May 2, 2022

Ms. Megan Kuczka
New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 9
270 Michigan Avenue
Buffalo, New York 14203-2999

Re: Verification Soil Sampling Results for SVE System
229 Homer Street Site (BCP Site No. C905044)
Olean, New York

Dear Ms. Kuczka:

Benchmark Civil/Environmental Engineering & Geology, PLLC in association with TurnKey Environmental Restoration, LLC (Benchmark-TurnKey) have been monitoring the air sparge/soil vapor extraction (AS/SVE) system on the 229 Homer Street Site in Olean, New York (BCP Site No. C905044) since its installation in September 2018. System construction was completed in accordance with the NYSDEC-approved Remedial Action Work Plan (RAWP) dated February 2018. The current Site owner, Homer Street Properties, LLC (HSP), is responsible for operation, maintenance, and monitoring (OM&M) of the AS/SVE system in accordance with the approved Site Management Plan (SMP) dated December 2018.

The purpose of this letter is to summarize the results of the verification soil sampling and testing completed to support a request for discontinuation of the AS/SVE system. Work was completed in accordance with the NYSDEC-approved December 8, 2021 Verification Soil Sampling (VSS) Work Plan.

BACKGROUND

HSP undertook the remediation and redevelopment of the property located at 229 Homer Street, Olean, New York under the New York Brownfield Cleanup Program (BCP). Benson Construction and Development, LLC executed a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) in October 2015. The BCA was amended in October 2017 to add HSP as an additional Applicant (Volunteer). HSP completed remedial work at the Site between April and October 2018. A certificate of completion (COC) was issued for the Site in December 2018. HSP has been conducting the OM&M for the Site since issuance of the COC.

As part of the Site remedial work, an AS/SVE system was installed and has been operating since September 2018. OM&M of the AS/SVE system is part of the monitoring required in the approved SMP. The AS/SVE system has operated nearly continuously for almost four years.

As described in Section 3.3.4.2 of the SMP and Section 3.4.6 of the Remedial Action Work Plan (RAWP), AS/SVE system discontinuation may be granted by NYSDEC based on the following:

- Contaminant concentrations in soil that reach levels that are consistently below site SCGs, as appropriate;
- The mass removal of volatile organic compounds (VOCs) with the AS/SVE system has been asymptotic to a low level over an extended period, as acceptable by the NYSDEC; or
- NYSDEC has determined that the AS/SVE system has reached the limit of its effectiveness.

As described in this report, all three objectives have been met.

AS/SVE System Discontinuation Evaluation

Untreated Air

Over the four years of operation, the AS/SVE system has been effective in reducing VOC concentrations within the vadose zone based on influent photoionization detector (PID) readings. The SVE system had an average influent PID concentration of approximately 231 parts per million (ppm) over the first two days of operation (September 13 and 14, 2018) with a maximum PID of 575 ppm on September 20, 2018. The average influent PID concentration during December 2021 was 0.20 ppm, which equates to a 99.97% reduction compared to the maximum recorded PID readings. System monitoring completed in August 2021 involved collecting PID readings from each well head (SVE-1 through SVE-14); all PID readings were 0.0 ppm. This is compared to individual well head readings collected during system start-up in September 2018, which ranged from 5 to 270 ppm. Table 1 summarizes SVE well head PID readings from September 2018 through August 2021. Figure 1 shows PID readings (all were 0.0 ppm) and individual SVE well vacuum readings collected in August 2021.

Samples of the SVE blower intake influent air were collected on September 13, 2018, April 15, 2020, and April 29, 2021 and analyzed for VOCs via Method Toxic Organics (TO)-15 and Air-Phase Petroleum Hydrocarbons (APH). Only cyclohexane was detected at a concentration of 70.6 ug/m³, which is a 99.9% reduction compared to the 2018 concentration. APH concentrations were reported at 29,000 ug/m³ for C5-C8 aliphatics (98.8% reduction) and 4,800 ug/m³ for C9-C12 aliphatics (98.5% reduction). Table 2 summarizes air analytical results and Attachment 1 includes the 2018, 2020, and 2021 influent air analytical data.

MASS REMOVAL RATE

The AS/SVE system has operated nearly continuously for over four years. The OM&M of the system is a component of the approved SMP. The AS/SVE system is designed to reduce the mass of VOCs from the upper 13 feet of the vadose zone; the AS/SVE system has been successful in removing VOCs from the subsurface soil/fill. As shown on Table 1 in Attachment 2, the estimated mass of VOCs removed by the system through January 2022 is 13,742 lb. Chart 1 in Attachment 2 illustrates VOC mass removal over time for the system. The rate of removal with the AS/SVE system was at its maximum of 340.6 lb/day in September 2018 and has plateaued with an averaged removal of 0.15 lb/day during 2021. No VOC mass was removed between October 25, 2021 and system shut-down on January 13, 2022.

The AS system operated 24 hours/day between June 9 and 23, 2020; was reduced to 17 hours/day on June 23, 2020; and was further reduced to 12 hours/day on September 3, 2020. As a result, VOC mass removal rates averaged approximately 19 lb/day between June 2020 and October 2020. While the AS system was turned off for two weeks in October 2020, VOC mass removal rates decreased to 3.4 lb/day. The AS system was turned back on in late October 2020 and VOC mass removal rates remained low for the remainder of 2020. During the 2021 startup, the system was operated the same as it was in 2020 with no significant increase in VOC mass removal rates. In July 2021 the breakers began tripping repeatedly, likely due to heavy rain causing increased load to the electrical system. Leading up to this point 2021 SVE system PID values were less than 10 ppm compared to over 150 ppm during 2020 and dissolved oxygen readings during the 2021 monthly monitoring events were above 1.5 mg/L. Based on these conditions, the AS system was reverted to operating 30 minutes/day with continued monthly monitoring of dissolved oxygen. The average and maximum VOC mass removal rates for 2021 were 0.14 lb/day and 1.2 lb/day (April 29); no VOC mass has been removed since October 25, 2021. Optimization of the AS system is believed to be complete and future increased VOC mass removal is not anticipated.

SVE SOIL VERIFICATION SAMPLING

On January 26, 2022, Benchmark-TurnKey collected six post-treatment verification soil samples within the upper 13 feet using a direct-push drill rig to evaluate remediation of in-place soil/fill. Sample locations shown on Figure 1 were positioned around each SVE wells that had historically high well head PID readings and the furthest extent of the historical grossly contaminated petroleum soil (based on PID readings >1,000 ppm). Figure 1 shows well head PID measurements recorded at each well while the system was operational in August 2021. Table 1 summarizes SVE wellhead PID readings collected between September 2018 and August 2021. Attachment 3 includes the 2022 VSS soil boring logs, analytical data package, and data usability summary report (DUSR). Attachment 4 includes photographs of the entire boring core at each location. The cores are arranged such that core at the top of the photograph is the shallowest (0-4') and the bottom core is the deepest (12-16'). The depth within each core is from left (shallow) to right (deep). Attachment 5 includes the community air monitoring program (CAMP) results.

Field Observations

Based on 2015 remedial investigation (RI) field observations, gross contamination was identified between 5 and 15 feet below ground surface (fbgs), with the highest impacts generally noted between 5 and 8 fbgs. The January 2022 sample collection was targeted at the highest PID readings within the unsaturated soil/fill since the AS/SVE system was designed to treat the soil above the water table. Sample intervals ranged between 2 and 12 fbgs. No visual impacts or evidence of remaining grossly contaminated petroleum soils (GCPS) were noted. The highest PID reading was 118 ppm observed in VSS-05 at 13-14 fbgs. This NYSDEC-requested sample was collected below the water table based on wet soil/fill observed at 12 fbgs and therefore would not have received treatment by the SVE/AS system. The maximum 2018 well head PID reading in nearby SVE well SVE-12 was 270 ppm whereas the 2021 PID reading at this well was 0 ppm, which equates to over 99% reduction in VOCs in the unsaturated zone in this area. The next highest PID reading of 87.3 ppm was observed at the 10-12 fbgs unsaturated interval at VSS-06. The maximum 2018 PID reading in nearby well SVE-10 was 94 ppm and the 2021 PID reading was 0 ppm, which equates to over a 99% reduction in VOCs.

Analytical Results

Soil samples were analyzed using United States Environmental Protection Agency (USEPA) Method 8260 for Target Compound List (TCL) VOCs plus tentatively identified compounds (TICs) and EPA Method 8270 for TCL semi-volatile organic compounds (SVOCs) plus TICs. As summarized on Table 3, only one VOC was present at a concentration slightly above Part 375 protection of groundwater (PGW) and unrestricted soil cleanup objectives (USCOs): acetone in VSS-04 (2-4 fbgs) at 0.092 mg/kg (USCO/PGW SCO = 0.05 mg/kg). All concentrations were well below NYSDEC Part 375 commercial soil cleanup objectives (CSCOs). Acetone is not a contaminant of concern and is often associated with lab contamination. The DUSR indicates the sample analyses were primarily conducted in compliance with the required analytical protocols, and data completeness, representativeness, accuracy, reproducibility, sensitivity, and comparability are acceptable.

At NYSDEC's request, two samples were collected from saturated soils exhibiting the highest PID values. Saturated soil samples were collected from 13-14 fbgs at both VSS-03 and VSS-05. Since this interval is below the water table, AS/SVE system would not have treated this soil. However, concentrations from this saturated zone were all below USCOs and PGW SCOs. Attachment 3 includes the analytical data package.

CONCLUSIONS AND RECOMMENDATIONS

The data presented herein clearly demonstrates the AS/SVE system has achieved the soil/fill remedial action objectives presented in Section 3.4.7 of the RAWP and the criteria for discontinuation of the system outlined in Sections 3.3.4.2 and 4.4.1 of the SMP:

- *Contaminant concentrations in soil that reach levels that are consistently below site SCGs, as appropriate:* All post-treated VOC and SVOC concentrations are below CSCOs and PGW SCOs except for acetone. No visual evidence of impact or remaining GCPS were

noted in any of the January 2022 samples. PID readings in subsurface soil/fill has been reduced through treatment with all 2022 PID readings well below 1,000 ppm (highest at 118 ppm).

- *The mass removal of VOCs with the SVE system has been asymptotic to a low level over an extended period, as acceptable by the NYSDEC:* Optimization of the system was completed in 2020 and failed to increase mass removal rates for the system. Contaminant concentrations have become asymptotic to a low level over the last year.
- *NYSDEC has determined that the AS/SVE system has reached the limit of its effectiveness:* Upon review of the data provided, Benchmark-TurnKey recommends discontinuing operation of the AS/SVE system as it has reached the limits of its effectiveness.

Benchmark-TurnKey recommends discontinuing operation of the SVE system as it has fulfilled the goal of remediating the vadose zone (i.e., upper 13 feet of unsaturated soil/fill). The system has reached a regulatory end-point and continued operation would provide limited to no benefit.

The Site is currently improved with a one-story building (approximately 7,500 square feet) in the central portion of the Site used by a commercial utility company. The remainder of the Site remains undeveloped, with no further development or intrusive work planned at this time. Shutdown of the AS/SVE system will not negatively impact the efficacy of the Site remedy or the remaining engineering controls/institutional controls. Once the Department approves discontinuation of the AS/SVE system, Benchmark-TurnKey will update the SMP accordingly.

Please contact us with any questions or if you require additional information.

