

PERIODIC REVIEW REPORT ADDENDUM
REPORTING PERIOD: FEBRUARY 11, 2019 THROUGH FEBRUARY 10, 2020

211 FRANKLIN STREET
OLEAN, NEW YORK
NYSDEC SITE NO. C905038

This document was prepared as an addendum to the fourth Periodic Review Report (PRR) submitted for New York State Department of Environmental Conservation (NYSDEC) Site No. C905038 located at 211 Franklin Street, City of Olean, Cattaraugus County, New York (the Site). This document presents a summary of the site management activities (i.e., groundwater and indoor air sampling, and subsequent testing by an analytical laboratory of the samples collected) completed subsequent to the reporting period indicated above. The site management requirements are outlined in the document titled *211 Franklin Street, Cattaraugus County, City of Olean, New York, Site Management Plan, NYSDEC Site Number: C905038*, dated October 2015, (the SMP) as modified by Revision No.1 (i.e., reduction in scope and frequency to post-remediation monitoring program) approved by the NYSDEC on March 21, 2017 (the SMP Revision 1). A locus map showing the location of the Site is presented as Figure 1.

Background

In accordance with the SMP Revision 1 monitoring schedule, groundwater and indoor air monitoring was completed for a period of three years to assess the effectiveness of the remedy. Based upon the reported results over this three-year period, the remedy was confirmed to be effective. However, the New York State Department of Health (NYSDOH) requested that additional indoor air samples be collected. To this end, it was agreed that indoor air samples would be collected from Area 1 and Area 2 (i.e., located in the northern portion of the building at the Site), a background air sample would be collected from a location to be determined at the time of sampling, and the three air samples collected would be tested for VOCs to assess the current indoor air quality in these areas. Further, the NYSDEC requested that an additional groundwater sample be collected from monitoring well MW-F (i.e., located in the shipping lot on the western portion of the Site) and that this sample be tested for VOCs and SVOC to assess the concentrations of chloroform and bis (2-ethylhexyl) phthalate (respectively) detected during the most-recent sampling event at this location. [Note: The concentration of chloroform detected in the June 2018 groundwater sample collected from monitoring well MW-F exceeded the groundwater standard of 7 parts per billion (ppb) and the concentration of bis (2-ethylhexyl) phthalate detected in the June 2016 and June 2017 groundwater samples collected from monitoring well MW-F exceeded the groundwater standard of 5 ppb for bis (2-ethylhexyl) phthalate.] The location of indoor air sample locations Area 1 and Area 2, and the background air sample location are presented on Figure 2. The location of monitoring well MW-F is presented on Figure 3.

Post-Remediation Media Monitoring and Sampling

The indoor/background air samples and the groundwater sample were collected from the Site on March 9, 2020 from the locations described in the Background section, and using the sampling protocols outlined in SMP Revision 1. The results of the indoor/background air sampling conducted are discussed below.

- Copies of the indoor air sampling logs completed during the annual sampling event that occurred on March 9, 2020 are provided in Attachment A. [Note: the collection time for indoor air sample IA-02 was reduced from approximately 8 hours to approximately 2 hours, due to a malfunction of the sample regulator provided by the analytical laboratory.]

- A copy of the analytical laboratory report for the indoor air samples (and outdoor background sample) collected on March 9, 2020 is included in Attachment B. A copy of the data usability summary report (DUSR) prepared for the indoor air samples (and outdoor background sample) collected on March 9, 2020 is also included in Attachment B.
- A summary of volatile organic compounds (VOCs) historically detected in the indoor air samples (and outdoor background samples), including the samples collected on March 9, 2020, is presented as Table 1.

The results of the groundwater sampling conducted within the reporting period are provided herein as follows:

- A copy of the groundwater sampling log completed during the sampling of MW-F on March 9, 2020 is included in Attachment C.
- A copy of the analytical laboratory report for the groundwater samples collected on March 9, 2020 is included in Attachment D. A copy of the DUSR prepared for the groundwater samples collected on March 9, 2020 is also included in Attachment D.
- Summaries of VOCs and semi-volatile organic compounds (SVOCs) historically detected in the groundwater samples, including the sample collected on March 9, 2020 from MW-F, are included in Table 2 and Table 3, respectively.

The analytical laboratory test results for the samples collected during the reporting period were submitted to the NYSDEC EIMS Team via NYENVDATA in an EQUIS EDD format, and acceptance of these results is pending.

Comparison with Remedial Objectives

The results of the indoor air sampling event completed on March 9, 2020 confirms that the SSDS is adequate to address potential soil vapor intrusion (SVI) of VOCs, specifically:

- Trichloroethene (TCE) and Tetrachloroethene (PCE), which had been identified as primary SVI contaminants of concern, were not detected in indoor air samples IA-01 and IA-02, collected on March 9, 2020, at concentrations greater than the reporting limits (RLs) reported by the analytical laboratory (i.e., 0.107 $\mu\text{g}/\text{m}^3$ and 0.136 $\mu\text{g}/\text{m}^3$). Further, TCE and PCE concentrations at each of the six indoor air monitoring locations have been consistently reported at levels below applicable NYSDOH Indoor Air Guidance Values during each of the three indoor monitoring events conducted from 2016 to 2018.
- VOCs reported above applicable indoor air reference values (i.e., acetone and ethanol) in the March 9, 2020 indoor air sampling results were generally consistent with results from the 2016, 2017 and 2018 indoor air sampling events. These constituents continue to be used at the Site in the manufacturing process. Thus, the indoor air concentrations of these constituents are considered attributable to manufacturing operations and not soil vapor intrusion. Measured concentrations of these VOCs in the indoor air samples collected between 2016 and 2018, as well as in the March 9, 2020 indoor air samples, are well below the applicable Occupational Safety and Health Administration (OSHA) permissible levels.

The March 9, 2020 groundwater sample test results are generally similar to the results historically detected at this location. However, the following is noted:

- Chloroform was not detected in the groundwater sample collected on March 9, 2020 from monitoring well MW-F at a concentration greater than the method detection limit (MDL) reported by the analytical laboratory (i.e., 0.07 µg/l). With the exception of the sample collected during the June 21 and 22, 2018 sampling event, chloroform was not detected in groundwater samples obtained from monitoring well MW-F, (or samples collected from other monitoring wells installed at the Site). As such, the detection of chloroform in the sample collected from MW-F on June 21 and 22, 2018 appears to have been an anomaly or isolated occurrence that is not indicative of on-going impact.
- No other target compound list (TCL) VOCs, or tentatively identified compounds (TICs), were detected above their respective MDLs in groundwater sample collected on March 9, 2020 from monitoring well MW-F.
- Bis (2-ethylhexyl) phthalate was not detected in the groundwater sample collected on March 9, 2020 from monitoring well MW-F at a concentration greater than the method detection limit (MDL) reported by the analytical laboratory (i.e., 1.5 µg/l). Although bis (2-ethylhexyl) phthalate has been detected sporadically and in varying concentrations in groundwater samples collected from eight of the thirteen monitoring wells sampled, there is no trend of increasing concentrations evident and the source of bis (2-ethylhexyl) phthalate is unknown, as it has not reportedly been used in manufacturing operations conducted at the Site. It is possible that the bis (2-ethylhexyl) phthalate detected is a sampling/testing artifact. As such, the sporadic detections of bis (2-ethylhexyl) phthalate reported to date in the groundwater are not considered attributable to operations conducted at the Site, and do not appear to warrant further monitoring or concern.
- The polyaromatic hydrocarbon (PAH) SVOCs acenaphthene, anthracene, benzo (a) anthracene, benzo (a) pyrene, benzo (b) fluoranthene, chrysene, fluoranthene, fluorene, phenanthrene, and pyrene were detected in the groundwater sample collected on March 9, 2020 from monitoring well MW-F at concentrations ranging between 0.02 ug/l to 0.35 ug/l. [Note: Historically the SVOCs detected in the March 9, 2020 sample were not detected in groundwater samples previously collected from MW-F. However, the March 9, 2020 sample was tested utilizing a selective ion monitoring (SIM) technique that allowed lower detection limits than those utilized previously. As such, it is possible that the SVOCs detected in the March 9, 2020 sample may have been present in previous samples at levels below the reported detection limits.] Monitoring well MW-F is positioned hydraulically downgradient of the former SOCONY Vacuum Refinery site (i.e., a documented source of petroleum-impacted groundwater), and the PAH SVOC impact detected in the groundwater sample collected from MW-F on March 9, 2020 is likely attributable to an off-site source, and not representative of groundwater impact attributable to the Site. Thus, the PAH SVOCs detected in the sample from MW-F do not represent a concern requiring additional monitoring or remediation.
- No other target compound list (TCL) SVOCs, were detected above their respective MDLs in groundwater sample collected on March 9, 2020 from monitoring well MW-F. The total concentration of SVOC TICs detected in groundwater sample collected on March 9, 2020 from monitoring well MW-F was 9.23 ug/l, which is consistent with historic measurements.

Conclusions and Recommendations for Changes to Post-Remediation Media Monitoring and Sampling

The results of indoor air and post-remediation groundwater sampling completed during the period of post-remediation sampling and testing outlined in the SMP Revision 1, in addition to the samples collected on March 9, 2020, indicate that the remedial actions implemented at the Site have been effective in achieving the remedial objectives identified. Further, the indoor air and groundwater sampling and testing completed to date demonstrates that the remedial program is currently meeting, and has the ability to achieve, the remedial objectives for the Site. As such, additional media sampling events do not appear necessary in order to demonstrate or maintain the effectiveness of the Site remedy. Therefore, no further media sampling or testing is recommended at this time.

**PERIODIC REVIEW REPORT ADDENDUM
REPORTING PERIOD FEBRUARY 11, 2019 THROUGH FEBRUARY 10, 2020**

**211 FRANKLIN STREET
OLEAN, NEW YORK
NYSDEC SITE No. C905038**

FIGURES

Figure 1	Project Locus
Figure 2	Site Plan
Figure 3	Groundwater Contour Map for June 22, 2018

