AECOM

Prepared for:
Endzone, Inc.
Ozone Park, NY

Prepared by:
AECOM
Chelmsford, MA
60527976
March 2024

Former Ozone Industries, Inc. Site, Ozone Park, Queens New York

NYSDEC Site Number: 2-41-033

March 2024 Progress Report and Sub-Slab Depressurization (SSD) System Suspension Request:
June 2023 through November 2023 (6-months)

AECOM

Contents

1. Introduction.....1-1

2. SVE/SSD Operation and Maintenance 2-1

O&M Events 2-1

SSD 2-1

SVE 2-2

Combined Systems Operation.....2-2

Laboratory Analyses of Air Samples.....2-2

3. Summary and Future Actions 3-1

Future Actions – Final Engineering Report and O&M Activities.....3-1

Temporary SSD Suspension – Approval Request to NYSDEC.....3-1

AECOM

List of Tables

Table 1 – Summary O&M Air Sample Analytical Data

Table 2 – Summary of Mass Removal

List of Figures

Figure 1 - Location of SVE and SSD Treatment Systems

Figure 2 - Site and Location of Sampling Points

List of Appendices

Appendix A System Summary Tables

Appendix B System Air Sample Lab Results – October 2023

Appendix C Graphs depicting VOCs Screening and Lab Results – SSD and SVE Systems

1. Introduction

On behalf of Endzone Inc. (Endzone), AECOM has prepared this semi-annual (6-month) Progress Report, which summarizes the results of the Operation and Maintenance (O&M) of the Soil Vapor Extraction (SVE) and Sub-slab Depressurization (SSD) remedial systems at the Former Ozone Industries, Inc. site (New York State Department of Environmental Conservation [NYSDEC] Site Number: 2-41-033). This report covers the 6-month period of June 2023 through November 2023.

This report also includes a request for SSD System Suspension (**Section 3**), as previously provided to NYSDEC.

Extensive re-bound site testing and monitoring was completed after the remedial systems were shut off in July 2019 per NYSDEC and in conjunction with an approved work plan by AECOM (dated August 21, 2019 and approved by NYSDEC on October 30, 2019). The results of the testing were provided in the January 2021 semi-annual Progress Report by AECOM. In the January 2021 report, AECOM recommended the completion of a Final Engineering Report that includes the shutdown and decommissioning of the SVE system and implementation of engineering controls. Subsequently, there were attempts to meet with NYSDEC and New York State Department of Health (NYSDOH) to discuss the results and site closure, and AECOM provided additional requested figures to NYSDEC for their evaluation. Eventually, AECOM had a call with NYSDEC in May 2021, and NYSDEC requested that the remedial systems (SVE and SSD be re-started and operated as they create a "P" site and launch an investigation into other off-site source areas and responsible parties (current time frame is unknown and no updates have been provided). Thus, submittal of this 6-month progress report summarizing system operations (since system restart in June 2021) is consistent with the format of previous reports provided.

The site is located in a mixed commercial/industrial/residential area of the Ozone Park section of Queens County of New York City, New York and is identified as Block 9106 and Lot 70 on the New York City Tax Map. The site is bounded by 101st Avenue to the north, 103rd Avenue to the south, 99th Street to the west, and 100th Street to the east (see **Figures 1 and 2**). The site is located across the street from 101-32 101st Street, the location of the former Ozone Industries facility.

Operation and maintenance visits and sampling events reported herein were conducted by Clean Globe Environmental (Clean Globe) under subcontract to AECOM. The results are discussed below.

All the data included in this report will be submitted electronically to the NYSDEC website.

2. SVE/SSD Operation and Maintenance

This section presents the evaluation of the system influent and effluent analytical air sampling data (one round during this 6-month period) and the field data was collected during the one O&M site visit during this period. Typically the O&M events are conducted on a bi-monthly basis; however, the bay which houses the system equipment was inaccessible for the majority of the reporting period resulting in only one inspection which occurred when entry into the bay could be achieved.

As was mentioned in the previous report, during the regularly scheduled May 2023 O&M event, the overhead door to Bay 8, the bay where the system equipment is housed, was damaged and could not be opened and regular O&M events could not be conducted. During this reporting period, AECOM arranged for the door mechanism to be fixed which was completed by Clean Globe on October 6, 2023. Once the door was replaced, a full system O&M event was conducted on October 25, 2023. During the time when Bay 8 was inaccessible, daily system reports were sent out to the engineering team from the SSD and SVE system which showed that that both were operating as intended. **Figure 1** depicts the layout of the bays and systems.

O&M Events

The following information was primarily gathered during the O&M event:

- SSD vacuum blower, vacuum, flow, and temperature readings;
- SSD monitoring well head vacuums and photoionization detector (PID) concentrations;
- Effluent concentrations exiting the SSD carbon vessels;
- SVE vacuum blower, vacuum, flow, and temperature readings;
- SVE monitoring well head PID concentrations;
- Effluent concentrations exiting the SVE carbon vessels;
- Total effluent concentrations being discharged from the exhaust stack; and
- Air samples collected for laboratory analysis from the influent of the SVE, and total combined effluent (SVE/SSD) following off gas treatment.

SSD

During this period, the SSD system maintained an average flowrate of 290 standard cubic feet per minute (SCFM) applied to the 8 SSD legs. The vacuum applied to each leg was individually adjusted to provide a minimum flowrate of at least 30 SCFM to each bay to maintain adequate protection from mitigation of potential subsurface vapor migration as outlined in the July 2016 Interim Site Management Plan (ISMP) for the site, as approved by NYSDEC on September 8, 2016. During each O&M visit when the system was running, the flowrate at each leg was measured with a hot wire anemometer to confirm that the minimum flowrate was being upheld. Flowrates in each of the individual legs ranged from a minimum of 15.3 SCFM to a maximum of 62.9 SCFM, with only SSD-6 below the design minimum of 30 SCFM. This leg was adjusted during the O&M event to meet the minimum 30 SCFM threshold.

Influent volatile organic compounds (VOCs) were measured with a calibrated PID from each of the SSD legs during the O&M event and concentrations were below the detection limit from each individual leg. Total VOC levels prior to carbon treatment were below detection limits, indicating the lack of VOCs present in the shallow soils. A summary of the readings taken during the O&M visit are presented in **Appendix A**.

SVE

The SVE system maintained an average total flowrate of 416 SCFM during this period. Due to historical non-detect PID readings during previous (pre-2021) monitoring and sub slab vapor sampling events, eleven of the SVE legs (SVE-1, SVE-2, SVE-4, SVE-5, SVE-6, SVE-7, SVE-8, SVE-24, SVE-25, SVE-26, and SVE-27) have been shut off since 2019 to increase vacuum influence on the remaining legs. Like the SSD system, the vacuum applied to the SVE wells was manually adjusted so that each leg maintained a minimum flowrate of approximately 25 SCFM, as stated in the ISMP.

Influent VOCs from each of the individual SVE legs were measured with a calibrated PID during the O&M site visit and were all below the detection limit of the PID during the O&M event.

The VOC concentrations collected following the end of the rebound period were less than what has previously been observed indicating that the majority of remediation has already occurred and results for the SVE appear to be approaching asymptotic levels. A summary of the readings collected during the O&M visit are presented in **Appendix A**.

Combined Systems Operation

In each of the eight bays, two shallow monitoring points, each at a depth of 1.5 feet below ground surface (bgs) were monitored to observe SSD system influence. Two deep monitoring points, each at a depth of approximately 15 feet bgs, were monitored in each bay to observe SVE influence. In addition to these monitoring points, two wells each at a depth of 30 feet bgs were also monitored in Bay 12 because that bay has bi-level SVE wells which extend to approximately 30 feet bgs. During the October O&M event, the vacuum influence and the VOC concentrations were measured at each accessible monitoring point(the mechanisms used to operate the overhead doors of several of the bays have become increasingly unusable due to damage by passing vehicles). A summary of the monitoring point results is included in **Appendix A**. Points which were unable to be accessed due to overhead door issues have a 'NM' ("Not Measurable") noted as their measurement. During this O&M event, the manometer being used was not calibrated correctly to measure the low vacuum on the points but a vacuum was manually observed at each location. Other system parameters which were able to be measured were similar to historic readings and suggest that the vacuum at the monitoring points would be similar to those previously observed as well.

Laboratory Analyses of Air Samples

One round of air samples from the system were collected on October 25th, 2023 from the SVE influent (before carbon treatment), and the total combined effluent (following carbon treatment). Per compliance requirements established in a memorandum issued by the NYSDEC on February 28, 2003 (Substantive Compliance with Air Requirements), the emission from the system is not to exceed 0.5 pounds per hour (lbs/hr). The results of the completed air sampling events are shown in **Table 1**.

The laboratory analytical report from the air sampling is provided in **Appendix B**. The system samples were analyzed for the VOCs listed in the TO-15 method.

Analytically, effluent concentrations have remained below the effluent limit established by the NYSDEC regulations. Mass removal data at the influent of both SVE and SSD system as well as the combined effluent mass discharge rate following carbon treatment is presented in **Table 2**.

Mass removal achieved from the SVE system is approximately 0.00379 lbs/hr, When the mass removal rate for the SVE and SSD system are totaled for each sampling event, it is below the aforementioned discharge limit requiring pollution control. The mass of contaminants discharged to the atmosphere following carbon treatment was an average of 0.00240 lbs/hr.

Two graphs are included in **Appendix C** which depict VOC concentrations vs time for the influent (prior to treatment) SSD and SVE systems. Following the system restart in June 2021, after being shut down since August 2019, VOC concentrations did not rebound to the levels previously measured during past sampling events. A slight increase in concentrations of VOCs was observed directly following restart, but influent concentrations have remained below detection limits since the August 2021 O&M event. Analytical results are still well below the initial concentration observed at the startup of the systems in 2016.

3. Summary and Future Actions

During this period, the SSD and SVE systems have operated as intended. The SVE and SSD influent levels from this reporting period are similar or “flat” after decreasing from higher levels in 2016.