Sincerely,
Benchmark Civil/Environmental Engineering & Geology, PLLC
TurnKey Environmental Restoration, LLC

Michael A. Lesakowski
TurnKey President

Lori E. Riker, P.E.
Sr. Project Manager

Att.
ec: Andrea Caprio (NYSDEC)
Renata Ockerby (NYSDOH)
Charlotte Bethoney (NYSDOH)
Don Benson (Homer Street Properties)

File: T0311-018-001

TABLES

TURNKEY BENCHMARK

TABLE 1
PID MEASUREMENTS OF INDIVIDUAL SVE WELLS

229 HOMER STREET SITE, OLEAN, NY

Date	PID (ppm)													
	SVE-1	SVE-2	SVE-3	SVE-4	SVE-5	SVE-6	SVE-7	SVE-8	SVE-9	SVE-10	SVE-11	SVE-12	SVE-13	SVE-14
9/13/2018	NA	167	97	26	160	111	86	142	57	94	17	270	18	5
9/20/2018	73	20	210	32	160	311	180	215	102	62	12	122	49	5
10/24/2018	1	1	11	105	13	8	68	125	12	5	2	35	8	1
12/4/2018	3.5	0.4	0.3	0.4	1.6	2.5	47	4.3	0.6	0.8	0.3	0.9	0.3	10
4/24/2019	11.5	8.1	12.5	15.7	15.8	12	37.7	6.1	4.2	0.5	0.2	4.1	1.5	0.5
7/16/2019	0	0.2	0.5	2.1	0.7	1	12.2	8.6	0.7	0	0.1	4.2	0	0.1
9/4/2019	NA	NA	5.1	12.3	11.4	15.7	7	3.1	1.7	21.2	0	5	0	0.2
4/10/2020	0.2	0.7	0.1	1.3	0.2	1.8	8.1	0	0.1	1	0	0.1	0.4	0
6/8/2020	0.7	0.3	0.7	1.2	4.8	3.3	2.9	5.1	2.8	3.4	1.7	2.3	4.7	2.8
6/15/2020	19.5	13.5	49	11.7	39.1	16.6	72.3	40.3	27.6	32.7	44.4	23.3	92.4	9.2
8/10/2020	24.6	14	26.9	45.2	40.1	30.8	100.8	27.4	34.2	15.1	30.8	13.6	52.7	20.3
10/8/20	34.2	22.4	37.1	23.4	27.3	26.1	27.7	4.9	25.9	27.7	10.5	26.6	55.6	12.8
10/26/20	1.5	2.4	6.5	2.7	2	4	2.7	1	5.2	7.4	2.9	1.5	4.4	4
12/14/20	0.7	0.6	0.9	0.5	0.4	2.1	0.9	0.6	2	1.5	0.8	0.9	1.8	0.9
4/22/21	0.5	0.4	0.3	0.2	1	0.6	4.1	0.4	3.3	1	1.9	2.8	2.4	0.6
6/24/21	0.2	0.1	0.3	0	0.3	0.2	2	0.6	1.1	0.5	0.1	0.1	1	0.2
8/23/21	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TURNKEY BENCHMARK

TABLE 2
SUMMARY OF SVE VAPOR ANALYTICAL DATA

229 HOMER STREET SITE, OLEAN, NY

Parameter	Initial SV [1]	Soil Vapor [1]	Soil Vapor [1]
	9/13/2018	4/15/2020	4/29/2021
Volatile Organics Compounds (VOCs) - ug/m^3			
1,1-Dichloroethane	ND (<809)	ND (<3.11)	ND (<2.70)
1,1-Dichloroethene	ND (<793)	ND (<3.05)	ND (<2.64)
1,1,1-trichloroethane	ND (<1090)	ND (<4.20)	ND (<3.64)
1,1,2-Trichloro-1,2,2-Trichloroethane	ND (<1530)	--	--
1,1,2-Trichloroethane	ND (<1090)	ND (<4.20)	ND (<3.64)
1,1,2,2-Tetrachloroethane	ND (<1370)	ND (<5.28)	ND (<4.58)
1,2,4-Trichlorobenzene	ND (<1480)	ND (<5.71)	ND (<4.95)
1,2,4-Trimethylbenzene	ND (<983)	ND (<3.78)	ND (<3.28)
1,3,5-Trimethylbenzene	ND (<983)	6.34	ND (<3.28)
2,2,4-Trimethylpentane	ND (<934)	ND (<3.59)	ND (<3.12)
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND (<1400)	--	--
1,2-Dichlorobenzene	ND (<1200)	ND (<4.62)	ND (<4.01)
1,2-Dichloroethane	ND (<809)	ND (<3.11)	ND (<2.70)
1,2-Dichloropropane	ND (<924)	ND (<3.55)	ND (<3.08)
1,2-Dibromoethane	ND (<1540)	ND (<5.91)	ND (<5.13)
1,3-Butadiene	ND (<442)	ND (<1.70)	ND (<1.48)
1,3-Dichlorobenzene	ND (<1200)	ND (<4.62)	ND (<4.01)
1,4-Dichlorobenzene	ND (<1200)	ND (<4.62)	ND (<4.01)
1,4-Dioxane	ND (<721)	ND (<2.77)	ND (<2.40)
2-Butanone	ND (<1470)	ND (<5.66)	ND (<4.93)
3-Chloropropene	ND (<626)	ND (<2.41)	ND (<2.09)
4-Ethyltoluene	ND (<983)	ND (<3.78)	ND (<3.28)
4-Methyl-2-pentanone	ND (<2050)	28	ND (<6.84)
Acetone	ND (<2380)	ND (<9.15)	ND (<7.91)
Benzene	ND (<639)	ND (<2.46)	ND (<2.13)
Benzyl chloride	ND (<1040)	ND (<3.98)	ND (<3.45)
Bromodichloromethane	ND (<1340)	ND (<5.15)	ND (<4.47)
Bromoform	ND (<2070)	ND (<7.95)	ND (<6.90)
Bromomethane	ND (<777)	ND (<2.99)	ND (<2.59)
Carbon disulfide	ND (<623)	ND (<2.39)	ND (<2.08)
Carbon tetrachloride	ND (<1260)	ND (<4.84)	ND (<4.20)
Chlorobenzene	ND (<921)	ND (<3.54)	ND (<3.07)
Chloroform	ND (<977)	ND (<3.76)	ND (<3.26)
Chloromethane	ND (<413)	ND (<1.59)	ND (<1.38)

TURNKEY BENCHMARK

TABLE 2
SUMMARY OF SVE VAPOR ANALYTICAL DATA

229 HOMER STREET SITE, OLEAN, NY

Parameter	Initial SV [1]	Soil Vapor [1]	Soil Vapor [1]
	9/13/2018	4/15/2020	4/29/2021
Volatile Organics Compounds (VOCs) - ug/m^3			
Chloroethane	ND (<528)	ND (<2.03)	ND (<1.76)
cis-1,2-dichloroethene	ND (<793)	ND (<3.05)	ND (<2.64)
cis-1,3-Dichloropropene	ND (<908)	ND (<3.49)	ND (<3.03)
Cyclohexane	56,500	96	70.6
Dichlorodifluoromethane	ND (<989)	ND (<3.8)	ND (<3.3)
Dibromochloromethane	ND (<1700)	ND (<6.55)	ND (<5.68)
Ethanol / Ethyl Alcohol	ND (<9420)	ND (<36.2)	ND (<31.5)
Ethylbenzene	ND (<869)	ND (<3.34)	ND (<2.90)
Ethyl Acetate	ND (<1800)	ND (<6.92)	ND (<6.02)
Freon-113	--	ND (<5.89)	ND (<5.11)
Freon-114	--	ND (<5.38)	ND (<4.66)
iso-Propyl Alcohol / Isopropanol	ND (<1230)	ND (<4.72)	ND (<4.10)
Methyl Butyl Ketone (2-Hexanone)	ND (<820)	ND (<3.15)	ND (<2.73)
Methyl tert butyl ether	ND (<721)	ND (<2.77)	ND (<2.40)
Methylene Chloride	ND (<1740)	ND (<6.67)	ND (<5.80)
Heptane	ND (<820)	ND (<3.15)	ND (<2.73)
Hexachlorobutadiene	ND (<2130)	ND (<8.20)	ND (<7.11)
n-Hexane	ND (<705)	ND (<2.71)	ND (<2.35)
Styrene	ND (<852)	ND (<3.27)	ND (<2.84)
tert-Butyl alcohol / tertiary butyl alcohol	ND (<1520)	ND (<5.82)	ND (<5.06)
Tetrachloroethene (PCE)	ND (<1360)	ND (<5.21)	ND (<4.52)
Tetrahydrofuran	ND (<1470)	ND (<5.66)	ND (<4.93)
Toluene	ND (<754)	ND (<2.90)	ND (<2.51)
trans-1,2-Dichloroethene	ND (<793)	ND (<3.05)	ND (<2.64)
trans-1,3-Dichloropropene	ND (<908)	ND (<3.49)	ND (<3.03)
Trichloroethene (TCE)	ND (<1070)	ND (<4.13)	ND (<3.58)
Trichlorofluoromethane	ND (<1120)	ND (<4.32)	ND (<3.75)
Vinyl Chloride	ND (<511)	ND (<1.97)	ND (<1.71)
Vinyl Bromide	ND (<874)	ND (<3.36)	ND (<2.92)
o-Xylene	ND (<869)	ND (<3.34)	ND (<2.90)
p,m-Xylene	ND (<1740)	ND (<6.69)	ND (<5.78)
Air-Phase Petroleum Hydrocarbons (APH) - ug/m^3			
C5-C8 Aliphatics, Adjusted	2,500,000	16,000	29,000
C9-C12 Aliphatics, Adjusted	320,000	5,400	4,800

Definitions:

ND = Parameter not detected above laboratory detection limit.

J = Estimated value; result is less than the sample quantitation limit but greater than zero.

"--" = Not analyzed

Notes:

1. Vapor results were obtained through dilution

TurnKey Benchmark

Table 3
SUMMARY OF SOIL SAMPLING VERIFICATION RESULTS

229 HOMER STREET SITE, OLEAN, NY

Parameter[1]	USCO/ PGW SCO [2]	CSCO[2]	VSS-01 8-10'	VSS-02 5-8'	VSS-03 6-8'	VSS-04 2-4'	VSS-05 10-12'	VSS-06 10-12'
PID	--	--	1	26.9	0	0.5	0	87.3
Volatile Organic Compounds (mg/kg)								
Acetone	**0.05**	**500**	0.0052	ND	0.0097 J	**0.092**	ND	0.019
Benzene	**0.06**	**44**	ND	ND	ND	ND	ND	ND
Bromomethane	--	--	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	**0.12**	**500**	ND	ND	ND	0.014	ND	ND
Cis-1,2-dichloroethene	**0.25**	**500**	ND	ND	0.001 J	ND	ND	ND
Cyclohexane	--	--	ND	ND	ND	ND	ND	ND
Ethylbenzene	**1.0**	**390**	ND	ND	ND	ND	ND	ND
Isopropylbenzene	**2.3**	--	ND	ND	ND	ND	ND	ND
Methylcyclohexane	--	--	ND	ND	ND	ND	ND	0.0018 J
Toluene	**0.7**	**500**	0.00065 J	ND	ND	ND	ND	ND
Total Xylene	**0.26**	**500**	ND	ND	ND	ND	ND	ND
Trichloroethene	**0.47**	**200**	ND	ND	0.00017 J	ND	ND	ND
Total VOCs	--	--	0.0059	ND	0.011 J	0.106	ND	0.021
Total TICs [3]	--	--	0.070 J	0.14 J	0.0025 J	ND	0.0030 J	0.34 J
Semi-Volatile Organic Compounds (mg/kg)								
Acenaphthylene	**100**	**500**	ND	ND	0.05 J	ND	ND	ND
Acetophenone	--	--	ND	ND	0.027 J	ND	ND	ND
Anthracene	**100**	**500**	ND	ND	0.092 J	ND	ND	ND
Benzo(a)anthracene	**1.0**	**5.6**	ND	ND	0.24	ND	ND	ND
Benzo(a)pyrene	**1.0**	**1.0**	ND	ND	0.31	ND	ND	ND
Benzo(b)fluoranthene	**1.0**	**5.6**	ND	ND	0.47	ND	ND	ND
Benzo(ghi)perylene	**100**	**500**	ND	ND	0.15 J	ND	ND	ND
Benzo(k)fluoranthene	**0.8**	**56**	ND	ND	0.17	ND	ND	ND
Benzaldehyde	--	--	ND	ND	0.075 J	ND	ND	ND
Carbazole	--	--	ND	ND	0.032 J	ND	ND	ND
Chrysene	**1.0**	**56**	ND	ND	0.29	ND	ND	ND
Dibenzo(a,h)anthracene	**0.33**	**0.56**	ND	ND	0.038 J	ND	ND	ND
Dibenzofuran	--	--	ND	ND	0.035 J	ND	ND	ND
Fluorene	**30**	**500**	ND	ND	0.024 J	ND	ND	ND
Fluoranthene	**100**	**500**	ND	ND	0.3	ND	ND	ND
Indeno(1,2,3-cd)pyrene	**0.5**	**5.6**	ND	ND	0.18	ND	ND	ND
2-methylnaphthalene	--	--	ND	ND	0.11 J	ND	ND	ND
Naphthalene	**12**	**500**	ND	ND	0.072 J	ND	ND	ND
Phenanthrene	**100**	**500**	ND	ND	0.23	ND	ND	ND
Pyrene	**100**	**500**	ND	ND	0.27	ND	ND	ND
Total TICs	--	--	*0.59 J*	*5.7 J*	*3.4 J*	*0.37 J*	*1.2 J*	*3.4 J*

Notes:

1. Only those parameters detected at a minimum of one sample location are presented on this table; all other compounds were reported as non-detect.
2. NYSDEC Part 375 Soil Cleanup Objectives; Isopropylbenzene protection of groundwater SCO per NYSDEC Policy CP-51.
3. A single TIC (an unknown alkane) in VSS-3 has a potential TIC carry over from the previous analyses (VSS-2 & VSS-6 have relatively higher TICs).