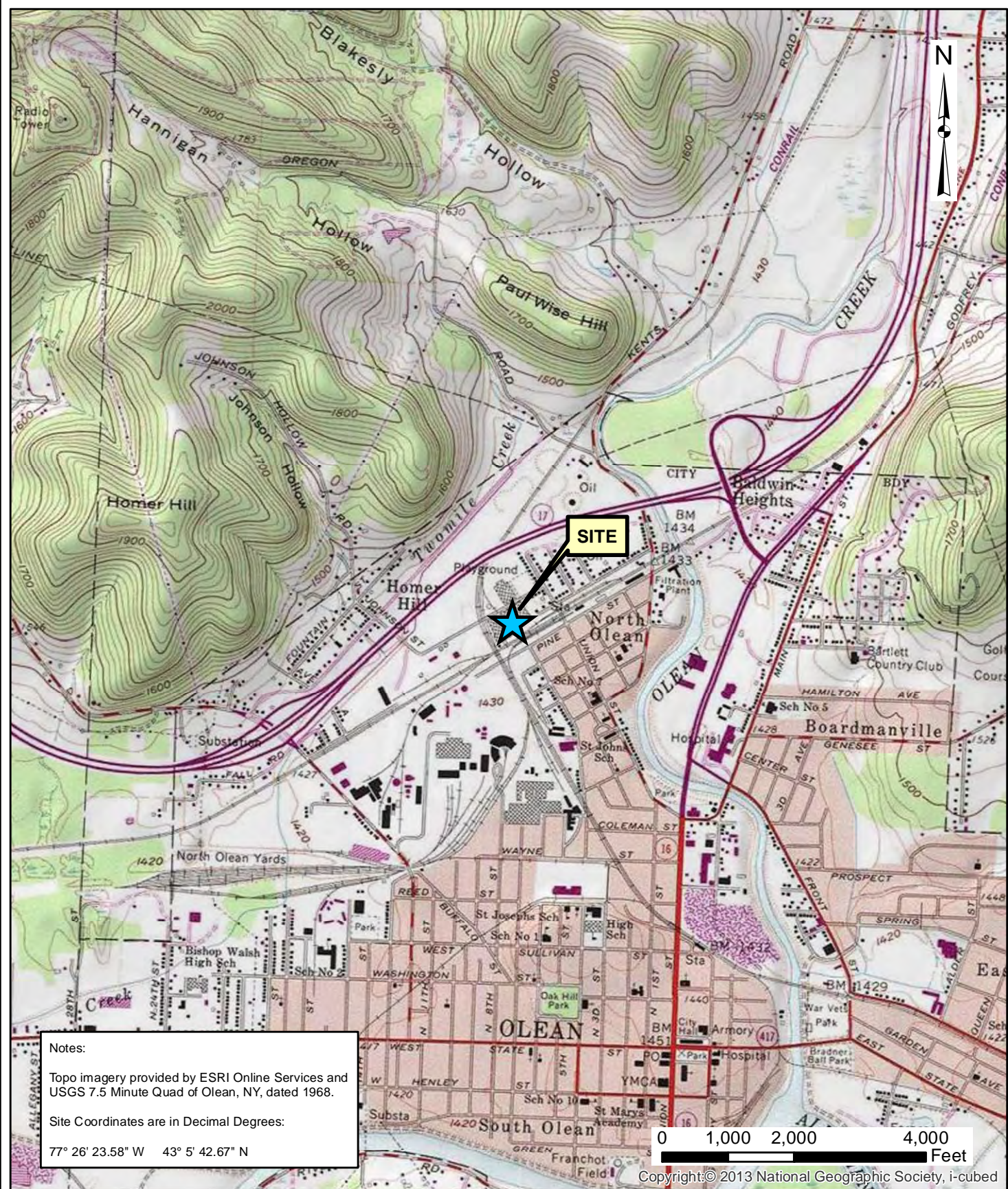
TABLES

Table 1	Summary of Volatile Organic Compounds: Indoor Air and Background Air Samples
Table 2	Detected Volatile Organic Compounds in Groundwater Samples
Table 3	Detected Semi-Volatile Organic Compounds in Groundwater Samples

ATTACHMENTS

Attachment A	Sampling logs for March 9, 2020 Indoor Air Sampling Event
Attachment B	Analytical Laboratory Report and DUSR for March 9, 2020 Indoor Air Sampling Event
Attachment C	Sampling logs for March 9, 2020 Groundwater Sampling Event
Attachment D	Analytical Laboratory Report and DUSR for March 9, 2020 Groundwater Sampling Event

FIGURES



Date
2-28-2017

Drawn By
CAH

Scale
AS NOTED

day
DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606
New York, New York 10170

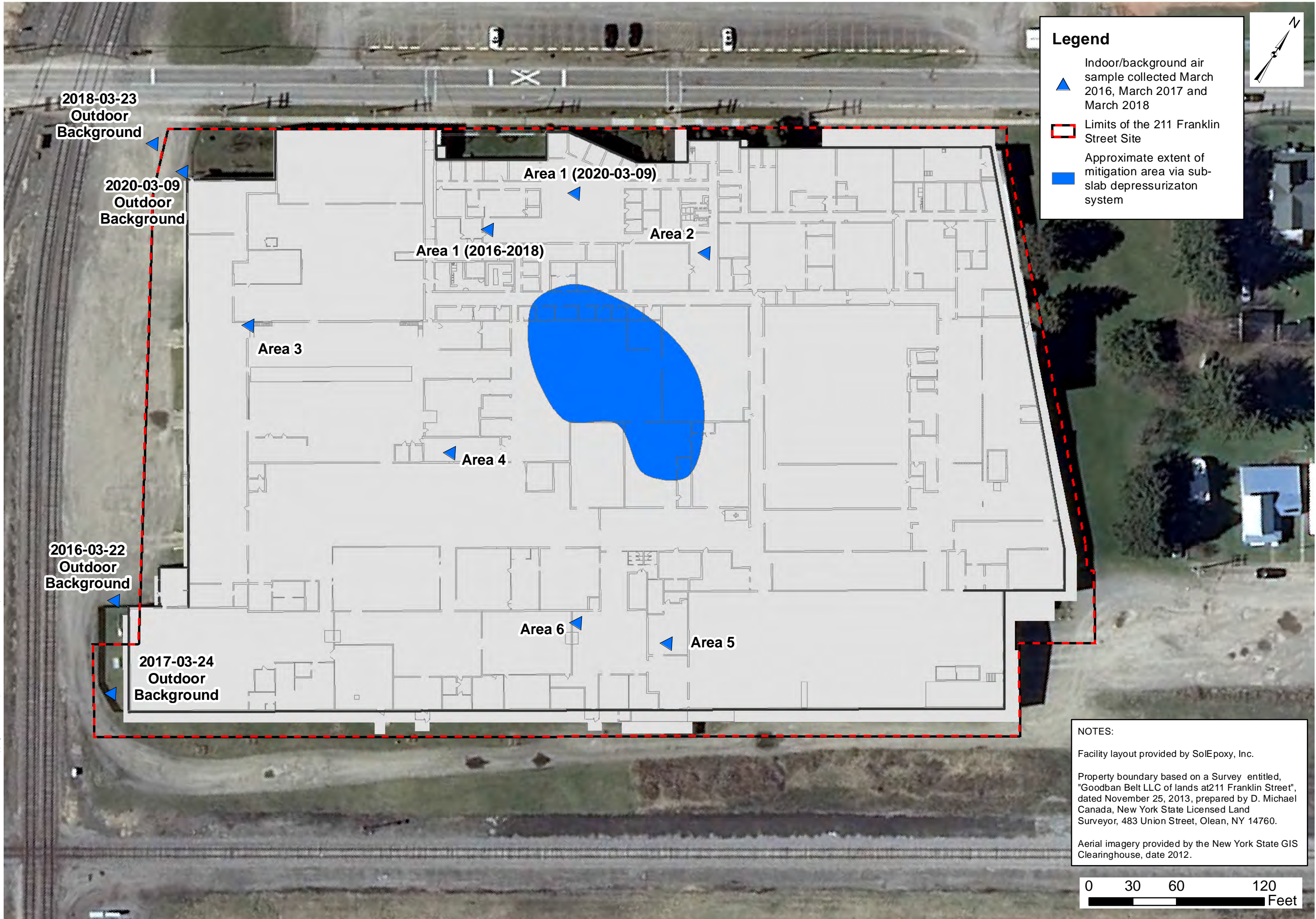
Project Title
211 FRANKLIN STREET
OLEAN, NEW YORK

BCP SITE NO. C905038 PERIODIC REVIEW REPORT

Drawing Title
Project Locus Map

Project No.
4884S-13
FIGURE 1

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Legend

- Indoor/background air sample collected March 2016, March 2017 and March 2018
- Limits of the 211 Franklin Street Site
- Approximate extent of mitigation area via sub-slab depressurization system



NOTES:

Facility layout provided by SolEpoxy, Inc.

Property boundary based on a Survey entitled, "Goodban Belt LLC of lands at 211 Franklin Street", dated November 25, 2013, prepared by D. Michael Canada, New York State Licensed Land Surveyor, 483 Union Street, Olean, NY 14760.

Aerial imagery provided by the New York State GIS Clearinghouse, date 2012.

0 30 60 120 Feet

DESIGNED BY	RLK	DATE	03-2020
DRAWN BY	CAH	DATE DRAWN	03-2020
SCALE	AS NOTED	DATE ISSUED	03-25-2020

day DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606
New York, New York 10170

Project Title
211 FRANKLIN STREET
OLEAN, NEW YORK

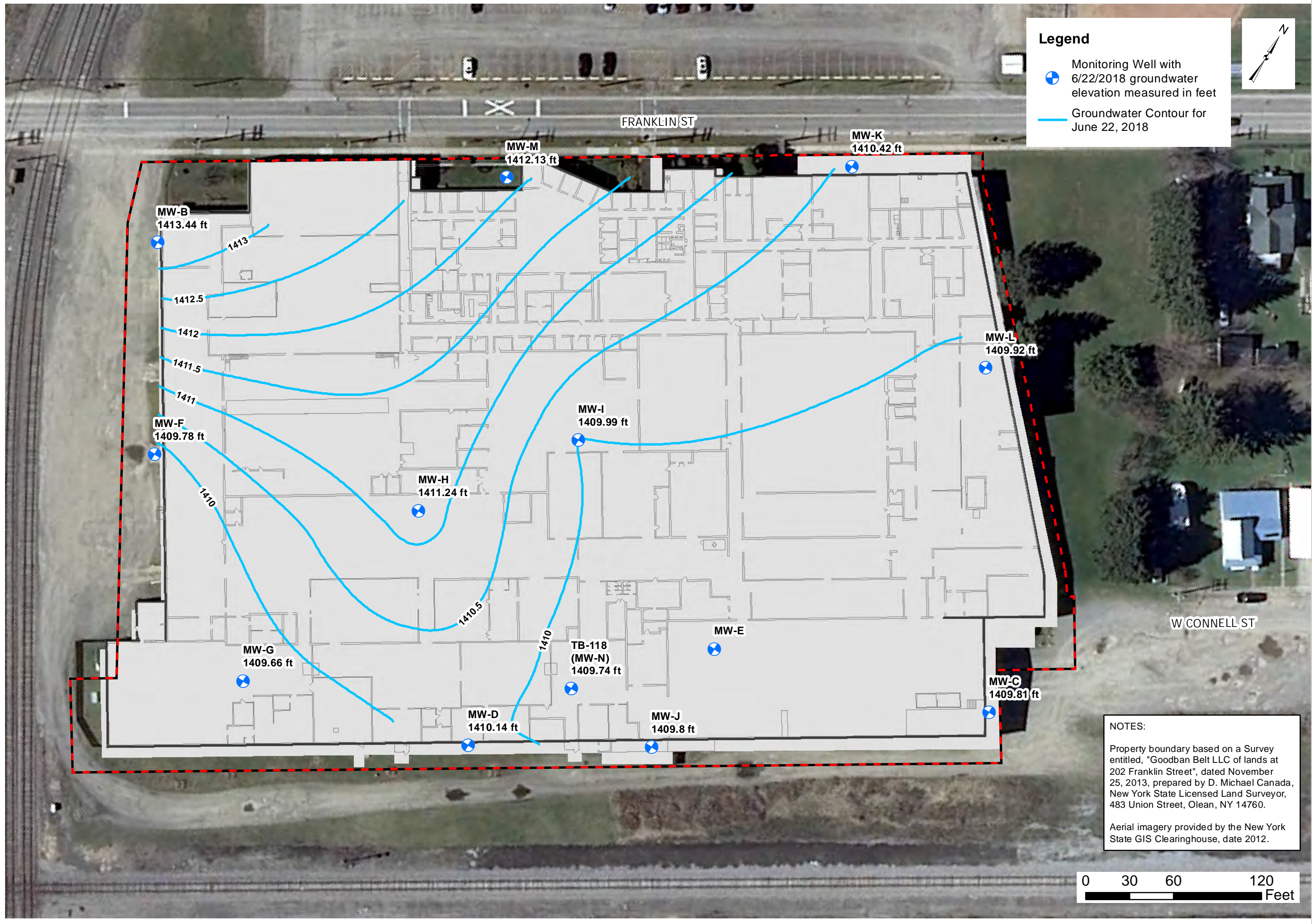
BCP SITE NO. C905038 PERIODIC REVIEW REPORT

Drawing Title
Site Plan Showing Periodic Indoor Air Sample Areas

Project No.
4884S-13

FIGURE 2

Last Date Saved: 13 Feb 2019 Document Path: E:\GIS Mapping\4884S-13\Site\211\Periodic Review Report\4884S - 06 - GW Contour 20180622.mxd



DESIGNED BY	RLK	DATE	02-2019
DRAWN BY	CAH/CPS	DATE DRAWN	02-2019
SCALE	AS NOTED	DATE ISSUED	02-13-2019

Project Title	211 FRANKLIN STREET OLEAN, NEW YORK
Project No.	4884S-13
Drawing Title	Groundwater Contour Map: June 22, 2018