Future Actions – Final Engineering Report and O&M Activities

During conversations with NYSDEC (May 22, 2023, conference call), Endzone Inc. and AECOM were instructed by NYSDEC to prepare a Final Engineering Report (FER) for the Site. The purpose of the FER is to document that the remedial activities at the site have been completed; this is accordance to the February 2010 Record of Decision (ROD) and the November 2011 Remedial Design/Remedial Action Work Plan (RD/RAWP). AECOM estimates that the FER, plus any other supplemental documents will be submitted to NYSDEC during the second half of the fiscal year 2024.

While the FER is being completed and approved by NYSDEC and NYSDOH, the O&M events will continue at a bi-monthly (every two months) basis. AECOM will also continue to perform periodic site visits throughout the remainder of the year to ensure that the storage bays have not been tampered or damaged and to make sure the system is optimally performing. Air samples will be taken at the SVE influent and total effluent following carbon treatment on a semi-annual basis (Spring 2024 and Winter 2024), while the system is operational. SSD influent and effluent samples will be suspended once approval from NYSDEC is received to suspend temporarily the operation of the SSD. See below Section for more details. The results of the Spring 2024 monitoring will be provided in the semi-annual (6-month) report to NYSDEC in August 2024.

Temporary SSD Suspension – Approval Request to NYSDEC

The SSD was installed with the intention of mitigating the subsurface vapors from potentially entering occupied bays being used for commercial purposes, but with such low concentrations being observed in the subsurface and the inactive status of the bays (vacant – no receptors), it is recommended that this system is turned off. In addition, a vapor barrier was installed in the bays at the completion of remedial actions and prior to new concrete floors being installed which are still in good condition with no significant cracks or penetrations within them. Furthermore, previously reported ambient air sampling in the individual bays did not indicate that vapor intrusion was occurring (regardless, the bays are not occupied). Lastly, suspending operation of the SSD will minimize the potential for system equipment to undergo mechanical issues from regular wear and tear possibly preventing sustained operation of the system if the bays become occupied and the SSD is deemed necessary.

During conversations with NYSDEC (May 22, 2023, conference call), the representative from the NY Department of Citywide Administrative Services (DCAS) indicated that there has been a change in the intended future use of the bays on site where monitoring is currently occurring (bays 8 through 15 as shown on Figure 2). When installed, the original intention was that these bays would eventually be rented out by local businesses and would be occupied by personnel at times; however, it is now AECOM’s understanding that these bays will not be rented out to the public and that they will remain vacant. Without current (or potential future) occupants in these bays, the primary function of the SSD system, to create a vacuum beneath the slab and prevent subsurface vapors from potentially entering the bays, is moot (plus, as noted above, there is a very robust existing vapor barrier present and the newly installed concrete floors are competent).

Therefore, this report also serves as a formal petition to NYSDEC to turn off the site SSD system until a future date, if and when the bays become occupied, and the SSD is deemed necessary. This shutdown would only affect the bays which are currently a part of the monitoring plan and would not change the conditions beneath surrounding bays. The SSD system can be restarted if the occupancy status of the bays were to change in the future. Please note that the SVE system will remain operational while the FER is being completed and approval to turn off the SVE system is granted by NYSDEC and NYSDOH.

TABLES

Table 1- Summary O&M Air Sample Analytical Data
Former Ozone Industries, Inc. Site, Ozone Park, Queens, NY

	LOCATION	SVE Influent						SSD Influent				
	SAMPLE NAME	SVE INFLUENT 062121	SVE INF	SVE EFF[8]	SVE EFF[8]	SVE EFF[8]	SVE EFF[8]	SSD INFLUENT 062121	SSD INF	SSD Eff[8]	SSD EFF[8]	SSD EFF
	SAMPLING DATE	6/21/2021	9/20/2021	12/28/2021	3/28/2022	7/26/2022	10/25/2023	6/21/2021	9/20/2021	12/28/2021	3/28/2022	7/26/2022
		After system restart 5 days later	2021 Q3 Sampling Event	2021 Q4 Sampling Event	2022 Q1 Sampling Event	2022 Q3 Sampling Event	2023 Q4 Sampling Event	After system restart 5 days later	2021 Q3 Sampling Event	2021 Q4 Sampling Event	2022 Q1 Sampling Event	2022 Q3 Sampling Event
	LAB SAMPLE ID	L2134418-01	L2150935-03	22A0162-03	L2215966-03	L2239902-03	L2363961-02	L2134418-02	L2150935-02	22A0162-02	L2215966-02	L2239902-02
ANALYTE	PID READING(ppm)	1.4	ND	ND	ND	ND	ND	0.7	ND	ND	ND	ND
VOCs TO-15	Units											
1,1,1-Trichloroethane	ug/m^3	<5.46	NS	**1.20**	<4.54	<10.9	<6.82	<1.09	NS	<1.1	<1.09	<1.09
1,2,4-Trimethylbenzene	ug/m^3	<4.92	NS	**4.50**	<4.1	**67.4**	<6.15	<0.983	NS	**3.9**	<0.983	**31.4**
1,4-Dichlorobenzene	ug/m^3	<6.01	NS	<1.2	<5.01	<12.0	<7.52	<1.2	NS	<1.2	<1.2	<1.2
2,2,4-Trimethylpentane	ug/m^3	<4.67	NS	NS	<3.89	**162**	<5.84	<0.934	NS	NS	<0.934	**38.6**
2-Butanone (MEK)	ug/m^3	NS	NS	<24	<6.13	<14.7	<9.20	NS	NS	<24	<1.47	**2.85**
Acetone*	ug/m^3	<11.9	NS	<19	<9.91	<23.8	<14.8	**2.52**	NS	<19	<2.38	<2.38
Benzene	ug/m^3	<3.19	NS	**3.30**	**2.85**	**28.6**	**4.82**	**0.99**	NS	**1.1**	<0.639	**31.3**
Carbon Disulfide*	ug/m^3	<3.11	NS	<6.2	<2.59	<6.23	<3.89	<0.623	NS	<6.2	<0.623	<0.623
Chloroform	ug/m^3	**6.64**	NS	**3.90**	**7.81**	**12**	**8.59**	<0.977	NS	<0.98	<0.977	<0.977
Chloromethane	ug/m^3	<2.07	NS	<0.83	<1.72	<4.13	<2.58	**0.85**	NS	<0.83	0.733	**0.69**
cis-1,2-Dichloroethene	ug/m^3	**167**	**161**	**88**	**197**	**171**	**107**	**4.80**	**3.89**	**1.8**	<0.793	**4.6**
Dichlorodifluoromethane	ug/m^3	<4.94	NS	**2.20**	<4.12	<9.89	<6.18	**2.24**	NS	**2.2**	**2.18**	**2.24**
Ethanol	ug/m^3	<47.1	NS	<15	<39.2	<94.2	<58.8	<9.42	NS	**20**	<9.42	**46.7**
Isopropyl Alcohol	ug/m^3	<6.15	NS	<20	<5.11	<1.23	<7.67	<1.23	NS	<20	<1.23	<1.23
Methylene Chloride	ug/m^3	<8.69	NS	<6.9	<7.23	<17.4	<10.8	<1.74	NS	<6.9	<1.74	**2.13**
n-Hexane	ug/m^3	<3.52	NS	<28	<2.94	**437**	<4.41	<0.705	NS	<28	<0.705	**60.6**
Tertiary butyl Alcohol	ug/m^3	**7.58**	NS	NS	<6.31	<15.2	<9.46	<1.52	NS	NS	<1.52	<1.52
Tetrachloroethene	ug/m^3	**176**	**342**	**190**	**390**	**285**	**160**	**5.34**	**24.3**	**15**	**1.8**	**37.4**
Tetrahydrofuran	ug/m^3	<7.37	NS	<5.9	<6.13	<14.7	<9.20	<1.47	NS	**11**	<1.47	<1.47
Toluene	ug/m^3	<3.77	NS	**2.50**	<3.14	**107**	<4.71	1.84	NS	**4.7**	0.874	**202**
trans-1,2-Dichlroethene	ug/m^3	<3.96	<5.67	<0.79	<3.3	<7.93	<4.96	<0.793	<0.793	<0.79	<0.793	<0.793
Trichloroethene	ug/m^3	**1,840**	**2,290**	**1,200**	**1810**	**2150**	**2060**	**82.20**	**101**	**6.3**	**15.4**	**120**
Naphthalene	ug/m^3	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Trichlorofluoromethane	ug/m^3	<5.62	NS	<4.5	<4.68	<11.2	<7.02	<1.12	NS	<4.5	<1.12	**1.16**
Total VOCs	**ug/m^3**	**2,949**	**4,640**	**2,185**	**3,025**	**4,488**	**3,315**	**113**	**130**	**123**	**36**	**587**

Notes:

1) -- = Non-existent data dependent on laboratory specific analyte list

2) * = As reported by laboratory this analyte is common laboratory background contaminant.