Acronyms:

VSS-01 = Verification Soil Sample Location
PID = Photoionization Detector
TIC = Tentatively Identified Compound
"--" = No SCO available
ND = Not detected above method detection limit (MDL)
J = Estimated value above MDL but below reporting limit (RL)
D = Concentration of parameter was quantified from diluted analysis

Color Code:

= Result exceeds unrestricted soil cleanup objective (USCO) / protection of groundwater (PGW) SCO
= Result exceeds commercial soil cleanup objective (CSCO)

FIGURE

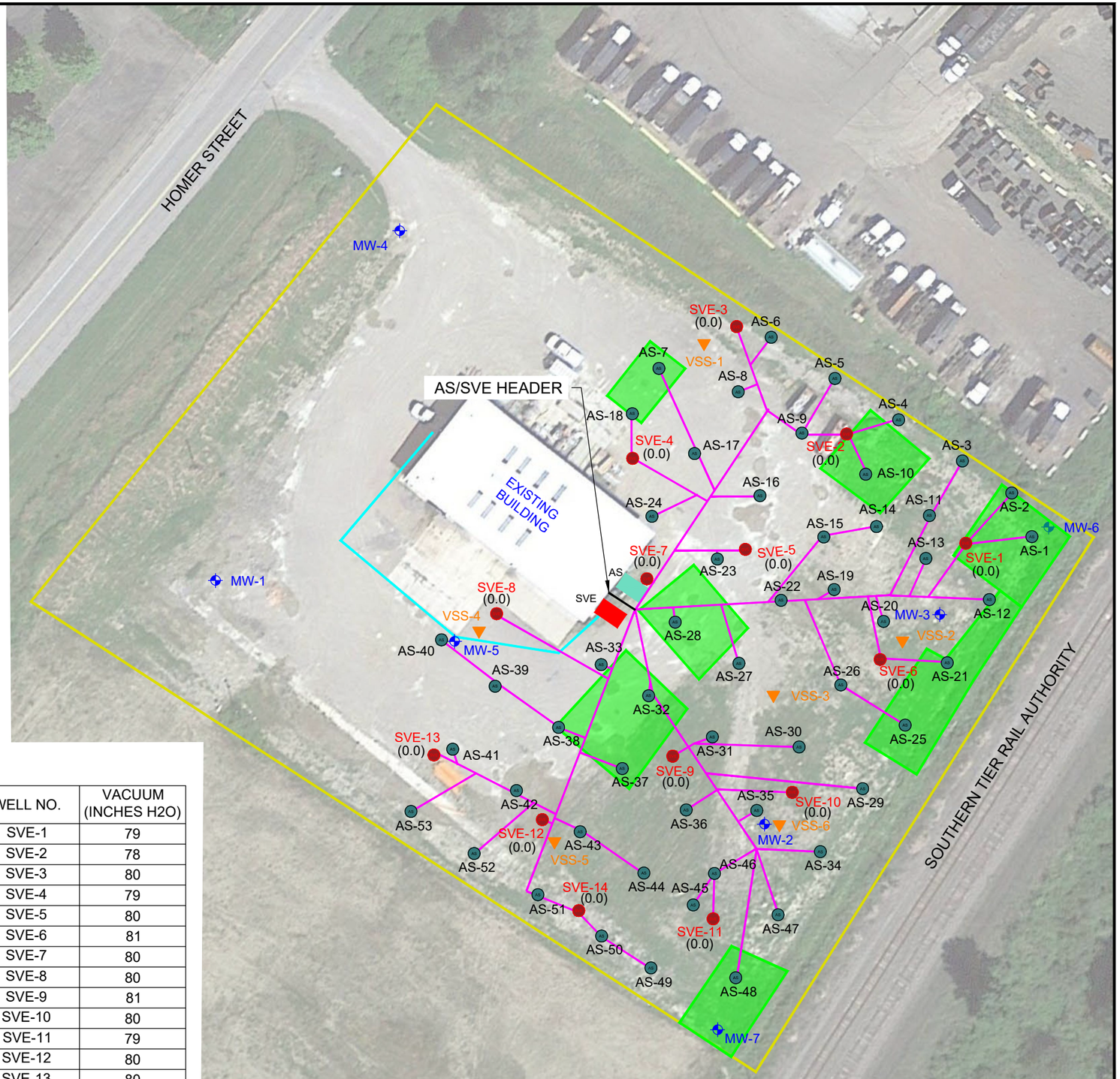
LEGEND:

- SITE BOUNDARY
- SVE — SVE WELL (14)
- AS — AIR SPARGE (AS) WELL (53)
- MW-1 — EXISTING MONITORING WELL (7)
- HISTORIC REMEDIAL EXCAVATIONS
- SVE CONDENSATE LINE TO SANITARY SEWER
- SVE AND AS PIPELINES
- SVE TRAILER
- AIR SPARGE TRAILER
- VSS-1 — VERIFICATION SOIL SAMPLING LOCATION
- (2.0) — WELL HEAD PID READING (PPM)

NOTE:
1. BASE MAP FROM GOOGLE IMAGE DATED AUGUST 2016.
2. PID = PHOTOIONIZATION DETECTOR READING IN PARTS PER MILLION. MEASUREMENTS MADE IN AUGUST 2021.

60' 0' 60' 120'

SCALE: 1 INCH = 60 FEET
SCALE IN FEET
(approximate)



VERIFICATION SOIL SAMPLE	REASON
VSS-1	PROXIMATE TO SVE-3 (HISTORIC ELEVATED PID VALUES) AND LOCATED ON LIMITS OF SVE TREATMENT AREA.
VSS-2	PROXIMATE TO SVE-6 (HISTORIC ELEVATED PID VALUES)
VSS-3	CENTRALLY LOCATED WITHIN SVE TREATMENT AREA
VSS-4	PROXIMATE MW-5 (HISTORIC REMAINING SOIL CONTAMINATION ABOVE USCOs) AND SVE-8 (HISTORIC ELEVATED PID VALUES)
VSS-5	PROXIMATE TO SVE-12 (HISTORIC ELEVATED PID VALUES)
VSS-6	PROXIMATE MW-2 (HISTORIC REMAINING SOIL CONTAMINATION ABOVE USCOs)

WELL NO.	VACUUM (INCHES H2O)
SVE-1	79
SVE-2	78
SVE-3	80
SVE-4	79
SVE-5	80
SVE-6	81
SVE-7	80
SVE-8	80
SVE-9	81
SVE-10	80
SVE-11	79
SVE-12	80
SVE-13	80
SVE-14	79

DATE: APRIL 2021
DRAFTED BY: RFL

TURNKEY ENVIRONMENTAL RESTORATION, LLC
IN ASSOCIATION WITH
BENCHMARK
2558 HAMBURG TURNPIKE, SUITE 300, BUFFALO, NY 14218,
(716) 856-0599

JOB NO.: 0311-018-001

SOIL VERIFICATION SAMPLE LOCATIONS

VERIFICATION SOIL SAMPLING RESULTS FOR SVE SYSTEM LETTER REPORT

229 HOMER STREET SITE
BCP SITE NO. C905044
OLEAN, NEW YORK

PREPARED FOR
HOMER STREET PROPERTIES, LLC

FIGURE 1

ATTACHMENT 1

INFLUENT AIR ANALYTICAL DATA PACKAGES (2018 - 2021)

ANALYTICAL REPORT

Lab Number:	L1836968
Client:	Benchmark & Turnkey Companies 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Ray Laport
Phone:	(716) 856-0599
Project Name:	229 HOMER ST
Project Number:	T0311-018-001
Report Date:	09/27/18

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).

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

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L1836968
Report Date: 09/27/18

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1836968-01	INITIAL SOIL VAPOR SAMPLE	SOIL_VAPOR	OLEAN, NY	09/13/18 13:48	09/17/18

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L1836968
Report Date: 09/27/18

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. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated 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.

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 table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

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 Client Service Representative 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 Client Services at 800-624-9220 with any questions.

Project Name:	229 HOMER ST	**Lab Number:**	L1836968
Project Number:	T0311-018-001	**Report Date:**	09/27/18

Case Narrative (continued)

Report Submission

This report replaces the one previously issued on September 24, 2018. The report has been revised to add data for APH at the request of the client.

Volatile Organics in Air

Canisters were released from the laboratory on August 30, 2018. The canister certification results are provided as an addendum.

L1836968-01: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

Petroleum Hydrocarbons in Air

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: 09/27/18

AIR

Project Name: 229 HOMER ST
Project Number: T0311-018-001
Lab Number: L1836968
Report Date: 09/27/18

SAMPLE RESULTS

Lab ID: L1836968-01 D
Client ID: INITIAL SOIL VAPOR SAMPLE
Sample Location: OLEAN, NY

Date Collected: 09/13/18 13:48
Date Received: 09/17/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 09/22/18 03:57
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	200.	--	ND	989	--		1000
Chloromethane	ND	200.	--	ND	413	--		1000
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	200.	--	ND	1400	--		1000
Vinyl chloride	ND	200.	--	ND	511	--		1000
1,3-Butadiene	ND	200.	--	ND	442	--		1000
Bromomethane	ND	200.	--	ND	777	--		1000
Chloroethane	ND	200.	--	ND	528	--		1000
Ethyl Alcohol	ND	5000	--	ND	9420	--		1000
Vinyl bromide	ND	200.	--	ND	874	--		1000
Acetone	ND	1000	--	ND	2380	--		1000
Trichlorofluoromethane	ND	200.	--	ND	1120	--		1000
iso-Propyl Alcohol	ND	500	--	ND	1230	--		1000
1,1-Dichloroethene	ND	200.	--	ND	793	--		1000
tert-Butyl Alcohol	ND	500.	--	ND	1520	--		1000
Methylene chloride	ND	500.	--	ND	1740	--		1000
3-Chloropropene	ND	200.	--	ND	626	--		1000
Carbon disulfide	ND	200.	--	ND	623	--		1000
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	200.	--	ND	1530	--		1000
trans-1,2-Dichloroethene	ND	200.	--	ND	793	--		1000
1,1-Dichloroethane	ND	200.	--	ND	809	--		1000
Methyl tert butyl ether	ND	200.	--	ND	721	--		1000
2-Butanone	ND	500.	--	ND	1470	--		1000
cis-1,2-Dichloroethene	ND	200.	--	ND	793	--		1000