BCP SITE NO. C905038 REMEDIAL INVESTIGATION
DAY ENVIRONMENTAL, INC. Environmental Consultants Rochester, New York 14606 New York, New York 10170

FIGURE 3

TABLES

TABLE 1 211 FRANKLIN STREET OLEAN, NEW YORK BCP SITE NO. C905038																												
SUMMARY OF VOLATILE ORGANIC COMPOUNDS INDOOR AIR AND BACKGROUND AIR SAMPLES COLLECTED MARCH 2016, MARCH 2017 AND MARCH 2018																												
Detected Constituent	Indoor Air Reference Value (ug/m ³) ⁽¹⁾	OSHA PEL (ppb) ⁽⁵⁾	Sample Designation and Date																									
			Area 1				Area 2				Area 3			Area 4			Area 5			Area 6			Outdoor Background					
			3/22/2016	3/24/2017	3/23/2018	3/9/2020	3/23/2016	3/24/2017	3/23/2018	3/9/2020	3/22/2016	3/24/2017	3/23/2018	3/22/2016	3/24/2017	3/23/2018	3/22/2016	3/24/2017	3/23/2018	3/22/2016	3/24/2017	3/23/2018	3/22/2016	3/24/2017	3/23/2018	3/9/2020		
1-4, Dioxane	NA	100,000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	3.48	U	U	U	U	U	U	U	U	U	U	
1,1,1-Trichloroethane	20.6	350,000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
1,1-Dichloroethane	0.7	100,000	U	U	U	U	U	U	U	U	U	U	U	U	U	J	U	U	U	U	0.09	U	U	U	U	U	U	
1,1-Dichloroethene	1.4	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	0.10	U	U	U	U	U	U	
1,1,2-Trichlorotrifluoroethane	NA	1,000,000	U	0.80	U	U	U	0.65	J	U	U	U	0.78	U	U	0.58	J	1.00	U	0.61	J	U	0.120	0.76	J	0.77	U	0.84
1,2,4-Trichlorobenzene	6.8	NA	U	U	U	U	U	2.56	U	U	U	2.72	J	U	U	U	U	2.66	U	U	3.80	U	U	U	J	U	U	
1,2,4-Trimethylbenzene	9.5	NA	U	7.37	0.62	U	0.150	13.13	0.45	J	U	7.37	6.19	0.190	U	5.36	U	U	2.62	U	3.03	2.41	U	U	U	U	U	
1,3,5-Trimethylbenzene	3.7	NA	U	1.96	U	U	U	3.45	0.25	J	U	1.69	1.5	0.100	1.37	1.2	U	0.75	0.98	U	0.87	0.83	U	U	U	U	U	
1,3-Butadiene	3.0	1,000	U	U	U	U	U	U	U	U	U	8.64	6.23	U	U	U	J	U	U	U	U	U	J	U	U	J	U	
2-Butanone (MEK)	12	200,000	1.32	4.45	U	U	0.930	4.84	5.37	1.49	1.68	6.99	7.52	3.44	12.74	21.2	1.36	3.30	22.82	0.470	3.36	19.82	0.400	2.12	U	J	U	
2-Hexanone (MBK)	NA	100,000	U	U	J	U	U	U	U	U	U	U	J	U	U	U	3.16	U	U	0.260	U	U	U	U	J	U	U	
4-Ethyltoluene	3.6	NA	U	1.38	J	U	U	2.35	0.21	J	U	2.00	J	1.62	U	1.06	1.21	U	0.44	J	0.89	U	0.67	0.81	U	U	U	
4-Isopropyltoluene	NA	NA	U	1.08	U	U	U	U	U	U	U	U	U	U	1.01	J	U	U	0.6	J	0.46	J	U	1.02	J	U	U	
4-Methyl-2-Pentanone (MIBK)	6	100,000	1.61	2.40	1.11	U	0.970	1.77	2.03	U	4.80	5.41	28.48	6.02	5.86	18.11	4.75	2.46	4.96	0.170	15.45	27.38	U	U	U	U	U	
Acetone	98.9	1,000,000	48.20	D	221.94	D	52.28	D	344		388	D	472.88	D	91.96	D	615		56.6	D	710.51	D	134.26	D	118.00	D	311.29	D
Benzene	9.4	10,000	1.14	2.10	1.32	1.37	0.670	1.16	2.09	2.09	1.55	12.38	18.95	1.57	6.25	12.22	0.360	1.96	1.38	0.130	2.61	1.82	0.130	0.99	0.47	U	U	
Bromodichloromethane	NA	NA	U	NT	U	U	U	NT	U	U	U	NT	U	U	NT	U	U	NT	U	0.110	NT	U	U	NT	U	U	U	
Carbon Disulfide	4.2	20,000	U	U	U	U	U	U	U	U	U	U	U	U	0.54	J	0.56	J	U	U	U	U	U	U	U	U	U	
Carbon Tetrachloride	1.3	10,000	0.08	0.76	0.2	0.61	0.16	1.02	0.18	0.642	0.09	0.48	0.19	0.11	0.49	0.2	0.12	0.51	0.18	0.11	0.64	0.19	0.08	0.75	0.17	0.428		
Chloroform	1.1	50,000 *c	U	U	U	U	0.16	U	U	U	U	0.81	U	U	0.6	0.35	J	0.22	0.95	5.99	0.99	0.66	1.25	U	U	U	U	
Chloromethane	3.7	100,000	U	1.99	U	1.03	U	1.75	J	U	0.981	U	2.17	U	U	J	U	U	1.85	J	U	U	1.70	J	U	U	0.946	
Cyclohexane	NA	300,000	U	U	U	U	0.25	U	U	U	0.19	U	2.11	0.23	0.66	1.82	U	U	0.5	U	1.14	1.41	U	U	U	J	U	
Dichlorodifluoromethane	16.5	1,000,000	0.84	3.59	U	2.09	0.83	2.75	3.51	2.18	0.89	3.40	U	0.78	2.27	U	J	0.79	2.71	3.33	0.97	3.14	3.68	0.93	3.41	3.09	2.12	
Ethanol	210	1,000,000	60.20	D	124.06	D	245.11	D	133		36.6	D	152.5	D	331.84	D	226		17.0	D	142.2	D	452.52	D	93.60	D	137.07	D
Ethyl acetate	5.4	400,000	U	0.85	J	U	U	0.48	U	U	U	0.84	J	7.75	U	0.57	U	1.54	0.72	U	0.90	U	0.65	0.42	J	U	U	
Ethylbenzene	5.7	100,000	U	0.63	J	U	U	0.12	0.47	0.43	U	0.13	2.15	J	2.33	0.29	1.99	2.41	0.50	0.52	2.1	U	0.73	1.74	U	U	U	
Hexane	10.2	500,000	U	1.18	J	0.85	JH	1.74	1.40	J	U	U	2.28	4.83	1.35	3.41	U	J	U	1.43	J	U	J	U	0.71	J	1.05	
Isopropyl alcohol	NA	400,000	6.16	16.81	10.36	6.42	26.0	D	20.5	13.74	12.9	4.23	24.15	24.29	10.60	D	40.25	D	24.22	5.03	7.26	18.26	0.85	4.79	48.1	D	0.54	
Isopropylbenzene	NA	50,000	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
m/p-Xylene	22.2	100,000	0.20	2.54	0.97	U	0.53	2.10	1.66	U	0.510	7.89	9.88	1.16	7.67	10.58	1.62	1.78	8.24	U	2.84	7.07	U	U	U	U	U	
Methylene Chloride	60 ⁽²⁾	25,000	0.34	5.94	J	2.43	2.12	1.03	7.26	4.27	0.36	4.55	J	2.25	0.38	2.23	2.93	0.34	23.40	U	0.14	2.39	1.59	0.25	4.51	J	U	
Methyl tert-Butyl Ether (MTBE)	11.5	NA	U	U	J	U	U	U	U	U	U	U	J	U	U	U	J	U	U	U	U	J	U	U	J	U	U	
Naphthalene	5.1	10,000	U	4.23	J	U	U	8.48	U	U	U	17.22	J	15.5	0.71	8.53	U	1.32	3.98	0.95	J	U	10.89	1.6	U	4.46	J	
n-Butylbenzene	NA	NA	U	U	U	U	U	U	U	U	U	U	1.54	U	U	1.45	U	0.81	U	U	1.18	U	U	U	U	U	U	
n-Heptane	NA	500,000	0.19	2.40	U	1.57	0.24	2.12	U	1.54	0.22	9.51	10.9	0.52	5.25	9.14	U	2.60	6.52	U	3.1	21.35	U	0.67	U	U	U	
o-Xylene	7.9	100,000	U	1.65	J	0.34	U	0.14	2.26	0.52	U	0.11	2.96	J	3.13	0.24	2.69	3.36	0.27	0.70	2.61	U	1.09	2.42	U	U	U	
Propene	NA	NA	U	U	U	U	U	U	U	U	U	22.20	D	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
sec-Butylbenzene	NA	NA	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Styrene	1.9	100,000	U	0.37	J	U	U	U	U	U	U	1.64	J	0.3	J	U	0.66	U	U	U	0.51	0.28	U	U	J	U	U	
Tetrachloroethene	30 ⁽³⁾	100,000	U	0.52	1.44	J	U	U	9.09	0.17	U	0.42	0.09	J	U	0.44	0.26	U	2.09	0.03	J	U	0.59	0.08	U	0.98	0.03	
Tetrahydrofuran	NA	200,000	U	U	U	U	U	U	U	U	U	0.48	U	U	U	0.41	U	U	U	U	U	U	U	1.14	U	U	U	
Toluene	43	200,000	1.39	5.34	J	2.59	1.36	0.78	2.84	3.38	1.56	2.55	21.52	J	37.44	4.23	17.05	33.79	0.80	6.21	78.27	D	U	8.58	127.93	D	U	
trans-1,2-Dichloroethene	NA	200,000	U	U	U	U	U	0.400	U	U	U	0.55	1.61	U	0.49	1.53	U	U	U	U	U	U	U	U	U	U	U	
Trichloroethene	2 ⁽⁴⁾	100,000	U	0.16	U	U	U	0.33	0.1	J	U	U																

NOTES

Volatile organic compound (VOC) concentrations are presented in micrograms per cubic meter (µg/m³).

No NYSDOH criteria is available for soil vapor samples

U = Not detected at concentration above analytical laboratory reporting limit. Refer to the analytical laboratory report for the associated reporting limit.

NA = Not Available. J = Estimated Value. NT = Not Tested D = Sample Diluted.

⁽¹⁾ Unless otherwise noted the Indoor Air Reference Value shown is the 90th percentile referenced in Table C2 of the NYSDOH document titled "Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York" dated October 2006.

⁽²⁾ NYSDOH derived air guidance values in NYSDOH document titled "Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York" dated October 2006.

⁽³⁾ Guidance value identified in NYSDOH September 2013 Fact Sheet "Tetrachloroethene (PERC) in Indoor and Outdoor Air".

⁽⁴⁾ Guidance value identified in NYSDOH August 2015 Fact Sheet "Trichloroethene (TCE) in Indoor and Outdoor Air".

⁽⁵⁾ Permissible Exposure Limit (PEL) in parts per billion (ppb) as listed in Tables Z-1 and Z-2 of the United States Department of Labor Occupational Safety and Health (OSHA) Standard Number: 29 CFR 1910.1000 and/or in the National Institute for Occupational Safety and Health (NIOSH) Pocket Guide to Chemical Hazards.