3) ug/m3 = micrograms per cubic meter

4) ppm = parts-per-million

5) NS = Not Sampled

6) **Bold =** Analyte detected in sample

7) Effluent samples were taken from the total effluent of both systems

8) Sample names for SVE and SSD were incorrectly labeled as effluent when they are in fact influent samples

Table 1- Summary O&M Air Sample Analytical Data
Former Ozone Industries, Inc. Site, Ozone Park, Queens, NY

	LOCATION	Total Effluent					
	SAMPLE NAME	TOTAL EFFLUENT_062121	EFF TOTAL	Eff Com	EFF COMB	EFF COMB	EFF COMB
	SAMPLING DATE	6/21/2021	9/20/2021	12/28/2021	3/28/2022	7/26/2022	10/25/2023
		After system restart 5 days later	2021 Q3 Sampling Event	2021 Q4 Sampling Event	2022 Q1 Sampling Event	2022 Q3 Sampling Event	2023 Q4 Sampling Event
	LAB SAMPLE ID	L1906089-05	L2150935-01	22A0162-01	L2215966-01	L2239902-01	L2363961-01
ANALYTE	PID READING(ppm)	ND	ND	ND	ND	ND	ND
VOCs TO-15	Units						
1,1,1-Trichloroethane	ug/m^3	<1.09	NS	<1.1	<1.09	<6.82	<3.64
1,2,4-Trimethylbenzene	ug/m^3	<0.983	NS	<0.98	**1.2**	<6.15	<3.28
1,4-Dichlorobenzene	ug/m^3	<1.2	NS	<1.2	<1.2	<7.52	<4.01
2,2,4-Trimethylpentane	ug/m^3	<0.934	NS	NS	<0.934	<5.84	<3.12
2-Butanone (MEK)	ug/m^3	<1.47	NS	<24	<1.47	<9.20	<4.93
Acetone*	ug/m^3	<2.38	NS	<19	<2.38	<14.8	<7.91
Benzene	ug/m^3	0.64	NS	<0.64	<0.639	<3.99	<2.13
Carbon Disulfide*	ug/m^3	<0.623	NS	<6.2	<0.623	<3.89	<2.08
Chloroform	ug/m^3	1.88	NS	**3.6**	**2.12**	**12.6**	**6.84**
Chloromethane	ug/m^3	**0.71**	NS	<0.83	**0.475**	<2.58	<1.38
cis-1,2-Dichloroethene	ug/m^3	**99.5**	**254**	**62**	**42.4**	**190**	**99.5**
Dichlorodifluoromethane	ug/m^3	**2.36**	NS	**1.8**	**1.45**	<6.18	<3.30
Ethanol	ug/m^3	9.52	NS	<15	<9.42	<58.8	<31.5
Isopropyl Alcohol	ug/m^3	<1.23	NS	<20	<1.23	<7.67	<4.10
Methylene Chloride	ug/m^3	<1.74	NS	<6.9	<1.74	<10.8	<5.80
n-Hexane	ug/m^3	**1.71**	NS	<28	<0.705	<4.41	<2.35
Tertiary butyl Alcohol	ug/m^3	<1.52	NS	NS	<1.52	<9.46	<5.06
Tetrachloroethene	ug/m^3	**1.78**	<1.36	<1.4	<1.36	**12.5**	<4.52
Tetrahydrofuran	ug/m^3	<1.47	NS	<5.9	**1.61**	<9.20	<4.93
Toluene	ug/m^3	<0.754	NS	<0.75	**1.03**	**6.63**	<2.51
trans-1,2-Dichlroethene	ug/m^3	**3.45**	**2.62**	<0.79	<0.793	<4.96	<2.64
Trichloroethene	ug/m^3	**11.0**	<1.07	<1.1	<1.07	**2830**	**1380**
Naphthalene	ug/m^3	NS	NS	NS	NS	NS	NS
Trichlorofluoromethane	ug/m^3	**1.84**	NS	<4.5	<1.12	<7.02	<3.75
Total VOCs	**ug/m^3**	**142**	**258**	**137**	**64**	**3,141**	**1,538**

Notes:

1) -- = Non-existent data dependent on laboratory specific analyte

2) * = As reported by laboratory this analyte is common laboratory background contaminant.

3) ug/m3 = micrograms per cubic meter

4) ppm = parts-per-million

5) NS = Not Sampled

6) **Bold =** Analyte detected in sample

7) Effluent samples were taken from the total effluent of both syste

8) Sample names for SVE and SSD were incorrectly labeled as effluent when they are in fact influent samples

Table 2 - Summary of Mass Removal
Former Ozone Industries, Inc. Site, Ozone Park
Queens New York

	LOCATION	SVE Influent						SSD Influent				
	SAMPLE NAME	SVE INFLUENT 062121	SVE INF	SVE EFF	SVE EFF	SVE EFF	SVE EFF	SSD INFLUENT 062121	SSD INF	SSD EFF	SSD EFF	SSD EFF
	SAMPLING DATE	6/21/2021	9/20/2021	12/28/2021	3/28/2022	7/26/2022	10/25/2023	6/21/2021	9/20/2021	12/28/2021	3/28/2022	7/26/2022
	LAB SAMPLE ID	L2134418-01	L2150935-03	22A0162-03	L2215966-03	L2239902-03	L2363961-02	L2134418-02	L2150935-02	22A0162-02	L2215966-02	L2239902-02
ANALYTE	**Flow Rate (CFM)**	**370**	**468**	**410**	**380**	**341**	**416**	**324**	**299**	**295**	**291**	**292**
VOCs TO-15	**Units**											
1,1,1-Trichloroethane	lbs/hr	0.000004	0.000000	0.000002	0.000003	0.000007	0.000005	0.000001	0.000000	0.000001	0.000001	0.000001
1,2,4-Trimethylbenzene	lbs/hr	0.000003	0.000000	0.000007	0.000003	0.000086	0.000005	0.000001	0.000000	0.000004	0.000001	0.000034
1,4-Dichlorobenzene	lbs/hr	0.000004	0.000000	0.000001	0.000004	0.000008	0.000006	0.000001	0.000000	0.000001	0.000001	0.000001
2,2,4-Trimethylpentane	lbs/hr	0.000003	0.000000	0.000000	0.000003	0.000207	0.000005	0.000001	0.000000	0.000000	0.000001	0.000042
2-Butanone (MEK)	lbs/hr	0.000000	0.000000	0.000018	0.000004	0.000009	0.000007	0.000000	0.000000	0.000013	0.000001	0.000003
Acetone	lbs/hr	0.000008	0.000000	0.000015	0.000007	0.000015	0.000012	0.000003	0.000000	0.000010	0.000001	0.000001
Benzene	lbs/hr	0.000002	0.000000	0.000005	0.000004	0.000037	0.000008	0.000001	0.000000	0.000001	0.000000	0.000034
Carbon Disulfide	lbs/hr	0.000002	0.000000	0.000005	0.000002	0.000004	0.000003	0.000000	0.000000	0.000003	0.000000	0.000000
Chloroform	lbs/hr	0.000009	0.000000	0.000006	0.000011	0.000015	0.000013	0.000001	0.000000	0.000001	0.000001	0.000001
Chloromethane	lbs/hr	0.000001	0.000000	0.000001	0.000001	0.000003	0.000002	0.000001	0.000000	0.000000	0.000001	0.000001
cis-1,2-Dichloroethene	lbs/hr	0.000231	0.000282	0.000135	0.000280	0.000218	0.000167	0.000006	0.000004	0.000002	0.000000	0.000005
Dichlorodifluoromethane	lbs/hr	0.000003	0.000000	0.000003	0.000003	0.000006	0.000005	0.000003	0.000000	0.000002	0.000002	0.000002
Ethanol	lbs/hr	0.000033	0.000000	0.000012	0.000028	0.000060	0.000046	0.000006	0.000000	0.000022	0.000005	0.000051
Isopropyl Alcohol	lbs/hr	0.000004	0.000000	0.000015	0.000004	0.000001	0.000006	0.000001	0.000000	0.000011	0.000001	0.000001
Methylene Chloride	lbs/hr	0.000006	0.000000	0.000005	0.000005	0.000011	0.000008	0.000001	0.000000	0.000004	0.000001	0.000002
n-Hexane	lbs/hr	0.000002	0.000000	0.000022	0.000002	0.000558	0.000003	0.000000	0.000000	0.000015	0.000000	0.000066
Tertiary butyl Alcohol	lbs/hr	0.000011	0.000000	0.000000	0.000004	0.000010	0.000007	0.000001	0.000000	0.000000	0.000001	0.000001
Tetrachloroethene	lbs/hr	0.000244	0.000600	0.000292	0.000555	0.000364	0.000249	0.000006	0.000027	0.000017	0.000002	0.000041
Tetrahydrofuran	lbs/hr	0.000005	0.000000	0.000005	0.000004	0.000009	0.000007	0.000001	0.000000	0.000012	0.000001	0.000001
Toluene	lbs/hr	0.000003	0.000000	0.000004	0.000002	0.000137	0.000004	0.000002	0.000000	0.000005	0.000001	0.000221
trans-1,2-Dichlroethene	lbs/hr	0.000003	0.000005	0.000001	0.000002	0.000005	0.000004	0.000000	0.000000	0.000000	0.000000	0.000000
Trichloroethene	lbs/hr	0.002550	0.004014	0.001843	0.002576	0.003350	0.003210	0.000100	0.000113	0.000007	0.000017	0.000131
Naphthalene	lbs/hr	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Trichlorofluoromethane	lbs/hr	0.000004	0.000000	0.000003	0.000003	0.000007	0.000005	0.000001	0.000000	0.000002	0.000001	0.000001
Total Mass Removal Rate	lbs/hr	**0.00314**	**0.00490**	**0.00240**	**0.00351**	**0.00513**	**0.00379**	**0.00014**	**0.00015**	**0.00014**	**0.00004**	**0.00064**

Notes:

1) Compliance with Air Requirements = Per DEC memorandum issued 2/28/2003, remediation systems that have the potential to discharged greater than 0.5 lb/hr shall require pollution controls.
2) Mass Removal = VOC conc. ug/m3*flow rate (CFM)*(60 mins/hr)/(453,590,000 ug/lb)/(35.32 ft3/m3)
3) ug/m3 = micrograms per cubic meter
4) ppm = parts-per-million
5) **Bold =** Analyte detected in sample
6) Effluent samples were taken from the total effluent of both systems

Table 2 - Summary of Mass Removal
Former Ozone Industries, Inc. Site, Ozone Park
Queens New York