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L1836968
Report Date: 09/27/18

SAMPLE RESULTS

Lab ID: L1836968-01 D
Client ID: INITIAL SOIL VAPOR SAMPLE
Sample Location: OLEAN, NY

Date Collected: 09/13/18 13:48
Date Received: 09/17/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	500.	--	ND	1800	--		1000
Chloroform	ND	200.	--	ND	977	--		1000
Tetrahydrofuran	ND	500	--	ND	1470	--		1000
1,2-Dichloroethane	ND	200.	--	ND	809	--		1000
n-Hexane	ND	200.	--	ND	705	--		1000
1,1,1-Trichloroethane	ND	200.	--	ND	1090	--		1000
Benzene	ND	200.	--	ND	639	--		1000
Carbon tetrachloride	ND	200.	--	ND	1260	--		1000
Cyclohexane	16400	200	--	56500	688	--		1000
1,2-Dichloropropane	ND	200.	--	ND	924	--		1000
Bromodichloromethane	ND	200.	--	ND	1340	--		1000
1,4-Dioxane	ND	200.	--	ND	721	--		1000
Trichloroethene	ND	200.	--	ND	1070	--		1000
2,2,4-Trimethylpentane	ND	200.	--	ND	934	--		1000
Heptane	ND	200.	--	ND	820	--		1000
cis-1,3-Dichloropropene	ND	200.	--	ND	908	--		1000
4-Methyl-2-pentanone	ND	500.	--	ND	2050	--		1000
trans-1,3-Dichloropropene	ND	200.	--	ND	908	--		1000
1,1,2-Trichloroethane	ND	200.	--	ND	1090	--		1000
Toluene	ND	200.	--	ND	754	--		1000
2-Hexanone	ND	200.	--	ND	820	--		1000
Dibromochloromethane	ND	200.	--	ND	1700	--		1000
1,2-Dibromoethane	ND	200.	--	ND	1540	--		1000
Tetrachloroethene	ND	200.	--	ND	1360	--		1000
Chlorobenzene	ND	200.	--	ND	921	--		1000
Ethylbenzene	ND	200.	--	ND	869	--		1000

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L1836968
Report Date: 09/27/18

SAMPLE RESULTS

Lab ID: L1836968-01 D
Client ID: INITIAL SOIL VAPOR SAMPLE
Sample Location: OLEAN, NY

Date Collected: 09/13/18 13:48
Date Received: 09/17/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	ND	400.	--	ND	1740	--		1000
Bromoform	ND	200.	--	ND	2070	--		1000
Styrene	ND	200.	--	ND	852	--		1000
1,1,2,2-Tetrachloroethane	ND	200.	--	ND	1370	--		1000
o-Xylene	ND	200.	--	ND	869	--		1000
4-Ethyltoluene	ND	200.	--	ND	983	--		1000
1,3,5-Trimethylbenzene	ND	200.	--	ND	983	--		1000
1,2,4-Trimethylbenzene	ND	200.	--	ND	983	--		1000
Benzyl chloride	ND	200.	--	ND	1040	--		1000
1,3-Dichlorobenzene	ND	200.	--	ND	1200	--		1000
1,4-Dichlorobenzene	ND	200.	--	ND	1200	--		1000
1,2-Dichlorobenzene	ND	200.	--	ND	1200	--		1000
1,2,4-Trichlorobenzene	ND	200.	--	ND	1480	--		1000
Hexachlorobutadiene	ND	200.	--	ND	2130	--		1000

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

Project Name: 229 HOMER ST
Project Number: T0311-018-001
Lab Number: L1836968
Report Date: 09/27/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 09/21/18 18:02

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1159536-4								
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
1,2-Dichloro-1,1,2,2-tetrafluoroethane	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
Ethyl Alcohol	ND	5.00	--	ND	9.42	--		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
iso-Propyl Alcohol	ND	0.500	--	ND	1.23	--		1
Acrylonitrile	ND	0.500	--	ND	1.09	--		1
Pentane	ND	0.200	--	ND	0.590	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
tert-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
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.200	--	ND	1.53	--		1

Project Name: 229 HOMER ST
Project Number: T0311-018-001
Lab Number: L1836968
Report Date: 09/27/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 09/21/18 18:02

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1159536-4								
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
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
Isopropyl Ether	ND	0.200	--	ND	0.836	--		1
Ethyl-Tert-Butyl-Ether	ND	0.200	--	ND	0.836	--		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
Tertiary-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
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

Project Name: 229 HOMER ST
Project Number: T0311-018-001
Lab Number: L1836968
Report Date: 09/27/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 09/21/18 18:02

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1159536-4								
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl Acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1
Nonane (C9)	ND	0.200	--	ND	1.05	--		1

Project Name: 229 HOMER ST
Project Number: T0311-018-001
Lab Number: L1836968
Report Date: 09/27/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 09/21/18 18:02

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1159536-4								
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
Bromobenzene	ND	0.200	--	ND	0.793	--		1
o-Chlorotoluene	ND	0.200	--	ND	1.04	--		1
n-Propylbenzene	ND	0.200	--	ND	0.983	--		1
p-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 (C10)	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 (C12)	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

Lab Control Sample Analysis

Batch Quality Control

Project Name: 229 HOMER ST

Project Number: T0311-018-001

Lab Number: L1836968

Report Date: 09/27/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1159536-3								
Chlorodifluoromethane	75		-		70-130	-		
Propylene	79		-		70-130	-		
Propane	71		-		70-130	-		
Dichlorodifluoromethane	77		-		70-130	-		
Chloromethane	72		-		70-130	-		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	84		-		70-130	-		
Vinyl chloride	81		-		70-130	-		
1,3-Butadiene	90		-		70-130	-		
Bromomethane	80		-		70-130	-		
Chloroethane	76		-		70-130	-		
Ethyl Alcohol	73		-		70-130	-		
Vinyl bromide	77		-		70-130	-		
Acrolein	78		-		70-130	-		
Acetone	72		-		70-130	-		
Acetonitrile	70		-		70-130	-		
Trichlorofluoromethane	71		-		70-130	-		
iso-Propyl Alcohol	71		-		70-130	-		
Acrylonitrile	77		-		70-130	-		
Pentane	78		-		70-130	-		
1,1-Dichloroethene	81		-		70-130	-		
tert-Butyl Alcohol	79		-		70-130	-		
Methylene chloride	75		-		70-130	-		
3-Chloropropene	80		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 229 HOMER ST

Project Number: T0311-018-001

Lab Number: L1836968

Report Date: 09/27/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1159536-3								
Carbon disulfide	76		-		70-130	-		
1,1,2-Trichloro-1,2,2-Trifluoroethane	78		-		70-130	-		
trans-1,2-Dichloroethene	80		-		70-130	-		
1,1-Dichloroethane	78		-		70-130	-		
Methyl tert butyl ether	72		-		70-130	-		
Vinyl acetate	75		-		70-130	-		
2-Butanone	70		-		70-130	-		
cis-1,2-Dichloroethene	95		-		70-130	-		
Ethyl Acetate	77		-		70-130	-		
Chloroform	83		-		70-130	-		
Tetrahydrofuran	72		-		70-130	-		
2,2-Dichloropropane	75		-		70-130	-		
1,2-Dichloroethane	74		-		70-130	-		
n-Hexane	111		-		70-130	-		
Isopropyl Ether	92		-		70-130	-		
Ethyl-Tert-Butyl-Ether	88		-		70-130	-		
1,1,1-Trichloroethane	98		-		70-130	-		
1,1-Dichloropropene	99		-		70-130	-		
Benzene	102		-		70-130	-		
Carbon tetrachloride	100		-		70-130	-		
Cyclohexane	102		-		70-130	-		
Tertiary-Amyl Methyl Ether	94		-		70-130	-		
Dibromomethane	92		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 229 HOMER ST

Project Number: T0311-018-001

Lab Number: L1836968

Report Date: 09/27/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1159536-3								
1,2-Dichloropropane	95		-		70-130	-		
Bromodichloromethane	106		-		70-130	-		
1,4-Dioxane	101		-		70-130	-		
Trichloroethene	102		-		70-130	-		
2,2,4-Trimethylpentane	104		-		70-130	-		
Methyl Methacrylate	86		-		70-130	-		
Heptane	101		-		70-130	-		
cis-1,3-Dichloropropene	110		-		70-130	-		
4-Methyl-2-pentanone	101		-		70-130	-		
trans-1,3-Dichloropropene	96		-		70-130	-		
1,1,2-Trichloroethane	104		-		70-130	-		
Toluene	90		-		70-130	-		
1,3-Dichloropropane	90		-		70-130	-		
2-Hexanone	90		-		70-130	-		
Dibromochloromethane	101		-		70-130	-		
1,2-Dibromoethane	95		-		70-130	-		
Butyl Acetate	87		-		70-130	-		
Octane	86		-		70-130	-		
Tetrachloroethene	90		-		70-130	-		
1,1,1,2-Tetrachloroethane	88		-		70-130	-		
Chlorobenzene	92		-		70-130	-		
Ethylbenzene	94		-		70-130	-		
p/m-Xylene	95		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 229 HOMER ST

Project Number: T0311-018-001

Lab Number: L1836968

Report Date: 09/27/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1159536-3								
Bromoform	103		-		70-130	-		
Styrene	96		-		70-130	-		
1,1,2,2-Tetrachloroethane	100		-		70-130	-		
o-Xylene	99		-		70-130	-		
1,2,3-Trichloropropane	92		-		70-130	-		
Nonane (C9)	86		-		70-130	-		
Isopropylbenzene	93		-		70-130	-		
Bromobenzene	91		-		70-130	-		
o-Chlorotoluene	86		-		70-130	-		
n-Propylbenzene	86		-		70-130	-		
p-Chlorotoluene	86		-		70-130	-		
4-Ethyltoluene	117		-		70-130	-		
1,3,5-Trimethylbenzene	81		-		70-130	-		
tert-Butylbenzene	90		-		70-130	-		
1,2,4-Trimethylbenzene	103		-		70-130	-		
Decane (C10)	91		-		70-130	-		
Benzyl chloride	104		-		70-130	-		
1,3-Dichlorobenzene	99		-		70-130	-		
1,4-Dichlorobenzene	95		-		70-130	-		
sec-Butylbenzene	92		-		70-130	-		
p-Isopropyltoluene	86		-		70-130	-		
1,2-Dichlorobenzene	97		-		70-130	-		
n-Butylbenzene	93		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 229 HOMER ST

Project Number: T0311-018-001

Lab Number: L1836968

Report Date: 09/27/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1159536-3								
1,2-Dibromo-3-chloropropane	96		-		70-130	-		
Undecane	98		-		70-130	-		
Dodecane (C12)	101		-		70-130	-		
1,2,4-Trichlorobenzene	100		-		70-130	-		
Naphthalene	88		-		70-130	-		
1,2,3-Trichlorobenzene	88		-		70-130	-		
Hexachlorobutadiene	98		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L1836968
Report Date: 09/27/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1159536-5 QC Sample: L1836966-02 Client ID: DUP Sample						
Propylene	ND	ND	ppbV	NC		25
Dichlorodifluoromethane	ND	ND	ppbV	NC		25
Chloromethane	ND	ND	ppbV	NC		25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ND	ppbV	NC		25
Vinyl chloride	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
Ethyl Alcohol	ND	ND	ppbV	NC		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	ND	ND	ppbV	NC		25
Trichlorofluoromethane	ND	ND	ppbV	NC		25
iso-Propyl Alcohol	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
Methylene chloride	ND	ND	ppbV	NC		25
3-Chloropropene	ND	ND	ppbV	NC		25
Carbon disulfide	ND	ND	ppbV	NC		25
1,1,2-Trichloro-1,2,2-Trifluoroethane	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