*c - indicates that the PEL is a ceiling limit

Highlighted value exceeds the Indoor Air Reference Value

TABLE 3
211 FRANKLIN STREET
OLEAN, NEW YORK
BCP SITE NO. C905038

DETECTED SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs) IN GROUNDWATER SAMPLES

Contaminant	Groundwater Standard or Guidance Value	MW-B					MW-C					MW-D					MW-E				
		7/9/2014	9/30/2014	3/22/2016	6/29/2016	9/27/2016	7/10/2014	9/29/2014	3/22/2016	6/29/2016	9/27/2016	7/9/2014	9/29/2014	3/22/2016	6/29/2016	9/27/2016	7/9/2014	9/29/2014	3/23/2016	6/29/2016	9/27/2016
1-Methylnaphthalene	NA	U	U	NT	NT	NT	U	U	NT	NT	NT	U	U	NT	NT	NT	U	U	NT	NT	NT
Benzoic acid	NA	U	NT	NT	NT	NT	U	NT	NT	NT	NT	U	NT	NT	NT	NT	U	NT	NT	NT	NT
Butylbenzylphthalate	50	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	UJ	U	U	1.4 J	U	U
Bis (2-ethylhexyl) phthalate	5	U	U	U	U	UJ	U	U	2.1 J	23 *	U	U	U	1.9 J	5.1 J *	UJ	U	U	U	4.9 J	U
Caprolactam	NA	NT	U	U	U	U	NT	U	U	U	U	NT	U	U	U	UJ	NT	U	U	U	U
Di-n-butylphthalate	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U
Di-n-octyl phthalate	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U
Fluorene	50	1.3 J	U	U	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	U
Total SVOCs		1.3	U	U	U	U	U	U	2.1	23	U	U	U	1.9	5.1	U	U	U	1.4	4.9	U
Total TICs		154	236.4	530	945	40.1	39.8	4.8	24.6	16.8	U	19.1	8.5	50.3	89.3	U	22	U	192.3	27.6	U
Total SVOCs and TICs		155.3	236.4	530	945	40.1	39.8	4.8	26.7	39.8	U	19.1	8.5	52.2	94.4	U	22	U	193.7	32.5	U

Contaminant	Groundwater Standard or Guidance Value	MW-F								MW-G					MW-H					MW-I						
		7/9/2014	9/30/2014	3/23/2016	6/29/2016	9/27/2016	6/21/2017	6/22/2018	3/9/2020	7/7/2014	9/30/2014	3/23/2016	6/29/2016	9/27/2016	7/8/2014	9/29/2014	3/23/2016	6/29/2016	9/27/2016	7/8/2014	9/30/2014	3/23/2016	6/29/2016	9/27/2016	6/21/2017	6/22/2018
1-Methylnaphthalene	NA	U	U	NT	NT	NT	NT	NT	U	U	NT	NT	NT	U	U	NT	NT	NT	U	U	NT	NT	NT	NT	NT	NT
Benzoic acid	NA	U	NT	NT	NT	NT	U	NT	U	NT	NT	NT	NT	U	NT	NT	NT	NT	U	NT	NT	NT	NT	U	U	
Butylbenzylphthalate	50	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	UJ	U	U	U	U	UJ	U	UJ	
Bis (2-ethylhexyl) phthalate	5	U	U	2.8 J	11 *	UJ	202 JH *	1.08 J	U	U	U	U	U	U	U	U	U	UJ	U	U	6.3 J *	5.1 J *	UJ	U	UJ	
Caprolactam	NA	NT	U	U	U	U	NT	NT	U	NT	U	U	U	NT	U	U	U	U	NT	U	U	U	U	NT	NT	
Di-n-butylphthalate	50	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Di-n-octyl phthalate	50	U	U	U	U	U	27.8 JH	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	
Fluorene	50	U	U	U	U	U	U	UJ	0.02 J	U	U	U	U	U	1.1 J	U	U	U	U	U	U	U	U	U	UJ	
Total SVOCs		U	U	2.8	11	U	229.8	1.08	1.44 JH ⁽¹⁾	U	U	U	U	U	1.1	U	U	U	U	U	U	6.3	5.1	U	U	
Total TICs		11	19.5	77.5	346	U	5.2	35 JH	9.23 J	35.1	136.8	614	1089	112.8	171.6	111.8	758	688.4	447.5	18.2	16.6	24.9	531	9.7	4.5	17.3
Total SVOCs and TICs		11	19.5	80.3	357	U	235.0	36.1	10.7	35.1	136.8	614	1089	112.8	172.7	111.8	758	688.4	447.5	18.2	16.6	31.2	536.1	9.7	4.5	17.3

Contaminant	Groundwater Standard or Guidance Value	MW-J							MW-K					MW-L						
		7/10/2014	9/29/2014	3/22/2016	6/29/2016	9/27/2016	6/21/2017	6/22/2018	7/10/2014	9/30/2014	3/22/2016	6/29/2016	9/27/2016	7/7/2014	9/30/2014	3/23/2016	6/29/2016	9/27/2016	6/21/2017	6/22/2018
1-Methylnaphthalene	NA	U	U	NT	NT	NT	NT	NT	U	U	NT	NT	NT	U	U	NT	NT	NT	NT	NT
Benzoic acid	NA	U	NT	NT	NT	NT	U	U	U	NT	NT	NT	NT	U	NT	NT	NT	NT	U	U
Butylbenzylphthalate	50	U	U	U	U	UJ	U	UJ	U	U	U	U	UJ	U	U	U	U	U	U	U
Bis (2-ethylhexyl) phthalate	5	U	U	100 J *	22 *	UJ	U	UJ	U	U	1.6 J	5.2 J *	UJ	U	U	4.3 J	U	U	6.79 JH *	U
Caprolactam	NA	NT	U	U	U	U	NT	NT	NT	U	U	U	U	NT	U	U	U	NT	NT	NT
Di-n-butylphthalate	50	U	U	U	U	U	U	U	U	U	U	U	U	1 J	U	U	U	U	U	U
Di-n-octyl phthalate	50	U	U	U	U	U	U	6.87 JH	U	U	U	U	U	U	U	U	U	U	U	U
Fluorene	50	U	U	U	U	U	U	UJ	U	U	U	U	U	U	U	U	U	U	U	UJ
Total SVOCs		U	U	100	22	U	0	6.87	U	U	1.6	5.2	U	1	U	4.3	U	U	6.79	0.84
Total TICs		U	11.3	U	99.7	U	U	17.4	52	72	62.7	145.3	U	4.9	4.2	20.6	74.6	U	U	22
Total SVOCs and TICs		U	11.3	100	121.7	U	0	24.3	52	72	64.3	150.5	U	5.9	4.2	24.9	74.6	U	6.79	22.8

Contaminant	Groundwater Standard or Guidance Value	MW-M							MW-N					Production Well
		7/9/2014	9/30/2014	3/22/2016	6/29/2016	9/27/2016	6/21/2017	6/21/2018	7/7/2014	9/29/2014	3/23/2016	6/29/2016	9/27/2016	
1-Methylnaphthalene	NA	2.1 J	U	NT	NT	NT	NT	NT	U	U	NT	NT	NT	U
Benzoic acid	NA	U	NT	NT	NT	NT	0.86 J	U	U	NT	NT	NT	NT	U
Butylbenzylphthalate	50	U	U	1.1 J	U	UJ	U	U	U	U	U	U	UJ	U
Bis (2-ethylhexyl) phthalate	5	U	U	4.3 J	U	UJ	U	U	U	U	U	U	UJ	U
Caprolactam	NA	NT	U	U	4.7 J	U	NT	NT	NT	U	U	5.3 J	U	U
Di-n-butylphthalate	50	U	U	1.3 J	U	U	U	U	U	U	U	U	U	U
Di-n-octyl phthalate	50	U	U	U	U	U	U	U	U	U	U	U	U	U
Fluorene	50	U	U	U	U	U	U	U	U	U	U	U	U	U
Total SVOCs		2.1	U	6.9	4.7	U	0.86	U	U	U	U	5.3	U	U
Total TICs		26.6	49.6	28.6	302.9	298.8	U	20.6	79	22.9	49.4	113.5	U	U
Total SVOCs and TICs		28.7	49.6	35.5	307.6	298.8	0.86	20.6	79	22.9	49.4	118.8	U	U

Notes

Groundwater Standards or Guidance Values as referenced in New York State Department of Environmental Conservation (NYSDEC) Technical and Guidance Series (TOGS) 1.1.1 dated June 1998 as amended by the NYSDEC's supplemental table dated April 2000.

Test results and groundwater standards or guidance values reported in µg/L = micrograms per Liter or parts per billion (ppb).

SVOC = Semi-Volatile Organic Compound

TIC = Tentatively Identified Compound

U = The analyte was analyzed for, but was not detected above the associated reported quantitation limit. Refer to the analytical laboratory report for the associated reported quantitation limit
J = indicates a concentration below the reporting limit and equal to or above the detection limit, and is considered an estimated concentration

JH = Data Validation indicated the concentration estimated by the analytical laboratory is biased high

NA = Not Available

NT = Not Tested

* = Exceeds Groundwater Standard or Guidance Value

⁽¹⁾ - The sample was analyzed via Method 8270 SIM. Several PAH SVOCs were detected in the sample, at concentrations ranging between 0.02 ug/l and 0.35 ug/l, and totaling 1.44 ug/l.

ATTACHMENT A

SAMPLING LOGS

FOR

MARCH 9, 2020 INDOOR AIR SAMPLING EVENT



DAY ENVIRONMENTAL, INC.

ENVIRONMENTAL CONSULTANTS

AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: SolEpo.4884S-13

Project Address: 211 Franklin Street

Sample Type: Summa Canister

Olean, NY

Date: 3/9/2020

DAY Representative: HM2

Canister #: CAN 1580

Sample Location: Outside NW Building Corner

Regulator #: FC 01791

Sample Designation: BG

Start: 11:26

Test Duration: 8 Hours 4 Minutes

End: 19:30

Air Sampling Log BG

Page 1 of 1

Time	Vacuum Gage Reading (inches of Hg)	Notes
11:26	-29.07	Initial
11:40	-28.28	
11:55	-27.44	
12:10	-26.56	
12:25	-25.71	
12:40	-24.83	
12:55	-23.95	
13:15	-22.81	
13:34	-21.60	
14:14	-19.32	
14:42	-17.49	
15:29	-15.05	
16:31	-11.57	
16:50	-10.60	
17:16	-9.59	
17:32	-8.74	
17:55	-7.92	
18:14	-7.31	
18:48	-6.22	
19:30	-5.09	Done

Air Sampling Log BG

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825

www.dayenvironmental.com

420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657



DAY ENVIRONMENTAL, INC.

ENVIRONMENTAL CONSULTANTS

AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: SolEpo.4884S-13

Project Address: 211 Franklin Street

Sample Type: Summa Canister

Olean, NY

Date: 3/9/2020

Air Sampling Log IA-01

Page 1 of 1

DAY Representative: HM2

Canister #: CAN 932

Sample Location: Office - Area 1

Regulator #: FC 0718

Sample Designation: IA-01

Start: 11:22

Test Duration: 8 Hours 0 Minutes

End: 19:22

Time	Vacuum Gage Reading (inches of Hg)	Notes
11:22	-29.34	Initial
11:37	-28.51	
11:52	-27.55	
12:06	-26.70	
12:21	-25.80	
12:36	-25.14	
12:51	-24.42	
13:06	-23.75	
13:31	-22.57	
14:11	-20.66	
14:40	-19.34	
15:33	-16.92	
16:26	-14.46	
16:48	-13.13	
17:19	-11.10	
17:25	-10.64	
17:54	-9.19	
18:13	-8.00	
18:46	-5.84	
19:22	-3.57	Done

Air Sampling Log IA-01

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ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825

www.dayenvironmental.com

420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

Project #: SolEpo.4884S-13

Project Address: 211 Franklin Street

Sample Type: Summa Canister

Olean, NY

Date: 3/9/2020

Page 1 of 1

DAY Representative: HM2

Canister #: CAN 1861

Sample Location: Under Stairs - Area 2

Regulator #: FC 01783

Sample Designation: IA-02

Start: 11:20

Test Duration: 1 Hour 50 Minutes

End: 13:10

[illegible]

Air Sampling Log IA-02

ATTACHMENT B

ANALYTICAL LABORATORY REPORT AND DUSR
FOR
MARCH 9, 2020 INDOOR AIR SAMPLING EVENT



ANALYTICAL REPORT

Lab Number:	L2010642
Client:	Day Environmental, Inc. 1563 Lyell Avenue Rochester, NY 14606
ATTN:	Ray Kampff
Phone:	(585) 454-0210
Project Name:	SOL EPO. 48845-13
Project Number:	SOL EPO. 48845-13
Report Date:	03/17/20

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

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



Project Name: SOL EPO. 48845-13
Project Number: SOL EPO. 48845-13

Lab Number: L2010642
Report Date: 03/17/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2010642-01	IA-01	AIR	411 FRANKLIN ST, OLEAN	03/09/20 19:22	03/10/20
L2010642-02	IA-02	AIR	411 FRANKLIN ST, OLEAN	03/09/20 13:10	03/10/20
L2010642-03	BG	AIR	411 FRANKLIN ST, OLEAN	03/09/20 19:30	03/10/20

Project Name: SOL EPO. 48845-13
Project Number: SOL EPO. 48845-13

Lab Number: L2010642
Report Date: 03/17/20

Case Narrative

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

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

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

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

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

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

Project Name: SOL EPO. 48845-13**Lab Number:** L2010642**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**Case Narrative (continued)**

Volatile Organics in Air

Canisters were released from the laboratory on March 3, 2020. The canister certification results are provided as an addendum.

