		ND	5.79		ND	20.9			28.94
2-Butanone		ND	14.5		ND	42.8			28.94

23.4

5.79

92.8

23.0



28.94

cis-1,2-Dichloroethene

08/03/22 14:25

Not Specified

08/03/22

Date Collected:

Date Received:

Field Prep:

Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2241805
Project Number:	30017762.00012	Report Date:	08/17/22

SAMPLE RESULTS

Lab ID: L2241805-01 D Client ID: SVE-1 Sample Location: PLAINVIEW, NY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mans	field Lab							
Ethyl Acetate	ND	14.5		ND	52.3			28.94
Chloroform	ND	5.79		ND	28.3			28.94
Tetrahydrofuran	20.1	14.5		59.3	42.8			28.94
1,2-Dichloroethane	ND	5.79		ND	23.4			28.94
n-Hexane	ND	5.79		ND	20.4			28.94
1,1,1-Trichloroethane	ND	5.79		ND	31.6			28.94
Benzene	ND	5.79		ND	18.5			28.94
Carbon tetrachloride	ND	5.79		ND	36.4			28.94
Cyclohexane	ND	5.79		ND	19.9			28.94
1,2-Dichloropropane	ND	5.79		ND	26.8			28.94
Bromodichloromethane	ND	5.79		ND	38.8			28.94
1,4-Dioxane	ND	5.79		ND	20.9			28.94
Trichloroethene	2070	5.79		11100	31.1			28.94
2,2,4-Trimethylpentane	ND	5.79		ND	27.0			28.94
Heptane	ND	5.79		ND	23.7			28.94
cis-1,3-Dichloropropene	ND	5.79		ND	26.3			28.94
4-Methyl-2-pentanone	ND	14.5		ND	59.4			28.94
trans-1,3-Dichloropropene	ND	5.79		ND	26.3			28.94
1,1,2-Trichloroethane	ND	5.79		ND	31.6			28.94
Toluene	ND	5.79		ND	21.8			28.94
2-Hexanone	ND	5.79		ND	23.7			28.94
Dibromochloromethane	ND	5.79		ND	49.3			28.94
1,2-Dibromoethane	ND	5.79		ND	44.5			28.94
Tetrachloroethene	17.6	5.79		119	39.3			28.94
Chlorobenzene	ND	5.79		ND	26.7			28.94
Ethylbenzene	ND	5.79		ND	25.1			28.94



Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2241805
Project Number:	30017762.00012	Report Date:	08/17/22

SAMPLE RESULTS

Lab ID: L2241805-01 D Client ID: SVE-1 Sample Location: PLAINVIEW, NY

Date Collected:08/03/22 14:25Date Received:08/03/22Field Prep:Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield I	_ab							
p/m-Xylene	ND	11.6		ND	50.4			28.94
Bromoform	ND	5.79		ND	59.9			28.94
Styrene	ND	5.79		ND	24.7			28.94
1,1,2,2-Tetrachloroethane	ND	5.79		ND	39.8			28.94
o-Xylene	ND	5.79		ND	25.1			28.94
4-Ethyltoluene	ND	5.79		ND	28.5			28.94
1,3,5-Trimethylbenzene	ND	5.79		ND	28.5			28.94
1,2,4-Trimethylbenzene	ND	5.79		ND	28.5			28.94
Benzyl chloride	ND	5.79		ND	30.0			28.94
1,3-Dichlorobenzene	ND	5.79		ND	34.8			28.94
1,4-Dichlorobenzene	ND	5.79		ND	34.8			28.94
1,2-Dichlorobenzene	ND	5.79		ND	34.8			28.94
1,2,4-Trichlorobenzene	ND	5.79		ND	43.0			28.94
Hexachlorobutadiene	ND	5.79		ND	61.8			28.94

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	87		60-140



Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2241805
Project Number:	30017762.00012	Report Date:	08/17/22

SAMPLE RESULTS

Lab ID:	L2241805-02	D
Client ID:	SVE-2	
Sample Location:	PLAINVIEW, N	IY

-	
Sample Depth:	
Matrix:	Soil_Vapor

Date Collected:	08/03/22 14:35
Date Received:	08/03/22
Field Prep:	Not Specified

Anaytical Method: Analytical Date:	48,TO-15 08/17/22 07:39								
Analyst:	TS								
			ppbV			ug/m3			Dilution
Parameter		Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in	Air - Mansfield La	ab							
Dichlorodifluoromethane		ND	0.667		ND	3.30			3.333
Chloromethane		ND	0.667		ND	1.38			3.333
Freon-114		ND	0.667		ND	4.66			3.333
Vinyl chloride		ND	0.667		ND	1.71			3.333
1,3-Butadiene		ND	0.667		ND	1.48			3.333
Bromomethane		ND	0.667		ND	2.59			3.333
Chloroethane		ND	0.667		ND	1.76			3.333
Ethanol		ND	16.7		ND	31.5			3.333
Vinyl bromide		ND	0.667		ND	2.92			3.333
Acetone		6.59	3.33		15.7	7.91			3.333
Trichlorofluoromethane		ND	0.667		ND	3.75			3.333
Isopropanol		5.24	1.67		12.9	4.10			3.333
1,1-Dichloroethene		ND	0.667		ND	2.64			3.333
Tertiary butyl Alcohol		ND	1.67		ND	5.06			3.333
Methylene chloride		ND	1.67		ND	5.80			3.333
3-Chloropropene		ND	0.667		ND	2.09			3.333
Carbon disulfide		ND	0.667		ND	2.08			3.333
Freon-113		ND	0.667		ND	5.11			3.333
trans-1,2-Dichloroethene		ND	0.667		ND	2.64			3.333
1,1-Dichloroethane		ND	0.667		ND	2.70			3.333
Methyl tert butyl ether		ND	0.667		ND	2.40			3.333
2-Butanone		2.49	1.67		7.34	4.93			3.333
cis-1,2-Dichloroethene		7.52	0.667		29.8	2.64			3.333



08/03/22 14:35

Not Specified

08/03/22

Date Collected:

Date Received:

Field Prep:

Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2241805
Project Number:	30017762.00012	Report Date:	08/17/22

SAMPLE RESULTS

Lab ID: L2241805-02 D Client ID: SVE-2 Sample Location: PLAINVIEW, NY

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	field Lab							
Ethyl Acetate	3.53	1.67		12.7	6.02			3.333
Chloroform	ND	0.667		ND	3.26			3.333
Tetrahydrofuran	6.03	1.67		17.8	4.93			3.333
1,2-Dichloroethane	ND	0.667		ND	2.70			3.333
n-Hexane	ND	0.667		ND	2.35			3.333
1,1,1-Trichloroethane	ND	0.667		ND	3.64			3.333
Benzene	ND	0.667		ND	2.13			3.333
Carbon tetrachloride	ND	0.667		ND	4.20			3.333
Cyclohexane	ND	0.667		ND	2.30			3.333
1,2-Dichloropropane	ND	0.667		ND	3.08			3.333
Bromodichloromethane	ND	0.667		ND	4.47			3.333
1,4-Dioxane	ND	0.667		ND	2.40			3.333
Trichloroethene	223	0.667		1200	3.58			3.333
2,2,4-Trimethylpentane	ND	0.667		ND	3.12			3.333
Heptane	1.06	0.667		4.34	2.73			3.333
cis-1,3-Dichloropropene	ND	0.667		ND	3.03			3.333
4-Methyl-2-pentanone	ND	1.67		ND	6.84			3.333
trans-1,3-Dichloropropene	ND	0.667		ND	3.03			3.333
1,1,2-Trichloroethane	ND	0.667		ND	3.64			3.333
Toluene	1.96	0.667		7.39	2.51			3.333
2-Hexanone	ND	0.667		ND	2.73			3.333
Dibromochloromethane	ND	0.667		ND	5.68			3.333
1,2-Dibromoethane	ND	0.667		ND	5.13			3.333
Tetrachloroethene	5.02	0.667		34.0	4.52			3.333
Chlorobenzene	ND	0.667		ND	3.07			3.333
Ethylbenzene	0.743	0.667		3.23	2.90			3.333



Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2241805
Project Number:	30017762.00012	Report Date:	08/17/22

SAMPLE RESULTS

Lab ID: L2241805-02 D Client ID: SVE-2 Sample Location: PLAINVIEW, NY

Date Collected:08/03/22 14:35Date Received:08/03/22Field Prep:Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	ld Lab							
p/m-Xylene	2.96	1.33		12.9	5.78			3.333
Bromoform	ND	0.667		ND	6.90			3.333
Styrene	ND	0.667		ND	2.84			3.333
1,1,2,2-Tetrachloroethane	ND	0.667		ND	4.58			3.333
o-Xylene	1.14	0.667		4.95	2.90			3.333
4-Ethyltoluene	ND	0.667		ND	3.28			3.333
1,3,5-Trimethylbenzene	ND	0.667		ND	3.28			3.333
1,2,4-Trimethylbenzene	0.680	0.667		3.34	3.28			3.333
Benzyl chloride	ND	0.667		ND	3.45			3.333
1,3-Dichlorobenzene	ND	0.667		ND	4.01			3.333
1,4-Dichlorobenzene	ND	0.667		ND	4.01			3.333
1,2-Dichlorobenzene	ND	0.667		ND	4.01			3.333
1,2,4-Trichlorobenzene	ND	0.667		ND	4.95			3.333
Hexachlorobutadiene	ND	0.667		ND	7.11			3.333

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	93		60-140
chlorobenzene-d5	87		60-140



Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 08/16/22 15:49

			ug/m3		Dilution			
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	d Lab for sample	e(s): 01-	02 Batch:	WG16759	923-4			
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1



Report Date: 08/17/22

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 08/16/22 15:49

		ppbV				ug/m3		
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - M	lansfield Lab for sample	e(s): 01-	02 Batch:	WG16759	23-4			
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



Report Date: 08/17/22

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 08/16/22 15:49

		ppbV				ug/m3		
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mans	field Lab for samp	ole(s): 01-	02 Batch	n: WG16759	23-4			
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Lab Control Sample Analysis

Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

Lab Number: L2241805 Report Date: 08/17/22

LCSD LCS %Recovery RPD %Recovery RPD %Recovery Limits Limits Parameter Qual Qual Qual Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1675923-3 Dichlorodifluoromethane 102 70-130 --108 Chloromethane 70-130 --Freon-114 106 70-130 --Vinyl chloride 104 70-130 --1,3-Butadiene 106 70-130 --Bromomethane 106 70-130 --Chloroethane 102 70-130 --Ethanol 87 40-160 --Vinyl bromide 96 70-130 --40-160 99 Acetone --Trichlorofluoromethane 95 70-130 --Isopropanol 96 40-160 --1,1-Dichloroethene 105 70-130 --70-130 Tertiary butyl Alcohol 93 --Methylene chloride 106 70-130 --3-Chloropropene 107 70-130 --Carbon disulfide 96 70-130 --Freon-113 70-130 106 -trans-1,2-Dichloroethene 70-130 95 --1,1-Dichloroethane 100 70-130 --Methyl tert butyl ether 98 70-130 --70-130 2-Butanone 98 --102 cis-1,2-Dichloroethene 70-130 --



Lab Control Sample Analysis

Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

Lab Number: L2241805 Report Date: 08/17/22

LCSD LCS %Recovery RPD %Recovery RPD %Recovery Limits Limits Parameter Qual Qual Qual Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1675923-3 Ethyl Acetate 104 70-130 --Chloroform 103 70-130 --Tetrahydrofuran 98 70-130 --1,2-Dichloroethane 91 70-130 -n-Hexane 105 70-130 --1,1,1-Trichloroethane 106 70-130 --106 70-130 Benzene --Carbon tetrachloride 102 70-130 --Cyclohexane 104 70-130 --1,2-Dichloropropane 109 70-130 --Bromodichloromethane 104 70-130 --1,4-Dioxane 102 70-130 --Trichloroethene 109 70-130 --2,2,4-Trimethylpentane 70-130 104 --Heptane 107 70-130 -cis-1,3-Dichloropropene 113 70-130 --4-Methyl-2-pentanone 114 70-130 -trans-1,3-Dichloropropene 70-130 96 --1,1,2-Trichloroethane 70-130 113 --Toluene 103 70-130 --2-Hexanone 102 70-130 --Dibromochloromethane 70-130 103 --100 70-130 1,2-Dibromoethane --



Lab Control Sample Analysis Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012 Lab Number: L2241805 Report Date: 08/17/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	
Volatile Organics in Air - Mansfield Lab Asso	ciated sample(s):	01-02	Batch: WG167592	3-3					
Tetrachloroethene	100		-		70-130	-			
Chlorobenzene	104		-		70-130	-			
Ethylbenzene	107		-		70-130	-			
p/m-Xylene	106		-		70-130	-			
Bromoform	99		-		70-130	-			
Styrene	98		-		70-130	-			
1,1,2,2-Tetrachloroethane	108		-		70-130	-			
o-Xylene	104		-		70-130	-			
4-Ethyltoluene	95		-		70-130	-			
1,3,5-Trimethylbenzene	114		-		70-130	-			
1,2,4-Trimethylbenzene	105		-		70-130	-			
Benzyl chloride	87		-		70-130	-			
1,3-Dichlorobenzene	99		-		70-130	-			
1,4-Dichlorobenzene	97		-		70-130	-			
1,2-Dichlorobenzene	97		-		70-130	-			
1,2,4-Trichlorobenzene	85		-		70-130	-			
Hexachlorobutadiene	88		-		70-130	-			



Project Name: 131 SUNNYSIDE BLVD Project Number: 30017762.00012

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Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
NA	Absent

Container Information

Container Information			Initial	Final	Temp			Frozen		
Container ID	Container Type	Cooler	pН	рН рН о	deg C	Pres	Seal	Date/Time	Analysis(*)	
L2241805-01A	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)	
L2241805-01B	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Υ	Absent		TO15-LL(30)	
L2241805-01X	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Υ	Absent		TO15-LL(30)	
L2241805-02A	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)	
L2241805-02B	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)	
L2241805-02X	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)	



Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

Lab Number: L2241805

Report Date: 08/17/22

GLOSSARY

Acronyms

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

Report Format: Data Usability Report



Project Name: 131 SUNNYSIDE BLVD

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Lab Number: L2241805 Report Date: 08/17/22

Footnotes

- 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 Waterpreserved 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(a)+(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, 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 concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the 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 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



¹

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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:131 SUNNYSIDE BLVDProject Number:30017762.00012

 Lab Number:
 L2241805

 Report Date:
 08/17/22

REFERENCES

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

LIMITATION OF LIABILITIES

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

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



Certification Information

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

Westborough Facility

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

EPA 625/625.1: alpha-Terpineol

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

EPA 8270D/8270E: <u>NPW:</u> Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; <u>SCM</u>: Dimethylnaphthalene,1,4-Diphenylhydrazine. **SM4500**: <u>NPW</u>: Amenable Cyanide; <u>SCM</u>: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS EPA 8082A: <u>NPW</u>: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187. EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene. Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP. Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics, EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I. Endosulfan II.

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs **EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.

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

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522, EPA 537.1.