	LOCATION	Total Effluent					
	SAMPLE NAME	TOTAL EFFLUENT_062121	EFF TOTAL	Eff Com	EFF COMB	EFF COMB	EFF COMB
	SAMPLING DATE	6/21/2021	9/20/2021	12/28/2021	3/28/2022	7/26/2022	10/25/2023
	LAB SAMPLE ID	L1906089-05	L2150935-01	22A0162-01	L2215966-01	L2239902-01	L2363961-01
ANALYTE	**Flow Rate (CFM)**	**694**	**767**	**705**	**671**	**633**	**416**
VOCs TO-15	**Units**						
1,1,1-Trichloroethane	lbs/hr	0.000001	0.000000	0.000001	0.000001	0.000008	0.000003
1,2,4-Trimethylbenzene	lbs/hr	0.000001	0.000000	0.000001	0.000003	0.000007	0.000003
1,4-Dichlorobenzene	lbs/hr	0.000002	0.000000	0.000002	0.000002	0.000009	0.000003
2,2,4-Trimethylpentane	lbs/hr	0.000001	0.000000	0.000000	0.000001	0.000007	0.000002
2-Butanone (MEK)	lbs/hr	0.000002	0.000000	0.000032	0.000002	0.000011	0.000004
Acetone	lbs/hr	0.000003	0.000000	0.000025	0.000003	0.000018	0.000006
Benzene	lbs/hr	0.000002	0.000000	0.000001	0.000001	0.000005	0.000002
Carbon Disulfide	lbs/hr	0.000001	0.000000	0.000008	0.000001	0.000005	0.000002
Chloroform	lbs/hr	0.000005	0.000000	0.000010	0.000005	0.000030	0.000011
Chloromethane	lbs/hr	0.000002	0.000000	0.000001	0.000001	0.000003	0.000001
cis-1,2-Dichloroethene	lbs/hr	0.000259	0.000730	0.000164	0.000107	0.000451	0.000155
Dichlorodifluoromethane	lbs/hr	0.000006	0.000000	0.000005	0.000004	0.000007	0.000003
Ethanol	lbs/hr	0.000025	0.000000	0.000020	0.000012	0.000070	0.000025
Isopropyl Alcohol	lbs/hr	0.000002	0.000000	0.000026	0.000002	0.000009	0.000003
Methylene Chloride	lbs/hr	0.000002	0.000000	0.000009	0.000002	0.000013	0.000005
n-Hexane	lbs/hr	0.000004	0.000000	0.000037	0.000001	0.000005	0.000002
Tertiary butyl Alcohol	lbs/hr	0.000002	0.000000	0.000000	0.000002	0.000011	0.000004
Tetrachloroethene	lbs/hr	0.000005	0.000002	0.000002	0.000002	0.000030	0.000004
Tetrahydrofuran	lbs/hr	0.000002	0.000000	0.000008	0.000004	0.000011	0.000004
Toluene	lbs/hr	0.000001	0.000000	0.000001	0.000003	0.000016	0.000002
trans-1,2-Dichlroethene	lbs/hr	0.000009	0.000008	0.000001	0.000001	0.000006	0.000002
Trichloroethene	lbs/hr	0.000029	0.000002	0.000001	0.000001	0.006713	0.002150
Naphthalene	lbs/hr	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Trichlorofluoromethane	lbs/hr	0.000005	0.000000	0.000006	0.000001	0.000008	0.000003
Total Mass Removal Rate	lbs/hr	**0.00037**	**0.00074**	**0.00036**	**0.00016**	**0.00745**	**0.00240**

Notes:

1) Compliance with Air Requirements = Per DEC memorandum issued 2/28/2003, remediation systems that have the potential to discharged greater than 0.5 lb/hr shall require pollution controls.

2) Mass Removal = VOC conc. ug/m3*flow rate (CFM)*(60 mins/hr)/(453,590,000 ug/lb)/(35.32 ft3/m3)

3) ug/m3 = micrograms per cubic meter

4) ppm = parts-per-million

5) **Bold =** Analyte detected in sample

6) Effluent samples were taken from the total effluent of both systems

FIGURES

AS-BUILT SVE/SSD PIPING STUB-UPS LOCATION

SVE AND SSD SYSTEM LOCATION

CARBON VESSELS LOCATION FOR OFF-GAS TREATMENT

AS-BUILT SSD PIPING

AS-BUILT SVE PIPING (MIN. 0.5% PITCH BACK TO WELLS)

SUBSURFACE ELECTRICAL BOXES (NYC ELECTRIC)

SCREEN INTERVAL (TYP.)

101-11
100th STREET
TAVELLA PLUMBING AND HEATING

101-15
100th STREET
NEW YORK WATER SERVICE

100-21
101st STREET
(MOVING STORAGE COMPANY)

101-20
AUTO REPAIR
LISENSA
LANDSCAPING

101-32
100th STREET
(FIVE STAR ELECTRICAL CORP.)

101-28
RESIDENCE

RESIDENCE

RESIDENTIAL

PARKING LOT

OVERHEAD RAILROAD

SIDEWALK

98th STREET

99th STREET

100th STREET

101st STREET

94609

94608

366

367

SVE-1 SVE-2 SVE-3 SVE-4 SVE-5 SVE-6 SVE-7 SVE-8 SVE-9 SVE-10 SVE-11 SVE-12 SVE-13 SVE-14 SVE-15 SVE-16 SVE-17 SVE-18 SVE-19 SVE-20 SVE-21 SVE-22 SVE-23 SVE-24 SVE-25 SVE-26 SVE-27

LEGEND

- TRAFFIC FLOW
- EXISTING UTILITY POLE
- AS-BUILT SVE WELL
- AS-BUILT DUAL-LEVEL SVE WELL
- AS-BUILT SVE/SSD MONITORING POINT
- AS-BUILT SUBGRADE SVE PIPING
- AS-BUILT SUBGRADE SSD PIPING

10 0 20
SCALE IN FEET

ISSUED FOR QUARTERLY REPORT

NO	DRWN	DATE	REVISION	CHKD	DATE	APPVD	DATE
7							
6							
5							
4							
3							
2							
1	MRP	05/25/17	ISSUED FOR QUARTERLY REPORT				
0	RWM	03/18/15	ISSUED FOR SMP	RM	03/19/15	SAC	03/19/15

AECOM
250 APOLLO DRIVE
CHELMSFORD, MA 01824
www.aecom.com

FORMER OZONE INDUSTRIES, INC.
OZONE PARK
101-61 99 ST, QUEENS, NY

PROJ. NUMBER: 60221764

DATE: 05/25/17

LOCATION OF SOIL VAPOR EXTRACTION AND SUB SLAB DEPRESSURIZATION TREATMENT SYSTEMS

101-61 99 ST, QUEENS, NY
GROUND FLOOR

DRAWING NUMBER: 2

SHEET NUMBER: 2 of 2

REVISION 0

Path: \\USCHL1FP001\Data\Projects\Jobs\Indl_Service\Project Files\Endzone, Inc\Ozone - Queens, NY\400 Technical\403 - GIS\Projects\Quarterly_Report\201709\MXD\Fig_3_Loc_Sampling_Points.mxd

SITE and LOCATION OF SAMPLING POINTS FORMER OZONE INDUSTRIES, INC. OZONE PARK, NEW YORK, NY
Project No.: 60527976.1Date: 2017-09-18

AECOM
Figure: 3

Appendix A
System Summary Tables

Monitoring Point Summary
Former Ozone Industries, Inc.
Ozone Park, Queens NY

DATE OF O&M VISIT		12/20/22	02/06/23	05/03/23	10/25/23
TYPE OF SYSTEM CHECK		Full	Full	Site Visit	Full
FIELD TECHNICIAN		CG	CG	CG	CG
Monitoring Well Network					
	Pressure ("H_2O)				
	MP-1S	0.00	0.00	NM	0.00
	MP-1D	0.00	0.00	NM	0.00
	MP-2S	0.00	0.00	NM	0.00
	MP-2D	0.00	0.00	NM	0.00
	MP-3S	NM	NM	NM	NM
	MP-3D	NM	NM	NM	NM
	MP-4S	NM	NM	NM	NM
	MP-4D	NM	NM	NM	NM
	MP-5S	NM	0.00	NM	0.00
	MP-5D	NM	0.00	NM	0.00
	MP-6S	NM	0.00	NM	0.00
	MP-6D	NM	0.00	NM	0.00
	MP-7S	NM	NM	NM	NM
	MP-7D	NM	NM	NM	NM
	MP-8S	NM	NM	NM	NM
	MP-8D	NM	NM	NM	NM
	MP-9S	0.00	0.00	NM	0.00
	MP-9M	0.00	0.00	NM	0.00
	MP-9D	0.00	0.00	NM	0.00
	MP-10S	0.00	0.00	NM	0.00
	MP-10M	0.00	0.00	NM	0.00
	MP-10D	0.00	0.00	NM	0.00
	MP-11S	NM	NM	NM	NM
	MP-11D	NM	NM	NM	NM
	MP-12S	NM	NM	NM	NM
	MP-12D	NM	NM	NM	NM
	MP-13S	0.00	0.00	NM	0.00
	MP-13D	0.00	0.00	NM	0.00
	MP-14S	0.00	0.00	NM	0.00
	MP-14D	0.00	0.00	NM	0.00
	MP-15S	0.00	0.00	NM	0.00
	MP-15D	0.10	0.10	NM	0.00
	MP-16S	0.00	0.00	NM	0.00
	MP-16D	0.00	0.00	NM	0.00

Notes
NM - Not Measureable (Due to faulty monitoring equipment, inaccessability, etc.)
"H_2O - Inches of water column