The WG1351115-3 LCS recovery for 1,2,4-trichlorobenzene (134%) is above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of this analyte.

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

Authorized Signature:

 Christopher J. Anderson

Title: Technical Director/Representative

Date: 03/17/20

AIR

Project Name: SOL EPO. 48845-13**Lab Number:** L2010642**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**SAMPLE RESULTS**

Lab ID: L2010642-01
 Client ID: IA-01
 Sample Location: 411 FRANKLIN ST, OLEAN

Date Collected: 03/09/20 19:22
 Date Received: 03/10/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/14/20 20:05
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.422	0.200	--	2.09	0.989	--		1
Chloromethane	0.498	0.200	--	1.03	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	70.7	5.00	--	133	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	145	1.00	--	344	2.38	--		1
Trichlorofluoromethane	2.56	0.200	--	14.4	1.12	--		1
Isopropanol	2.61	0.500	--	6.42	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	0.610	0.500	--	2.12	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1



Project Name: SOL EPO. 48845-13**Lab Number:** L2010642**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**SAMPLE RESULTS**

Lab ID: L2010642-01
 Client ID: IA-01
 Sample Location: 411 FRANKLIN ST, OLEAN

Date Collected: 03/09/20 19:22
 Date Received: 03/10/20
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Benzene	0.430	0.200	--	1.37	0.639	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.384	0.200	--	1.57	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.362	0.200	--	1.36	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1



Project Name: SOL EPO. 48845-13**Lab Number:** L2010642**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**SAMPLE RESULTS**

Lab ID: L2010642-01

Date Collected: 03/09/20 19:22

Client ID: IA-01

Date Received: 03/10/20

Sample Location: 411 FRANKLIN ST, OLEAN

Field Prep: Not Specified

Sample Depth:

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

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



Project Name: SOL EPO. 48845-13**Lab Number:** L2010642**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**SAMPLE RESULTS**

Lab ID: L2010642-01
 Client ID: IA-01
 Sample Location: 411 FRANKLIN ST, OLEAN

Date Collected: 03/09/20 19:22
 Date Received: 03/10/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 03/14/20 20:05
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.097	0.020	--	0.610	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	100		60-140
bromochloromethane	100		60-140
chlorobenzene-d5	101		60-140



Project Name: SOL EPO. 48845-13**Lab Number:** L2010642**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**SAMPLE RESULTS**

Lab ID: L2010642-02
 Client ID: IA-02
 Sample Location: 411 FRANKLIN ST, OLEAN

Date Collected: 03/09/20 13:10
 Date Received: 03/10/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/14/20 21:25
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.440	0.200	--	2.18	0.989	--		1
Chloromethane	0.475	0.200	--	0.981	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	120	5.00	--	226	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	259	1.00	--	615	2.38	--		1
Trichlorofluoromethane	2.48	0.200	--	13.9	1.12	--		1
Isopropanol	5.25	0.500	--	12.9	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	0.505	0.500	--	1.49	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1



Project Name: SOL EPO. 48845-13**Lab Number:** L2010642**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**SAMPLE RESULTS**

Lab ID: L2010642-02

Client ID: IA-02

Sample Location: 411 FRANKLIN ST, OLEAN

Date Collected: 03/09/20 13:10

Date Received: 03/10/20

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	ND	0.200	--	ND	0.705	--		1
Benzene	0.653	0.200	--	2.09	0.639	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Heptane	0.375	0.200	--	1.54	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	0.415	0.200	--	1.56	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1



Project Name: SOL EPO. 48845-13**Lab Number:** L2010642**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**SAMPLE RESULTS**

Lab ID: L2010642-02

Date Collected: 03/09/20 13:10

Client ID: IA-02

Date Received: 03/10/20

Sample Location: 411 FRANKLIN ST, OLEAN

Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	103		60-140
Bromochloromethane	103		60-140
chlorobenzene-d5	104		60-140



Project Name: SOL EPO. 48845-13**Lab Number:** L2010642**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**SAMPLE RESULTS**

Lab ID: L2010642-02
 Client ID: IA-02
 Sample Location: 411 FRANKLIN ST, OLEAN

Date Collected: 03/09/20 13:10
 Date Received: 03/10/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 03/14/20 21:25
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.102	0.020	--	0.642	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	104		60-140
bromochloromethane	104		60-140
chlorobenzene-d5	105		60-140



Project Name: SOL EPO. 48845-13**Lab Number:** L2010642**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**SAMPLE RESULTS**

Lab ID: L2010642-03
 Client ID: BG
 Sample Location: 411 FRANKLIN ST, OLEAN

Date Collected: 03/09/20 19:30
 Date Received: 03/10/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 03/14/20 19:25
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.429	0.200	--	2.12	0.989	--		1
Chloromethane	0.458	0.200	--	0.946	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	ND	5.00	--	ND	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	2.41	1.00	--	5.72	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1



Project Name: SOL EPO. 48845-13**Lab Number:** L2010642**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**SAMPLE RESULTS**

Lab ID: L2010642-03

Client ID: BG

Sample Location: 411 FRANKLIN ST, OLEAN

Date Collected: 03/09/20 19:30

Date Received: 03/10/20

Field Prep: Not Specified

Sample Depth:

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



Project Name: SOL EPO. 48845-13**Lab Number:** L2010642**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**SAMPLE RESULTS**

Lab ID: L2010642-03

Date Collected: 03/09/20 19:30

Client ID: BG

Date Received: 03/10/20

Sample Location: 411 FRANKLIN ST, OLEAN

Field Prep: Not Specified

Sample Depth:

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

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



Project Name: SOL EPO. 48845-13**Lab Number:** L2010642**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**SAMPLE RESULTS**

Lab ID: L2010642-03
 Client ID: BG
 Sample Location: 411 FRANKLIN ST, OLEAN

Date Collected: 03/09/20 19:30
 Date Received: 03/10/20
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 03/14/20 19:25
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.068	0.020	--	0.428	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	99		60-140
bromochloromethane	99		60-140
chlorobenzene-d5	100		60-140



Project Name: SOL EPO. 48845-13

Lab Number: L2010642

Project Number: SOL EPO. 48845-13

Report Date: 03/17/20

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 03/14/20 15:10

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1351115-4								
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: SOL EPO. 48845-13

Lab Number: L2010642

Project Number: SOL EPO. 48845-13

Report Date: 03/17/20

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 03/14/20 15:10

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1351115-4								
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: SOL EPO. 48845-13

Lab Number: L2010642

Project Number: SOL EPO. 48845-13

Report Date: 03/17/20

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 03/14/20 15:10

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-03 Batch: WG1351115-4								
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



Project Name: SOL EPO. 48845-13

Lab Number: L2010642

Project Number: SOL EPO. 48845-13

Report Date: 03/17/20

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 03/14/20 15:49

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03 Batch: WG1351116-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: SOL EPO. 48845-13

Lab Number: L2010642

Project Number: SOL EPO. 48845-13

Report Date: 03/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1351115-3								
Dichlorodifluoromethane	98		-		70-130	-		
Chloromethane	95		-		70-130	-		
Freon-114	98		-		70-130	-		
Vinyl chloride	97		-		70-130	-		
1,3-Butadiene	97		-		70-130	-		
Bromomethane	97		-		70-130	-		
Chloroethane	91		-		70-130	-		
Ethanol	89		-		40-160	-		
Vinyl bromide	88		-		70-130	-		
Acetone	79		-		40-160	-		
Trichlorofluoromethane	88		-		70-130	-		
Isopropanol	77		-		40-160	-		
1,1-Dichloroethene	97		-		70-130	-		
Tertiary butyl Alcohol	85		-		70-130	-		
Methylene chloride	99		-		70-130	-		
3-Chloropropene	101		-		70-130	-		
Carbon disulfide	91		-		70-130	-		
Freon-113	101		-		70-130	-		
trans-1,2-Dichloroethene	92		-		70-130	-		
1,1-Dichloroethane	96		-		70-130	-		
Methyl tert butyl ether	89		-		70-130	-		
2-Butanone	99		-		70-130	-		
cis-1,2-Dichloroethene	99		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: SOL EPO. 48845-13

Lab Number: L2010642

Project Number: SOL EPO. 48845-13

Report Date: 03/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1351115-3								
Ethyl Acetate	105		-		70-130	-		
Chloroform	99		-		70-130	-		
Tetrahydrofuran	98		-		70-130	-		
1,2-Dichloroethane	91		-		70-130	-		
n-Hexane	97		-		70-130	-		
1,1,1-Trichloroethane	94		-		70-130	-		
Benzene	97		-		70-130	-		
Carbon tetrachloride	100		-		70-130	-		
Cyclohexane	98		-		70-130	-		
1,2-Dichloropropane	100		-		70-130	-		
Bromodichloromethane	99		-		70-130	-		
1,4-Dioxane	99		-		70-130	-		
Trichloroethene	100		-		70-130	-		
2,2,4-Trimethylpentane	100		-		70-130	-		
Heptane	100		-		70-130	-		
cis-1,3-Dichloropropene	105		-		70-130	-		
4-Methyl-2-pentanone	102		-		70-130	-		
trans-1,3-Dichloropropene	90		-		70-130	-		
1,1,2-Trichloroethane	104		-		70-130	-		
Toluene	100		-		70-130	-		
2-Hexanone	110		-		70-130	-		
Dibromochloromethane	107		-		70-130	-		
1,2-Dibromoethane	106		-		70-130	-		

Lab Control Sample Analysis Batch Quality Control

Project Name: SOL EPO. 48845-13

Lab Number: L2010642

Project Number: SOL EPO. 48845-13

Report Date: 03/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 Batch: WG1351115-3								
Tetrachloroethene	102		-		70-130	-		
Chlorobenzene	104		-		70-130	-		
Ethylbenzene	103		-		70-130	-		
p/m-Xylene	103		-		70-130	-		
Bromoform	109		-		70-130	-		
Styrene	105		-		70-130	-		
1,1,2,2-Tetrachloroethane	111		-		70-130	-		
o-Xylene	106		-		70-130	-		
4-Ethyltoluene	105		-		70-130	-		
1,3,5-Trimethylbenzene	108		-		70-130	-		
1,2,4-Trimethylbenzene	112		-		70-130	-		
Benzyl chloride	115		-		70-130	-		
1,3-Dichlorobenzene	115		-		70-130	-		
1,4-Dichlorobenzene	111		-		70-130	-		
1,2-Dichlorobenzene	114		-		70-130	-		
1,2,4-Trichlorobenzene	134	Q	-		70-130	-		
Hexachlorobutadiene	123		-		70-130	-		