Non-Potable Water

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

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

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Nume Date Standard Oue Date: Report to: if different than Manager) Fax: Standard Oue Date: Report to: if different than Manager) NOTE: For metals, please particle dates da	Phone I Duck	1310	ALPHA C	luote #:	2.5				Add'l Delive	erables			1	State/	Fed		Progra	m	Criteria
Pack Standard M Due Date: Report to: (fl different than Manager) These samples have been previously analyzed by Alpha:	Filone: 031-2	-45-0710	Turn-Arc	ound Time	1		1.1.4												
Enhalt: Kxm.L.f.xcr.u.ixsi.@AAA.dis_CPMush.temly Type approved: Imme: Analysis Difference Imme: Analysis NOTE: For metals, plases Other Project Specific Requirements/ Comments/Detection Limits For PCBs Selection is REQUIRED Compeners Immoniogs Anologis Analysis NOTE: For metals, plases ALPHA Lab ID Sample ID Date Sampler Mittee Out PM-10 filter Collection Collection Initials (I) McE V1/300S - 0/1 Syle - 1 8/3 1/2 1/2 1/2 1/2 1/2 Sampler Simpler Media IDP Collection Collection Initials (I) Matrix Note: For metals, plases V1/300S - 0/1 Syle - 1 8/3 1/2 1/2 1/2 1/2 1/2 Sampler Simpler Media IDP Sampler Simpler Simpler Media IDP Sampler Simpler Si	Fax:		Standard	1	M D	ue Date:		Rep	ort to: (if di	fferent than	Manag	jer)							
These samples have been previously analyzed by Alpha: Analysis NOTE: For metals, please previously analyzed by Alpha: U/1802 S - OI Symple: D Date: Colmetion <t< td=""><td>Email: Kevin, Cze</td><td>YWINSLIGARCACIS</td><td>Rush (only</td><td>y If pre approv</td><td>ed)</td><td>Time:</td><td></td><td></td><td></td><td></td><td></td><td>50/50</td><td></td><td></td><td></td><td>1</td><td></td><td></td><td></td></t<>	Email: Kevin, Cze	YWINSLIGARCACIS	Rush (only	y If pre approv	ed)	Time:						50/50				1			
Other Project Specific Requirements / Comments/Detection Limits For PCBs Selection is REQUIRED V V VIE For metals, please Specify direments of therements of the therements of therements of the therements of therements of the therements of the therements of therements of the	These samples hav	e been previously a	nalyzed by A	Alpha:							Ana	lysis			101	-		-	N 18 17
□ Congeners □ Congeners □ PM-10 Filter □ Homologs □ Aroclors (low Vol only) ••••••••••••••••••••••••••••••••••••	Other Project Spec	ific Requirements /	Comments/I	Detection L	imits		For PCBs	Selection	is REQUIR	ED	,							specify	or metals, please elements of
Image:							Con	geners			3							interest	and media type.
Arcolors (low Vol only) All Columns Below Must Be Filled Out Image: Start Time End Time Flow Rate Collection Image: Start Time Flow Rate Collection Image: Start Time Flow Rate Collection Image: Start Time Flow Rate Collection <							Hor	nologs			a	ţ.		τj				D PM	-10 Filter
ALPHA Lab ID (Lab Use Only) Sample ID Date Start Time End Time Flow Rate (U/min) Volume(L) Volume(L) Media ID# (I) Media Type							Aro	clors (low)	/ol only)		22	1		Mo					P Filter
All Columns Below Must Be Filled Out ALPHA Lab ID (Lab Use Only) Sample ID Date Start Time End Time Collection Flow Rate (U/min) Sample's Volume(L) Media ID# Matrix* Media ID# (I) No No Sample Comments (i.e. PID) U/3 CS - 0/ (Lab Use Only) S VE - 1 8 3 122 14120 1425 - - SV V - - SV - - S - <											h	-		5000					E
ALPHA Lab ID (Lab Use Only) Sample ID Date Start Time For Mate End Time Sample Flow (min) Sample Sample's (1) Media IDF (1) Media IDF (1) Media IDF (1) Med		Start Carlos T		All Colu	mns Belov	v Must Be F	illed Out			E ANE	5	Vol	(IoV	SHG		1			
Matrix Sample ID Date Start Time End Time Flow Rate Total Sampler's Media IDA Total Sample	ALPHA Lab ID					Colle	ction				F	łĝł	MO	NO		filte	5		
U// 805 - 01 SYE-1 8 3 1-2 I 1/20 I 1/25 - SV Y - V Initials (1) 8 2 8 2 9 2 8 3 9 2 9 3 8 3 9 2 9 3	(Lab Use Only)	Sample ID	Date	Start Time	End Time	Flow Rate	Total	Sample	Sampler's	Media ID#	1	3s (H	3s (L	via l	als	101	뷴		
AA - Andreter AP Index Contained 11/125 - - SV Y - V - V - <td>1/1805-01</td> <td>0 1</td> <td></td> <td></td> <td></td> <td>(L/min)</td> <td>Volume(L)</td> <td>Matrix*</td> <td>Initials</td> <td>(1)</td> <td>8</td> <td>PC</td> <td>PCE</td> <td>Ę</td> <td>Met</td> <td>PM</td> <td>TSP</td> <td>Sample C</td> <td>omments (i.e. PID)</td>	1/1805-01	0 1				(L/min)	Volume(L)	Matrix*	Initials	(1)	8	PC	PCE	Ę	Met	PM	TSP	Sample C	omments (i.e. PID)
SNE-2 1430 1435 - SV KC - V - <	4/000-01	215-1	8322	1420	1425	-	-	SV	K<	-	V								
*SAMPLE MATRIX CODES All - Antident Air (Indoor/Outdoor) (1) Required for PUF carridges. Media Type P P T F F F P P T F F F P P P T F F F P P T F F F P P T F F F P P T F<		SVE-2	1	1430	1435	-	-	sv	KC	-	V								
*SAMPLE MATRIX CODES AA = Ambient Ar Indoor/Outdoor SV = SoftWoor/Londific GarSVE Offer = Rease Spectly (1) Required for PUF cartridges. PM-10 and TSP filters Media Type P P T F F Please print clearly, legibly and completely. Samples can not be logged in and to be logged in and the completely. Samples can not be logged in and to be logged in and the completely. Samples can not be logged in and the completely. Samples can to be logged in and the completely. Samples can the completely. Samples can the completely. Samples can the completely. Samples can the be logged in and the completely. Samples can the completely. Sampletely. Samples can the completely. Samples															100				
*SAMPLE MATRIX CODES A.= Ambient Atr Indoor/Outdoor/ SV = 50l Wapor/Landidic Gu/SVE Other = Please Specify (1) Required for PUF cartridges. PM-10 and TSP filters Media Type P P T F F Please print clearly, legibly and completely. Samples can not be logged in and transmoti me clock will not start until any ambiguities are resolved. BY SECUTING THE Cort Higgs Media Code F = Filter P = PUF Cartridge D = Dther Relinquished By: Date/Time Received By: Date/Time Date/Time Media Type B B/3 / 22 MS / 3 7 Z 11/5 S Inter clock will not start until any ambiguities are resolved. BY SECUTING THE Cort THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. orm No: 101-20 (rev 23-MARCH 2020) WARA B/13 / 22 Marka B/13 / 22 Marka B/13 / 22																			
*SAMPLE MATRIX CODES AA = Ambient Air (Indicer/Outdoor) SV = SoliVapor/Landfill Gas/SVE Other = Please Specify (1) Hequired for PUF catridges. PM-10 and TSP filters Media Type P P T F F F Please print clearly, legibly and completely. Samples can not be logged in and turn and time dock will not start until any ambiguities are esolved. BY 25 (UTING DE DE Catridge T = Sorbent Tube D = Other Relinquished By: Date/Time Received By: Date/Time Date/Time Media Code F = Filter D = DUF Catridge D = DUF Catridge D = Other Relinquished By: Date/Time Received By: Date/Time Date/Time Media Type P P T F F F Please print clearly, legibly and completely. Samples can not be logged in and turn anothe logged in a																			
*SAMPLE MATRIX CODES AA = Ambient Air (indoor/Outdoor) SV = 5oil Vapor/Landfill Gas/SVE Other = Please Specify (1) Required for PUF catridges. PM-10 and TSP fitters Media Type P P T F F Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not																			
*SAMPLE MATRIX CODES AA = Ambient Air (Indicer/Outdoor) SV = Soil Vapor/Landfill GarSVE Other = Please Specify (1) Required for PUF cartridges, PM-10 and TSP filters Media Type P P T F F F Please print clearly, legibly and completely. Samples can not be logged in and turnaround time dock will not start until any ambiguities are resolved. BY Media Code F = Filter P = PUF Cartridge I = Sorbent Tube D = Other Relinquished By: Date/Time Received By: Date/Time Please print clearly, legibly and completely. Samples can not be logged in and turnaround time dock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLENT HAS READ AND AGENT orm No: 101-20 (rev 23-MARCH 2020) WMARCH VALA VALA <td></td> <td>-</td> <td></td>																		-	
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SAMPLE MATRIX CODES SV = Soil Vapor/Landfill GauSVE Other = Please Specify PM-10 and TSP filters Media Type P P T F F F Media Code F = Filter P = PUF Catridge T = Sorbent Tube D = Other Relinquished By: Date/Time Received By: Date/Time Date/Time not be logged in and tumaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLENT HAS D = Other Sorm No: 101-20 (rev 23-MARCH 2020) Media Type P P P F F F Please print clearly, legibly and completely. Samples can not be logged in and tumaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	*CAMPLE MATDING	00000	AA = Ambient	Vr (Indoor/Outdo	oor)	(1) Required to	r PUF cartridges					-			-	-	_	-	
Media Code Relinquished By: Date/Time Received By: Date/Time and completely, Samples can not be logged in and turn and tur	SAMPLE MATRIX CO	ODES	SV = Soil Vapor Other = Please	/Landfill Gas/SVE Specify		PM-10 and TSE	P filters		Media	аТуре	2	Ρ	Ρ	T	F	F	F	Please prin	t clearly, legibly
Michaelde Micha	Media Code			Relinguis	hed By:	1	Date/	Time		Deart and D		-						not be log	ged in and
P = PUF Cartridge T = Sorbent Tube D = Other Tarm No: 101-20 (rev 23-MARCH 2020) P = PUF Cartridge T = Sorbent Tube D = Other T = Sorbent Tube D = Other	F = Filter		251		incu by.		R/alaz	NE	AGU	Received By	- 1		art	-1	Date/	Time		turnaroun	turnaround time clock will
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iorm No: 101-20 (rev 23-MARCH 2020) READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.) READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	T = Sorbent Tube O = Other		NA	AAT	R ip	1	501.	2122	14A	515	2/		36	2	14	20		THIS COC,	THE CLIENT HAS
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			TH	AR	2		\$17122	0000	K.	11an	Se .	-	HY	he	150	~		(See revers	e side.)



ANALYTICAL REPORT

Lab Number:	L2243287
Client:	Arcadis of New York, Inc.
	Two Huntington Quadrangle
	Suite 1S10
	Melville, NY 11747
ATTN:	Steven Feldman
Phone:	(631) 249-7600
Project Name:	131 SUNNYSIDE BLVD
Project Number:	30017762.00012
Report Date:	08/25/22

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

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



Serial_No:08252209:52

 Project Name:
 131 SUNNYSIDE BLVD

 Project Number:
 30017762.00012

 Lab Number:
 L2243287

 Report Date:
 08/25/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2243287-01	SVE-1	SOIL_VAPOR	PLAINVIEW, NY	08/11/22 11:30	08/11/22
L2243287-02	SVE-2	SOIL_VAPOR	PLAINVIEW, NY	08/11/22 11:00	08/11/22



 Project Name:
 131 SUNNYSIDE BLVD

 Project Number:
 30017762.00012

Lab Number: L2243287 Report Date: 08/25/22

Case Narrative

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

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

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

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

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

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



 Project Name:
 131 SUNNYSIDE BLVD

 Project Number:
 30017762.00012

 Lab Number:
 L2243287

 Report Date:
 08/25/22

Case Narrative (continued)

Volatile Organics in Air

L2243287-01D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

L2243287-01,02: Samples were transferred from a Tedlar bag into a fused silica lined canister upon receipt in order to extend the holding time for 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:

: Jun Jennifer Jerome

Title: Technical Director/Representative

Date: 08/25/22



AIR



Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2243287
Project Number:	30017762.00012	Report Date:	08/25/22

SAMPLE RESULTS

Lab ID:	L2243287-01 D
Client ID:	SVE-1
Sample Location:	PLAINVIEW, NY

Sample Depth:	
Matrix:	Soil_Vapor
Anaytical Method:	48,TO-15
Analytical Date:	08/24/22 01:34
Analyst:	TS

Date Collected:	08/11/22 11:30
Date Received:	08/11/22
Field Prep:	Not Specified

			ug/m3		Dilution			
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Dichlorodifluoromethane	ND	3.40		ND	16.8			17.02
Chloromethane	ND	3.40		ND	7.02			17.02
Freon-114	ND	3.40		ND	23.8			17.02
Vinyl chloride	ND	3.40		ND	8.69			17.02
1,3-Butadiene	ND	3.40		ND	7.52			17.02
Bromomethane	ND	3.40		ND	13.2			17.02
Chloroethane	ND	3.40		ND	8.97			17.02
Ethanol	ND	85.1		ND	160			17.02
Vinyl bromide	ND	3.40		ND	14.9			17.02
Acetone	ND	17.0		ND	40.4			17.02
Trichlorofluoromethane	ND	3.40		ND	19.1			17.02
Isopropanol	14.4	8.51		35.4	20.9			17.02
1,1-Dichloroethene	ND	3.40		ND	13.5			17.02
Tertiary butyl Alcohol	ND	8.51		ND	25.8			17.02
Methylene chloride	ND	8.51		ND	29.6			17.02
3-Chloropropene	ND	3.40		ND	10.6			17.02
Carbon disulfide	ND	3.40		ND	10.6			17.02
Freon-113	ND	3.40		ND	26.1			17.02
trans-1,2-Dichloroethene	ND	3.40		ND	13.5			17.02
1,1-Dichloroethane	ND	3.40		ND	13.8			17.02
Methyl tert butyl ether	ND	3.40		ND	12.3			17.02
2-Butanone	ND	8.51		ND	25.1			17.02
cis-1,2-Dichloroethene	12.0	3.40		47.6	13.5			17.02



08/11/22 11:30

Not Specified

08/11/22

Date Collected:

Date Received:

Field Prep:

Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2243287
Project Number:	30017762.00012	Report Date:	08/25/22