Lab Duplicate Analysis
Batch Quality Control

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L1836968
Report Date: 09/27/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1159536-5 QC Sample: L1836966-02 Client ID: DUP Sample						
Vinyl acetate	ND	ND	ppbV	NC		25
2-Butanone	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
Ethyl Acetate	ND	ND	ppbV	NC		25
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
1,1,1-Trichloroethane	12.3	12.2	ppbV	1		25
Benzene	ND	ND	ppbV	NC		25
Carbon tetrachloride	ND	ND	ppbV	NC		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
Trichloroethene	803	792	ppbV	1		25
2,2,4-Trimethylpentane	ND	ND	ppbV	NC		25
Heptane	ND	ND	ppbV	NC		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

Lab Duplicate Analysis
Batch Quality Control

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L1836968
Report Date: 09/27/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1159536-5 QC Sample: L1836966-02 Client ID: DUP Sample						
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	ND	ND	ppbV	NC		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Tetrachloroethene	8.56	8.46	ppbV	1		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	ND	ND	ppbV	NC		25
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

Lab Duplicate Analysis
Batch Quality Control

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L1836968
Report Date: 09/27/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1159536-5 QC Sample: L1836966-02 Client ID: DUP Sample						
Naphthalene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25

Project Name: 229 HOMER ST
Project Number: T0311-018-001
Lab Number: L1836968
Report Date: 09/27/18

SAMPLE RESULTS

Lab ID: L1836968-01 D
Client ID: INITIAL SOIL VAPOR SAMPLE
Sample Location: OLEAN, NY
Date Collected: 09/13/18 13:48
Date Received: 09/17/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Analytical Method: 96,APH
Analytical Date: 09/22/18 03:57
Analyst: MB

Quality Control Information

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	500	--	1000
Methyl tert butyl ether	ND		ug/m3	700	--	1000
Benzene	ND		ug/m3	600	--	1000
C5-C8 Aliphatics, Adjusted	2500000		ug/m3	10000	--	1000
Toluene	ND		ug/m3	900	--	1000
Ethylbenzene	ND		ug/m3	900	--	1000
p/m-Xylene	ND		ug/m3	900	--	1000
o-Xylene	ND		ug/m3	900	--	1000
Naphthalene	ND		ug/m3	1100	--	1000
C9-C12 Aliphatics, Adjusted	320000		ug/m3	10000	--	1000
C9-C10 Aromatics Total	ND		ug/m3	10000	--	1000

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		50-200
Bromochloromethane	99		50-200
Chlorobenzene-d5	88		50-200

Project Name: 229 HOMER ST
Project Number: T0311-018-001
Lab Number: L1836968
Report Date: 09/27/18

Method Blank Analysis
Batch Quality Control

Analytical Method: 96,APH
Analytical Date: 09/21/18 18:02
Analyst: RY

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbons in Air - Mansfield Lab for sample(s): 01 Batch: WG1159535-4					
1,3-Butadiene	ND		ug/m3	0.50	--
Methyl tert butyl ether	ND		ug/m3	0.70	--
Benzene	ND		ug/m3	0.60	--
C5-C8 Aliphatics, Adjusted	ND		ug/m3	10	--
Toluene	ND		ug/m3	0.90	--
Ethylbenzene	ND		ug/m3	0.90	--
p/m-Xylene	ND		ug/m3	0.90	--
o-Xylene	ND		ug/m3	0.90	--
Naphthalene	ND		ug/m3	1.1	--
C9-C12 Aliphatics, Adjusted	ND		ug/m3	10	--
C9-C10 Aromatics Total	ND		ug/m3	10	--

Lab Control Sample Analysis

Batch Quality Control

Project Name: 229 HOMER ST

Project Number: T0311-018-001

Lab Number: L1836968

Report Date: 09/27/18

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1159535-3								
1,3-Butadiene	101		-		70-130	-		
Methyl tert butyl ether	84		-		70-130	-		
Benzene	118		-		70-130	-		
C5-C8 Aliphatics, Adjusted	120		-		70-130	-		
Toluene	97		-		70-130	-		
Ethylbenzene	100		-		70-130	-		
p/m-Xylene	96		-		70-130	-		
o-Xylene	102		-		70-130	-		
Naphthalene	117		-		50-150	-		
C9-C12 Aliphatics, Adjusted	102		-		70-130	-		
C9-C10 Aromatics Total	91		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L1836968
Report Date: 09/27/18

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1159535-5 QC Sample: L1836966-02 Client ID: DUP Sample						
1,3-Butadiene	ND	ND	ug/m3	NC		30
Methyl tert butyl ether	ND	ND	ug/m3	NC		30
Benzene	ND	ND	ug/m3	NC		30
C5-C8 Aliphatics, Adjusted	130	150	ug/m3	14		30
Toluene	ND	ND	ug/m3	NC		30
Ethylbenzene	ND	ND	ug/m3	NC		30
p/m-Xylene	ND	ND	ug/m3	NC		30
o-Xylene	ND	ND	ug/m3	NC		30
Naphthalene	ND	ND	ug/m3	NC		30
C9-C12 Aliphatics, Adjusted	ND	ND	ug/m3	NC		30
C9-C10 Aromatics Total	ND	ND	ug/m3	NC		30

Project Name: 229 HOMER ST

Lab Number: L1836968

Project Number: T0311-018-001

Report Date: 09/27/18

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L1836968-01	INITIAL SOIL VAPOR SAMPLE	2072	2.7L Can	09/13/18	274332	L1835365-01	Pass	-28.8	-2.2	-	-	-	-

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

Lab Number: L1835365
Report Date: 09/27/18

Air Canister Certification Results

Lab ID: L1835365-01
Client ID: CAN 209 SHELF 2
Sample Location:

Date Collected: 09/06/18 16:00
Date Received: 09/07/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 09/07/18 18:23
Analyst: MB

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1835365
Report Date: 09/27/18

Air Canister Certification Results

Lab ID: L1835365-01
Client ID: CAN 209 SHELF 2
Sample Location:

Date Collected: 09/06/18 16:00
Date Received: 09/07/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
Vinyl acetate	ND	1.00	--	ND	3.52	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
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
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
1,1-Dichloropropene	ND	0.200	--	ND	0.908	--		1
Benzene	ND	0.200	--	ND	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
tert-Amyl Methyl Ether	ND	0.200	--	ND	0.836	--		1
Dibromomethane	ND	0.200	--	ND	1.42	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1835365
Report Date: 09/27/18

Air Canister Certification Results

Lab ID: L1835365-01
Client ID: CAN 209 SHELF 2
Sample Location:

Date Collected: 09/06/18 16:00
Date Received: 09/07/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
Trichloroethene	ND	0.200	--	ND	1.07	--		1
2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--		1
Methyl Methacrylate	ND	0.500	--	ND	2.05	--		1
Heptane	ND	0.200	--	ND	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	ND	0.200	--	ND	0.754	--		1
1,3-Dichloropropane	ND	0.200	--	ND	0.924	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Butyl acetate	ND	0.500	--	ND	2.38	--		1
Octane	ND	0.200	--	ND	0.934	--		1
Tetrachloroethene	ND	0.200	--	ND	1.36	--		1
1,1,1,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
1,2,3-Trichloropropane	ND	0.200	--	ND	1.21	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1835365
Report Date: 09/27/18

Air Canister Certification Results

Lab ID: L1835365-01
Client ID: CAN 209 SHELF 2
Sample Location:

Date Collected: 09/06/18 16:00
Date Received: 09/07/18
Field Prep: Not Specified

Sample Depth:

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L1835365
Report Date: 09/27/18

Air Canister Certification Results

Lab ID: L1835365-01
Client ID: CAN 209 SHELF 2
Sample Location:

Date Collected: 09/06/18 16:00
Date Received: 09/07/18
Field Prep: Not Specified

Sample Depth:

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

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	92		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	94		60-140

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

Lab Number: L1835365
Report Date: 09/27/18

Air Canister Certification Results

Lab ID: L1835365-01
Client ID: CAN 209 SHELF 2
Sample Location:

Date Collected: 09/06/18 16:00
Date Received: 09/07/18
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 09/07/18 18:23
Analyst: MB

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
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: L1835365
Report Date: 09/27/18

Air Canister Certification Results

Lab ID: L1835365-01
Client ID: CAN 209 SHELF 2
Sample Location:

Date Collected: 09/06/18 16:00
Date Received: 09/07/18
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
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: L1835365
Report Date: 09/27/18

Air Canister Certification Results

Lab ID: L1835365-01
Client ID: CAN 209 SHELF 2
Sample Location:

Date Collected: 09/06/18 16:00
Date Received: 09/07/18
Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	91		60-140
bromochloromethane	89		60-140
chlorobenzene-d5	91		60-140

AIR Petro Can Certification

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L1835365

Project Number: CANISTER QC BAT **Report Date:** 09/27/18

AIR CAN CERTIFICATION RESULTS

Lab ID:	L1835365-01	Date Collected:	09/06/18 16:00
Client ID:	CAN 209 SHELF 2	Date Received:	09/07/18
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	09/07/18 18:23		
Analyst:	MB		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air						
1,3-Butadiene	ND		ug/m3	0.50	--	1
Methyl tert butyl ether	ND		ug/m3	0.70	--	1
Benzene	ND		ug/m3	0.60	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	10	--	1
Toluene	ND		ug/m3	0.90	--	1
Ethylbenzene	ND		ug/m3	0.90	--	1
p/m-Xylene	ND		ug/m3	0.90	--	1
o-Xylene	ND		ug/m3	0.90	--	1
Naphthalene	ND		ug/m3	1.1	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	10	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L1836968
Report Date: 09/27/18

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	*Custody Seal*
N/A	Absent

Container Information

Container ID	*Container Type*	*Cooler*	*Initial pH*	*Final pH*	*Temp deg C*	*Pres*	*Seal*	*Frozen Date/Time*	*Analysis(*)*
L1836968-01A	Canister - 2.7 Liter	N/A	NA			Y	Absent		APH-10(30),TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name:	229 HOMER ST	**Lab Number:**	L1836968
Project Number:	T0311-018-001	**Report Date:**	09/27/18

GLOSSARY

Acronyms

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.
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.
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

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.

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.

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.

Report Format: Data Usability Report

Project Name:	229 HOMER ST	**Lab Number:**	L1836968
Project Number:	T0311-018-001	**Report Date:**	09/27/18

Data Qualifiers

A - Spectra identified as "Aldol Condensation Product".

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.

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

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

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

ND - Not detected at the reporting limit (RL) for the sample.

Report Format: Data Usability Report

REFERENCES

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

96 Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), MassDEP, December 2009, Revision 1 with QC Requirements & Performance Standards for the Analysis of APH by GC/MS under the Massachusetts Contingency Plan, WSC-CAM-IXA, July 2010.