Lab Control Sample Analysis **Batch Quality Control**

Project Name: SOL EPO. 48845-13

Project Number: SOL EPO. 48845-13

Lab Number: L2010642

Report Date: 03/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 Batch: WG1351116-3								
Vinyl chloride	91		-		70-130	-		25
1,1-Dichloroethene	95		-		70-130	-		25
cis-1,2-Dichloroethene	93		-		70-130	-		25
1,1,1-Trichloroethane	88		-		70-130	-		25
Carbon tetrachloride	97		-		70-130	-		25
Trichloroethene	95		-		70-130	-		25
Tetrachloroethene	98		-		70-130	-		25

Lab Duplicate Analysis Batch Quality Control

Project Name: SOL EPO. 48845-13

Project Number: SOL EPO. 48845-13

Lab Number: L2010642

Report Date: 03/17/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1351115-5 QC Sample: L2010642-01 Client ID: IA-01						
Dichlorodifluoromethane	0.422	0.434	ppbV	3		25
Chloromethane	0.498	0.475	ppbV	5		25
Freon-114	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethanol	70.7	69.6	ppbV	2		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	145	146	ppbV	1		25
Trichlorofluoromethane	2.56	2.54	ppbV	1		25
Isopropanol	2.61	2.63	ppbV	1		25
Tertiary butyl Alcohol	ND	ND	ppbV	NC		25
Methylene chloride	0.610	0.622	ppbV	2		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
Freon-113	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	ND	ND	ppbV	NC		25
Ethyl Acetate	ND	ND	ppbV	NC		25

Lab Duplicate Analysis Batch Quality Control

Project Name: SOL EPO. 48845-13

Project Number: SOL EPO. 48845-13

Lab Number: L2010642

Report Date: 03/17/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1351115-5 QC Sample: L2010642-01 Client ID: IA-01						
Chloroform	ND	ND	ppbV	NC		25
Tetrahydrofuran	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	ND	ND	ppbV	NC		25
Benzene	0.430	0.433	ppbV	1		25
Cyclohexane	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC		25
Heptane	0.384	0.383	ppbV	0		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	0.362	0.364	ppbV	1		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	ND	ND	ppbV	NC		25

Lab Duplicate Analysis Batch Quality Control

Project Name: SOL EPO. 48845-13

Project Number: SOL EPO. 48845-13

Lab Number: L2010642

Report Date: 03/17/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1351115-5 QC Sample: L2010642-01 Client ID: IA-01						
p/m-Xylene	ND	ND	ppbV	NC		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	ND	ND	ppbV	NC		25
4-Ethyltoluene	ND	ND	ppbV	NC		25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC		25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1351116-5 QC Sample: L2010642-01 Client ID: IA-01						
Vinyl chloride	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Carbon tetrachloride	0.097	0.101	ppbV	4		25
Trichloroethene	ND	ND	ppbV	NC		25
Tetrachloroethene	ND	ND	ppbV	NC		25

Project Name: SOL EPO. 48845-13

Serial_No:03172016:42
Lab Number: L2010642

Project Number: SOL EPO. 48845-13

Report Date: 03/17/20

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2010642-01	IA-01	0718	Flow 4	03/03/20	315732		-	-	-	Pass	10.0	9.8	2
L2010642-01	IA-01	932	6.0L Can	03/03/20	315732	L2008049-05	Pass	-28.9	-6.5	-	-	-	-
L2010642-02	IA-02	01783	Flow 4	03/03/20	315732		-	-	-	Pass	10.0	9.5	5
L2010642-02	IA-02	1861	6.0L Can	03/03/20	315732	L2008048-05	Pass	-28.8	-4.5	-	-	-	-
L2010642-03	BG	01791	Flow 4	03/03/20	315732		-	-	-	Pass	10.0	9.7	3
L2010642-03	BG	1580	6.0L Can	03/03/20	315732	L2008048-05	Pass	-28.4	-5.5	-	-	-	-

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

Lab Number: L2008048
Report Date: 03/17/20

Air Canister Certification Results

Lab ID: L2008048-05
Client ID: CAN 942 SHELF 58
Sample Location:

Date Collected: 02/25/20 16:00
Date Received: 02/26/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 02/26/20 19:33
Analyst: RY

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



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

Lab Number: L2008048
Report Date: 03/17/20

Air Canister Certification Results

Lab ID: L2008048-05
Client ID: CAN 942 SHELF 58
Sample Location:

Date Collected: 02/25/20 16:00
Date Received: 02/26/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
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: L2008048
Report Date: 03/17/20

Air Canister Certification Results

Lab ID: L2008048-05
Client ID: CAN 942 SHELF 58
Sample Location:

Date Collected: 02/25/20 16:00
Date Received: 02/26/20
Field Prep: Not Specified

Sample Depth:

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



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

Lab Number: L2008048
Report Date: 03/17/20

Air Canister Certification Results

Lab ID: L2008048-05
Client ID: CAN 942 SHELF 58
Sample Location:

Date Collected: 02/25/20 16:00
Date Received: 02/26/20
Field Prep: Not Specified

Sample Depth:

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



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L2008048**Project Number:** CANISTER QC BAT**Report Date:** 03/17/20**Air Canister Certification Results**

Lab ID: L2008048-05

Date Collected: 02/25/20 16:00

Client ID: CAN 942 SHELF 58

Date Received: 02/26/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

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

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		60-140
Bromochloromethane	95		60-140
chlorobenzene-d5	88		60-140



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

Lab Number: L2008048
Report Date: 03/17/20

Air Canister Certification Results

Lab ID: L2008048-05
Client ID: CAN 942 SHELF 58
Sample Location:

Date Collected: 02/25/20 16:00
Date Received: 02/26/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 02/26/20 19:33
Analyst: RY

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
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
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



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

Lab Number: L2008048
Report Date: 03/17/20

Air Canister Certification Results

Lab ID: L2008048-05
Client ID: CAN 942 SHELF 58
Sample Location:

Date Collected: 02/25/20 16:00
Date Received: 02/26/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L2008048**Project Number:** CANISTER QC BAT**Report Date:** 03/17/20**Air Canister Certification Results**

Lab ID: L2008048-05

Date Collected: 02/25/20 16:00

Client ID: CAN 942 SHELF 58

Date Received: 02/26/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
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	94		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	88		60-140



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

Lab Number: L2008049
Report Date: 03/17/20

Air Canister Certification Results

Lab ID: L2008049-05
Client ID: CAN 2001 SHELF 56
Sample Location:

Date Collected: 02/27/20 09:00
Date Received: 02/27/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 02/27/20 20:30
Analyst: GP

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



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

Lab Number: L2008049
Report Date: 03/17/20

Air Canister Certification Results

Lab ID: L2008049-05
Client ID: CAN 2001 SHELF 56
Sample Location:

Date Collected: 02/27/20 09:00
Date Received: 02/27/20
Field Prep: Not Specified

Sample Depth:

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



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

Lab Number: L2008049
Report Date: 03/17/20

Air Canister Certification Results

Lab ID: L2008049-05
Client ID: CAN 2001 SHELF 56
Sample Location:

Date Collected: 02/27/20 09:00
Date Received: 02/27/20
Field Prep: Not Specified

Sample Depth:

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



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

Lab Number: L2008049
Report Date: 03/17/20

Air Canister Certification Results

Lab ID: L2008049-05
Client ID: CAN 2001 SHELF 56
Sample Location:

Date Collected: 02/27/20 09:00
Date Received: 02/27/20
Field Prep: Not Specified

Sample Depth:

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



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L2008049**Project Number:** CANISTER QC BAT**Report Date:** 03/17/20**Air Canister Certification Results**

Lab ID: L2008049-05

Date Collected: 02/27/20 09:00

Client ID: CAN 2001 SHELF 56

Date Received: 02/27/20

Sample Location:

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - 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	93		60-140
chlorobenzene-d5	88		60-140



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

Lab Number: L2008049
Report Date: 03/17/20

Air Canister Certification Results

Lab ID: L2008049-05
Client ID: CAN 2001 SHELF 56
Sample Location:

Date Collected: 02/27/20 09:00
Date Received: 02/27/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 02/27/20 20:30
Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
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
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1



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

Lab Number: L2008049
Report Date: 03/17/20

Air Canister Certification Results

Lab ID: L2008049-05
Client ID: CAN 2001 SHELF 56
Sample Location:

Date Collected: 02/27/20 09:00
Date Received: 02/27/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
sec-Butylbenzene	ND	0.200	--	ND	1.10	--		1



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

Lab Number: L2008049
Report Date: 03/17/20

Air Canister Certification Results

Lab ID: L2008049-05
Client ID: CAN 2001 SHELF 56
Sample Location:

Date Collected: 02/27/20 09:00
Date Received: 02/27/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
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	92		60-140
bromochloromethane	94		60-140
chlorobenzene-d5	89		60-140



Project Name: SOL EPO. 48845-13**Lab Number:** L2010642**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

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

NA Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2010642-01A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2010642-02A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2010642-03A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)

Project Name: SOL EPO. 48845-13
Project Number: SOL EPO. 48845-13

Lab Number: L2010642
Report Date: 03/17/20

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: Data Usability Report



Project Name: SOL EPO. 48845-13
Project Number: SOL EPO. 48845-13

Lab Number: L2010642
Report Date: 03/17/20

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

Terms

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

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

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

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

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

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

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

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

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

Data Qualifiers

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

Report Format: Data Usability Report



Project Name: SOL EPO. 48845-13**Lab Number:** L2010642**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**Data Qualifiers**

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.

Project Name: SOL EPO. 48845-13
Project Number: SOL EPO. 48845-13

Lab Number: L2010642
Report Date: 03/17/20

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.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 16

Published Date: 2/17/2020 10:46:05 AM

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Certification Information**The following analytes are not included in our Primary NELAP Scope of Accreditation:****Westborough Facility****EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**EPA TO-12** Non-methane organics**EPA 3C** Fixed gases**Biological Tissue Matrix:** EPA 3050B**The following analytes are included in our Massachusetts DEP Scope of Accreditation****Westborough Facility:****Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg. **EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

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

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

411 Franklin St.
SDG#L2010642
March 23, 2020
Sampling date: 3/9/2020

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

411 Franklin St.
SDG# L2010642

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for Day Environmental, project located at 411 Franklin St., Alpha Analytical, #L2010642 submitted to Vali-Data of WNY, LLC on March 20, 2020. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines (SOP NO. HW-31, revision 6). The laboratory performed the analysis using Compendium of Methods for the Determination of Toxic Organic Compounds, Compendium Method TO-15, January 1999.

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Method Blank
- Field Duplicate Sample Precision
- Laboratory Control Samples
- MS/MSD/Duplicate
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check
- Canister Certification Blanks

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Laboratory Control Samples.

All results were recorded to the reporting limits.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

411 Franklin St.

SDG# L2010642

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

INTERNAL STANDARD (IS)

All criteria were met.

METHOD BLANK

All criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of 1,2,4-Trichlorobenzene was outside QC limits, high in WG1351115-3LCS. This target analyte should be qualified as estimated high in the associated samples in which it was detected.

MS/MSD/DUPLICATE

All criteria were met for the duplicate.

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

CONTINUING CALIBRATION

All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

CANISTER CERTIFICATION BLANKS

All criteria were met.