SAMPLE RESULTS

Lab ID: L2243287-01 D Client ID: SVE-1 Sample Location: PLAINVIEW, NY

	ppbV			ug/m3				Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor	
Volatile Organics in Air - Mansfie	eld Lab								
Ethyl Acetate	ND	8.51		ND	30.7			17.02	
Chloroform	ND	3.40		ND	16.6			17.02	
Tetrahydrofuran	17.6	8.51		51.9	25.1			17.02	
1,2-Dichloroethane	ND	3.40		ND	13.8			17.02	
n-Hexane	ND	3.40		ND	12.0			17.02	
1,1,1-Trichloroethane	ND	3.40		ND	18.6			17.02	
Benzene	ND	3.40		ND	10.9			17.02	
Carbon tetrachloride	ND	3.40		ND	21.4			17.02	
Cyclohexane	ND	3.40		ND	11.7			17.02	
1,2-Dichloropropane	ND	3.40		ND	15.7			17.02	
Bromodichloromethane	ND	3.40		ND	22.8			17.02	
1,4-Dioxane	ND	3.40		ND	12.3			17.02	
Trichloroethene	1140	3.40		6130	18.3			17.02	
2,2,4-Trimethylpentane	ND	3.40		ND	15.9			17.02	
Heptane	ND	3.40		ND	13.9			17.02	
cis-1,3-Dichloropropene	ND	3.40		ND	15.4			17.02	
4-Methyl-2-pentanone	ND	8.51		ND	34.9			17.02	
trans-1,3-Dichloropropene	ND	3.40		ND	15.4			17.02	
1,1,2-Trichloroethane	ND	3.40		ND	18.6			17.02	
Toluene	3.69	3.40		13.9	12.8			17.02	
2-Hexanone	ND	3.40		ND	13.9			17.02	
Dibromochloromethane	ND	3.40		ND	29.0			17.02	
1,2-Dibromoethane	ND	3.40		ND	26.1			17.02	
Tetrachloroethene	11.9	3.40		80.7	23.1			17.02	
Chlorobenzene	ND	3.40		ND	15.7			17.02	
Ethylbenzene	ND	3.40		ND	14.8			17.02	



08/11/22 11:30

Not Specified

08/11/22

Date Collected:

Date Received:

Field Prep:

Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2243287
Project Number:	30017762.00012	Report Date:	08/25/22

SAMPLE RESULTS

Lab ID: L2243287-01 D Client ID: SVE-1 Sample Location: PLAINVIEW, NY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mans	sfield Lab							
p/m-Xylene	ND	6.81		ND	29.6			17.02
Bromoform	ND	3.40		ND	35.2			17.02
Styrene	ND	3.40		ND	14.5			17.02
1,1,2,2-Tetrachloroethane	ND	3.40		ND	23.3			17.02
o-Xylene	ND	3.40		ND	14.8			17.02
4-Ethyltoluene	ND	3.40		ND	16.7			17.02
1,3,5-Trimethylbenzene	ND	3.40		ND	16.7			17.02
1,2,4-Trimethylbenzene	ND	3.40		ND	16.7			17.02
Benzyl chloride	ND	3.40		ND	17.6			17.02
1,3-Dichlorobenzene	ND	3.40		ND	20.4			17.02
1,4-Dichlorobenzene	ND	3.40		ND	20.4			17.02
1,2-Dichlorobenzene	ND	3.40		ND	20.4			17.02
1,2,4-Trichlorobenzene	ND	3.40		ND	25.2			17.02
Hexachlorobutadiene	ND	3.40		ND	36.3			17.02

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	82		60-140
chlorobenzene-d5	86		60-140



Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2243287
Project Number:	30017762.00012	Report Date:	08/25/22

SAMPLE RESULTS

Lab ID:L2243287-02Client ID:SVE-2Sample Location:PLAINVIEW, NY

Sample Depth:Matrix:Soil_VaporAnaytical Method:48,TO-15Analytical Date:08/24/22 02:13Analyst:TS

Date Collected:	08/11/22 11:00
Date Received:	08/11/22
Field Prep:	Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mans	field Lab							
Dichlorodifluoromethane	0.464	0.200		2.29	0.989			1
Chloromethane	0.209	0.200		0.432	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	26.7	5.00		50.3	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	8.84	1.00		21.0	2.38			1
Trichlorofluoromethane	0.253	0.200		1.42	1.12			1
Isopropanol	14.4	0.500		35.4	1.23			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1
Tertiary butyl Alcohol	0.558	0.500		1.69	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	0.474	0.200		1.48	0.623			1
Freon-113	0.541	0.200		4.15	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	2.20	0.500		6.49	1.47			1
cis-1,2-Dichloroethene	4.92	0.200		19.5	0.793			1



08/11/22 11:00

Not Specified

08/11/22

Date Collected:

Date Received:

Field Prep:

Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2243287
Project Number:	30017762.00012	Report Date:	08/25/22

SAMPLE RESULTS

Lab ID:L2243287-02Client ID:SVE-2Sample Location:PLAINVIEW, NY

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfi	eld Lab							
Ethyl Acetate	1.01	0.500		3.64	1.80			1
Chloroform	0.201	0.200		0.982	0.977			1
Tetrahydrofuran	3.41	0.500		10.1	1.47			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	0.618	0.200		2.18	0.705			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
Benzene	0.955	0.200		3.05	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	0.813	0.200		2.80	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	6.86	0.200		36.9	1.07			1
2,2,4-Trimethylpentane	1.18	0.200		5.51	0.934			1
Heptane	0.990	0.200		4.06	0.820			1
cis-1,3-Dichloropropene	ND	0.200		ND	0.908			1
4-Methyl-2-pentanone	0.720	0.500		2.95	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	3.21	0.200		12.1	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	2.80	0.200		19.0	1.36			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	0.658	0.200		2.86	0.869			1



08/11/22 11:00

Not Specified

08/11/22

Date Collected:

Date Received:

Field Prep:

Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2243287
Project Number:	30017762.00012	Report Date:	08/25/22

SAMPLE RESULTS

Lab ID:L2243287-02Client ID:SVE-2Sample Location:PLAINVIEW, NY

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mans	field Lab							
p/m-Xylene	2.67	0.400		11.6	1.74			1
Bromoform	ND	0.200		ND	2.07			1
Styrene	0.250	0.200		1.06	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	1.03	0.200		4.47	0.869			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	0.252	0.200		1.24	0.983			1
1,2,4-Trimethylbenzene	0.940	0.200		4.62	0.983			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	87		60-140
chlorobenzene-d5	93		60-140



Project Name: 131 SUNNYSIDE BLVD Project Number: 30017762.00012

Lab Number: L2243287 Report Date: 08/25/22

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 08/23/22 15:03

Parameter	ppbV			ug/m3				Dilution
	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	eld Lab for sample	e(s): 01-0	02 Batch:	WG16787	05-4			
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1


Lab Number: L2243287 Report Date: 08/25/22

Method Blank Analysis Batch Quality Control

Analytical Method:48,TO-15Analytical Date:08/23/22 15:03

		ppbV			ug/m3				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor	
Volatile Organics in Air - Mansfield	Lab for sample	e(s): 01-	02 Batch:	WG16787	'05-4				
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	



Lab Number: L2243287 Report Date: 08/25/22

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 08/23/22 15:03

		ppbV			ug/m3			Dilution Factor
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	
Volatile Organics in Air - Mans	field Lab for samp	ole(s): 01·	-02 Batch	n: WG16787	05-4			
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Lab Control Sample Analysis Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012 Lab Number: L2243287 Report Date: 08/25/22

Parameter	LCS %Recovery	Qual	L %R	-CSD ecovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	
Volatile Organics in Air - Mansfield Lab	Associated sample(s):	01-02	Batch:	WG16787)5-3					
Dichlorodifluoromethane	86			-		70-130	-			
Chloromethane	89			-		70-130	-			
Freon-114	94			-		70-130	-			
Vinyl chloride	90			-		70-130	-			
1,3-Butadiene	97			-		70-130	-			
Bromomethane	94			-		70-130	-			
Chloroethane	94			-		70-130	-			
Ethanol	96			-		40-160	-			
Vinyl bromide	94			-		70-130	-			
Acetone	100			-		40-160	-			
Trichlorofluoromethane	99			-		70-130	-			
Isopropanol	94			-		40-160	-			
1,1-Dichloroethene	98			-		70-130	-			
Tertiary butyl Alcohol	97			-		70-130	-			
Methylene chloride	96			-		70-130	-			
3-Chloropropene	94			-		70-130	-			
Carbon disulfide	74			-		70-130	-			
Freon-113	81			-		70-130	-			
trans-1,2-Dichloroethene	94			-		70-130	-			
1,1-Dichloroethane	97			-		70-130	-			
Methyl tert butyl ether	102			-		70-130	-			
2-Butanone	98			-		70-130	-			
cis-1,2-Dichloroethene	98			-		70-130	-			



Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

Lab Number: L2243287 Report Date: 08/25/22

LCSD LCS %Recovery RPD %Recovery RPD %Recovery Limits Limits Parameter Qual Qual Qual Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1678705-3 Ethyl Acetate 102 70-130 --Chloroform 102 70-130 --Tetrahydrofuran 96 70-130 --1,2-Dichloroethane 93 70-130 -n-Hexane 101 70-130 --1,1,1-Trichloroethane 102 70-130 --100 70-130 Benzene --Carbon tetrachloride 106 70-130 --Cyclohexane 102 70-130 --1,2-Dichloropropane 101 70-130 --Bromodichloromethane 103 70-130 --1,4-Dioxane 96 70-130 --Trichloroethene 101 70-130 --2,2,4-Trimethylpentane 70-130 103 --Heptane 104 70-130 -cis-1,3-Dichloropropene 106 70-130 --4-Methyl-2-pentanone 107 70-130 -trans-1,3-Dichloropropene 70-130 91 --1,1,2-Trichloroethane 70-130 100 --Toluene 99 70-130 --2-Hexanone 102 70-130 --Dibromochloromethane 70-130 103 --1,2-Dibromoethane 99 70-130 --



Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

Lab Number: L2243287 Report Date: 08/25/22

LCSD LCS %Recovery RPD %Recovery %Recovery Limits RPD Limits Qual Qual Parameter Qual Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1678705-3 Tetrachloroethene 103 70-130 --103 70-130 Chlorobenzene --Ethylbenzene 102 70-130 -p/m-Xylene 104 70-130 --Bromoform 103 70-130 --Styrene 102 70-130 --1,1,2,2-Tetrachloroethane 101 70-130 -o-Xylene 106 70-130 --4-Ethyltoluene 100 70-130 --70-130 1,3,5-Trimethylbenzene 103 --1,2,4-Trimethylbenzene 103 70-130 --Benzyl chloride 95 70-130 --1,3-Dichlorobenzene 102 70-130 --98 70-130 1,4-Dichlorobenzene --70-130 1,2-Dichlorobenzene 94 --1,2,4-Trichlorobenzene 71 70-130 --Hexachlorobutadiene 77 70-130 --



Project Name: 131 SUNNYSIDE BLVD Project Number: 30017762.00012

Serial_No:08252209:52 Lab Number: L2243287 Report Date: 08/25/22

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
NA	Absent

Container Information

Container Info	ormation	Initial	Final	Temp			Frozen		
Container ID	Container Type	Cooler	рН	pН	deg C	Pres	Seal	Date/Time	Analysis(*)
L2243287-01A	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2243287-01B	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Υ	Absent		TO15-LL(30)
L2243287-01X	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2243287-02A	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2243287-02B	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2243287-02X	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)



Serial_No:08252209:52

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

Lab Number: L2243287

Report Date: 08/25/22

GLOSSARY

Acronyms

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



Project Number: 30017762.00012

Lab Number: L2243287 **Report Date:** 08/25/22

Footnotes

1		

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

Terms

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

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 Waterpreserved 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).
- С - 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.
- Е - 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.
- Н - 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).
- Μ - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.



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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.)



Project Name:131 SUNNYSIDE BLVDProject Number:30017762.00012

 Lab Number:
 L2243287

 Report Date:
 08/25/22

REFERENCES

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

LIMITATION OF LIABILITIES

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

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



Certification Information

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

Westborough Facility

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

EPA 625/625.1: alpha-Terpineol

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

EPA 8270D/8270E: <u>NPW:</u> Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; <u>SCM</u>: Dimethylnaphthalene,1,4-Diphenylhydrazine. **SM4500**: <u>NPW</u>: Amenable Cyanide; <u>SCM</u>: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: <u>NPW:</u> PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187. **EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene. **Biological Tissue Matrix:** EPA 3050B

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

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP. Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics, EPA 608.3: Chlordane Toxaphene Aldrin alpha-BHC beta-BHC gamma-BHC delta-BHC Dieldrin DDD DDE DDT Endosulfan I Endosulfan II

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs **EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.

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

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522, EPA 537.1.

Non-Potable Water

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

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

Serial_No:08252209:52

AI	R ANALYSIS - SOR		ing .		P	age												
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FAX: 508-822-3288	508-822-3288	Project L	Project Location: Plainview N					ADEX				PO# 30017762,00012						
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Address: Z Hun	tington Ouze	Project Manager: Steve Feld Man				nen		MAIL				Reg	ulato	ry Re	quire	ment	s/Rep	ort Limits
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Fax:		Standard		D	ue Date:		Rep	ort to: (if di	fferent than l	Manag	er)							
Email: Sali tede	Sto e Arcidis	Rush (only	/ If pre approv	ed)	Time:					_		A						
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ALPHA Lab ID	2422e 2012017-01				Colle	ction				<	Hig	Low	NIC NIC	Elt	- Iter	in		
(Lab Use Only)	Sample ID	Date	Start Time	End Time	Flow Rate (L/min)	Total Volume(L)	Sample Matrix*	Sampler's Initials	Media ID# (1)	10-13	CBs	CBs (lg via	Metal	-10	SP FII	2	Sample Comments (i.e. PID)
43287-01	SVE-1	8/11/22	-	1130	-	5	SV	ST		-	-	-	-	~	-	-	X	Talla R.
02	SVE-2	0/11/22	-	1100	-	5	SV	ST	-							_	X	Tedlar Bay
*SAMPLE MATRIX C	ODES	AA = Ambient SV = Soil Vapor Other = Please	Air (Indoor/Outd /Landfill Gas/SVI Specify Relinquis	oor)	(1) Required f PM-10 and T	or PUF cartridge P filters Date	n, /Time	Medi.	a Type Refeived By	р :	Р	Р	т	F Date/	F	F		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will
Media Code Helinguished as: F = Piter Helinguished as: P = PUt cartridge Helinguished as: T = Sophent Tube Helinguished AAL O = Other Form No: 101-20 (rev 23-MARCH 2020)		2	8 1/2 8/1/22 8/1/2 8/1/2 8/1/2	B 11/22 10 400 4AL B 11/22 10 400 4AL SI/1/22 13-210 400 SI/1/22 13-210 400 SI/1/22 0300 1 500			97 8. 8(11 3/1.	1/2	2	14 200 300	24	8	not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)					

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ANALYTICAL REPORT

Lab Number:	L2244639
Client:	Arcadis of New York, Inc.
	Two Huntington Quadrangle
	Suite 1S10
	Melville, NY 11747
ATTN:	Steven Feldman
Phone:	(631) 249-7600
Project Name:	131 SUNNYSIDE BLVD
Project Number:	30017762.00012
Report Date:	08/29/22

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

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

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



Serial_No:08292215:33

 Project Name:
 131 SUNNYSIDE BLVD

 Project Number:
 30017762.00012

 Lab Number:
 L2244639

 Report Date:
 08/29/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2244639-01	SVE-1	SOIL_VAPOR	PLAINVIEW, NY	08/18/22 11:10	08/18/22
L2244639-02	SVE-2	SOIL_VAPOR	PLAINVIEW, NY	08/18/22 11:25	08/18/22



Lab Number: L2244639 Report Date: 08/29/22

Case Narrative

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

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

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

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

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

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



 Lab Number:
 L2244639

 Report Date:
 08/29/22

Case Narrative (continued)

Volatile Organics in Air

L2244639-01D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

L2244639-01D,02: Samples were transferred from a Tedlar bag into a fused silica lined canister upon receipt in order to extend the holding time for 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.