SVE System Summary
Former Ozone Industries, Inc.
Ozone Park, Queens NY

DATE OF O&M VISIT			01/04/22	03/28/22	05/23/22	07/26/22	09/26/22	12/20/22	02/06/23	05/03/23	10/25/23
SVE System Status (Up / Down / Off)											
	Status On Arrival		UP	Down	Down	Up	Up	Down	Up	Up	Up
	Overall Up Time Since Start Up		100%	100%	100%	100%	100%	100%	100%	NM	100%
	System Status Between O&M Events										
		On Arrival									
		% Up Time	100%	91%	20%	100%	100%	21%	100%	NM	100%
Soil Vapor Extraction Blower (B-1)											
	Days Between O&M Events		56	83	56	64	62	85	48	NM	175
	Days Of Operations		202	285	341	405	467	552	600	NM	775
	SVE Blower Operation										
		Hour Meter (hrs)	20,984.0	22,802.5	23,074.9	24,612.4	26,098.1	26,522.9	27,674.0	NM	30,123.0
		Hours Between Events	1,347.0	1,818.5	272.4	1,537.5	1,485.7	424.8	1,151.1	NM	2,449.0
		Time Between Events (hrs)	1,343.5	1,993.0	1,343.6	1,535.4	1,488.6	2,038.7	1,152.8	NM	4,201.1
		Time Since Restart (hrs)	4,848.0	6,841.0	8,184.6	9,720.0	11,208.6	13,247.3	14,400.0	NM	18,601.1
		VFD Frequency (Hz)	60.0	60.0	60.0	60.0	60.0	60.0	60.0	NM	60.0
		VFD Load (Amps)	56.5	55.7	53.1	51.8	51.9	55.2	55.0	NM	53.4
	Vacuum ("H_2O)										
		SVE-8	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SVE-7	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SVE-11	-3.0	-3.0	-3.1	-3.1	NM	NM	NM	NM	NM
		SVE-10	-3.0	-3.0	-3.1	-3.1	NM	NM	NM	NM	NM
		SVE-15	-4.9	-4.7	-4.8	-4.9	NM	NM	NM	NM	NM
		SVE-13	-4.7	-4.7	-4.8	-4.9	NM	NM	NM	NM	NM
		SVE-14	-9.0	-5.0	-5.0	-4.9	NM	NM	NM	NM	NM
		SVE-16	-3.6	-3.5	-3.6	-3.5	NM	NM	NM	NM	NM
		SVE-18	-3.2	-3.4	-3.5	-3.4	NM	NM	NM	NM	NM
		SVE-17	-2.0	-2.0	-2.0	-2.0	NM	NM	NM	NM	NM
		SVE-12	-4.0	-4.0	-6.1	-4.0	NM	NM	NM	NM	NM
		SVE-9	-9.1	-9.0	-9.0	-8.9	NM	NM	NM	NM	NM
		SVE-21	-8.6	-8.5	-8.4	-8.4	NM	NM	NM	NM	NM
		SVE-3	-3.7	-3.7	-3.7	-3.8	NM	NM	NM	NM	NM
		SVE-1	-10.8	-10.5	-10.3	-10.0	NM	NM	NM	NM	NM
		SVE-4	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SVE-2	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SVE-5	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SVE-20	-8.5	-8.5	-8.2	-8.0	NM	NM	NM	NM	NM
		SVE-19	-2.0	-2.0	-2.0	-2.0	NM	NM	NM	NM	NM
		SVE-23	-1.0	-1.0	-1.0	-1.2	NM	NM	NM	NM	NM
		SVE-22	-0.9	-0.9	-0.9	-1.0	NM	NM	NM	NM	NM
		SVE-25	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SVE-26	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SVE-27	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SVE-24	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SVE-6	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Soil Vapor Velocity (ft/min)										
		SVE-8	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SVE-7	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SVE-11	1251	1240	1235	1250	1587.6	1368	1437	NM	1400
		SVE-10	1996	1939	1951	1975	1999.2	1211	1563	NM	1510
		SVE-15	1480	1456	1459	1465	1575.84	1499	1575	NM	1498
		SVE-13	2531	2520	2539	2542	2719.5	2495	2722	NM	2632
		SVE-14	1598	1556	1561	1552	1249.5	110	980	NM	907
		SVE-16	1295	1275	1279	1281	1117.2	1047	1115	NM	1005
		SVE-18	500	490	510	598	761.46	673	698	NM	651
		SVE-17	2097	1998	2013	2067	1969.8	1769	1537	NM	1600
		SVE-12	3584	3483	3507	3585	3519.18	3030	3538	NM	3439
		SVE-9	3000	2995	3004	3016	3822	3028	3942	NM	3890
		SVE-21	2511	2498	2687	2691	1705.2	1386	1456	NM	1455
		SVE-3	4097	4007	4019	4023	5562.48	4674	4955	NM	4877
		SVE-1	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SVE-4	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SVE-2	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SVE-5	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SVE-20	2533	2510	2505	2610	3125.22	3018	3215	NM	3160
		SVE-19	1002	997	1012	1047	984.9	915	1010	NM	1007
		SVE-23	700	695	718	828	696.78	605	492	NM	452
		SVE-22	310	304	331	354	255.78	264	282	NM	216
		SVE-25	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SVE-26	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SVE-27	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SVE-24	NA	NA	NA	NA	NA	NA	NA	NA	NA
		SVE-6	NA	NA	NA	NA	NA	NA	NA	NA	NA

SVE System Summary
Former Ozone Industries, Inc.
Ozone Park, Queens NY

DATE OF O&M VISIT		01/04/22	03/28/22	05/23/22	07/26/22	09/26/22	12/20/22	02/06/23	05/03/23	10/25/23
SVE System Status (Up / Down / Off)										
Status On Arrival		UP	Down	Down	Up	Up	Down	Up	Up	Up
Overall Up Time Since Start Up		100%	100%	100%	100%	100%	100%	100%	NM	100%
Soil Vapor Flow Rate (ft^3/min)										
	SVE-8	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SVE-7	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SVE-11	27.3	27.1	26.9	27.3	34.6	29.8	31.4	NM	30.5
	SVE-10	43.5	42.3	42.6	43.1	43.6	26.4	34.1	NM	32.9
	SVE-15	32.3	31.8	31.8	32.0	34.4	32.7	34.4	NM	32.7
	SVE-13	55.2	55.0	55.4	55.5	59.3	54.4	59.4	NM	57.4
	SVE-14	34.9	33.9	34.1	33.9	27.3	2.4	21.4	NM	19.8
	SVE-16	28.3	27.8	27.9	27.9	24.4	22.8	24.3	NM	21.9
	SVE-18	10.9	10.7	11.1	13.0	16.6	14.7	15.2	NM	14.2
	SVE-17	45.7	43.6	43.9	45.1	43.0	38.6	33.5	NM	34.9
	SVE-12	78.2	76.0	76.5	78.2	76.8	66.1	77.2	NM	75.0
	SVE-9	65.4	65.3	65.5	65.8	83.4	66.1	86.0	NM	84.9
	SVE-21	54.8	54.5	58.6	58.7	37.2	30.2	31.8	NM	31.7
	SVE-3	89.4	87.4	87.7	87.8	121.4	102.0	108.1	NM	106.4
	SVE-1	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SVE-4	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SVE-2	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SVE-5	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SVE-20	55.3	54.8	54.7	56.9	68.2	65.8	70.1	NM	68.9
	SVE-19	21.9	21.8	22.1	22.8	21.5	20.0	22.0	NM	22.0
	SVE-23	15.3	15.2	15.7	18.1	15.2	13.2	10.7	NM	9.9
	SVE-22	6.8	6.6	7.2	7.7	5.6	5.8	6.2	NM	4.7
	SVE-25	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SVE-26	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SVE-27	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SVE-24	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SVE-6	NA	NA	NA	NA	NA	NA	NA	NA	NA
VOCs (ppm_v)										
	SVE-8	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SVE-7	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SVE-11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
	SVE-10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
	SVE-15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
	SVE-13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
	SVE-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
	SVE-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
	SVE-18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
	SVE-17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
	SVE-12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
	SVE-9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
	SVE-21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
	SVE-3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
	SVE-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
	SVE-4	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SVE-2	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SVE-5	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SVE-20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
	SVE-19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
	SVE-23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
	SVE-22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
	SVE-25	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SVE-26	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SVE-27	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SVE-24	NA	NA	NA	NA	NA	NA	NA	NA	NA
	SVE-6	NA	NA	NA	NA	NA	NA	NA	NA	NA
SVE Sample Ports										
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VOCs (ppm_v)										
	SVE-SP01	NM	NM	NM	10.0	0.8	0.7	8.6	NM	0.6
	SVE-SP04	NM	NM	NM	5.4	0.5	0.5	13.0	NM	12.0

Notes:
1) Soil Vapor Velocity taken form individual SVE Wells is from a 2.0-inch diameter pipe.
2) Soil Vapor Velocity taken with pitot tube assuming soil vapor temp of 65 deg F, from SVE-SP-03, which is from a 4.0-inch diameter pipe.
3) Soil Vapor Velocity taken form SVE-SP-04 is from a 3.0-inch diameter pipe.
4) Dilution is calculated by subtracting Blower Inlet and Discharge Soil Vapor Flow Rate.
5) Mass removal based following calculation: #/hr = Flow Rate x 111 (MW of Benzene) x VOC x 1.53x10^-7) .
6) NA - Not Appliacable (Point removed from monitoring program), NM - Not Measureable (Due to faulty monitoring equipment, inaccessability, etc.)