ATTACHMENT C

SAMPLING LOGS

FOR

MARCH 9, 2020 GROUNDWATER SAMPLING EVENT

DAY ENVIRONMENTAL, INC.
LOW-FLOW GROUNDWATER PURGING AND SAMPLING LOG
WELL MW-F

SECTION 1 - SITE AND WELL INFORMATION			
SITE LOCATION	211 Franklin Street, Olean, NY	JOB #	4884S-13
PROJECT NAME:	NYSDEC BCP Site ID #C905038	DATE:	3/9/2020
SAMPLE COLLECTOR(S):	HM2	WEATHER:	58 ° F - Sunny
PID READING IN WELL HEADSPACE (PPM): NM		MEASURING POINT (for water levels): Top of Casing	
CASING TYPE: PVC		WELL DIAMETER (INCHES): 2"	
SCREENED INTERVAL [FT BGS]: 17 - 27.5'		INITIAL WATER LEVEL (SWL) [FT]: <u>SWL / Date Measured</u> 17.20 / 3-9-2020	
WELL DEPTH [FT BGS]: 27.5'		DEPTH OF PUMP INTAKE [FT BGS]: ~22.5'	
LNAPL: ND	DNAPL: ND	OTHER OBSERVATIONS: Turbid to Clear	

SECTION 2 – SAMPLING EQUIPMENT	
PUMP TYPE: Geotech Geopump™ - Peristaltic pump	WATER LEVEL METER: Heron H201L
WATER QUALITY METER(S): YSI Pro DSS	
STABILIZED PUMP RATE (ml/min): 200	STABILIZED DRAWDOWN WATER LEVEL [FT]: 17.29'

SECTION 3 – WATER QUALITY DATA MONITORING									
Time	Pumping Rate (ml/min)	Water Level (ft)	DO (mg/L)	ORP (mv)	Turbidity (NTU)	Conductivity (mS/cm)	pH	Temp. (C°)	Total Vol. Pumped (ml)
12:22	NM	17.20	7.93	124.6	550.3	1.709	6.73	13.3	0
12:36	400	17.29	7.49	121.2	500.6	1.718	6.73	13.0	1,050
12:42	300	17.29	7.21	129.9	49.4	1.721	6.74	12.7	2,200
12:47	300	17.29	7.07	133.6	35.2	1.721	6.73	12.7	3,700
12:52	200	17.29	7.30	136.7	28.7	1.723	6.73	12.7	4,700
12:57	200	17.29	7.72	139.4	14.5	1.721	6.75	12.8	5,700
13:02	200	17.29	8.15	140.4	6.5	1.716	6.78	12.9	6,700
13:07	200	17.29	8.69	139.7	276.2	1.722	6.82	13.1	7,700
13:12	200	17.29	6.43	109.0	245.6	1.723	6.75	13.1	8,700
13:17	200	17.29	7.34	112.9	115.0	1.725	6.77	13.1	9,700
13:22	200	17.29	7.19	119.4	90.4	1.727	6.77	13.4	10,700
13:27	200	17.29	7.51	124.3	51.5	1.727	6.78	13.5	11,700
13:32	200	17.29	7.51	128.1	30.1	1.728	6.79	13.5	12,700
13:37	200	17.29	7.21	132.1	15.6	1.733	6.79	13.5	13,700
13:42	200	17.29	7.11	134.7	14.8	1.730	6.79	13.7	14,700
SAMPLE OBSERVATIONS: Clear									

SECTION 4 - SAMPLE IDENTIFICATION AND ANALYTICAL LABORATORY PARAMETERS			
SAMPLE ID #	DATE / TIME	SAMPLING METHOD	ANALYTICAL SCAN(S)
MW-F	3-9-2020 / 13:47	Peristaltic Pump	TCL VOCs + TICs & TCL SVOCs + TICs

NM = Not Measured

ND = Not Detected

ATTACHMENT D

ANALYTICAL LABORATORY REPORT AND DUSR
FOR
March 9, 2020 GROUNDWATER SAMPLING EVENT



ANALYTICAL REPORT

Lab Number:	L2010636
Client:	Day Environmental, Inc. 1563 Lyell Avenue Rochester, NY 14606
ATTN:	Ray Kampff
Phone:	(585) 454-0210
Project Name:	SOL EPO. 48845-13
Project Number:	SOL EPO. 48845-13
Report Date:	03/17/20

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

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: SOL EPO. 48845-13
Project Number: SOL EPO. 48845-13

Lab Number: L2010636
Report Date: 03/17/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2010636-01	MW-F	WATER	411 FRANKLIN ST, OLEAN	03/09/20 13:47	03/10/20

Project Name: SOL EPO. 48845-13
Project Number: SOL EPO. 48845-13

Lab Number: L2010636
Report Date: 03/17/20

Case Narrative

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

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

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

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

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

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

Project Name: SOL EPO. 48845-13
Project Number: SOL EPO. 48845-13

Lab Number: L2010636
Report Date: 03/17/20

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

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: *Melissa Sturgis* Melissa Sturgis

Title: Technical Director/Representative

Date: 03/17/20

ORGANICS

VOLATILES

Project Name: SOL EPO. 48845-13**Lab Number:** L2010636**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**SAMPLE RESULTS**

Lab ID: L2010636-01
 Client ID: MW-F
 Sample Location: 411 FRANKLIN ST, OLEAN

Date Collected: 03/09/20 13:47
 Date Received: 03/10/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 03/15/20 18:13
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1

Project Name: SOL EPO. 48845-13**Lab Number:** L2010636**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**SAMPLE RESULTS****Lab ID:** L2010636-01**Date Collected:** 03/09/20 13:47**Client ID:** MW-F**Date Received:** 03/10/20**Sample Location:** 411 FRANKLIN ST, OLEAN**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.27	1
1,4-Dioxane	ND		ug/l	250	61.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.40	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/l	1
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Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	115		70-130

Project Name: SOL EPO. 48845-13

Lab Number: L2010636

Project Number: SOL EPO. 48845-13

Report Date: 03/17/20

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 03/15/20 14:33
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1351709-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: SOL EPO. 48845-13
Project Number: SOL EPO. 48845-13

Lab Number: L2010636
Report Date: 03/17/20

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 03/15/20 14:33
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1351709-5					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.27
1,4-Dioxane	ND		ug/l	250	61.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.40

Tentatively Identified Compounds

No Tentatively Identified Compounds ND ug/l



Project Name: SOL EPO. 48845-13
Project Number: SOL EPO. 48845-13

Lab Number: L2010636
Report Date: 03/17/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 03/15/20 14:33
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1351709-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	119		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	114		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: SOL EPO. 48845-13

Lab Number: L2010636

Project Number: SOL EPO. 48845-13

Report Date: 03/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1351709-3 WG1351709-4								
Methylene chloride	100		99		70-130	1		20
1,1-Dichloroethane	110		100		70-130	10		20
Chloroform	120		110		70-130	9		20
Carbon tetrachloride	120		110		63-132	9		20
1,2-Dichloropropane	100		98		70-130	2		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	89		92		70-130	3		20
Tetrachloroethene	94		94		70-130	0		20
Chlorobenzene	98		98		75-130	0		20
Trichlorofluoromethane	130		130		62-150	0		20
1,2-Dichloroethane	110		120		70-130	9		20
1,1,1-Trichloroethane	130		120		67-130	8		20
Bromodichloromethane	110		110		67-130	0		20
trans-1,3-Dichloropropene	94		99		70-130	5		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
Bromoform	96		100		54-136	4		20
1,1,2,2-Tetrachloroethane	83		93		67-130	11		20
Benzene	100		100		70-130	0		20
Toluene	95		96		70-130	1		20
Ethylbenzene	99		99		70-130	0		20
Chloromethane	110		100		64-130	10		20
Bromomethane	140	Q	130		39-139	7		20
Vinyl chloride	110		110		55-140	0		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: SOL EPO. 48845-13

Lab Number: L2010636

Project Number: SOL EPO. 48845-13

Report Date: 03/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1351709-3 WG1351709-4								
Chloroethane	120		120		55-138	0		20
1,1-Dichloroethene	110		110		61-145	0		20
trans-1,2-Dichloroethene	110		100		70-130	10		20
Trichloroethene	120		120		70-130	0		20
1,2-Dichlorobenzene	99		100		70-130	1		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	96		100		70-130	4		20
Methyl tert butyl ether	100		110		63-130	10		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	110		100		70-130	10		20
Styrene	100		105		70-130	5		20
Dichlorodifluoromethane	130		130		36-147	0		20
Acetone	88		100		58-148	13		20
Carbon disulfide	100		100		51-130	0		20
2-Butanone	90		110		63-138	20		20
4-Methyl-2-pentanone	75		88		59-130	16		20
2-Hexanone	74		86		57-130	15		20
Bromochloromethane	120		120		70-130	0		20
1,2-Dibromoethane	94		100		70-130	6		20
1,2-Dibromo-3-chloropropane	86		100		41-144	15		20
Isopropylbenzene	100		100		70-130	0		20
1,2,3-Trichlorobenzene	91		100		70-130	9		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: SOL EPO. 48845-13

Lab Number: L2010636

Project Number: SOL EPO. 48845-13

Report Date: 03/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1351709-3 WG1351709-4								
1,2,4-Trichlorobenzene	94		100		70-130	6		20
Methyl Acetate	91		97		70-130	6		20
Cyclohexane	99		96		70-130	3		20
1,4-Dioxane	90		96		56-162	6		20
Freon-113	120		110		70-130	9		20
Methyl cyclohexane	98		97		70-130	1		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	111		109		70-130
Toluene-d8	94		95		70-130
4-Bromofluorobenzene	97		99		70-130
Dibromofluoromethane	112		110		70-130

SEMIVOLATILES

Project Name: SOL EPO. 48845-13**Lab Number:** L2010636**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**SAMPLE RESULTS**

Lab ID: L2010636-01
 Client ID: MW-F
 Sample Location: 411 FRANKLIN ST, OLEAN

Date Collected: 03/09/20 13:47
 Date Received: 03/10/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 03/16/20 09:36
 Analyst: ALS

Extraction Method: EPA 3510C
 Extraction Date: 03/13/20 05:28

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1

Project Name: SOL EPO. 48845-13**Lab Number:** L2010636**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**SAMPLE RESULTS****Lab ID:** L2010636-01**Date Collected:** 03/09/20 13:47**Client ID:** MW-F**Date Received:** 03/10/20**Sample Location:** 411 FRANKLIN ST, OLEAN**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Carbazole	ND		ug/l	2.0	0.49	1
Atrazine	ND		ug/l	10	0.76	1
Benzaldehyde	ND		ug/l	5.0	0.53	1
Caprolactam	ND		ug/l	10	3.3	1
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84	1

Tentatively Identified Compounds

Total TIC Compounds	9.23	J	ug/l	1
Unknown Organic Acid	4.07	J	ug/l	1
Unknown	5.16	J	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		21-120
Phenol-d6	57		10-120
Nitrobenzene-d5	44		23-120
2-Fluorobiphenyl	59		15-120
2,4,6-Tribromophenol	83		10-120
4-Terphenyl-d14	63		41-149

Project Name: SOL EPO. 48845-13**Lab Number:** L2010636**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**SAMPLE RESULTS**

Lab ID: L2010636-01
 Client ID: MW-F
 Sample Location: 411 FRANKLIN ST, OLEAN

Date Collected: 03/09/20 13:47
 Date Received: 03/10/20
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 03/14/20 14:15
 Analyst: JJW

Extraction Method: EPA 3510C
 Extraction Date: 03/13/20 05:28

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.02	J	ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.35		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.10		ug/l	0.10	0.02	1
Benzo(a)pyrene	0.11		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.17		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.07	J	ug/l	0.10	0.01	1
Chrysene	0.12		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	0.03	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.09	J	ug/l	0.10	0.01	1
Fluorene	0.02	J	ug/l	0.10	0.01	1
Phenanthrene	0.27		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	0.02	J	ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.09	J	ug/l	0.10	0.01	1
Pyrene	0.25		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: SOL EPO. 48845-13**Lab Number:** L2010636**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**SAMPLE RESULTS**

Lab ID: L2010636-01

Date Collected: 03/09/20 13:47

Client ID: MW-F

Date Received: 03/10/20

Sample Location: 411 FRANKLIN ST, OLEAN

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		21-120
Phenol-d6	60		10-120
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	78		15-120
2,4,6-Tribromophenol	84		10-120
4-Terphenyl-d14	94		41-149

Project Name: SOL EPO. 48845-13
Project Number: SOL EPO. 48845-13

Lab Number: L2010636
Report Date: 03/17/20

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 03/16/20 07:22
Analyst: EK

Extraction Method: EPA 3510C
Extraction Date: 03/13/20 05:28

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1350567-1					
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Isophorone	ND		ug/l	5.0	1.2
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38
Dimethyl phthalate	ND		ug/l	5.0	1.8
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35