Christoph J Christopher J. Anderson

Authorized Signature:

Title: Technical Director/Representative

Date: 08/29/22



AIR



Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2244639
Project Number:	30017762.00012	Report Date:	08/29/22

Lab ID:	L2244639-01 D
Client ID:	SVE-1
Sample Location:	PLAINVIEW, NY

08/18/22 11:10
08/18/22
Not Specified

Sample Depth:	
Matrix:	Soil_Vapor
Anaytical Method:	48,TO-15
Analytical Date:	08/25/22 20:34
Analyst:	TS

		ppbV		ug/m3		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor		
Volatile Organics in Air - Mansfield	Lab									
Dichlorodifluoromethane	ND	4.00		ND	19.8			20		
Chloromethane	ND	4.00		ND	8.26			20		
Freon-114	ND	4.00		ND	28.0			20		
Vinyl chloride	ND	4.00		ND	10.2			20		
1,3-Butadiene	ND	4.00		ND	8.85			20		
Bromomethane	ND	4.00		ND	15.5			20		
Chloroethane	ND	4.00		ND	10.6			20		
Ethanol	ND	100		ND	188			20		
Vinyl bromide	ND	4.00		ND	17.5			20		
Acetone	ND	20.0		ND	47.5			20		
Trichlorofluoromethane	ND	4.00		ND	22.5			20		
Isopropanol	13.5	10.0		33.2	24.6			20		
1,1-Dichloroethene	ND	4.00		ND	15.9			20		
Tertiary butyl Alcohol	ND	10.0		ND	30.3			20		
Methylene chloride	ND	10.0		ND	34.7			20		
3-Chloropropene	ND	4.00		ND	12.5			20		
Carbon disulfide	ND	4.00		ND	12.5			20		
Freon-113	ND	4.00		ND	30.7			20		
trans-1,2-Dichloroethene	ND	4.00		ND	15.9			20		
1,1-Dichloroethane	ND	4.00		ND	16.2			20		
Methyl tert butyl ether	ND	4.00		ND	14.4			20		
2-Butanone	ND	10.0		ND	29.5			20		
cis-1,2-Dichloroethene	12.6	4.00		50.0	15.9			20		



Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2244639
Project Number:	30017762.00012	Report Date:	08/29/22

Lab ID: L2244639-01 D Client ID: SVE-1 Sample Location: PLAINVIEW, NY

Date Collected:08/18/22 11:10Date Received:08/18/22Field Prep:Not Specified

Sample Depth:

		ppbV ug/m3		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
Ethyl Acetate	ND	10.0		ND	36.0			20
Chloroform	ND	4.00		ND	19.5			20
Tetrahydrofuran	20.3	10.0		59.9	29.5			20
1,2-Dichloroethane	ND	4.00		ND	16.2			20
n-Hexane	ND	4.00		ND	14.1			20
1,1,1-Trichloroethane	4.18	4.00		22.8	21.8			20
Benzene	ND	4.00		ND	12.8			20
Carbon tetrachloride	ND	4.00		ND	25.2			20
Cyclohexane	ND	4.00		ND	13.8			20
1,2-Dichloropropane	ND	4.00		ND	18.5			20
Bromodichloromethane	ND	4.00		ND	26.8			20
1,4-Dioxane	ND	4.00		ND	14.4			20
Trichloroethene	1500	4.00		8060	21.5			20
2,2,4-Trimethylpentane	ND	4.00		ND	18.7			20
Heptane	ND	4.00		ND	16.4			20
cis-1,3-Dichloropropene	ND	4.00		ND	18.2			20
4-Methyl-2-pentanone	ND	10.0		ND	41.0			20
trans-1,3-Dichloropropene	ND	4.00		ND	18.2			20
1,1,2-Trichloroethane	ND	4.00		ND	21.8			20
Toluene	ND	4.00		ND	15.1			20
2-Hexanone	ND	4.00		ND	16.4			20
Dibromochloromethane	ND	4.00		ND	34.1			20
1,2-Dibromoethane	ND	4.00		ND	30.7			20
Tetrachloroethene	15.4	4.00		104	27.1			20
Chlorobenzene	ND	4.00		ND	18.4			20
Ethylbenzene	ND	4.00		ND	17.4			20



Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2244639
Project Number:	30017762.00012	Report Date:	08/29/22

Lab ID: L2244639-01 D Client ID: SVE-1 Sample Location: PLAINVIEW, NY

Date Collected:08/18/22 11:10Date Received:08/18/22Field Prep:Not Specified

Sample Depth:

		ppbV		ug/m3			D	Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
p/m-Xylene	ND	8.00		ND	34.7			20
Bromoform	ND	4.00		ND	41.4			20
Styrene	ND	4.00		ND	17.0			20
1,1,2,2-Tetrachloroethane	ND	4.00		ND	27.5			20
o-Xylene	ND	4.00		ND	17.4			20
4-Ethyltoluene	ND	4.00		ND	19.7			20
1,3,5-Trimethylbenzene	ND	4.00		ND	19.7			20
1,2,4-Trimethylbenzene	ND	4.00		ND	19.7			20
Benzyl chloride	ND	4.00		ND	20.7			20
1,3-Dichlorobenzene	ND	4.00		ND	24.0			20
1,4-Dichlorobenzene	ND	4.00		ND	24.0			20
1,2-Dichlorobenzene	ND	4.00		ND	24.0			20
1,2,4-Trichlorobenzene	ND	4.00		ND	29.7			20
Hexachlorobutadiene	ND	4.00		ND	42.7			20

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		60-140
Bromochloromethane	94		60-140
chlorobenzene-d5	94		60-140



Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2244639
Project Number:	30017762.00012	Report Date:	08/29/22

Lab ID:L2244639-02Client ID:SVE-2Sample Location:PLAINVIEW, NY

Sample Depth:Matrix:Soil_VaporAnaytical Method:48,TO-15Analytical Date:08/25/22 21:05Analyst:TS

Date Collected:	08/18/22 11:25
Date Received:	08/18/22
Field Prep:	Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Man	sfield Lab							
Dichlorodifluoromethane	0.397	0.200		1.96	0.989			1
Chloromethane	0.206	0.200		0.425	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	16.8	5.00		31.7	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	6.20	1.00		14.7	2.38			1
Trichlorofluoromethane	0.218	0.200		1.23	1.12			1
Isopropanol	1.12	0.500		2.75	1.23			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1
Tertiary butyl Alcohol	13.1	0.500		39.7	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	0.405	0.200		1.26	0.623			1
Freon-113	0.624	0.200		4.78	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	1.67	0.500		4.93	1.47			1
cis-1,2-Dichloroethene	3.35	0.200		13.3	0.793			1



08/18/22 11:25

Not Specified

08/18/22

Date Collected:

Date Received:

Field Prep:

Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2244639
Project Number:	30017762.00012	Report Date:	08/29/22

SAMPLE RESULTS

Lab ID:L2244639-02Client ID:SVE-2Sample Location:PLAINVIEW, NY

Sample Depth:

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1
Tetrahydrofuran	2.23	0.500		6.58	1.47			1
1,2-Dichloroethane	ND	0.200		ND	0.809			1
n-Hexane	1.45	0.200		5.11	0.705			1
1,1,1-Trichloroethane	ND	0.200		ND	1.09			1
Benzene	0.346	0.200		1.11	0.639			1
Carbon tetrachloride	ND	0.200		ND	1.26			1
Cyclohexane	0.249	0.200		0.857	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	24.6	0.200		132	1.07			1
2,2,4-Trimethylpentane	0.309	0.200		1.44	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	1.37	0.200		5.16	0.754			1
2-Hexanone	ND	0.200		ND	0.820			1
Dibromochloromethane	ND	0.200		ND	1.70			1
1,2-Dibromoethane	ND	0.200		ND	1.54			1
Tetrachloroethene	3.17	0.200		21.5	1.36			1
Chlorobenzene	ND	0.200		ND	0.921			1
Ethylbenzene	0.289	0.200		1.26	0.869			1



08/18/22 11:25

Not Specified

08/18/22

Date Collected:

Date Received:

Field Prep:

Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2244639
Project Number:	30017762.00012	Report Date:	08/29/22

SAMPLE RESULTS

Lab ID:L2244639-02Client ID:SVE-2Sample Location:PLAINVIEW, NY

Sample Depth:

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	d Lab							
p/m-Xylene	1.29	0.400		5.60	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	0.524	0.200		2.28	0.869			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
1,2,4-Trimethylbenzene	0.432	0.200		2.12	0.983			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1

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



 Lab Number:
 L2244639

 Report Date:
 08/29/22

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 08/25/22 14:49

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mans	field Lab for sample	e(s): 01	-02 Batch:	WG16797	79-4			
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1



 Lab Number:
 L2244639

 Report Date:
 08/29/22

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 08/25/22 14:49

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfiel	ld Lab for sampl	e(s): 01-0	02 Batch:	WG16797	779-4			
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



 Lab Number:
 L2244639

 Report Date:
 08/29/22

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 08/25/22 14:49

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mans	field Lab for samp	ole(s): 01-	02 Batch	: WG16797	79-4			
Bromoform	ND	0.200		ND	2.07			1
Styrene	ND	0.200		ND	0.852			1
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1
o-Xylene	ND	0.200		ND	0.869			1
4-Ethyltoluene	ND	0.200		ND	0.983			1
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

 Lab Number:
 L2244639

 Report Date:
 08/29/22

LCSD LCS %Recovery RPD %Recovery Limits RPD %Recovery Limits Parameter Qual Qual Qual Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1679779-3 Dichlorodifluoromethane 85 70-130 --107 Chloromethane 70-130 --Freon-114 91 70-130 --Vinyl chloride 95 70-130 --1,3-Butadiene 96 70-130 --Bromomethane 92 70-130 --Chloroethane 95 70-130 --Ethanol 86 40-160 --Vinyl bromide 83 70-130 --40-160 94 Acetone --Trichlorofluoromethane 84 70-130 --Isopropanol 89 40-160 --1,1-Dichloroethene 90 70-130 --70-130 Tertiary butyl Alcohol 81 --Methylene chloride 101 70-130 --3-Chloropropene 95 70-130 --Carbon disulfide 91 70-130 --Freon-113 70-130 99 -trans-1,2-Dichloroethene 70-130 85 --1,1-Dichloroethane 93 70-130 --Methyl tert butyl ether 93 70-130 --70-130 2-Butanone 91 -cis-1,2-Dichloroethene 93 70-130 --



Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

 Lab Number:
 L2244639

 Report Date:
 08/29/22

LCSD LCS %Recovery RPD %Recovery Limits RPD %Recovery Limits Parameter Qual Qual Qual Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1679779-3 Ethyl Acetate 86 70-130 --Chloroform 88 70-130 --Tetrahydrofuran 89 70-130 --1,2-Dichloroethane 76 70-130 -n-Hexane 94 70-130 --1,1,1-Trichloroethane 89 70-130 --101 70-130 Benzene --Carbon tetrachloride 90 70-130 --Cyclohexane 94 70-130 --1,2-Dichloropropane 104 70-130 --Bromodichloromethane 89 70-130 --1,4-Dioxane 89 70-130 --Trichloroethene 104 70-130 --2,2,4-Trimethylpentane 70-130 95 --Heptane 103 70-130 -cis-1,3-Dichloropropene 110 70-130 --4-Methyl-2-pentanone 102 70-130 -trans-1,3-Dichloropropene 70-130 91 --1,1,2-Trichloroethane 70-130 103 --Toluene 104 70-130 --2-Hexanone 106 70-130 --Dibromochloromethane 107 70-130 --110 70-130 1,2-Dibromoethane --



Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

Lab Number: L2244639 Report Date: 08/29/22

LCSD LCS %Recovery RPD %Recovery %Recovery Limits RPD Limits Qual Qual Parameter Qual Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1679779-3 Tetrachloroethene 104 70-130 --112 70-130 Chlorobenzene --Ethylbenzene 105 70-130 -p/m-Xylene 108 70-130 --Bromoform 106 70-130 --Styrene 70-130 116 --1,1,2,2-Tetrachloroethane 107 70-130 -o-Xylene 106 70-130 --4-Ethyltoluene 106 70-130 --112 70-130 1,3,5-Trimethylbenzene --1,2,4-Trimethylbenzene 116 70-130 --Benzyl chloride 98 70-130 --1,3-Dichlorobenzene 114 70-130 --110 70-130 1,4-Dichlorobenzene --70-130 1,2-Dichlorobenzene 111 --1,2,4-Trichlorobenzene 91 70-130 --Hexachlorobutadiene 100 70-130 --



Project Name: 131 SUNNYSIDE BLVD **Project Number:** 30017762.00012

Serial_No:08292215:33 Lab Number: L2244639 *Report Date:* 08/29/22

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
NA	Absent

Container Information

Container Info	ormation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	pН	pН	deg C	Pres	Seal	Date/Time	Analysis(*)
L2244639-01A	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2244639-01B	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2244639-01X	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2244639-02A	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2244639-02B	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2244639-02X	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)



Project Number: 30017762.00012

Lab Number: L2244639

Report Date: 08/29/22

GLOSSARY

Acronyms

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



Project Number: 30017762.00012

Lab Number: L2244639 Report Date: 08/29/22

Footnotes

1

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

Terms

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

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 Waterpreserved 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(a)+(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, 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 concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the 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 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.



Project Number: 30017762.00012

Serial_No:08292215:33

Lab Number: L2244639

Report Date: 08/29/22

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.)



Project Name:131 SUNNYSIDE BLVDProject Number:30017762.00012

 Lab Number:
 L2244639

 Report Date:
 08/29/22

REFERENCES

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

LIMITATION OF LIABILITIES

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

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



Certification Information

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

Westborough Facility

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

EPA 625/625.1: alpha-Terpineol

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

EPA 8270D/8270E: <u>NPW:</u> Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; <u>SCM</u>: Dimethylnaphthalene,1,4-Diphenylhydrazine. **SM4500**: <u>NPW</u>: Amenable Cyanide; <u>SCM</u>: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS EPA 8082A: <u>NPW</u>: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187. EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene. Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP. Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics, EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I. Endosulfan II.

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs **EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.

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

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522, EPA 537.1.