SSD System Summary
Former Ozone Industries, Inc.
Ozone Park, Queens NY

DATE OF O&M VISIT			01/04/22	03/28/22	05/23/22	07/26/22	09/26/22	12/20/22	02/06/23	05/03/23	10/25/23
SSD System Status (Up / Down / Off)											
	Status On Arrival		Up	Down	Down	Up	Up	Up	Up	Up	Up
	Overall Up Time Since Restart		91%	93%	81%	84%	86%	88%	89%	NM	103%
	System Operation Status Between O&M Events										
		On Arrival									
		% Up Time	100%	100%	20%	100%	100%	100%	100%	100%	100%
Sub Slab Depression Blower (B-2)											
	Days Between O&M Events		56	83	56	64	62	85	48	NM	175
	Days Of Operations		202	285	341	405	467	552	600	NM	775
	SSD Blower Operation										
		Hour Meter (hrs)	26,060.6	28,048.0	28,320.5	29,858.1	31,343.7	33,385.8	34,535.7	NM	40,823.7
		Hours Between Events	1,347.5	1,987.4	272.5	1,537.6	1,485.6	2,042.1	1,149.9	NM	6,288.0
		Time Between Events (hrs)	1,343.6	1,992.9	1,343.5	1,535.6	1,488.5	2,038.9	1,152.6	NM	4,200.9
		Time Since Start Up (hrs)	4,846.8	6,839.8	8,183.3	9,718.8	11,207.4	13,246.3	14,398.8	NM	18,599.8
		VFD Frequency (Hz)	59.9	59.9	59.0	59.4	59.0	59.0	59.9	NM	59.0
		VFD Load (Amps)	16.3	16.2	15.8	15.4	15.6	16.4	16.5	NM	16.0
	Pressure ("H_2O)										
		SSD-1	-2.5	-2.5	-2.5	-2.5	-2.5	-2.5	-2.0	NM	-2.0
		SSD-2	-3.0	-3.0	-3.0	-3.0	-3.0	-3.0	-2.3	NM	-2.2
		SSD-3	-3.5	-3.5	-3.4	-3.4	-3.4	-3.4	-3.0	NM	-3.0
		SSD-4	-3.5	-3.5	-3.4	-3.4	-3.4	-3.4	-3.2	NM	-3.0
		SSD-5	-3.6	-3.5	-3.5	-3.5	-3.5	-3.5	-3.0	NM	-3.0
		SSD-6	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.1	NM	-3.1
		SSD-7	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.2	NM	-3.2
		SSD-8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.8	-3.4	NM	-3.3
	Soil Vapor Velocity (ft/min)										
		SSD-1	2,710	2,643	2,613	2,627	1,107	2,952	2,986	NM	2,884
		SSD-2	2,689	2,589	2,555	2,561	1,063	2,183	2,814	NM	2,830
		SSD-3	2,751	2,731	2,725	2,735	1,070	2,833	2,692	NM	2,547
		SSD-4	2,813	2,800	2,786	2,746	992	2,320	2,669	NM	2,588
		SSD-5	2,410	2,400	2,410	2,433	953	2,492	2,392	NM	2,273
		SSD-6	2,253	2,230	2,221	2,239	830	2,401	768	NM	703
		SSD-7	2,019	2,100	2,157	2,168	760	2,580	1,652	NM	1,090
		SSD-8	1,810	1,800	1,811	1,901	714	1,972	998	NM	923
	Soil Vapor Flow Rate (ft^3/min)										
		SSD-1	59.12	57.66	57.01	57.31	54.34	64.40	65.14	NM	62.92
		SSD-2	58.66	56.48	55.74	55.87	52.18	47.63	61.39	NM	61.74
		SSD-3	60.02	59.58	59.45	59.67	52.52	61.81	58.73	NM	55.57
		SSD-4	61.37	61.09	60.78	59.91	48.69	50.61	58.23	NM	56.46
		SSD-5	52.58	52.36	52.58	53.08	46.78	54.37	52.19	NM	49.59
		SSD-6	49.15	48.65	48.45	48.85	40.74	52.38	16.76	NM	15.34
		SSD-7	44.05	45.81	47.06	47.30	37.31	56.29	36.04	NM	23.78
		SSD-8	39.49	39.27	39.51	41.47	35.05	43.02	21.77	NM	20.14
	VOCs (ppm_v)										
		SSD-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
		SSD-2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
		SSD-3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
		SSD-4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
		SSD-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
		SSD-6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
		SSD-7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
		SSD-8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	NM	0.0
SSD Sample Ports											
	VOCs (ppm_v)										
		SSD-SP01	2.0	1.4	1.9	0.5	0.2	0.2	15.8	NM	10.0
		SSD-SP04	0.0	0.0	0.0	0.0	0.0	0.0	10.4	NM	9.1

Notes:
1) Soil Vapor Velocity taken form individual SSD Wells is from a 2.0-inch diameter pipe.
2) Soil Vapor Velocity taken with pitot tube assuming soil vapor temp of 65 deg F, from SSD SP-03, which is from a 4.0" diameter pipe.
3) Soil Vapor Velocity taken form SSD-SP-04 is from a 3.0-inch diameter pipe.
4) Dilution is calculated by subtracting Blower Inlet and Discharge Soil Vapor Flow Rate.
5) NM - Not Measureable (Due to faulty monitoring equipment, inaccessability, etc.)

Appendix B
System Air Sample Lab Results – October 2023

ANALYTICAL REPORT

Lab Number:	L2363961
Client:	AECOM 250 Apollo Dr. Chelmsford, MA 01824
ATTN:	Raimundo Matos
Phone:	(978) 905-2100
Project Name:	ENDZONE
Project Number:	60671903
Report Date:	11/07/23

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0825), DoD (L2474), FL (E87814), IL (200081), IN (C-MA-04), KY (KY98046), LA (85084), ME (MA00030), MD (350), MI (99110) , NJ (MA015), NY (11627), NC (685), OH (CL106), OR (MA-0262), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #525-23-107-88708), USFWS (Permit #206964).

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

Project Name: ENDZONE
Project Number: 60671903

Lab Number: L2363961
Report Date: 11/07/23

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2363961-01	EFF COMBINED	SOIL_VAPOR	OZONE PARK	10/25/23 13:00	10/27/23
L2363961-02	SVE EFF	SOIL_VAPOR	OZONE PARK	10/25/23 13:25	10/27/23
L2363961-03	UNUSED CAN #1662	SOIL_VAPOR	OZONE PARK		10/27/23

Project Name:	ENDZONE	**Lab Number:**	L2363961
Project Number:	60671903	**Report Date:**	11/07/23

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:	ENDZONE	**Lab Number:**	L2363961
Project Number:	60671903	**Report Date:**	11/07/23

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on October 23, 2023. The canister certification results are provided as an addendum.

L2363961-01D,-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.

Authorized Signature: Jennifer Jerome

Title: Technical Director/Representative Date: 11/07/23

AIR

Project Name: ENDZONE
Project Number: 60671903

Lab Number: L2363961
Report Date: 11/07/23

SAMPLE RESULTS

Lab ID: L2363961-01 D
Client ID: EFF COMBINED
Sample Location: OZONE PARK

Date Collected: 10/25/23 13:00
Date Received: 10/27/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 11/06/23 01:13
Analyst: RAY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
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	ND	3.33	--	ND	7.91	--		3.333
Trichlorofluoromethane	ND	0.667	--	ND	3.75	--		3.333
Isopropanol	ND	1.67	--	ND	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	ND	1.67	--	ND	4.93	--		3.333
cis-1,2-Dichloroethene	25.1	0.667	--	99.5	2.64	--		3.333

Project Name: ENDZONE
Project Number: 60671903

Lab Number: L2363961
Report Date: 11/07/23

SAMPLE RESULTS

Lab ID: L2363961-01 D
Client ID: EFF COMBINED
Sample Location: OZONE PARK

Date Collected: 10/25/23 13:00
Date Received: 10/27/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	1.67	--	ND	6.02	--		3.333
Chloroform	1.40	0.667	--	6.84	3.26	--		3.333
Tetrahydrofuran	ND	1.67	--	ND	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	256	0.667	--	1380	3.58	--		3.333
2,2,4-Trimethylpentane	ND	0.667	--	ND	3.12	--		3.333
Heptane	ND	0.667	--	ND	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	ND	0.667	--	ND	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	ND	0.667	--	ND	4.52	--		3.333
Chlorobenzene	ND	0.667	--	ND	3.07	--		3.333
Ethylbenzene	ND	0.667	--	ND	2.90	--		3.333

Project Name: ENDZONE
Project Number: 60671903

Lab Number: L2363961
Report Date: 11/07/23

SAMPLE RESULTS

Lab ID: L2363961-01 D
Client ID: EFF COMBINED
Sample Location: OZONE PARK

Date Collected: 10/25/23 13:00
Date Received: 10/27/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	ND	1.33	--	ND	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	ND	0.667	--	ND	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	ND	0.667	--	ND	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	95		60-140
Bromochloromethane	97		60-140
chlorobenzene-d5	106		60-140

Project Name: ENDZONE
Project Number: 60671903

Lab Number: L2363961
Report Date: 11/07/23

SAMPLE RESULTS

Lab ID: L2363961-02 D
Client ID: SVE EFF
Sample Location: OZONE PARK

Date Collected: 10/25/23 13:25
Date Received: 10/27/23
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 11/06/23 00:36
Analyst: RAY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	1.25	--	ND	6.18	--		6.25
Chloromethane	ND	1.25	--	ND	2.58	--		6.25
Freon-114	ND	1.25	--	ND	8.74	--		6.25
Vinyl chloride	ND	1.25	--	ND	3.20	--		6.25
1,3-Butadiene	ND	1.25	--	ND	2.77	--		6.25
Bromomethane	ND	1.25	--	ND	4.85	--		6.25
Chloroethane	ND	1.25	--	ND	3.30	--		6.25
Ethanol	ND	31.2	--	ND	58.8	--		6.25
Vinyl bromide	ND	1.25	--	ND	5.47	--		6.25
Acetone	ND	6.25	--	ND	14.8	--		6.25
Trichlorofluoromethane	ND	1.25	--	ND	7.02	--		6.25
Isopropanol	ND	3.12	--	ND	7.67	--		6.25
1,1-Dichloroethene	ND	1.25	--	ND	4.96	--		6.25
Tertiary butyl Alcohol	ND	3.12	--	ND	9.46	--		6.25
Methylene chloride	ND	3.12	--	ND	10.8	--		6.25
3-Chloropropene	ND	1.25	--	ND	3.91	--		6.25
Carbon disulfide	ND	1.25	--	ND	3.89	--		6.25
Freon-113	ND	1.25	--	ND	9.58	--		6.25
trans-1,2-Dichloroethene	ND	1.25	--	ND	4.96	--		6.25
1,1-Dichloroethane	ND	1.25	--	ND	5.06	--		6.25
Methyl tert butyl ether	ND	1.25	--	ND	4.51	--		6.25
2-Butanone	ND	3.12	--	ND	9.20	--		6.25
cis-1,2-Dichloroethene	27.0	1.25	--	107	4.96	--		6.25