Project Name: SOL EPO. 48845-13
Project Number: SOL EPO. 48845-13

Lab Number: L2010636
Report Date: 03/17/20

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 03/16/20 07:22
Analyst: EK

Extraction Method: EPA 3510C
Extraction Date: 03/13/20 05:28

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1350567-1					
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Carbazole	ND		ug/l	2.0	0.49
Atrazine	ND		ug/l	10	0.76
Benzaldehyde	ND		ug/l	5.0	0.53
Caprolactam	ND		ug/l	10	3.3
2,3,4,6-Tetrachlorophenol	ND		ug/l	5.0	0.84

Tentatively Identified Compounds

Total TIC Compounds	19.0	J	ug/l
Unknown	14.5	J	ug/l
Unknown Organic Acid	1.45	J	ug/l
Unknown Organic Acid	3.02	J	ug/l

Project Name: SOL EPO. 48845-13
Project Number: SOL EPO. 48845-13

Lab Number: L2010636
Report Date: 03/17/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 03/16/20 07:22
 Analyst: EK

Extraction Method: EPA 3510C
 Extraction Date: 03/13/20 05:28

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1350567-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	43		21-120
Phenol-d6	44		10-120
Nitrobenzene-d5	43		23-120
2-Fluorobiphenyl	51		15-120
2,4,6-Tribromophenol	28		10-120
4-Terphenyl-d14	56		41-149

Project Name: SOL EPO. 48845-13
Project Number: SOL EPO. 48845-13

Lab Number: L2010636
Report Date: 03/17/20

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 03/14/20 12:33
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 03/13/20 05:28

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1350569-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	0.02	J	ug/l	0.10	0.02
Benzo(b)fluoranthene	0.03	J	ug/l	0.10	0.01
Benzo(k)fluoranthene	0.03	J	ug/l	0.10	0.01
Chrysene	0.02	J	ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	0.05	J	ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	0.06	J	ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	0.05	J	ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: SOL EPO. 48845-13**Lab Number:** L2010636**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**Method Blank Analysis**
Batch Quality ControlAnalytical Method: 1,8270D-SIM
Analytical Date: 03/14/20 12:33
Analyst: JJWExtraction Method: EPA 3510C
Extraction Date: 03/13/20 05:28

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG1350569-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	54		21-120
Phenol-d6	53		10-120
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	72		15-120
2,4,6-Tribromophenol	56		10-120
4-Terphenyl-d14	92		41-149

Lab Control Sample Analysis **Batch Quality Control**

Project Name: SOL EPO. 48845-13

Lab Number: L2010636

Project Number: SOL EPO. 48845-13

Report Date: 03/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1350567-2 WG1350567-3								
Bis(2-chloroethyl)ether	74		72		40-140	3		30
3,3'-Dichlorobenzidine	70		68		40-140	3		30
2,4-Dinitrotoluene	84		76		48-143	10		30
2,6-Dinitrotoluene	83		77		40-140	8		30
4-Chlorophenyl phenyl ether	79		78		40-140	1		30
4-Bromophenyl phenyl ether	84		81		40-140	4		30
Bis(2-chloroisopropyl)ether	64		61		40-140	5		30
Bis(2-chloroethoxy)methane	77		75		40-140	3		30
Hexachlorocyclopentadiene	65		61		40-140	6		30
Isophorone	77		75		40-140	3		30
Nitrobenzene	66		66		40-140	0		30
NDPA/DPA	87		79		40-140	10		30
n-Nitrosodi-n-propylamine	74		74		29-132	0		30
Bis(2-ethylhexyl)phthalate	85		82		40-140	4		30
Butyl benzyl phthalate	80		74		40-140	8		30
Di-n-butylphthalate	81		75		40-140	8		30
Di-n-octylphthalate	84		83		40-140	1		30
Diethyl phthalate	83		79		40-140	5		30
Dimethyl phthalate	78		74		40-140	5		30
Biphenyl	79		74		40-140	7		30
4-Chloroaniline	55		54		40-140	2		30
2-Nitroaniline	85		78		52-143	9		30
3-Nitroaniline	82		80		25-145	2		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: SOL EPO. 48845-13

Lab Number: L2010636

Project Number: SOL EPO. 48845-13

Report Date: 03/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1350567-2 WG1350567-3								
4-Nitroaniline	70		69		51-143	1		30
Dibenzofuran	80		75		40-140	6		30
1,2,4,5-Tetrachlorobenzene	71		71		2-134	0		30
Acetophenone	77		74		39-129	4		30
2,4,6-Trichlorophenol	77		72		30-130	7		30
p-Chloro-m-cresol	83		75		23-97	10		30
2-Chlorophenol	85		82		27-123	4		30
2,4-Dichlorophenol	89		82		30-130	8		30
2,4-Dimethylphenol	47		38		30-130	21		30
2-Nitrophenol	82		80		30-130	2		30
4-Nitrophenol	65		60		10-80	8		30
2,4-Dinitrophenol	86		84		20-130	2		30
4,6-Dinitro-o-cresol	91		86		20-164	6		30
Phenol	66		64		12-110	3		30
2-Methylphenol	81		74		30-130	9		30
3-Methylphenol/4-Methylphenol	86		82		30-130	5		30
2,4,5-Trichlorophenol	81		72		30-130	12		30
Carbazole	85		77		55-144	10		30
Atrazine	86		88		40-140	2		30
Benzaldehyde	73		70		40-140	4		30
Caprolactam	42		45		10-130	7		30
2,3,4,6-Tetrachlorophenol	84		78		40-140	7		30

Lab Control Sample Analysis **Batch Quality Control**

Project Name: SOL EPO. 48845-13

Lab Number: L2010636

Project Number: SOL EPO. 48845-13

Report Date: 03/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1350567-2 WG1350567-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	70		72		21-120
Phenol-d6	63		63		10-120
Nitrobenzene-d5	51		52		23-120
2-Fluorobiphenyl	57		55		15-120
2,4,6-Tribromophenol	89		78		10-120
4-Terphenyl-d14	62		55		41-149

Lab Control Sample Analysis **Batch Quality Control**

Project Name: SOL EPO. 48845-13

Lab Number: L2010636

Project Number: SOL EPO. 48845-13

Report Date: 03/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1350569-2 WG1350569-3								
Acenaphthene	84		71		40-140	17		40
2-Chloronaphthalene	79		67		40-140	16		40
Fluoranthene	87		74		40-140	16		40
Hexachlorobutadiene	76		66		40-140	14		40
Naphthalene	79		67		40-140	16		40
Benzo(a)anthracene	86		75		40-140	14		40
Benzo(a)pyrene	93		80		40-140	15		40
Benzo(b)fluoranthene	94		81		40-140	15		40
Benzo(k)fluoranthene	92		80		40-140	14		40
Chrysene	87		76		40-140	13		40
Acenaphthylene	74		63		40-140	16		40
Anthracene	87		73		40-140	18		40
Benzo(ghi)perylene	90		77		40-140	16		40
Fluorene	84		71		40-140	17		40
Phenanthrene	89		76		40-140	16		40
Dibenzo(a,h)anthracene	94		82		40-140	14		40
Indeno(1,2,3-cd)pyrene	95		80		40-140	17		40
Pyrene	86		73		40-140	16		40
2-Methylnaphthalene	86		70		40-140	21		40
Pentachlorophenol	77		64		40-140	18		40
Hexachlorobenzene	87		75		40-140	15		40
Hexachloroethane	69		60		40-140	14		40

Lab Control Sample Analysis **Batch Quality Control**

Project Name: SOL EPO. 48845-13

Lab Number: L2010636

Project Number: SOL EPO. 48845-13

Report Date: 03/17/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG1350569-2 WG1350569-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	70		60		21-120
Phenol-d6	64		54		10-120
Nitrobenzene-d5	85		72		23-120
2-Fluorobiphenyl	78		66		15-120
2,4,6-Tribromophenol	90		78		10-120
4-Terphenyl-d14	95		79		41-149

Project Name: SOL EPO. 48845-13**Lab Number:** L2010636**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2010636-01A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010636-01B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010636-01C	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260-R2(14)
L2010636-01D	Amber 250ml unpreserved	A	7	7	2.9	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L2010636-01E	Amber 250ml unpreserved	A	7	7	2.9	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)

Project Name: SOL EPO. 48845-13
Project Number: SOL EPO. 48845-13

Lab Number: L2010636
Report Date: 03/17/20

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: SOL EPO. 48845-13
Project Number: SOL EPO. 48845-13

Lab Number: L2010636
Report Date: 03/17/20

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

Terms

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

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

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

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

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

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

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

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

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- 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. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration

Report Format: DU Report with 'J' Qualifiers



Project Name: SOL EPO. 48845-13**Lab Number:** L2010636**Project Number:** SOL EPO. 48845-13**Report Date:** 03/17/20**Data Qualifiers**

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

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: SOL EPO. 48845-13
Project Number: SOL EPO. 48845-13

Lab Number: L2010636
Report Date: 03/17/20

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

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.



Alpha Analytical, Inc.Facility: **Company-wide**Department: **Quality Assurance**Title: **Certificate/Approval Program Summary**ID No.: **17873**

Revision 16

Published Date: 2/17/2020 10:46:05 AM

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Certification Information

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

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.**EPA TO-12** Non-methane organics**EPA 3C** Fixed gases**Biological Tissue Matrix:** EPA 3050B

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

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg. **EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

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

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Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

411 Franklin St.
Alpha Analytical SDG#L2010636
March 23, 2020
Sampling date: 3/9/2020

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

411 Franklin St.
SDG# L2010636

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for Day Environmental, project located at 411 Franklin St., Alpha Analytical #L2010636 submitted to Vali-Data of WNY, LLC on March 20, 2020. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Volatile Organics (8260C) and Semivolatile Organic Compounds (8270D and 8270C-SIM).

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Sample Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Initial Calibration and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All criteria were met.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met except the %Rec of Bromomethane was outside QC limits, high in WG1351709-3LCS but within limits in WG1351709-4LCSD, so no further action is required.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met except the RRF of 1,4-Dioxane was outside outer QC limits in the initial calibration. This target analyte should be qualified as estimated in the associated sample, blank and spikes.

Alternate forms of regression were performed on all target analytes whose %RSD >20%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the RRF of 1,4-Dioxane was outside outer QC limits in the continuing calibration. This target analyte should be qualified as estimated in the associated sample, blank and spikes.

GC/MS PERFORMANCE CHECK

All criteria were met.

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Field Duplicate Sample Precision
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Method Blank and Continuing Calibration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS

All criteria were met.

Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS

All criteria were met.

HOLDING TIMES

All holding times were met.

INTERNAL STANDARD (IS)

All criteria were met.

SURROGATE SPIKE RECOVERIES

All criteria were met.

METHOD BLANK

All criteria were met except 2 TICs were detected in WG1350567-1BLK. The concentrations were <5.0 ug/L, so no further action is required.

Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Chrysene, Benzo(g,h,i)perylene, Dibenzo(a,h)anthracene and Indeno(1,2,3-cd)pyrene were detected above the MDL, below the reporting limit and are qualified as estimated in WG1350569-1BLK. These target analytes should be qualified as undetected at the reporting limit in the associated samples in which they were detected above the MDL, below the reporting limit. These target analytes should be qualified as estimated high in the associated samples in which they were detected above the reporting limit.

FIELD DUPLICATE SAMPLE PRECISION

No field duplicate was acquired.

LABORATORY CONTROL SAMPLES

All criteria were met.

MS/MSD

No MS/MSD was acquired.

COMPOUND QUANTITATION

All criteria were met.

INITIAL CALIBRATION

All criteria were met.

Alternate forms of regression were performed on all target analytes whose %RSD >20%, with acceptable results.

CONTINUING CALIBRATION

All criteria were met except the %D of Nitrobenzene-d₅ was outside QC limits in WG1351339-3 and should be qualified as estimated in the associated blanks, spikes and sample.

GC/MS PERFORMANCE CHECK

All criteria were met.