Non-Potable Water

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

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

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ANALYTICAL REPORT

Lab Number:	L2246050
Client:	Arcadis of New York, Inc.
	Two Huntington Quadrangle
	Suite 1S10
	Melville, NY 11747
ATTN:	Steven Feldman
Phone:	(631) 249-7600
Project Name:	131 SUNNYSIDE BLVD
Project Number:	30017762.00012
Report Date:	08/31/22

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

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



Serial_No:08312212:40

 Project Name:
 131 SUNNYSIDE BLVD

 Project Number:
 30017762.00012

 Lab Number:
 L2246050

 Report Date:
 08/31/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2246050-01	SVE-1	SOIL_VAPOR	PLAINVIEW, NY	08/25/22 10:05	08/25/22
L2246050-02	SVE-2	SOIL_VAPOR	PLAINVIEW, NY	08/25/22 10:15	08/25/22



 Project Name:
 131 SUNNYSIDE BLVD

 Project Number:
 30017762.00012

Lab Number: L2246050 Report Date: 08/31/22

Case Narrative

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

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

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

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

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

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



 Project Name:
 131 SUNNYSIDE BLVD

 Project Number:
 30017762.00012

 Lab Number:
 L2246050

 Report Date:
 08/31/22

Case Narrative (continued)

Volatile Organics in Air

L2246050-01D and -02D: Samples were transferred from a Tedlar bag into a fused silica lined canister upon receipt in order to extend the holding time for analysis.

L2246050-01D and -02D: The samples have elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the samples.

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.

Christoph J Christopher J. Anderson

Authorized Signature:

Title: Technical Director/Representative

Date: 08/31/22



AIR



Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2246050
Project Number:	30017762.00012	Report Date:	08/31/22

Lab ID:	L2246050-01	D
Client ID:	SVE-1	
Sample Location:	PLAINVIEW, N	١Y

••••••••••••••••••••••••••••••••••••••	
Matrix:	Soil_Vapor
Anaytical Method:	48,TO-15
Analytical Date:	08/29/22 22:17
Analyst:	TS
Analyst:	TS

Date Collected:	08/25/22 10:05
Date Received:	08/25/22
Field Prep:	Not Specified

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Man	sfield Lab							
Dichlorodifluoromethane	ND	8.12		ND	40.2			40.58
Chloromethane	ND	8.12		ND	16.8			40.58
Freon-114	ND	8.12		ND	56.8			40.58
Vinyl chloride	ND	8.12		ND	20.8			40.58
1,3-Butadiene	ND	8.12		ND	18.0			40.58
Bromomethane	ND	8.12		ND	31.5			40.58
Chloroethane	ND	8.12		ND	21.4			40.58
Ethanol	ND	203		ND	383			40.58
Vinyl bromide	ND	8.12		ND	35.5			40.58
Acetone	ND	40.6		ND	96.4			40.58
Trichlorofluoromethane	ND	8.12		ND	45.6			40.58
Isopropanol	ND	20.3		ND	49.9			40.58
1,1-Dichloroethene	ND	8.12		ND	32.2			40.58
Tertiary butyl Alcohol	ND	20.3		ND	61.5			40.58
Methylene chloride	ND	20.3		ND	70.5			40.58
3-Chloropropene	ND	8.12		ND	25.4			40.58
Carbon disulfide	ND	8.12		ND	25.3			40.58
Freon-113	ND	8.12		ND	62.2			40.58
trans-1,2-Dichloroethene	ND	8.12		ND	32.2			40.58
1,1-Dichloroethane	ND	8.12		ND	32.9			40.58
Methyl tert butyl ether	ND	8.12		ND	29.3			40.58
2-Butanone	ND	20.3		ND	59.9			40.58
cis-1,2-Dichloroethene	30.7	8.12		122	32.2			40.58



Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2246050
Project Number:	30017762.00012	Report Date:	08/31/22

Lab ID: L2246050-01 D Client ID: SVE-1 Sample Location: PLAINVIEW, NY

Date Collected:08/25/22 10:05Date Received:08/25/22Field Prep:Not Specified

	ppbV ug/m3			Dilution				
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab							
Ethyl Acetate	ND	20.3		ND	73.2			40.58
Chloroform	ND	8.12		ND	39.7			40.58
Tetrahydrofuran	170	20.3		501	59.9			40.58
1,2-Dichloroethane	ND	8.12		ND	32.9			40.58
n-Hexane	ND	8.12		ND	28.6			40.58
1,1,1-Trichloroethane	13.0	8.12		70.9	44.3			40.58
Benzene	ND	8.12		ND	25.9			40.58
Carbon tetrachloride	ND	8.12		ND	51.1			40.58
Cyclohexane	ND	8.12		ND	28.0			40.58
1,2-Dichloropropane	ND	8.12		ND	37.5			40.58
Bromodichloromethane	ND	8.12		ND	54.4			40.58
1,4-Dioxane	ND	8.12		ND	29.3			40.58
Trichloroethene	3460	8.12		18600	43.6			40.58
2,2,4-Trimethylpentane	ND	8.12		ND	37.9			40.58
Heptane	ND	8.12		ND	33.3			40.58
cis-1,3-Dichloropropene	ND	8.12		ND	36.9			40.58
4-Methyl-2-pentanone	ND	20.3		ND	83.2			40.58
trans-1,3-Dichloropropene	ND	8.12		ND	36.9			40.58
1,1,2-Trichloroethane	ND	8.12		ND	44.3			40.58
Toluene	ND	8.12		ND	30.6			40.58
2-Hexanone	ND	8.12		ND	33.3			40.58
Dibromochloromethane	ND	8.12		ND	69.2			40.58
1,2-Dibromoethane	ND	8.12		ND	62.4			40.58
Tetrachloroethene	18.9	8.12		128	55.1			40.58
Chlorobenzene	ND	8.12		ND	37.4			40.58
Ethylbenzene	ND	8.12		ND	35.3			40.58



Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2246050
Project Number:	30017762.00012	Report Date:	08/31/22

Lab ID:L2246050-01DClient ID:SVE-1Sample Location:PLAINVIEW, NY

Date Collected:08/25/22 10:05Date Received:08/25/22Field Prep:Not Specified

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
p/m-Xylene	ND	16.2		ND	70.4			40.58
Bromoform	ND	8.12		ND	84.0			40.58
Styrene	ND	8.12		ND	34.6			40.58
1,1,2,2-Tetrachloroethane	ND	8.12		ND	55.8			40.58
o-Xylene	ND	8.12		ND	35.3			40.58
4-Ethyltoluene	ND	8.12		ND	39.9			40.58
1,3,5-Trimethylbenzene	ND	8.12		ND	39.9			40.58
1,2,4-Trimethylbenzene	ND	8.12		ND	39.9			40.58
Benzyl chloride	ND	8.12		ND	42.0			40.58
1,3-Dichlorobenzene	ND	8.12		ND	48.8			40.58
1,4-Dichlorobenzene	ND	8.12		ND	48.8			40.58
1,2-Dichlorobenzene	ND	8.12		ND	48.8			40.58
1,2,4-Trichlorobenzene	ND	8.12		ND	60.3			40.58
Hexachlorobutadiene	ND	8.12		ND	86.6			40.58

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	98		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	94		60-140



Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2246050
Project Number:	30017762.00012	Report Date:	08/31/22

Lab ID: Client ID: Sample Location:	L2246050-02 SVE-2 PLAINVIEW, NY	D (Date Date Field	Collecte Receive Prep:	ed: 08/2 ed: 08/2 Not \$	08/25/22 10:15 08/25/22 Not Specified	
Sample Depth: Matrix: Anaytical Method: Analytical Date: Analyst:	Soil_Vapor 48,TO-15 08/29/22 22:53 TS									
Devenueter		Deculto	ppbV		Populto	ug/m3	MDI	Qualifier	Dilution Factor	
Volatile Organics in	Air - Mansfield La	Results	RL	MDL	Results	RL	NIDL	Quaimer		
									-	
Chloromothana		0.534	0.400		2.64	1.98			2	
Eroop 114		ND	0.400		ND	0.826			2	
Vipyl chlorido		ND	0.400		ND	2.80			2	
1 2 Putediana		ND	0.400		ND	1.02			2	
		ND	0.400		ND	0.885			2	
Bromomethane		ND	0.400		ND	1.55			2	
		ND	0.400		ND	1.06			2	
Ethanol		12.5	10.0		23.6	18.8			2	
Vinyl bromide		ND	0.400		ND	1.75			2	
Acetone		5.71	2.00		13.6	4.75			2	
Trichlorofluoromethane		ND	0.400		ND	2.25			2	
Isopropanol		9.72	1.00		23.9	2.46			2	
1,1-Dichloroethene		ND	0.400		ND	1.59			2	
Tertiary butyl Alcohol		ND	1.00		ND	3.03			2	
Methylene chloride		ND	1.00		ND	3.47			2	
3-Chloropropene		ND	0.400		ND	1.25			2	
Carbon disulfide		ND	0.400		ND	1.25			2	
Freon-113		0.530	0.400		4.06	3.07			2	
trans-1,2-Dichloroethene	9	ND	0.400		ND	1.59			2	
1,1-Dichloroethane		ND	0.400		ND	1.62			2	
Methyl tert butyl ether		ND	0.400		ND	1.44			2	
2-Butanone		1.24	1.00		3.66	2.95			2	
cis-1,2-Dichloroethene		2.98	0.400		11.8	1.59			2	



Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2246050
Project Number:	30017762.00012	Report Date:	08/31/22

Lab ID: L2246050-02 D Client ID: SVE-2 Sample Location: PLAINVIEW, NY

Date Collected:08/25/22 10:15Date Received:08/25/22Field Prep:Not Specified

		ppbV		ug/m3		Dilution		
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	eld Lab							
Ethyl Acetate	ND	1.00		ND	3.60			2
Chloroform	ND	0.400		ND	1.95			2
Tetrahydrofuran	4.33	1.00		12.8	2.95			2
1,2-Dichloroethane	ND	0.400		ND	1.62			2
n-Hexane	ND	0.400		ND	1.41			2
1,1,1-Trichloroethane	ND	0.400		ND	2.18			2
Benzene	ND	0.400		ND	1.28			2
Carbon tetrachloride	ND	0.400		ND	2.52			2
Cyclohexane	ND	0.400		ND	1.38			2
1,2-Dichloropropane	ND	0.400		ND	1.85			2
Bromodichloromethane	ND	0.400		ND	2.68			2
1,4-Dioxane	ND	0.400		ND	1.44			2
Trichloroethene	102	0.400		548	2.15			2
2,2,4-Trimethylpentane	0.774	0.400		3.62	1.87			2
Heptane	ND	0.400		ND	1.64			2
cis-1,3-Dichloropropene	ND	0.400		ND	1.82			2
4-Methyl-2-pentanone	ND	1.00		ND	4.10			2
trans-1,3-Dichloropropene	ND	0.400		ND	1.82			2
1,1,2-Trichloroethane	ND	0.400		ND	2.18			2
Toluene	0.412	0.400		1.55	1.51			2
2-Hexanone	ND	0.400		ND	1.64			2
Dibromochloromethane	ND	0.400		ND	3.41			2
1,2-Dibromoethane	ND	0.400		ND	3.07			2
Tetrachloroethene	2.98	0.400		20.2	2.71			2
Chlorobenzene	ND	0.400		ND	1.84			2
Ethylbenzene	ND	0.400		ND	1.74			2



08/25/22 10:15

Not Specified

08/25/22

Date Collected:

Date Received:

Field Prep:

Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2246050
Project Number:	30017762.00012	Report Date:	08/31/22

SAMPLE RESULTS

Lab ID: L2246050-02 D Client ID: SVE-2 Sample Location: PLAINVIEW, NY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mans	field Lab							
p/m-Xylene	1.65	0.800		7.17	3.47			2
Bromoform	ND	0.400		ND	4.14			2
Styrene	ND	0.400		ND	1.70			2
1,1,2,2-Tetrachloroethane	ND	0.400		ND	2.75			2
o-Xylene	0.646	0.400		2.81	1.74			2
4-Ethyltoluene	ND	0.400		ND	1.97			2
1,3,5-Trimethylbenzene	ND	0.400		ND	1.97			2
1,2,4-Trimethylbenzene	ND	0.400		ND	1.97			2
Benzyl chloride	ND	0.400		ND	2.07			2
1,3-Dichlorobenzene	ND	0.400		ND	2.40			2
1,4-Dichlorobenzene	ND	0.400		ND	2.40			2
1,2-Dichlorobenzene	ND	0.400		ND	2.40			2
1,2,4-Trichlorobenzene	ND	0.400		ND	2.97			2
Hexachlorobutadiene	ND	0.400		ND	4.27			2

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	94		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	94		60-140



08/31/22

Report Date:

Project Name: 131 SUNNYSIDE BLVD Project Number: 30017762.00012

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 08/29/22 15:04

	_	ppbV					ug/m3	-	Dilution	
Parameter		Results	RL	N	IDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air	- Mansfield Lat	o for sampl	e(s):	01-02	Batch:	WG16810	36-4			
Dichlorodifluoromethane		ND	0.20	00		ND	0.989			1
Chloromethane		ND	0.20	00		ND	0.413			1
Freon-114		ND	0.20	00		ND	1.40			1
Vinyl chloride		ND	0.20	00		ND	0.511			1
1,3-Butadiene		ND	0.20	00		ND	0.442			1
Bromomethane		ND	0.2	00		ND	0.777			1
Chloroethane		ND	0.2	00		ND	0.528			1
Ethanol		ND	5.0	00		ND	9.42			1
Vinyl bromide		ND	0.2	00		ND	0.874			1
Acetone		ND	1.0	00		ND	2.38			1
Trichlorofluoromethane		ND	0.20	00		ND	1.12			1
Isopropanol		ND	0.5	00		ND	1.23			1
1,1-Dichloroethene		ND	0.20	00		ND	0.793			1
Tertiary butyl Alcohol		ND	0.50	00		ND	1.52			1
Methylene chloride		ND	0.5	00		ND	1.74			1
3-Chloropropene		ND	0.2	00		ND	0.626			1
Carbon disulfide		ND	0.20	00		ND	0.623			1
Freon-113		ND	0.2	00		ND	1.53			1
trans-1,2-Dichloroethene		ND	0.2	00		ND	0.793			1
1,1-Dichloroethane		ND	0.20	00		ND	0.809			1
Methyl tert butyl ether		ND	0.20	00		ND	0.721			1
2-Butanone		ND	0.5	00		ND	1.47			1
cis-1,2-Dichloroethene		ND	0.20	00		ND	0.793			1
Ethyl Acetate		ND	0.5	00		ND	1.80			1
Chloroform		ND	0.20	00		ND	0.977			1



Project Name: 131 SUNNYSIDE BLVD Project Number: 30017762.00012

Report Date: 08/31/22

Method Blank Analysis Batch Quality Control

Analytical Method:48,TO-15Analytical Date:08/29/22 15:04

			ug/m3			Dilution		
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab for samp	le(s): 01-	02 Batch:	WG16810	36-4			
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



08/31/22

Report Date:

Project Name: 131 SUNNYSIDE BLVD Project Number: 30017762.00012

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 08/29/22 15:04

		ppbV				ug/m3			
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor	
Volatile Organics in Air - Mansf	ield Lab for samp	ole(s): 01·	-02 Batch:	: WG16810	036-4				
Bromoform	ND	0.200		ND	2.07			1	
Styrene	ND	0.200		ND	0.852			1	
1,1,2,2-Tetrachloroethane	ND	0.200		ND	1.37			1	
o-Xylene	ND	0.200		ND	0.869			1	
4-Ethyltoluene	ND	0.200		ND	0.983			1	
1,3,5-Trimethylbenzene	ND	0.200		ND	0.983			1	
1,2,4-Trimethylbenzene	ND	0.200		ND	0.983			1	
Benzyl chloride	ND	0.200		ND	1.04			1	
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1	
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1	
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1	
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1	
Hexachlorobutadiene	ND	0.200		ND	2.13			1	



Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

 Lab Number:
 L2246050

 Report Date:
 08/31/22

LCSD LCS %Recovery RPD %Recovery RPD %Recovery Limits Limits Parameter Qual Qual Qual Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1681036-3 Dichlorodifluoromethane 104 70-130 --106 Chloromethane 70-130 --Freon-114 108 70-130 --Vinyl chloride 109 70-130 --1,3-Butadiene 106 70-130 --Bromomethane 110 70-130 --Chloroethane 114 70-130 --Ethanol 100 40-160 --Vinyl bromide 95 70-130 --40-160 115 Acetone --Trichlorofluoromethane 113 70-130 --Isopropanol 104 40-160 --1,1-Dichloroethene 105 70-130 --97 70-130 Tertiary butyl Alcohol --Methylene chloride 94 70-130 --3-Chloropropene 102 70-130 --Carbon disulfide 92 70-130 --Freon-113 70-130 102 -trans-1,2-Dichloroethene 70-130 96 --1,1-Dichloroethane 102 70-130 --Methyl tert butyl ether 99 70-130 --70-130 2-Butanone 95 --106 cis-1,2-Dichloroethene 70-130 --



Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

 Lab Number:
 L2246050

 Report Date:
 08/31/22

LCSD LCS %Recovery RPD %Recovery Limits RPD %Recovery Limits Parameter Qual Qual Qual Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1681036-3 Ethyl Acetate 101 70-130 --Chloroform 110 70-130 --Tetrahydrofuran 93 70-130 --1,2-Dichloroethane 104 70-130 -n-Hexane 113 70-130 --1,1,1-Trichloroethane 116 70-130 --110 70-130 Benzene --Carbon tetrachloride 122 70-130 --Cyclohexane 112 70-130 --1,2-Dichloropropane 111 70-130 --117 Bromodichloromethane 70-130 --1,4-Dioxane 111 70-130 --Trichloroethene 111 70-130 --2,2,4-Trimethylpentane 70-130 113 --Heptane 106 70-130 -cis-1,3-Dichloropropene 121 70-130 --4-Methyl-2-pentanone 112 70-130 -trans-1,3-Dichloropropene 70-130 103 --1,1,2-Trichloroethane 70-130 112 --Toluene 96 70-130 --2-Hexanone 96 70-130 --Dibromochloromethane 102 70-130 --70-130 1,2-Dibromoethane 99 --



Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

 Lab Number:
 L2246050

 Report Date:
 08/31/22

LCSD LCS %Recovery RPD %Recovery %Recovery Limits RPD Limits Qual Qual Qual Parameter Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1681036-3 Tetrachloroethene 95 70-130 --98 70-130 Chlorobenzene --Ethylbenzene 102 70-130 -p/m-Xylene 103 70-130 --Bromoform 107 70-130 --Styrene 102 70-130 --1,1,2,2-Tetrachloroethane 104 70-130 -o-Xylene 108 70-130 --4-Ethyltoluene 98 70-130 --106 70-130 1,3,5-Trimethylbenzene --107 1,2,4-Trimethylbenzene 70-130 --Benzyl chloride 92 70-130 --1,3-Dichlorobenzene 105 70-130 --107 70-130 1,4-Dichlorobenzene --70-130 1,2-Dichlorobenzene 110 --1,2,4-Trichlorobenzene 117 70-130 --Hexachlorobutadiene 116 70-130 --



Project Name: 131 SUNNYSIDE BLVD **Project Number:** 30017762.00012

Serial_No:08312212:40 Lab Number: L2246050 *Report Date:* 08/31/22

Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
NA	Present/Intact

Container Information

Container Info	Container Information			nitial Final 1				Frozen		
Container ID	Container Type	Cooler	рН	pН	deg C	Pres	Seal	Date/Time	Analysis(*)	
L2246050-01A	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)	
L2246050-01B	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Υ	Absent		TO15-LL(30)	
L2246050-01X	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)	
L2246050-02A	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)	
L2246050-02B	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)	
L2246050-02X	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)	



Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

Lab Number: L2246050

Report Date: 08/31/22

Acronyms

GLOSSARY	1
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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: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

Lab Number: L2246050 Report Date: 08/31/22

Footnotes

- 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 Waterpreserved 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(a)+(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, 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 concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the 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 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



¹

Serial_No:08312212:40

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

Lab Number: L2246050

Report Date: 08/31/22

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:
 131 SUNNYSIDE BLVD

 Project Number:
 30017762.00012

 Lab Number:
 L2246050

 Report Date:
 08/31/22

REFERENCES

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

LIMITATION OF LIABILITIES

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

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



Certification Information

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

Westborough Facility

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

EPA 625/625.1: alpha-Terpineol

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

EPA 8270D/8270E: <u>NPW:</u> Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; <u>SCM</u>: Dimethylnaphthalene,1,4-Diphenylhydrazine. **SM4500**: <u>NPW</u>: Amenable Cyanide; <u>SCM</u>: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS EPA 8082A: <u>NPW</u>: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187. EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene. Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP. Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics, EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs **EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.

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

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522, EPA 537.1.

Non-Potable Water

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

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

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ALPHA Lab ID					Colle	ction			1000007	F	hgi	1 NO	NIOS		ilter	1			
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46050-01	SVE-1	8/00/20			(L/min)	Volume(L)	Matrix*	Initials	(1)	8	PC	PCE	ΡH	Met	PM-	TSP	3	Sample Comments	(i.e. PID
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ANALYTICAL REPORT

Lab Number:	L2247457
Client:	Arcadis of New York, Inc.
	Two Huntington Quadrangle
	Suite 1S10
	Melville, NY 11747
ATTN:	Steven Feldman
Phone:	(631) 249-7600
Project Name:	131 SUNNYSIDE BLVD.
Project Number:	30017762.00012
Report Date:	09/09/22

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

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



Serial_No:09092216:09

Project Name:	131 SUNNYSIDE BLVD.	Lab Number:	L2247457
Project Number:	30017762.00012	Report Date:	09/09/22

Alpha	
Sample	ID

L2247457-01

Client ID

SVE-2

Matrix SOIL_V

SOIL_VAPOR

Sample Location PLAINVIEW, NY
 Collection
 Rec

 Date/Time
 Rec

 09/01/22 11:45
 09/01/22

Receive Date 09/01/22



Project Name:131 SUNNYSIDE BLVD.Project Number:30017762.00012

Lab Number: L2247457 Report Date: 09/09/22

Case Narrative

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

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

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

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

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

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



 Project Name:
 131 SUNNYSIDE BLVD.

 Project Number:
 30017762.00012

 Lab Number:
 L2247457

 Report Date:
 09/09/22

Case Narrative (continued)

Volatile Organics in Air

L2247457-01D: Samples were transferred from a Tedlar bag into a fused silica lined canister upon receipt in order to extend the holding time for analysis.

LL2247457-01D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

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

Christoph J Christopher J. Anderson

Authorized Signature:

Title: Technical Director/Representative

Date: 09/09/22



AIR



Project Name:	131 SUNNYSIDE BLVD.	Lab Number:	L2247457
Project Number:	30017762.00012	Report Date:	09/09/22

Lab ID: Client ID: Sample Location:	L2247457-01 SVE-2 PLAINVIEW, NY	D (Date Date Field	Collecte Receive Prep:	ed: 09/0 ed: 09/0 Not \$	1/22 11:45 1/22 Specified
Sample Depth: Matrix: Anaytical Method: Analytical Date: Analyst:	Soil_Vapor 48,TO-15 09/08/22 02:12 TS								
			ppbV			ug/m3			Dilution
Parameter		Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in	Air - Mansfield La	ıb							
Dichlorodifluoromethane		ND	0.526		ND	2.60			2.632
Chloromethane		ND	0.526		ND	1.09			2.632
Freon-114		ND	0.526		ND	3.68			2.632
Vinyl chloride		3.31	0.526		8.46	1.34			2.632
1,3-Butadiene		ND	0.526		ND	1.16			2.632
Bromomethane		ND	0.526		ND	2.04			2.632
Chloroethane		ND	0.526		ND	1.39			2.632
Ethanol		ND	13.2		ND	24.9			2.632
Vinyl bromide		ND	0.526		ND	2.30			2.632
Acetone		3.73	2.63		8.86	6.25			2.632
Trichlorofluoromethane		0.755	0.526		4.24	2.96			2.632
Isopropanol		8.26	1.32		20.3	3.24			2.632
1,1-Dichloroethene		ND	0.526		ND	2.09			2.632
Tertiary butyl Alcohol		ND	1.32		ND	4.00			2.632
Methylene chloride		ND	1.32		ND	4.59			2.632
3-Chloropropene		ND	0.526		ND	1.65			2.632
Carbon disulfide		1.75	0.526		5.45	1.64			2.632
Freon-113		ND	0.526		ND	4.03			2.632
trans-1,2-Dichloroethene	9	1.02	0.526		4.04	2.09			2.632
1,1-Dichloroethane		ND	0.526		ND	2.13			2.632
Methyl tert butyl ether		ND	0.526		ND	1.90			2.632
2-Butanone		5.10	1.32		15.0	3.89			2.632
cis-1,2-Dichloroethene		10.1	0.526		40.0	2.09			2.632



09/01/22 11:45

Not Specified

09/01/22

Project Name:	131 SUNNYSIDE BLVD.
Project Number:	30017762.00012

Lab Number:	L2247457
Report Date:	09/09/22

Date Collected:

Date Received:

Field Prep:

SAMPLE RESULTS

Lab ID: L2247457-01 D Client ID: SVE-2 Sample Location: PLAINVIEW, NY

		ppbV		ug/m3		Dilution		
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	eld Lab							
Ethyl Acetate	ND	1.32		ND	4.76			2.632
Chloroform	ND	0.526		ND	2.57			2.632
Tetrahydrofuran	198	1.32		584	3.89			2.632
1,2-Dichloroethane	ND	0.526		ND	2.13			2.632
n-Hexane	ND	0.526		ND	1.85			2.632
1,1,1-Trichloroethane	ND	0.526		ND	2.87			2.632
Benzene	ND	0.526		ND	1.68			2.632
Carbon tetrachloride	ND	0.526		ND	3.31			2.632
Cyclohexane	ND	0.526		ND	1.81			2.632
1,2-Dichloropropane	ND	0.526		ND	2.43			2.632
Bromodichloromethane	ND	0.526		ND	3.52			2.632
1,4-Dioxane	ND	0.526		ND	1.90			2.632
Trichloroethene	18.3	0.526		98.3	2.83			2.632
2,2,4-Trimethylpentane	ND	0.526		ND	2.46			2.632
Heptane	ND	0.526		ND	2.16			2.632
cis-1,3-Dichloropropene	ND	0.526		ND	2.39			2.632
4-Methyl-2-pentanone	ND	1.32		ND	5.41			2.632
trans-1,3-Dichloropropene	ND	0.526		ND	2.39			2.632
1,1,2-Trichloroethane	ND	0.526		ND	2.87			2.632
Toluene	0.642	0.526		2.42	1.98			2.632
2-Hexanone	ND	0.526		ND	2.16			2.632
Dibromochloromethane	ND	0.526		ND	4.48			2.632
1,2-Dibromoethane	ND	0.526		ND	4.04			2.632
Tetrachloroethene	1.00	0.526		6.78	3.57			2.632
Chlorobenzene	ND	0.526		ND	2.42			2.632
Ethylbenzene	ND	0.526		ND	2.28			2.632



Project Name:	131 SUNNYSIDE BLVD.	Lab Numbe
Project Number:	30017762.00012	Report Date

 Number:
 L2247457

 ort Date:
 09/09/22

09/01/22 11:45

Not Specified

09/01/22

Date Collected:

Date Received:

Field Prep:

SAMPLE RESULTS

Lab ID:L2247457-01DClient ID:SVE-2Sample Location:PLAINVIEW, NY

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mans	field Lab							
p/m-Xylene	1.62	1.05		7.04	4.56			2.632
Bromoform	ND	0.526		ND	5.44			2.632
Styrene	ND	0.526		ND	2.24			2.632
1,1,2,2-Tetrachloroethane	ND	0.526		ND	3.61			2.632
o-Xylene	0.576	0.526		2.50	2.28			2.632
4-Ethyltoluene	ND	0.526		ND	2.59			2.632
1,3,5-Trimethylbenzene	ND	0.526		ND	2.59			2.632
1,2,4-Trimethylbenzene	ND	0.526		ND	2.59			2.632
Benzyl chloride	ND	0.526		ND	2.72			2.632
1,3-Dichlorobenzene	ND	0.526		ND	3.16			2.632
1,4-Dichlorobenzene	ND	0.526		ND	3.16			2.632
1,2-Dichlorobenzene	ND	0.526		ND	3.16			2.632
1,2,4-Trichlorobenzene	ND	0.526		ND	3.90			2.632
Hexachlorobutadiene	ND	0.526		ND	5.61			2.632

Internal Standard	% Recovery	Qualifier	Acceptance Criteria		
1,4-Difluorobenzene	94		60-140		
Bromochloromethane	95		60-140		
chlorobenzene-d5	105		60-140		



Project Name: 131 SUNNYSIDE BLVD.

Project Number: 30017762.00012

 Lab Number:
 L2247457

 Report Date:
 09/09/22

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 09/07/22 15:26

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield	Lab for sampl	e(s): 01	Batch:	WG1684577-4				
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1



Project Name: 131 SUNNYSIDE BLVD.

Project Number: 30017762.00012

 Lab Number:
 L2247457

 Report Date:
 09/09/22

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 09/07/22 15:26

	ppbV			ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield I	_ab for sampl	e(s): 01	Batch:	WG1684577-4				
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: 131 SUNNYSIDE BLVD.

Project Number: 30017762.00012

Lab Number: L2247457 Report Date: 09/09/22

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 09/07/22 15:26

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	field Lab for samp	ole(s): 01	Batch:	WG1684577-4	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
Benzyl chloride	ND	0.200		ND	1.04			1
1,3-Dichlorobenzene	ND	0.200		ND	1.20			1
1,4-Dichlorobenzene	ND	0.200		ND	1.20			1
1,2-Dichlorobenzene	ND	0.200		ND	1.20			1
1,2,4-Trichlorobenzene	ND	0.200		ND	1.48			1
Hexachlorobutadiene	ND	0.200		ND	2.13			1



Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD.