Project Name: ENDZONE
Project Number: 60671903

Lab Number: L2363961
Report Date: 11/07/23

SAMPLE RESULTS

Lab ID: L2363961-02 D
Client ID: SVE EFF
Sample Location: OZONE PARK

Date Collected: 10/25/23 13:25
Date Received: 10/27/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	3.12	--	ND	11.2	--		6.25
Chloroform	1.76	1.25	--	8.59	6.10	--		6.25
Tetrahydrofuran	ND	3.12	--	ND	9.20	--		6.25
1,2-Dichloroethane	ND	1.25	--	ND	5.06	--		6.25
n-Hexane	ND	1.25	--	ND	4.41	--		6.25
1,1,1-Trichloroethane	ND	1.25	--	ND	6.82	--		6.25
Benzene	1.51	1.25	--	4.82	3.99	--		6.25
Carbon tetrachloride	ND	1.25	--	ND	7.86	--		6.25
Cyclohexane	ND	1.25	--	ND	4.30	--		6.25
1,2-Dichloropropane	ND	1.25	--	ND	5.78	--		6.25
Bromodichloromethane	ND	1.25	--	ND	8.37	--		6.25
1,4-Dioxane	ND	1.25	--	ND	4.50	--		6.25
Trichloroethene	384	1.25	--	2060	6.72	--		6.25
2,2,4-Trimethylpentane	ND	1.25	--	ND	5.84	--		6.25
Heptane	ND	1.25	--	ND	5.12	--		6.25
cis-1,3-Dichloropropene	ND	1.25	--	ND	5.67	--		6.25
4-Methyl-2-pentanone	ND	3.12	--	ND	12.8	--		6.25
trans-1,3-Dichloropropene	ND	1.25	--	ND	5.67	--		6.25
1,1,2-Trichloroethane	ND	1.25	--	ND	6.82	--		6.25
Toluene	ND	1.25	--	ND	4.71	--		6.25
2-Hexanone	ND	1.25	--	ND	5.12	--		6.25
Dibromochloromethane	ND	1.25	--	ND	10.6	--		6.25
1,2-Dibromoethane	ND	1.25	--	ND	9.61	--		6.25
Tetrachloroethene	23.6	1.25	--	160	8.48	--		6.25
Chlorobenzene	ND	1.25	--	ND	5.76	--		6.25
Ethylbenzene	ND	1.25	--	ND	5.43	--		6.25

Project Name: ENDZONE
Project Number: 60671903
Lab Number: L2363961
Report Date: 11/07/23

SAMPLE RESULTS

Lab ID: L2363961-02 D
Client ID: SVE EFF
Sample Location: OZONE PARK

Date Collected: 10/25/23 13:25
Date Received: 10/27/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	ND	2.50	--	ND	10.9	--		6.25
Bromoform	ND	1.25	--	ND	12.9	--		6.25
Styrene	ND	1.25	--	ND	5.32	--		6.25
1,1,2,2-Tetrachloroethane	ND	1.25	--	ND	8.58	--		6.25
o-Xylene	ND	1.25	--	ND	5.43	--		6.25
4-Ethyltoluene	ND	1.25	--	ND	6.15	--		6.25
1,3,5-Trimethylbenzene	ND	1.25	--	ND	6.15	--		6.25
1,2,4-Trimethylbenzene	ND	1.25	--	ND	6.15	--		6.25
Benzyl chloride	ND	1.25	--	ND	6.47	--		6.25
1,3-Dichlorobenzene	ND	1.25	--	ND	7.52	--		6.25
1,4-Dichlorobenzene	ND	1.25	--	ND	7.52	--		6.25
1,2-Dichlorobenzene	ND	1.25	--	ND	7.52	--		6.25
1,2,4-Trichlorobenzene	ND	1.25	--	ND	9.28	--		6.25
Hexachlorobutadiene	ND	1.25	--	ND	13.3	--		6.25

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	96		60-140
chlorobenzene-d5	103		60-140

Project Name: ENDZONE
Project Number: 60671903
Lab Number: L2363961
Report Date: 11/07/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 11/05/23 17:37

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1848528-4								
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: ENDZONE
Project Number: 60671903
Lab Number: L2363961
Report Date: 11/07/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 11/05/23 17:37

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1848528-4								
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: ENDZONE
Project Number: 60671903
Lab Number: L2363961
Report Date: 11/07/23

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 11/05/23 17:37

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01-02 Batch: WG1848528-4								
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: ENDZONE
Project Number: 60671903

Lab Number: L2363961
Report Date: 11/07/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1848528-3								
Dichlorodifluoromethane	99		-		70-130	-		
Chloromethane	97		-		70-130	-		
Freon-114	108		-		70-130	-		
Vinyl chloride	97		-		70-130	-		
1,3-Butadiene	104		-		70-130	-		
Bromomethane	102		-		70-130	-		
Chloroethane	100		-		70-130	-		
Ethanol	87		-		40-160	-		
Vinyl bromide	104		-		70-130	-		
Acetone	83		-		40-160	-		
Trichlorofluoromethane	95		-		70-130	-		
Isopropanol	78		-		40-160	-		
1,1-Dichloroethene	99		-		70-130	-		
Tertiary butyl Alcohol	92		-		70-130	-		
Methylene chloride	100		-		70-130	-		
3-Chloropropene	96		-		70-130	-		
Carbon disulfide	94		-		70-130	-		
Freon-113	101		-		70-130	-		
trans-1,2-Dichloroethene	95		-		70-130	-		
1,1-Dichloroethane	94		-		70-130	-		
Methyl tert butyl ether	93		-		70-130	-		
2-Butanone	88		-		70-130	-		
cis-1,2-Dichloroethene	97		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: ENDZONE
Project Number: 60671903

Lab Number: L2363961
Report Date: 11/07/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1848528-3								
Ethyl Acetate	102		-		70-130	-		
Chloroform	98		-		70-130	-		
Tetrahydrofuran	87		-		70-130	-		
1,2-Dichloroethane	90		-		70-130	-		
n-Hexane	102		-		70-130	-		
1,1,1-Trichloroethane	97		-		70-130	-		
Benzene	93		-		70-130	-		
Carbon tetrachloride	100		-		70-130	-		
Cyclohexane	102		-		70-130	-		
1,2-Dichloropropane	98		-		70-130	-		
Bromodichloromethane	107		-		70-130	-		
1,4-Dioxane	102		-		70-130	-		
Trichloroethene	106		-		70-130	-		
2,2,4-Trimethylpentane	104		-		70-130	-		
Heptane	97		-		70-130	-		
cis-1,3-Dichloropropene	97		-		70-130	-		
4-Methyl-2-pentanone	99		-		70-130	-		
trans-1,3-Dichloropropene	93		-		70-130	-		
1,1,2-Trichloroethane	101		-		70-130	-		
Toluene	90		-		70-130	-		
2-Hexanone	90		-		70-130	-		
Dibromochloromethane	107		-		70-130	-		
1,2-Dibromoethane	92		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: ENDZONE
Project Number: 60671903

Lab Number: L2363961
Report Date: 11/07/23

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-02 Batch: WG1848528-3								
Tetrachloroethene	99		-		70-130	-		
Chlorobenzene	93		-		70-130	-		
Ethylbenzene	90		-		70-130	-		
p/m-Xylene	92		-		70-130	-		
Bromoform	112		-		70-130	-		
Styrene	92		-		70-130	-		
1,1,2,2-Tetrachloroethane	99		-		70-130	-		
o-Xylene	95		-		70-130	-		
4-Ethyltoluene	93		-		70-130	-		
1,3,5-Trimethylbenzene	94		-		70-130	-		
1,2,4-Trimethylbenzene	95		-		70-130	-		
Benzyl chloride	96		-		70-130	-		
1,3-Dichlorobenzene	99		-		70-130	-		
1,4-Dichlorobenzene	96		-		70-130	-		
1,2-Dichlorobenzene	96		-		70-130	-		
1,2,4-Trichlorobenzene	95		-		70-130	-		
Hexachlorobutadiene	91		-		70-130	-		

Project Name: ENDZONE

Project Number: 60671903

Lab Number: L2363961

Report Date: 11/07/23

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2363961-01	EFF COMBINED	897	6.0L Can	10/23/23	441655	L2358731-04	Pass	-29.7	0.0	-	-	-	-
L2363961-02	SVE EFF	2325	6.0L Can	10/23/23	441655	L2357702-08	Pass	-28.7	0.0	-	-	-	-
L2363961-03	UNUSED CAN #1662	1662	6.0L Can	10/23/23	441655	L2358731-04	Pass	-29.7	-29.5	-	-	-	-

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2357702
Report Date: 11/07/23

Air Canister Certification Results

Lab ID: L2357702-08
Client ID: CAN 3370 SHELF 58
Sample Location:

Date Collected: 09/30/23 08:00
Date Received: 10/02/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 10/02/23 22:36
Analyst: BJB

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2357702
Report Date: 11/07/23

Air Canister Certification Results

Lab ID: L2357702-08
Client ID: CAN 3370 SHELF 58
Sample Location:

Date Collected: 09/30/23 08:00
Date Received: 10/02/23
Field Prep: Not Specified

Sample Depth:

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2357702
Report Date: 11/07/23

Air Canister Certification Results

Lab ID: L2357702-08
Client ID: CAN 3370 SHELF 58
Sample Location:

Date Collected: 09/30/23 08:00
Date Received: 10/02/23
Field Prep: Not Specified

Sample Depth:

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2357702
Report Date: 11/07/23

Air Canister Certification Results

Lab ID: L2357702-08
Client ID: CAN 3370 SHELF 58
Sample Location:

Date Collected: 09/30/23 08:00
Date Received: 10/02/23
Field Prep: Not Specified

Sample Depth:

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2357702
Report Date: 11/07/23

Air Canister Certification Results

Lab ID: L2357702-08
Client ID: CAN 3370 SHELF 58
Sample Location:

Date Collected: 09/30/23 08:00
Date Received: 10/02/23
Field Prep: Not Specified

Sample Depth:

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

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	93		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	95		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2357702
Report Date: 11/07/23

Air Canister Certification Results

Lab ID: L2357702-08
Client ID: CAN 3370 SHELF 58
Sample Location:

Date Collected: 09/30/23 08:00
Date Received: 10/02/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 10/02/23 22:36
Analyst: BJB

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2357702
Report Date: 11/07/23

Air Canister Certification Results

Lab ID: L2357702-08
Client ID: CAN 3370 SHELF 58
Sample Location:

Date Collected: 09/30/23 08:00
Date Received: 10/02/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.100	--	ND	0.518	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2357702
Report Date: 11/07/23

Air Canister Certification Results

Lab ID: L2357702-08
Client ID: CAN 3370 SHELF 58
Sample Location:

Date Collected: 09/30/23 08:00
Date Received: 10/02/23
Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	93		60-140

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

Lab Number: L2358731
Report Date: 11/07/23

Air Canister Certification Results

Lab ID: L2358731-04
Client ID: CAN 1884 SHELF 69
Sample Location:

Date Collected: 10/04/23 18:00
Date Received: 10/05/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 10/05/23 19:46
Analyst: BJB

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2358731
Report Date: 11/07/23

Air Canister Certification Results

Lab ID: L2358731-04
Client ID: CAN 1884 SHELF 69
Sample Location:

Date Collected: 10/04/23 18:00
Date Received: 10/05/23
Field Prep: Not Specified

Sample Depth:

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2358731
Report Date: 11/07/23

Air Canister Certification Results

Lab ID: L2358731-04
Client ID: CAN 1884 SHELF 69
Sample Location:

Date Collected: 10/04/23 18:00
Date Received: 10/05/23
Field Prep: Not Specified

Sample Depth:

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2358731
Report Date: 11/07/23

Air Canister Certification Results

Lab ID: L2358731-04
Client ID: CAN 1884 SHELF 69
Sample Location:

Date Collected: 10/04/23 18:00
Date Received: 10/05/23
Field Prep: Not Specified

Sample Depth:

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2358731
Report Date: 11/07/23

Air Canister Certification Results

Lab ID: L2358731-04
Client ID: CAN 1884 SHELF 69
Sample Location:

Date Collected: 10/04/23 18:00
Date Received: 10/05/23
Field Prep: Not Specified

Sample Depth:

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

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	96		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	97		60-140

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2358731

Project Number: CANISTER QC BAT **Report Date:** 11/07/23

Air Canister Certification Results

Lab ID: L2358731-04
Client ID: CAN 1884 SHELF 69
Sample Location:

Date Collected: 10/04/23 18:00
Date Received: 10/05/23
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 10/05/23 19:46
Analyst: BJB

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2358731
Report Date: 11/07/23

Air Canister Certification Results

Lab ID: L2358731-04
Client ID: CAN 1884 SHELF 69
Sample Location:

Date Collected: 10/04/23 18:00
Date Received: 10/05/23
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.100	--	ND	0.377	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.100	--	ND	0.518	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2358731

Project Number: CANISTER QC BAT **Report Date:** 11/07/23

Air Canister Certification Results

Lab ID: L2358731-04
Client ID: CAN 1884 SHELF 69
Sample Location:

Date Collected: 10/04/23 18:00
Date Received: 10/05/23
Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	89		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	96		60-140

Project Name: ENDZONE
Project Number: 60671903

Lab Number: L2363961
Report Date: 11/07/23

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
NA	Present/Intact

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2363961-01A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L2363961-02A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L2363961-03A	Canister - 6 Liter	NA	NA			Y	Absent		CLEAN-FEE()

*Values in parentheses indicate holding time in days

Project Name:	ENDZONE	**Lab Number:**	L2363961
Project Number:	60671903	**Report Date:**	11/07/23

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:	ENDZONE	**Lab Number:**	L2363961
Project Number:	60671903	**Report Date:**	11/07/23

Footnotes

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

Terms

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

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

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

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

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

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

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

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

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

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

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

Report Format: Data Usability Report

Project Name:	ENDZONE	**Lab Number:**	L2363961
Project Number:	60671903	**Report Date:**	11/07/23

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:	ENDZONE	**Lab Number:**	L2363961
Project Number:	60671903	**Report Date:**	11/07/23

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 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA 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, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

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

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

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

AIR ANALYSIS

CHAIN OF CUSTODY PAGE 1 OF 1

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

Client Information
Client: AECOM
Address: 250 Apollo Drive
Chelmsford, MA 01824
Phone: 978-905-2100
Fax:
Email: raimundo.matos@aecom.com; matthew.pearsall@aecom.com

Project Information
Project Name: Endzone
Project Location: Ozone Park
Project #: 60671903
Project Manager: Rai Matos
ALPHA Quote #:

Turn-Around-Time
☑ Standard ☐ Rush (only confirmed if pre-approved)
Date Due: Time:

☐ These samples have been Previously analyzed by Alpha

Other Project Specific Requirements/Comments:
☐ Project-Specific Target Compound List

Date Rec'd in Lab: 10/28/23

ALPHA Job #: L2363961

Report/Data Deliverables Information
☐ FAX ☑ EMAIL
☐ ADEx ☑ Add'l Deliverables EDD

Billing Information
☑ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Residential/Commercial

Analysis

All Columns Below Must Be Filled Out

Alpha Lab Use Only	Sample ID	Collection: End Date	Collection: Start Time	Collection: End Time	Collection: Initial Vac	Collection: Final Vac	Sample Matrix*	Sampler Initials	Can Size	ID Can	ID Flow Controller	LL TO-15	TO-15 SIM	Subtract non-petroleum HCs APH	FIXED GASES	Sulfides & Mercaptans by TO-15			Sample Specific Comments (i.e. PID)
63961.01	EFF Combined	10/25	1230	1300	30.58	0.0	SV	JA	6LT	897	0018	☑	☐	☐	☐	☐	☐	☐	
.02	SVE EFF	10/25	1300	1325	30.00	0.0	SV	JA	6LT	2325	0133	☑	☐	☐	☐	☐	☐	☐	
												☐	☐	☐	☐	☐	☐	☐	
												☐	☐	☐	☐	☐	☐	☐	
												☐	☐	☐	☐	☐	☐	☐	
												☐	☐	☐	☐	☐	☐	☐	
											Container Type	-	-	-	-	-	-	-	

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

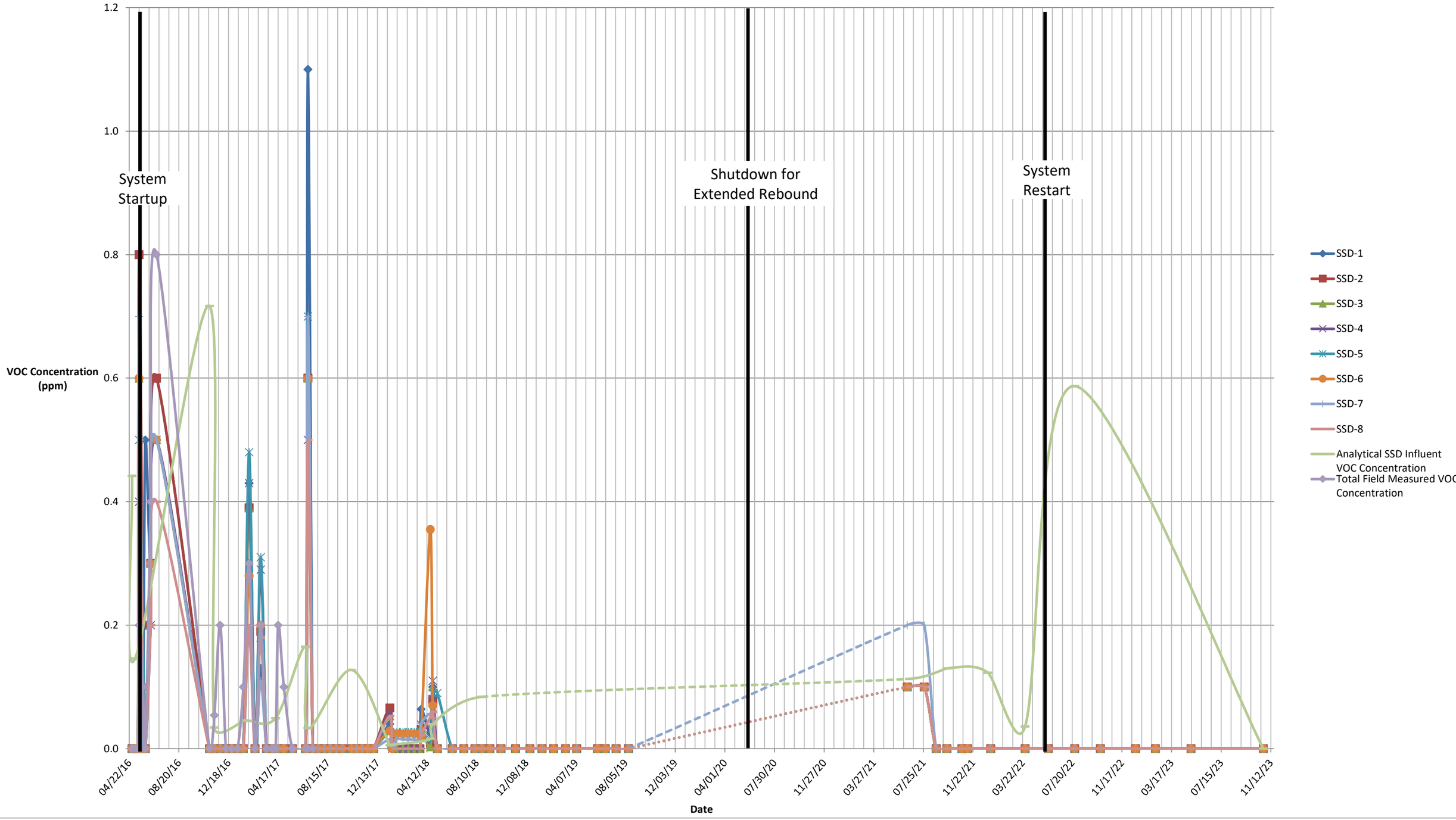
Relinquished By	Date/Time	Received By:	Date/Time
OMAN AAL	10/26 1600	OMAU AAL	10/27/23
Anthony Green	10/27/23 14:08	Anthony Green	10/28/23 0130
	10/28/23 0545		10/28/23 05:45

Please print clearly & legibly and completely. Samples cannot be logged in and turn around time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Payment Terms.

Form 101-02 (I) Rev: 25-Sept-15

Appendix C
Graphs depicting VOCs Screening and Lab Results – SSD and SVE Systems

Influent SSD VOC Concentrations (ppm) - field screening and laboratory results



Influent SVE VOC Concentrations (ppm) - field screening and laboratory results