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
EPA 300: DW: Bromide
EPA 6860: SCM: Perchlorate
EPA 9010: NPW and SCM: Amenable Cyanide Distillation
SM4500: NPW: Amenable Cyanide, Dissolved Oxygen; 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.
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**
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**, EPA 351.1, 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 624: Volatile Halocarbons & Aromatics,
EPA 608: 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: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Be, Cd, Cr, Cu, 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, Pb, Mn, Ni, Se, Ag, TL, Zn.
EPA 245.1 Hg.
SM2340B

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

AIR ANALYSIS

PAGE ____ OF ____

CHAIN OF CUSTODY

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

Date Rec'd in Lab: 9/18/18

ALPHA Job #: L1836968

Client Information

Client: Benchmark & Tuesday
Address: 2558 Hamburg Turnpike
Phone: 716 856 0635
Fax: 716 856 0583
Email:
☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: 229 Homer St
Project Location: Olean N.Y.
Project #: T0311-018-001
Project Manager: Ray Laport
ALPHA Quote #:

Turn-Around Time

☐ Standard ☐ RUSH (only confirmed if pre-approved)
Date Due: Time:

Report Information - Data Deliverables

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

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

ANALYSIS

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	ID Can	ID - Flow Controller	TO-15	TO-15 SIM	APH Solvent Non-petroleum HCs	Fixed Gases ☐	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
36968.01	Initial Soil vapor sample	9/13/18	1:48	1:48:30	-7	-1	SV	MLJ	2.7	Alpha 2072	NONE	X					pid @ Sample 196 ppm

*SAMPLE MATRIX CODES

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

Container Type

Relinquished By:	Date/Time	Received By:	Date/Time:
Mark James via Courier	9/17/18 9:30	Jack Dem via Courier	9/17/18 15:30
Courier	9/17/18 1700		9/18/18 01:15
	09/18/18 0515		9/18/18 05:15

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

Form No: 101-02 Rev: (24-Sep-15)

ANALYTICAL REPORT

Lab Number:	L2016038
Client:	Turnkey Environmental Restoration, LLC 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Brock Greene
Phone:	(716) 856-0599
Project Name:	229 HOMER ST
Project Number:	T0311-018-001
Report Date:	04/23/20

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

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

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L2016038
Report Date: 04/23/20

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2016038-01	HOMER ST.- SVE	SOIL_VAPOR	OLEAN, NY	04/15/20 14:46	04/16/20

Project Name:	229 HOMER ST	**Lab Number:**	L2016038
Project Number:	T0311-018-001	**Report Date:**	04/23/20

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:	229 HOMER ST	**Lab Number:**	L2016038
Project Number:	T0311-018-001	**Report Date:**	04/23/20

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on April 10, 2020. The canister certification results are provided as an addendum.

L2016038-01: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

The continuing calibration standard, associated with L2016038-01, is outside the %D criteria for 1,3-Butadiene (33%D); however, it is within overall acceptance criteria.

Petroleum Hydrocarbons in Air

L2016038-01: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

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

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 04/23/20

AIR

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L2016038
Report Date: 04/23/20

SAMPLE RESULTS

Lab ID: L2016038-01 D
Client ID: HOMER ST.- SVE
Sample Location: OLEAN, NY

Date Collected: 04/15/20 14:46
Date Received: 04/16/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 04/21/20 06:02
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	0.769	--	ND	3.80	--		3.846
Chloromethane	ND	0.769	--	ND	1.59	--		3.846
Freon-114	ND	0.769	--	ND	5.38	--		3.846
Vinyl chloride	ND	0.769	--	ND	1.97	--		3.846
1,3-Butadiene	ND	0.769	--	ND	1.70	--		3.846
Bromomethane	ND	0.769	--	ND	2.99	--		3.846
Chloroethane	ND	0.769	--	ND	2.03	--		3.846
Ethanol	ND	19.2	--	ND	36.2	--		3.846
Vinyl bromide	ND	0.769	--	ND	3.36	--		3.846
Acetone	ND	3.85	--	ND	9.15	--		3.846
Trichlorofluoromethane	ND	0.769	--	ND	4.32	--		3.846
Isopropanol	ND	1.92	--	ND	4.72	--		3.846
1,1-Dichloroethene	ND	0.769	--	ND	3.05	--		3.846
Tertiary butyl Alcohol	ND	1.92	--	ND	5.82	--		3.846
Methylene chloride	ND	1.92	--	ND	6.67	--		3.846
3-Chloropropene	ND	0.769	--	ND	2.41	--		3.846
Carbon disulfide	ND	0.769	--	ND	2.39	--		3.846
Freon-113	ND	0.769	--	ND	5.89	--		3.846
trans-1,2-Dichloroethene	ND	0.769	--	ND	3.05	--		3.846
1,1-Dichloroethane	ND	0.769	--	ND	3.11	--		3.846
Methyl tert butyl ether	ND	0.769	--	ND	2.77	--		3.846
2-Butanone	ND	1.92	--	ND	5.66	--		3.846
cis-1,2-Dichloroethene	ND	0.769	--	ND	3.05	--		3.846

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L2016038
Report Date: 04/23/20

SAMPLE RESULTS

Lab ID: L2016038-01 D
Client ID: HOMER ST.- SVE
Sample Location: OLEAN, NY

Date Collected: 04/15/20 14:46
Date Received: 04/16/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	1.92	--	ND	6.92	--		3.846
Chloroform	ND	0.769	--	ND	3.76	--		3.846
Tetrahydrofuran	ND	1.92	--	ND	5.66	--		3.846
1,2-Dichloroethane	ND	0.769	--	ND	3.11	--		3.846
n-Hexane	ND	0.769	--	ND	2.71	--		3.846
1,1,1-Trichloroethane	ND	0.769	--	ND	4.20	--		3.846
Benzene	ND	0.769	--	ND	2.46	--		3.846
Carbon tetrachloride	ND	0.769	--	ND	4.84	--		3.846
Cyclohexane	27.9	0.769	--	96.0	2.65	--		3.846
1,2-Dichloropropane	ND	0.769	--	ND	3.55	--		3.846
Bromodichloromethane	ND	0.769	--	ND	5.15	--		3.846
1,4-Dioxane	ND	0.769	--	ND	2.77	--		3.846
Trichloroethene	ND	0.769	--	ND	4.13	--		3.846
2,2,4-Trimethylpentane	ND	0.769	--	ND	3.59	--		3.846
Heptane	ND	0.769	--	ND	3.15	--		3.846
cis-1,3-Dichloropropene	ND	0.769	--	ND	3.49	--		3.846
4-Methyl-2-pentanone	6.84	1.92	--	28.0	7.87	--		3.846
trans-1,3-Dichloropropene	ND	0.769	--	ND	3.49	--		3.846
1,1,2-Trichloroethane	ND	0.769	--	ND	4.20	--		3.846
Toluene	ND	0.769	--	ND	2.90	--		3.846
2-Hexanone	ND	0.769	--	ND	3.15	--		3.846
Dibromochloromethane	ND	0.769	--	ND	6.55	--		3.846
1,2-Dibromoethane	ND	0.769	--	ND	5.91	--		3.846
Tetrachloroethene	ND	0.769	--	ND	5.21	--		3.846
Chlorobenzene	ND	0.769	--	ND	3.54	--		3.846
Ethylbenzene	ND	0.769	--	ND	3.34	--		3.846

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L2016038
Report Date: 04/23/20

SAMPLE RESULTS

Lab ID: L2016038-01 D
Client ID: HOMER ST.- SVE
Sample Location: OLEAN, NY

Date Collected: 04/15/20 14:46
Date Received: 04/16/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	ND	1.54	--	ND	6.69	--		3.846
Bromoform	ND	0.769	--	ND	7.95	--		3.846
Styrene	ND	0.769	--	ND	3.27	--		3.846
1,1,2,2-Tetrachloroethane	ND	0.769	--	ND	5.28	--		3.846
o-Xylene	ND	0.769	--	ND	3.34	--		3.846
4-Ethyltoluene	ND	0.769	--	ND	3.78	--		3.846
1,3,5-Trimethylbenzene	1.29	0.769	--	6.34	3.78	--		3.846
1,2,4-Trimethylbenzene	ND	0.769	--	ND	3.78	--		3.846
Benzyl chloride	ND	0.769	--	ND	3.98	--		3.846
1,3-Dichlorobenzene	ND	0.769	--	ND	4.62	--		3.846
1,4-Dichlorobenzene	ND	0.769	--	ND	4.62	--		3.846
1,2-Dichlorobenzene	ND	0.769	--	ND	4.62	--		3.846
1,2,4-Trichlorobenzene	ND	0.769	--	ND	5.71	--		3.846
Hexachlorobutadiene	ND	0.769	--	ND	8.20	--		3.846

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Hexane, 2,5-dimethyl-	49	NJ	ppbV		3.846
Pentane, 2,2-dimethyl-	80	NJ	ppbV		3.846
unknown cycloalkane	95	J	ppbV		3.846
unknown cycloalkane	55	J	ppbV		3.846
Cyclopentane, 1,1-dimethyl-	82	NJ	ppbV		3.846
Hexane, 2,4-dimethyl-	97	NJ	ppbV		3.846
Pentane, 2,4-dimethyl-	110	NJ	ppbV		3.846
unknown cycloalkane	62	J	ppbV		3.846
Cyclohexane, methyl-	270	NJ	ppbV		3.846

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L2016038
Report Date: 04/23/20

SAMPLE RESULTS

Lab ID: L2016038-01 D
Client ID: HOMER ST.- SVE
Sample Location: OLEAN, NY

Date Collected: 04/15/20 14:46
Date Received: 04/16/20
Field Prep: Not Specified

Sample Depth:

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

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
unknown cycloalkane	100	J	ppbV		3.846
Pentane, 2,3-dimethyl-	93	NJ	ppbV		3.846
Butane, 2-Methyl-	47	NJ	ppbV		3.846
unknown alkane	56	J	ppbV		3.846
unknown alkane	110	J	ppbV		3.846

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	106		60-140
Bromochloromethane	103		60-140
chlorobenzene-d5	114		60-140

Project Name: 229 HOMER ST
Project Number: T0311-018-001
Lab Number: L2016038
Report Date: 04/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 04/20/20 14:33

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1362750-4								
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: 229 HOMER ST
Project Number: T0311-018-001
Lab Number: L2016038
Report Date: 04/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 04/20/20 14:33

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1362750-4								
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: 229 HOMER ST
Project Number: T0311-018-001
Lab Number: L2016038
Report Date: 04/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 04/20/20 14:33

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1362750-4								
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

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

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L2016038
Report Date: 04/23/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1362750-3								
Dichlorodifluoromethane	96		-		70-130	-		
Chloromethane	104		-		70-130	-		
Freon-114	110		-		70-130	-		
Vinyl chloride	102		-		70-130	-		
1,3-Butadiene	116		-		70-130	-		
Bromomethane	100		-		70-130	-		
Chloroethane	106		-		70-130	-		
Ethanol	78		-		40-160	-		
Vinyl bromide	99		-		70-130	-		
Acetone	82		-		40-160	-		
Trichlorofluoromethane	116		-		70-130	-		
Isopropanol	80		-		40-160	-		
1,1-Dichloroethene	111		-		70-130	-		
Tertiary butyl Alcohol	92		-		70-130	-		
Methylene chloride	101		-		70-130	-		
3-Chloropropene	123		-		70-130	-		
Carbon disulfide	99		-		70-130	-		
Freon-113	103		-		70-130	-		
trans-1,2-Dichloroethene	105		-		70-130	-		
1,1-Dichloroethane	110		-		70-130	-		
Methyl tert butyl ether	102		-		70-130	-		
2-Butanone	106		-		70-130	-		
cis-1,2-Dichloroethene	108		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L2016038
Report Date: 04/23/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1362750-3								
Ethyl Acetate	115		-		70-130	-		
Chloroform	102		-		70-130	-		
Tetrahydrofuran	106		-		70-130	-		
1,2-Dichloroethane	107		-		70-130	-		
n-Hexane	103		-		70-130	-		
1,1,1-Trichloroethane	102		-		70-130	-		
Benzene	98		-		70-130	-		
Carbon tetrachloride	110		-		70-130	-		
Cyclohexane	104		-		70-130	-		
1,2-Dichloropropane	108		-		70-130	-		
Bromodichloromethane	104		-		70-130	-		
1,4-Dioxane	102		-		70-130	-		
Trichloroethene	101		-		70-130	-		
2,2,4-Trimethylpentane	105		-		70-130	-		
Heptane	107		-		70-130	-		
cis-1,3-Dichloropropene	106		-		70-130	-		
4-Methyl-2-pentanone	110		-		70-130	-		
trans-1,3-Dichloropropene	90		-		70-130	-		
1,1,2-Trichloroethane	103		-		70-130	-		
Toluene	106		-		70-130	-		
2-Hexanone	111		-		70-130	-		
Dibromochloromethane	112		-		70-130	-		
1,2-Dibromoethane	101		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L2016038
Report Date: 04/23/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1362750-3								
Tetrachloroethene	106		-		70-130	-		
Chlorobenzene	108		-		70-130	-		
Ethylbenzene	108		-		70-130	-		
p/m-Xylene	107		-		70-130	-		
Bromoform	108		-		70-130	-		
Styrene	100		-		70-130	-		
1,1,2,2-Tetrachloroethane	110		-		70-130	-		
o-Xylene	106		-		70-130	-		
4-Ethyltoluene	99		-		70-130	-		
1,3,5-Trimethylbenzene	102		-		70-130	-		
1,2,4-Trimethylbenzene	101		-		70-130	-		
Benzyl chloride	110		-		70-130	-		
1,3-Dichlorobenzene	102		-		70-130	-		
1,4-Dichlorobenzene	107		-		70-130	-		
1,2-Dichlorobenzene	102		-		70-130	-		
1,2,4-Trichlorobenzene	108		-		70-130	-		
Hexachlorobutadiene	101		-		70-130	-		