Project Number: 30017762.00012

Lab Number: L2247457 Report Date: 09/09/22

LCSD LCS %Recovery RPD %Recovery RPD %Recovery Limits Limits Parameter Qual Qual Qual Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1684577-3 Dichlorodifluoromethane 82 70-130 --102 Chloromethane 70-130 --Freon-114 97 70-130 --Vinyl chloride 98 70-130 --1,3-Butadiene 94 70-130 --70-130 Bromomethane 88 --Chloroethane 94 70-130 --Ethanol 79 40-160 --Vinyl bromide 83 70-130 --40-160 97 Acetone --Trichlorofluoromethane 90 70-130 --Isopropanol 88 40-160 --1,1-Dichloroethene 103 70-130 --70-130 Tertiary butyl Alcohol 94 --Methylene chloride 102 70-130 --3-Chloropropene 104 70-130 --Carbon disulfide 92 70-130 --Freon-113 70-130 102 -trans-1,2-Dichloroethene 70-130 95 --1,1-Dichloroethane 101 70-130 --Methyl tert butyl ether 98 70-130 --70-130 2-Butanone 94 --103 70-130 cis-1,2-Dichloroethene --


Lab Control Sample Analysis

Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD.

Project Number: 30017762.00012

Lab Number: L2247457 Report Date: 09/09/22

LCSD LCS %Recovery RPD %Recovery RPD %Recovery Limits Limits Parameter Qual Qual Qual Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1684577-3 Ethyl Acetate 93 70-130 --Chloroform 101 70-130 --Tetrahydrofuran 93 70-130 --1,2-Dichloroethane 95 70-130 -n-Hexane 99 70-130 --1,1,1-Trichloroethane 102 70-130 --100 70-130 Benzene --Carbon tetrachloride 102 70-130 --Cyclohexane 100 70-130 --70-130 1,2-Dichloropropane 105 --Bromodichloromethane 98 70-130 --1,4-Dioxane 92 70-130 --Trichloroethene 105 70-130 --2,2,4-Trimethylpentane 70-130 101 --Heptane 103 70-130 -cis-1,3-Dichloropropene 109 70-130 --4-Methyl-2-pentanone 102 70-130 -trans-1,3-Dichloropropene 70-130 93 --1,1,2-Trichloroethane 70-130 105 --Toluene 102 70-130 --2-Hexanone 96 70-130 --Dibromochloromethane 70-130 103 --101 70-130 1,2-Dibromoethane --



Lab Control Sample Analysis

Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD.

Project Number: 30017762.00012

Lab Number: L2247457 Report Date: 09/09/22

LCSD LCS %Recovery RPD %Recovery %Recovery Limits RPD Limits Parameter Qual Qual Qual Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1684577-3 Tetrachloroethene 102 70-130 --105 70-130 Chlorobenzene --Ethylbenzene 103 70-130 -p/m-Xylene 106 70-130 --Bromoform 104 70-130 --Styrene 104 70-130 --1,1,2,2-Tetrachloroethane 102 70-130 -o-Xylene 105 70-130 --4-Ethyltoluene 97 70-130 --103 70-130 1,3,5-Trimethylbenzene --1,2,4-Trimethylbenzene 106 70-130 --Benzyl chloride 90 70-130 --1,3-Dichlorobenzene 102 70-130 --98 70-130 1,4-Dichlorobenzene --70-130 1,2-Dichlorobenzene 99 --70-130 1,2,4-Trichlorobenzene 83 --Hexachlorobutadiene 90 70-130 --



Project Name: 131 SUNNYSIDE BLVD. Project Number: 30017762.00012

Sample Receipt and Container Information

Were project specific reporting limits specified?

Cooler Information

Cooler	Custody Seal
NA	Absent

Container Information

Container Information				Final	Temp		Frozen		
Container ID	Container Type	Cooler	pН	pН	deg C Pres	Seal	Date/Time	Analysis(*)	
L2247457-01A	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA		Y	Absent		TO15-LL(30)	
L2247457-01B	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA		Y	Absent		TO15-LL(30)	
L2247457-01X	Canister - 2.7 Liter (Split out in lab)	NA	NA		Y	Absent		TO15-LL(30)	

YES



Project Name: 131 SUNNYSIDE BLVD.

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Lab Number: L2247457

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GLOSSARY

Acronyms

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



Project Name: 131 SUNNYSIDE BLVD.

Project Number: 30017762.00012

Lab Number: L2247457 **Report Date:** 09/09/22

Footnotes

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

Terms

1

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 Waterpreserved 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).
- С - 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.
- Е - 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.
- н - 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).
- Μ - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.



Lab Number: L2247457

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Data Qualifiers

Project Name:

Project Number:

- 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.

131 SUNNYSIDE BLVD.

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

Project Name:131 SUNNYSIDE BLVD.Project Number:30017762.00012

 Lab Number:
 L2247457

 Report Date:
 09/09/22

REFERENCES

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

LIMITATION OF LIABILITIES

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

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



Certification Information

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

Westborough Facility

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

EPA 625/625.1: alpha-Terpineol

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

EPA 8270D/8270E: <u>NPW:</u> Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; <u>SCM</u>: Dimethylnaphthalene,1,4-Diphenylhydrazine. **SM4500**: <u>NPW</u>: Amenable Cyanide; <u>SCM</u>: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: <u>NPW</u>: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187. EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene. Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP. Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics, EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II.

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs **EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.

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

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522, EPA 537.1.

Non-Potable Water

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

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

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FAX: 508-898-9220	508-822-3288	Project Lo	ocation:	Plainvi	ew, N	4		DEX				PO#	30	100	176	2.0	0012	
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ANALYTICAL REPORT

Lab Number:	L2252074
Client:	Arcadis of New York, Inc.
	Two Huntington Quadrangle
	Suite 1S10
	Melville, NY 11747
ATTN:	Steven Feldman
Phone:	(631) 249-7600
Project Name:	131 SUNNYSIDE BLVD
Project Number:	30017762.00012
Report Date:	09/30/22

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

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



Serial_No:09302215:29

 Project Name:
 131 SUNNYSIDE BLVD

 Project Number:
 30017762.00012

 Lab Number:
 L2252074

 Report Date:
 09/30/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2252074-01	SVE-1	SOIL_VAPOR	PLAINVIEW, NY	09/22/22 11:00	09/22/22
L2252074-02	SVE-2	SOIL_VAPOR	PLAINVIEW, NY	09/22/22 11:20	09/22/22



Lab Number: L2252074 Report Date: 09/30/22

Case Narrative

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

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

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

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

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

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



 Lab Number:
 L2252074

 Report Date:
 09/30/22

Case Narrative (continued)

Volatile Organics in Air

L2252074-01D, -02D: Samples were transferred from a Tedlar bag into a fused silica lined canister upon receipt in order to extend the holding time for analysis.

L2252074-01D,02D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

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

Christoph J Christopher J. Anderson

Authorized Signature:

Title: Technical Director/Representative

Date: 09/30/22



AIR



Serial_No:09302215:29

Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2252074
Project Number:	30017762.00012	Report Date:	09/30/22

SAMPLE RESULTS

Lab ID:	L2252074-01 D
Client ID:	SVE-1
Sample Location:	PLAINVIEW, NY

ΤS

Sample Depth: Soil_Vapor 48,TO-15 Matrix: Anaytical Method: Analytical Date: Analyst: 09/30/22 09:21

Date Collected:	09/22/22 11:00
Date Received:	09/22/22
Field Prep:	Not Specified

		ррьV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mans	field Lab							
Dichlorodifluoromethane	ND	21.7		ND	107			108.7
Chloromethane	ND	21.7		ND	44.8			108.7
Freon-114	ND	21.7		ND	152			108.7
Vinyl chloride	ND	21.7		ND	55.5			108.7
1,3-Butadiene	ND	21.7		ND	48.0			108.7
Bromomethane	ND	21.7		ND	84.3			108.7
Chloroethane	ND	21.7		ND	57.3			108.7
Ethanol	ND	544		ND	1030			108.7
Vinyl bromide	ND	21.7		ND	94.9			108.7
Acetone	140	109		333	259			108.7
Trichlorofluoromethane	ND	21.7		ND	122			108.7
Isopropanol	ND	54.4		ND	134			108.7
1,1-Dichloroethene	ND	21.7		ND	86.0			108.7
Tertiary butyl Alcohol	ND	54.4		ND	165			108.7
Methylene chloride	ND	54.4		ND	189			108.7
3-Chloropropene	ND	21.7		ND	67.9			108.7
Carbon disulfide	ND	21.7		ND	67.6			108.7
Freon-113	ND	21.7		ND	166			108.7
trans-1,2-Dichloroethene	ND	21.7		ND	86.0			108.7
1,1-Dichloroethane	ND	21.7		ND	87.8			108.7
Methyl tert butyl ether	ND	21.7		ND	78.2			108.7
2-Butanone	ND	54.4		ND	160			108.7
cis-1,2-Dichloroethene	80.2	21.7		318	86.0			108.7



09/22/22 11:00

Not Specified

09/22/22

Date Collected:

Date Received:

Field Prep:

Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2252074
Project Number:	30017762.00012	Report Date:	09/30/22

SAMPLE RESULTS

Lab ID: L2252074-01 D Client ID: SVE-1 Sample Location: PLAINVIEW, NY

Sample Depth:

		ppbV			ug/m3		Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansf	ield Lab							
Ethyl Acetate	ND	54.4		ND	196			108.7
Chloroform	ND	21.7		ND	106			108.7
Tetrahydrofuran	ND	54.4		ND	160			108.7
1,2-Dichloroethane	ND	21.7		ND	87.8			108.7
n-Hexane	ND	21.7		ND	76.5			108.7
1,1,1-Trichloroethane	41.6	21.7		227	118			108.7
Benzene	ND	21.7		ND	69.3			108.7
Carbon tetrachloride	ND	21.7		ND	137			108.7
Cyclohexane	ND	21.7		ND	74.7			108.7
1,2-Dichloropropane	ND	21.7		ND	100			108.7
Bromodichloromethane	ND	21.7		ND	145			108.7
1,4-Dioxane	ND	21.7		ND	78.2			108.7
Trichloroethene	8140	21.7		43700	117			108.7
2,2,4-Trimethylpentane	ND	21.7		ND	101			108.7
Heptane	ND	21.7		ND	88.9			108.7
cis-1,3-Dichloropropene	ND	21.7		ND	98.5			108.7
4-Methyl-2-pentanone	ND	54.4		ND	223			108.7
trans-1,3-Dichloropropene	ND	21.7		ND	98.5			108.7
1,1,2-Trichloroethane	ND	21.7		ND	118			108.7
Toluene	ND	21.7		ND	81.8			108.7
2-Hexanone	ND	21.7		ND	88.9			108.7
Dibromochloromethane	ND	21.7		ND	185			108.7
1,2-Dibromoethane	ND	21.7		ND	167			108.7
Tetrachloroethene	31.0	21.7		210	147			108.7
Chlorobenzene	ND	21.7		ND	99.9			108.7
Ethylbenzene	ND	21.7		ND	94.3			108.7



09/22/22 11:00

Not Specified

09/22/22

Date Collected:

Date Received:

Field Prep:

Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2252074
Project Number:	30017762.00012	Report Date:	09/30/22

SAMPLE RESULTS

Lab ID: L2252074-01 D Client ID: SVE-1 Sample Location: PLAINVIEW, NY

Sample Depth:

		ppbV		ug/m3			Dilution	
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mans	sfield Lab							
p/m-Xylene	ND	43.5		ND	189			108.7
Bromoform	ND	21.7		ND	224			108.7
Styrene	ND	21.7		ND	92.4			108.7
1,1,2,2-Tetrachloroethane	ND	21.7		ND	149			108.7
o-Xylene	ND	21.7		ND	94.3			108.7
4-Ethyltoluene	ND	21.7		ND	107			108.7
1,3,5-Trimethylbenzene	ND	21.7		ND	107			108.7
1,2,4-Trimethylbenzene	ND	21.7		ND	107			108.7
Benzyl chloride	ND	21.7		ND	112			108.7
1,3-Dichlorobenzene	ND	21.7		ND	130			108.7
1,4-Dichlorobenzene	ND	21.7		ND	130			108.7
1,2-Dichlorobenzene	ND	21.7		ND	130			108.7
1,2,4-Trichlorobenzene	ND	21.7		ND	161			108.7
Hexachlorobutadiene	ND	21.7		ND	231			108.7

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	91		60-140
Bromochloromethane	92		60-140
chlorobenzene-d5	95		60-140



Serial_No:09302215:29

Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2252074
Project Number:	30017762.00012	Report Date:	09/30/22

SAMPLE RESULTS

Lab ID: Client ID: Sample Location:	L2252074-02 SVE-2 PLAINVIEW, N	D Y				Date Date Field	Collecte Receive Prep:	ed: 09/22 ed: 09/22 Not \$	2/22 11:20 2/22 Specified
Sample Depth: Matrix: Anaytical Method: Analytical Date: Analyst:	Soil_Vapor 48,TO-15 09/30/22 08:45 TS								
_			ppbV			ug/m3		• •••	Dilution Factor
Parameter	A	Results	RL	MDL	Results	RL	MDL	Qualifier	
Volatile Organics in	Air - Mansfield La	ab							
Dichlorodifluoromethane		ND	0.500		ND	2.47			2.5
Chloromethane		ND	0.500		ND	1.03			2.5
Freon-114		ND	0.500		ND	3.49			2.5
Vinyl chloride		3.27	0.500		8.36	1.28			2.5
1,3-Butadiene		ND	0.500		ND	1.11			2.5
Bromomethane		ND	0.500		ND	1.94			2.5
Chloroethane		ND	0.500		ND	1.32			2.5
Ethanol		ND	12.5		ND	23.6			2.5
Vinyl bromide		ND	0.500		ND	2.19			2.5
Acetone		3.26	2.50		7.74	5.94			2.5
Trichlorofluoromethane		1.07	0.500		6.01	2.81			2.5
Isopropanol		5.10	1.25		12.5	3.07			2.5
1,1-Dichloroethene		0.548	0.500		2.17	1.98			2.5
Tertiary butyl Alcohol		ND	1.25		ND	3.79			2.5
Methylene chloride		ND	1.25		ND	4.34			2.5
3-Chloropropene		ND	0.500		ND	1.57			2.5
Carbon disulfide		1.44	0.500		4.48	1.56			2.5
Freon-113		ND	0.500		ND	3.83			2.5
trans-1,2-Dichloroethene		2.28	0.500		9.04	1.98			2.5
1,1-Dichloroethane		1.00	0.500		4.05	2.02			2.5
Methyl tert butyl ether		ND	0.500		ND	1.80			2.5
2-Butanone		1.76	1.25		5.19	3.69			2.5
cis-1,2-Dichloroethene		16.1	0.500		63.8	1.98			2.5



Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2252074
Project Number:	30017762.00012	Report Date:	09/30/22

SAMPLE RESULTS

Lab ID: L2252074-02 D Client ID: SVE-2 Sample Location: PLAINVIEW, NY

Date Collected:09/22/22 11:20Date Received:09/22/22Field Prep:Not Specified

Sample Depth:

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	ld Lab							
Ethyl Acetate	ND	1.25		ND	4.50			2.5
Chloroform	0.592	0.500		2.89	2.44			2.5
Tetrahydrofuran	96.3	1.25		284	3.69			2.5
1,2-Dichloroethane	ND	0.500		ND	2.02			2.5
n-Hexane	ND	0.500		ND	1.76			2.5
1,1,1-Trichloroethane	0.668	0.500		3.64	2.73			2.5
Benzene	ND	0.500		ND	1.60			2.5
Carbon tetrachloride	ND	0.500		ND	3.15			2.5
Cyclohexane	ND	0.500		ND	1.72			2.5
1,2-Dichloropropane	ND	0.500		ND	2.31			2.5
Bromodichloromethane	ND	0.500		ND	3.35			2.5
1,4-Dioxane	ND	0.500		ND	1.80			2.5
Trichloroethene	185	0.500		994	2.69			2.5
2,2,4-Trimethylpentane	ND	0.500		ND	2.34			2.5
Heptane	ND	0.500		ND	2.05			2.5
cis-1,3-Dichloropropene	ND	0.500		ND	2.27			2.5
4-Methyl-2-pentanone	ND	1.25		ND	5.12			2.5
trans-1,3-Dichloropropene	ND	0.500		ND	2.27			2.5
1,1,2-Trichloroethane	ND	0.500		ND	2.73			2.5
Toluene	ND	0.500		ND	1.88			2.5
2-Hexanone	ND	0.500		ND	2.05			2.5
Dibromochloromethane	ND	0.500		ND	4.26			2.5
1,2-Dibromoethane	ND	0.500		ND	3.84			2.5
Tetrachloroethene	2.03	0.500		13.8	3.39			2.5
Chlorobenzene	ND	0.500		ND	2.30			2.5
Ethylbenzene	ND	0.500		ND	2.17			2.5



Project Name:	131 SUNNYSIDE BLVD	Lab Number:	L2252074
Project Number:	30017762.00012	Report Date:	09/30/22

SAMPLE RESULTS

Lab ID:L2252074-02DClient ID:SVE-2Sample Location:PLAINVIEW, NY

Date Collected:09/22/22 11:20Date Received:09/22/22Field Prep:Not Specified

Sample Depth:

		ppbV			ug/m3			Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfield I	_ab							
p/m-Xylene	ND	1.00		ND	4.34			2.5
Bromoform	ND	0.500		ND	5.17			2.5
Styrene	ND	0.500		ND	2.13			2.5
1,1,2,2-Tetrachloroethane	ND	0.500		ND	3.43			2.5
o-Xylene	ND	0.500		ND	2.17			2.5
4-Ethyltoluene	ND	0.500		ND	2.46			2.5
1,3,5-Trimethylbenzene	ND	0.500		ND	2.46			2.5
1,2,4-Trimethylbenzene	ND	0.500		ND	2.46			2.5
Benzyl chloride	ND	0.500		ND	2.59			2.5
1,3-Dichlorobenzene	ND	0.500		ND	3.01			2.5
1,4-Dichlorobenzene	ND	0.500		ND	3.01			2.5
1,2-Dichlorobenzene	ND	0.500		ND	3.01			2.5
1,2,4-Trichlorobenzene	ND	0.500		ND	3.71			2.5
Hexachlorobutadiene	ND	0.500		ND	5.33			2.5

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	89		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	92		60-140



 Lab Number:
 L2252074

 Report Date:
 09/30/22

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 09/29/22 14:22

		ppbV		ug/m3				Dilution
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mans	field Lab for sample	e(s): 01-	02 Batch:	WG16936	93-4			
Dichlorodifluoromethane	ND	0.200		ND	0.989			1
Chloromethane	ND	0.200		ND	0.413			1
Freon-114	ND	0.200		ND	1.40			1
Vinyl chloride	ND	0.200		ND	0.511			1
1,3-Butadiene	ND	0.200		ND	0.442			1
Bromomethane	ND	0.200		ND	0.777			1
Chloroethane	ND	0.200		ND	0.528			1
Ethanol	ND	5.00		ND	9.42			1
Vinyl bromide	ND	0.200		ND	0.874			1
Acetone	ND	1.00		ND	2.38			1
Trichlorofluoromethane	ND	0.200		ND	1.12			1
Isopropanol	ND	0.500		ND	1.23			1
1,1-Dichloroethene	ND	0.200		ND	0.793			1
Tertiary butyl Alcohol	ND	0.500		ND	1.52			1
Methylene chloride	ND	0.500		ND	1.74			1
3-Chloropropene	ND	0.200		ND	0.626			1
Carbon disulfide	ND	0.200		ND	0.623			1
Freon-113	ND	0.200		ND	1.53			1
trans-1,2-Dichloroethene	ND	0.200		ND	0.793			1
1,1-Dichloroethane	ND	0.200		ND	0.809			1
Methyl tert butyl ether	ND	0.200		ND	0.721			1
2-Butanone	ND	0.500		ND	1.47			1
cis-1,2-Dichloroethene	ND	0.200		ND	0.793			1
Ethyl Acetate	ND	0.500		ND	1.80			1
Chloroform	ND	0.200		ND	0.977			1



 Lab Number:
 L2252074

 Report Date:
 09/30/22

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 09/29/22 14:22

		ppbV	ug/m3			Dilution		
Parameter	Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
Volatile Organics in Air - Mansfie	ld Lab for sample	e(s): 01-	02 Batch:	WG16936	693-4			
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



 Lab Number:
 L2252074

 Report Date:
 09/30/22

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15 Analytical Date: 09/29/22 14:22

	ppbV			ug/m3		Dilution	
Results	RL	MDL	Results	RL	MDL	Qualifier	Factor
ab for samp	ole(s): 01-	02 Batc	h: WG16936	93-4			
ND	0.200		ND	2.07			1
ND	0.200		ND	0.852			1
ND	0.200		ND	1.37			1
ND	0.200		ND	0.869			1
ND	0.200		ND	0.983			1
ND	0.200		ND	0.983			1
ND	0.200		ND	0.983			1
ND	0.200		ND	1.04			1
ND	0.200		ND	1.20			1
ND	0.200		ND	1.20			1
ND	0.200		ND	1.20			1
ND	0.200		ND	1.48			1
ND	0.200		ND	2.13			1
	Results Ab for samp ND ND<	ppbV Results RL Ab for sample(s): 01- ND 0.200 ND 0.200	ppbV Results RL MD ND 0.200 ND 0.200	ppbVResultsRLMUResultsRb for sample(s):0.200NDNDND0.200NDNDND0.200NDNDND0.200NDNDND0.200NDNDND0.200NDNDND0.200NDNDND0.200NDNDND0.200NDNDND0.200NDNDND0.200NDNDND0.200NDNDND0.200NDNDND0.200NDND0.200NDND0.200NDND0.200NDND0.200NDND0.200NDND0.200NDND0.200NDND0.200ND	ppbV ug/m3 Results RL MDL Results RL Ab for sample(s): 01-02 Batch: WG1693693-4 ND 0.200 ND 2.07 ND 0.200 ND 0.852 ND 0.200 ND 0.869 ND 0.200 ND 0.983 ND 0.200 ND 0.983 ND 0.200 ND 1.04 ND 0.200 ND 1.20 ND 0.200 ND 1.20 ND 0.200 ND 1.48	ppbV ug/m3 Results RL MDL Results RL MDL Ab for sample(s): 01-02 Batch: WG1693693-4	ppbV ug/m3 Results RL MDL Results RL MDL Qualifier Ab for sample(s): 01-02 Batch: WG1693693-4



Lab Control Sample Analysis

Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

Lab Number: L2252074 Report Date: 09/30/22

LCSD LCS %Recovery RPD %Recovery RPD %Recovery Limits Limits Parameter Qual Qual Qual Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1693693-3 Dichlorodifluoromethane 90 70-130 --Chloromethane 95 70-130 --Freon-114 91 70-130 --Vinyl chloride 92 70-130 --1,3-Butadiene 98 70-130 --Bromomethane 92 70-130 --Chloroethane 89 70-130 --Ethanol 102 40-160 --Vinyl bromide 94 70-130 --40-160 86 Acetone --Trichlorofluoromethane 95 70-130 --Isopropanol 106 40-160 --1,1-Dichloroethene 99 70-130 --104 70-130 Tertiary butyl Alcohol --Methylene chloride 97 70-130 --3-Chloropropene 106 70-130 --Carbon disulfide 91 70-130 --Freon-113 70-130 97 -trans-1,2-Dichloroethene 70-130 96 --1,1-Dichloroethane 98 70-130 --Methyl tert butyl ether 102 70-130 --70-130 2-Butanone 101 --102 cis-1,2-Dichloroethene 70-130 --



Lab Control Sample Analysis

Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012

Lab Number: L2252074 Report Date: 09/30/22

LCSD LCS %Recovery RPD %Recovery Limits RPD %Recovery Limits Parameter Qual Qual Qual Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1693693-3 Ethyl Acetate 109 70-130 --Chloroform 101 70-130 --Tetrahydrofuran 97 70-130 --1,2-Dichloroethane 101 70-130 -n-Hexane 99 70-130 --1,1,1-Trichloroethane 106 70-130 --90 70-130 Benzene --Carbon tetrachloride 112 70-130 --Cyclohexane 99 70-130 --1,2-Dichloropropane 99 70-130 --Bromodichloromethane 104 70-130 --1,4-Dioxane 106 70-130 --Trichloroethene 100 70-130 --2,2,4-Trimethylpentane 70-130 101 --Heptane 104 70-130 -cis-1,3-Dichloropropene 108 70-130 --4-Methyl-2-pentanone 110 70-130 -trans-1,3-Dichloropropene 70-130 98 --1,1,2-Trichloroethane 70-130 99 --Toluene 90 70-130 --2-Hexanone 108 70-130 --Dibromochloromethane 107 70-130 --70-130 1,2-Dibromoethane 95 --



Lab Control Sample Analysis Batch Quality Control

Project Name: 131 SUNNYSIDE BLVD

Project Number: 30017762.00012 Lab Number: L2252074 Report Date: 09/30/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	
Volatile Organics in Air - Mansfield Lab Asso	ciated sample(s):	01-02	Batch: WG169369	93-3					
Tetrachloroethene	94		-		70-130	-			
Chlorobenzene	92		-		70-130	-			
Ethylbenzene	97		-		70-130	-			
p/m-Xylene	100		-		70-130	-			
Bromoform	110		-		70-130	-			
Styrene	97		-		70-130	-			
1,1,2,2-Tetrachloroethane	100		-		70-130	-			
o-Xylene	105		-		70-130	-			
4-Ethyltoluene	98				70-130	-			
1,3,5-Trimethylbenzene	101				70-130	-			
1,2,4-Trimethylbenzene	106		-		70-130	-			
Benzyl chloride	121		-		70-130	-			
1,3-Dichlorobenzene	107		-		70-130	-			
1,4-Dichlorobenzene	103		-		70-130	-			
1,2-Dichlorobenzene	104		-		70-130	-			
1,2,4-Trichlorobenzene	109		-		70-130	-			
Hexachlorobutadiene	111		-		70-130	-			



Project Name: 131 SUNNYSIDE BLVD Project Number: 30017762.00012

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Sample Receipt and Container Information

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
NA	Absent

Container Information

Container Information				Final	Temp			Frozen	
Container ID	Container Type	Cooler	pН	pН	deg C	Pres	Seal	Date/Time	Analysis(*)
L2252074-01A	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2252074-01B	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2252074-01X	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2252074-02A	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2252074-02B	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)
L2252074-02X	Tedlar Bag 5 liter-Polypropylene Fitting	NA	NA			Y	Absent		TO15-LL(30)



Project Name: 131 SUNNYSIDE BLVD

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GLOSSARY

Acronyms

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



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Project Number: 30017762.00012

Lab Number: L2252074 Report Date: 09/30/22

Footnotes

1

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

Terms

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

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 Waterpreserved 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(a)+(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, 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 concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the 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 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.



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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.)



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 Lab Number:
 L2252074

 Report Date:
 09/30/22

REFERENCES

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

LIMITATION OF LIABILITIES

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

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



Certification Information

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

Westborough Facility

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

EPA 625/625.1: alpha-Terpineol

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

EPA 8270D/8270E: <u>NPW:</u> Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; <u>SCM</u>: Dimethylnaphthalene,1,4-Diphenylhydrazine. **SM4500**: <u>NPW</u>: Amenable Cyanide; <u>SCM</u>: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS EPA 8082A: <u>NPW</u>: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187. EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene. Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP. Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics, EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs **EPA 625.1**: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.

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

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522, EPA 537.1.

Non-Potable Water

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

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

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ALPHA Lab ID (Lab Use Only)	Sample ID	End Date	COI Start Time	End Time	I Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's	s Can Size	I D Can	I D - Flow Controller	70.15	10.15 AD	Fixed	Sudertes	Sam	ple Con	nments (i.e. PIC
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Air Emission Calculations for SVE IRM

Toxic Air Contaminant	C ^ S #	SVE-1 Vapor Effluent (μg/m ³)	Max Air Flow Velocity (ft/min)	Max Air Flow Rate (ft ³ /min)	Emissic	on Rates	Rule 212	Dace 2 ⁴
	CP\3#	7/21/2022, 9/22/2022	7/26/2022	7/26/2022	lb/hr lb/yr		(lbs/yr)	Passe
Trichloroethylene	79-01-6	33,984	6,699	329	0.042	367	500	Yes
cis 1,2 Dichloroethene	156-59-2	380	6,699	329	0.000	4.10	100	Yes

Toxic Air Contaminant	CAS#	SVE-2 Vapor Effluent (μg/m ³)	Max Air Flow Velocity (ft/min)	Max Air Flow Rate (ft ³ /min)	Emissic	on Rates	Rule 212	Dace 2 ⁴
	CA3#	7/21/2022, 9/22/2022	8/18/2022	8/18/2022	lb/hr	lb/yr	(lbs/yr)	Pass?
Trichloroethylene	79-01-6	1,820	7,411	364	0.002	22	500	Yes
cis 1,2 Dichloroethene	156-59-2	88	7,411	364	0.000	1.05	100	Yes

Notes:

1. Emission Rate for 1,1,1-Trichloroethane (lb/hr) = TCE [µg/m3] x Air Flow Rate [ft3/min] x (1 m3/35.3147 ft3) x (60 min/hr) x (0.00001 g/1 µg) x (0.0022 lb/g)

2. Vapor effluent concentrations are the average of sample event concentration values above laboratory reporting limits (RLs) for TCE and cis 1,2 DCE.

3. Maximum air flow rate is the maximum measured air flow velocity measured at an SVE IRM system calculated to a maximum air flow rate through a 3-inch diameter discharge stack (velocity ft/min x discharge area ft² = ft³/min).

4. Pass. The calculated annual mass air emssision (lb/yr) is less than the Rule 212 permissible mass emission (lb/yr) therefore air treatment is not required for air emission.

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