Project Name: 229 HOMER ST
Project Number: T0311-018-001
Lab Number: L2016038
Report Date: 04/23/20

SAMPLE RESULTS

Lab ID: L2016038-01 D
Client ID: HOMER ST.- SVE
Sample Location: OLEAN, NY

Date Collected: 04/15/20 14:46
Date Received: 04/16/20
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Analytical Method: 96,APH
Analytical Date: 04/21/20 23:31
Analyst: RY

Quality Control Information

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	1.9	--	3.8
Methyl tert butyl ether	ND		ug/m3	2.7	--	3.8
Benzene	ND		ug/m3	2.3	--	3.8
C5-C8 Aliphatics, Adjusted	16000		ug/m3	38	--	3.8
Toluene	ND		ug/m3	3.4	--	3.8
Ethylbenzene	ND		ug/m3	3.4	--	3.8
p/m-Xylene	ND		ug/m3	3.4	--	3.8
o-Xylene	ND		ug/m3	3.4	--	3.8
Naphthalene	ND		ug/m3	4.2	--	3.8
C9-C12 Aliphatics, Adjusted	5400		ug/m3	38	--	3.8
C9-C10 Aromatics Total	ND		ug/m3	38	--	3.8

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	90		50-200
Bromochloromethane	86		50-200
Chlorobenzene-d5	97		50-200

Project Name: 229 HOMER ST
Project Number: T0311-018-001
Lab Number: L2016038
Report Date: 04/23/20

Method Blank Analysis
Batch Quality Control

Analytical Method: 96,APH
Analytical Date: 04/21/20 14:31
Analyst: RY

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbons in Air - Mansfield Lab for sample(s): 01 Batch: WG1363095-4					
1,3-Butadiene	ND		ug/m3	0.50	--
Methyl tert butyl ether	ND		ug/m3	0.70	--
Benzene	ND		ug/m3	0.60	--
C5-C8 Aliphatics, Adjusted	ND		ug/m3	10	--
Toluene	ND		ug/m3	0.90	--
Ethylbenzene	ND		ug/m3	0.90	--
p/m-Xylene	ND		ug/m3	0.90	--
o-Xylene	ND		ug/m3	0.90	--
Naphthalene	ND		ug/m3	1.1	--
C9-C12 Aliphatics, Adjusted	ND		ug/m3	10	--
C9-C10 Aromatics Total	ND		ug/m3	10	--

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L2016038
Report Date: 04/23/20

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1363095-3								
1,3-Butadiene	71		-		70-130	-		
Methyl tert butyl ether	86		-		70-130	-		
Benzene	94		-		70-130	-		
C5-C8 Aliphatics, Adjusted	105		-		70-130	-		
Toluene	112		-		70-130	-		
Ethylbenzene	125		-		70-130	-		
p/m-Xylene	116		-		70-130	-		
o-Xylene	120		-		70-130	-		
Naphthalene	128		-		50-150	-		
C9-C12 Aliphatics, Adjusted	109		-		70-130	-		
C9-C10 Aromatics Total	98		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L2016038
Report Date: 04/23/20

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1363095-5 QC Sample: L2016500-02 Client ID: DUP Sample						
1,3-Butadiene	ND	ND	ug/m3	NC		30
Methyl tert butyl ether	ND	ND	ug/m3	NC		30
Benzene	ND	ND	ug/m3	NC		30
C5-C8 Aliphatics, Adjusted	190	190	ug/m3	0		30
Toluene	ND	ND	ug/m3	NC		30
Ethylbenzene	ND	ND	ug/m3	NC		30
p/m-Xylene	ND	ND	ug/m3	NC		30
o-Xylene	ND	ND	ug/m3	NC		30
Naphthalene	ND	ND	ug/m3	NC		30
C9-C12 Aliphatics, Adjusted	23	19	ug/m3	19		30
C9-C10 Aromatics Total	ND	ND	ug/m3	NC		30

Project Name: 229 HOMER ST

Project Number: T0311-018-001

Lab Number: L2016038

Report Date: 04/23/20

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2016038-01	HOMER ST.- SVE	119	2.7L Can	04/10/20	318846	L2011727-01	Pass	-28.9	0.0	-	-	-	-

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

Lab Number: L2011727
Report Date: 04/23/20

Air Canister Certification Results

Lab ID: L2011727-01
Client ID: CAN 502 SHELF 3
Sample Location:

Date Collected: 03/19/20 16:00
Date Received: 03/20/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 03/21/20 17:31
Analyst: TS

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2011727
Report Date: 04/23/20

Air Canister Certification Results

Lab ID: L2011727-01
Client ID: CAN 502 SHELF 3
Sample Location:

Date Collected: 03/19/20 16:00
Date Received: 03/20/20
Field Prep: Not Specified

Sample Depth:

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

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

Lab Number: L2011727
Report Date: 04/23/20

Air Canister Certification Results

Lab ID: L2011727-01
Client ID: CAN 502 SHELF 3
Sample Location:

Date Collected: 03/19/20 16:00
Date Received: 03/20/20
Field Prep: Not Specified

Sample Depth:

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2011727
Report Date: 04/23/20

Air Canister Certification Results

Lab ID: L2011727-01
Client ID: CAN 502 SHELF 3
Sample Location:

Date Collected: 03/19/20 16:00
Date Received: 03/20/20
Field Prep: Not Specified

Sample Depth:

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

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

Lab Number: L2011727
Report Date: 04/23/20

Air Canister Certification Results

Lab ID: L2011727-01
Client ID: CAN 502 SHELF 3
Sample Location:

Date Collected: 03/19/20 16:00
Date Received: 03/20/20
Field Prep: Not Specified

Sample Depth:

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

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

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

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

Lab Number: L2011727
Report Date: 04/23/20

Air Canister Certification Results

Lab ID: L2011727-01
Client ID: CAN 502 SHELF 3
Sample Location:

Date Collected: 03/19/20 16:00
Date Received: 03/20/20
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/21/20 17:31
Analyst: TS

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

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

Lab Number: L2011727
Report Date: 04/23/20

Air Canister Certification Results

Lab ID: L2011727-01
Client ID: CAN 502 SHELF 3
Sample Location:

Date Collected: 03/19/20 16:00
Date Received: 03/20/20
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2011727
Report Date: 04/23/20

Air Canister Certification Results

Lab ID: L2011727-01
Client ID: CAN 502 SHELF 3
Sample Location:

Date Collected: 03/19/20 16:00
Date Received: 03/20/20
Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	87		60-140
bromochloromethane	91		60-140
chlorobenzene-d5	88		60-140

AIR Petro Can Certification

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2011727

Project Number: CANISTER QC BAT **Report Date:** 04/23/20

AIR CAN CERTIFICATION RESULTS

Lab ID:	L2011727-01	Date Collected:	03/19/20 16:00
Client ID:	CAN 502 SHELF 3	Date Received:	03/20/20
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/21/20 17:31		
Analyst:	RY		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air						
1,3-Butadiene	ND		ug/m3	0.50	--	1
Methyl tert butyl ether	ND		ug/m3	0.70	--	1
Benzene	ND		ug/m3	0.60	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	10	--	1
Toluene	ND		ug/m3	0.90	--	1
Ethylbenzene	ND		ug/m3	0.90	--	1
p/m-Xylene	ND		ug/m3	0.90	--	1
o-Xylene	ND		ug/m3	0.90	--	1
Naphthalene	ND		ug/m3	1.1	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	10	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Project Name: 229 HOMER ST
Project Number: T0311-018-001

Lab Number: L2016038
Report Date: 04/23/20

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(*)
L2016038-01A	Canister - 2.7 Liter	NA	NA			Y	Absent		APH-10(30),TO15-LL(30)

*Values in parentheses indicate holding time in days

Project Name:	229 HOMER ST	**Lab Number:**	L2016038
Project Number:	T0311-018-001	**Report Date:**	04/23/20

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:	229 HOMER ST	**Lab Number:**	L2016038
Project Number:	T0311-018-001	**Report Date:**	04/23/20

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

Project Name:	229 HOMER ST	**Lab Number:**	L2016038
Project Number:	T0311-018-001	**Report Date:**	04/23/20

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.

Report Format: Data Usability Report

REFERENCES

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

96 Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), MassDEP, December 2009, Revision 1 with QC Requirements & Performance Standards for the Analysis of APH by GC/MS under the Massachusetts Contingency Plan, WSC-CAM-IXA, July 2010.

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene
EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

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

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

Westborough Facility:

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

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

Mansfield Facility:

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

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

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

AIR ANALYSIS

CHAIN OF CUSTODY PAGE ____ OF ____

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

Date Rec'd in Lab: 4/17/20

ALPHA Job #: L2016038

Client Information

Client: Turnkey Env. Restoration
Address: 2558 Hamburg TnPk
Phone: 716-856-0635
Fax:
Email: BGreene@BM-TK.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: 229 Homer St
Project Location: Olean, NY
Project #: T0311-018-001
Project Manager: Brock Greene
ALPHA Quote #:

Turn-Around Time

☑ Standard ☐ RUSH (only confirmed if pre-approved)

Date Due: Time:

Report Information - Data Deliverables

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

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ☐

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15	TO-15 SIM	APH	Fixed Gases	Sulfides & Mercaptans by TO-15	Sample Comments (i.e. PID)
16038-01	Homer St. - SVE	4-15-20	1445	1446	26.90"	0"Hg	SV	CFD	2.7L	119		X	X	X	X	X	

ANALYSIS: ☐ Subtract Non-petroleum HCs

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

Container Type: CS CS CS CS CS

Relinquished By:	Date/Time	Received By:	Date/Time:
Connor Deubell	4-15/1730	[signature]	4/16/20 1300
[signature]	4/16/20 1330	T. Hinkle	4/17/20 0400
T. Hinkle	4/17/20 0500	[signature]	4/17/20 0500

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

Form No: 101-02 Rev: (25-Sep-15)

ANALYTICAL REPORT

Lab Number:	L2122543
Client:	Turnkey Environmental Restoration, LLC 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Brock Greene
Phone:	(716) 856-0599
Project Name:	HOMER STREET (SVE)
Project Number:	T0311-018-001
Report Date:	05/07/21

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: HOMER STREET (SVE)
Project Number: T0311-018-001

Lab Number: L2122543
Report Date: 05/07/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2122543-01	HOMER STREET SVE	SOIL_VAPOR	OLEAN, NY	04/29/21 13:15	04/30/21
L2122543-02	UNUSED_CAN#422	SOIL_VAPOR	OLEAN, NY		04/30/21

Project Name:	HOMER STREET (SVE)	**Lab Number:**	L2122543
Project Number:	T0311-018-001	**Report Date:**	05/07/21

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:	HOMER STREET (SVE)	**Lab Number:**	L2122543
Project Number:	T0311-018-001	**Report Date:**	05/07/21

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on April 9, 2021. The canister certification results are provided as an addendum.

L2122543-01D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

The WG1494898-3 LCS recovery for propylene (135%) and 3-chloropropene (131%) is above the upper 130% acceptance limit. All samples associated with this LCS do not have reportable amounts of this analyte.

Petroleum Hydrocarbons in Air

L2122543-01D All significant concentrations of non-petroleum VOCs detected in the TO-15 analysis were subtracted from the corresponding hydrocarbon ranges.

L2122543-01D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

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

Authorized Signature: Christopher J. Anderson

Title: Technical Director/Representative Date: 05/07/21

AIR

Project Name: HOMER STREET (SVE)
Project Number: T0311-018-001

Lab Number: L2122543
Report Date: 05/07/21

SAMPLE RESULTS

Lab ID: L2122543-01 D
Client ID: HOMER STREET SVE
Sample Location: OLEAN, NY

Date Collected: 04/29/21 13:15
Date Received: 04/30/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Anaytical Method: 48,TO-15
Analytical Date: 05/06/21 08:20
Analyst: RY

	ppbV			ug/m3				
Parameter	**Results**	**RL**	**MDL**	**Results**	**RL**	**MDL**	**Qualifier**	**Dilution Factor**
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	0.667	--	ND	3.30	--		3.333
Chloromethane	ND	0.667	--	ND	1.38	--		3.333
Freon-114	ND	0.667	--	ND	4.66	--		3.333
Vinyl chloride	ND	0.667	--	ND	1.71	--		3.333
1,3-Butadiene	ND	0.667	--	ND	1.48	--		3.333
Bromomethane	ND	0.667	--	ND	2.59	--		3.333
Chloroethane	ND	0.667	--	ND	1.76	--		3.333
Ethanol	ND	16.7	--	ND	31.5	--		3.333
Vinyl bromide	ND	0.667	--	ND	2.92	--		3.333
Acetone	ND	3.33	--	ND	7.91	--		3.333
Trichlorofluoromethane	ND	0.667	--	ND	3.75	--		3.333
Isopropanol	ND	1.67	--	ND	4.10	--		3.333
1,1-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333
Tertiary butyl Alcohol	ND	1.67	--	ND	5.06	--		3.333
Methylene chloride	ND	1.67	--	ND	5.80	--		3.333
3-Chloropropene	ND	0.667	--	ND	2.09	--		3.333
Carbon disulfide	ND	0.667	--	ND	2.08	--		3.333
Freon-113	ND	0.667	--	ND	5.11	--		3.333
trans-1,2-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333
1,1-Dichloroethane	ND	0.667	--	ND	2.70	--		3.333
Methyl tert butyl ether	ND	0.667	--	ND	2.40	--		3.333
2-Butanone	ND	1.67	--	ND	4.93	--		3.333
cis-1,2-Dichloroethene	ND	0.667	--	ND	2.64	--		3.333

Project Name: HOMER STREET (SVE)
Project Number: T0311-018-001

Lab Number: L2122543
Report Date: 05/07/21

SAMPLE RESULTS

Lab ID: L2122543-01 D
Client ID: HOMER STREET SVE
Sample Location: OLEAN, NY

Date Collected: 04/29/21 13:15
Date Received: 04/30/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	1.67	--	ND	6.02	--		3.333
Chloroform	ND	0.667	--	ND	3.26	--		3.333
Tetrahydrofuran	ND	1.67	--	ND	4.93	--		3.333
1,2-Dichloroethane	ND	0.667	--	ND	2.70	--		3.333
n-Hexane	ND	0.667	--	ND	2.35	--		3.333
1,1,1-Trichloroethane	ND	0.667	--	ND	3.64	--		3.333
Benzene	ND	0.667	--	ND	2.13	--		3.333
Carbon tetrachloride	ND	0.667	--	ND	4.20	--		3.333
Cyclohexane	20.5	0.667	--	70.6	2.30	--		3.333
1,2-Dichloropropane	ND	0.667	--	ND	3.08	--		3.333
Bromodichloromethane	ND	0.667	--	ND	4.47	--		3.333
1,4-Dioxane	ND	0.667	--	ND	2.40	--		3.333
Trichloroethene	ND	0.667	--	ND	3.58	--		3.333
2,2,4-Trimethylpentane	ND	0.667	--	ND	3.12	--		3.333
Heptane	ND	0.667	--	ND	2.73	--		3.333
cis-1,3-Dichloropropene	ND	0.667	--	ND	3.03	--		3.333
4-Methyl-2-pentanone	ND	1.67	--	ND	6.84	--		3.333
trans-1,3-Dichloropropene	ND	0.667	--	ND	3.03	--		3.333
1,1,2-Trichloroethane	ND	0.667	--	ND	3.64	--		3.333
Toluene	ND	0.667	--	ND	2.51	--		3.333
2-Hexanone	ND	0.667	--	ND	2.73	--		3.333
Dibromochloromethane	ND	0.667	--	ND	5.68	--		3.333
1,2-Dibromoethane	ND	0.667	--	ND	5.13	--		3.333
Tetrachloroethene	ND	0.667	--	ND	4.52	--		3.333
Chlorobenzene	ND	0.667	--	ND	3.07	--		3.333
Ethylbenzene	ND	0.667	--	ND	2.90	--		3.333

Project Name: HOMER STREET (SVE) ***Lab Number:*** L2122543

Project Number: T0311-018-001 ***Report Date:*** 05/07/21

SAMPLE RESULTS

Lab ID: L2122543-01 D
Client ID: HOMER STREET SVE
Sample Location: OLEAN, NY

Date Collected: 04/29/21 13:15
Date Received: 04/30/21
Field Prep: Not Specified

Sample Depth:

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

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
unknown cycloalkane	340	J	ppbV		3.333
Pentane, 2,3-dimethyl-	330	NJ	ppbV		3.333
unknown alkane	110	J	ppbV		3.333
Butane, 2,3-Dimethyl-	280	NJ	ppbV		3.333
Hexane, 2,4-dimethyl-	240	NJ	ppbV		3.333
unknown alkane	160	J	ppbV		3.333
unknown alkane	110	J	ppbV		3.333
unknown cycloalkane	120	J	ppbV		3.333
Pentane, 2,4-dimethyl-	450	NJ	ppbV		3.333

Project Name: HOMER STREET (SVE)
Project Number: T0311-018-001

Lab Number: L2122543
Report Date: 05/07/21

SAMPLE RESULTS

Lab ID: L2122543-01 D
Client ID: HOMER STREET SVE
Sample Location: OLEAN, NY

Date Collected: 04/29/21 13:15
Date Received: 04/30/21
Field Prep: Not Specified

Sample Depth:

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

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					
Unknown	250	J	ppbV		3.333
unknown cycloalkane	250	J	ppbV		3.333
Pentane, 3,3-dimethyl-	160	NJ	ppbV		3.333
Unknown	95	J	ppbV		3.333
Cyclopentane, 1,1-dimethyl-	280	NJ	ppbV		3.333
Pentane, 2,2-dimethyl-	320	NJ	ppbV		3.333

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	95		60-140
Bromochloromethane	91		60-140
chlorobenzene-d5	115		60-140

Project Name: HOMER STREET (SVE) **Lab Number:** L2122543

Project Number: T0311-018-001 **Report Date:** 05/07/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 05/05/21 17:45

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1494898-4								
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: HOMER STREET (SVE) **Lab Number:** L2122543

Project Number: T0311-018-001 **Report Date:** 05/07/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 05/05/21 17:45

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1494898-4								
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: HOMER STREET (SVE) **Lab Number:** L2122543

Project Number: T0311-018-001 **Report Date:** 05/07/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 48,TO-15
Analytical Date: 05/05/21 17:45

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air - Mansfield Lab for sample(s): 01 Batch: WG1494898-4								
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

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Lab Control Sample Analysis
Batch Quality Control

Project Name: HOMER STREET (SVE)
Project Number: T0311-018-001

Lab Number: L2122543
Report Date: 05/07/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1494898-3								
Dichlorodifluoromethane	86		-		70-130	-		
Chloromethane	113		-		70-130	-		
Freon-114	94		-		70-130	-		
Vinyl chloride	101		-		70-130	-		
1,3-Butadiene	105		-		70-130	-		
Bromomethane	100		-		70-130	-		
Chloroethane	101		-		70-130	-		
Ethanol	95		-		40-160	-		
Vinyl bromide	100		-		70-130	-		
Acetone	85		-		40-160	-		
Trichlorofluoromethane	96		-		70-130	-		
Isopropanol	94		-		40-160	-		
1,1-Dichloroethene	100		-		70-130	-		
Tertiary butyl Alcohol	86		-		70-130	-		
Methylene chloride	122		-		70-130	-		
3-Chloropropene	**131**	Q	-		70-130	-		
Carbon disulfide	103		-		70-130	-		
Freon-113	108		-		70-130	-		
trans-1,2-Dichloroethene	99		-		70-130	-		
1,1-Dichloroethane	101		-		70-130	-		
Methyl tert butyl ether	90		-		70-130	-		
2-Butanone	110		-		70-130	-		
cis-1,2-Dichloroethene	101		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: HOMER STREET (SVE)
Project Number: T0311-018-001

Lab Number: L2122543
Report Date: 05/07/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1494898-3								
Ethyl Acetate	109		-		70-130	-		
Chloroform	96		-		70-130	-		
Tetrahydrofuran	109		-		70-130	-		
1,2-Dichloroethane	98		-		70-130	-		
n-Hexane	105		-		70-130	-		
1,1,1-Trichloroethane	98		-		70-130	-		
Benzene	94		-		70-130	-		
Carbon tetrachloride	99		-		70-130	-		
Cyclohexane	102		-		70-130	-		
1,2-Dichloropropane	110		-		70-130	-		
Bromodichloromethane	98		-		70-130	-		
1,4-Dioxane	101		-		70-130	-		
Trichloroethene	99		-		70-130	-		
2,2,4-Trimethylpentane	108		-		70-130	-		
Heptane	120		-		70-130	-		
cis-1,3-Dichloropropene	101		-		70-130	-		
4-Methyl-2-pentanone	124		-		70-130	-		
trans-1,3-Dichloropropene	86		-		70-130	-		
1,1,2-Trichloroethane	105		-		70-130	-		
Toluene	100		-		70-130	-		
2-Hexanone	118		-		70-130	-		
Dibromochloromethane	108		-		70-130	-		
1,2-Dibromoethane	99		-		70-130	-		

Lab Control Sample Analysis
Batch Quality Control

Project Name: HOMER STREET (SVE)
Project Number: T0311-018-001

Lab Number: L2122543
Report Date: 05/07/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1494898-3								
Tetrachloroethene	95		-		70-130	-		
Chlorobenzene	94		-		70-130	-		
Ethylbenzene	99		-		70-130	-		
p/m-Xylene	105		-		70-130	-		
Bromoform	110		-		70-130	-		
Styrene	99		-		70-130	-		
1,1,2,2-Tetrachloroethane	111		-		70-130	-		
o-Xylene	109		-		70-130	-		
4-Ethyltoluene	100		-		70-130	-		
1,3,5-Trimethylbenzene	101		-		70-130	-		
1,2,4-Trimethylbenzene	108		-		70-130	-		
Benzyl chloride	128		-		70-130	-		
1,3-Dichlorobenzene	111		-		70-130	-		
1,4-Dichlorobenzene	115		-		70-130	-		
1,2-Dichlorobenzene	108		-		70-130	-		
1,2,4-Trichlorobenzene	120		-		70-130	-		
Hexachlorobutadiene	107		-		70-130	-		

Project Name: HOMER STREET (SVE) **Lab Number:** L2122543

Project Number: T0311-018-001 **Report Date:** 05/07/21

SAMPLE RESULTS

Lab ID: L2122543-01 D
Client ID: HOMER STREET SVE
Sample Location: OLEAN, NY

Date Collected: 04/29/21 13:15
Date Received: 04/30/21
Field Prep: Not Specified

Sample Depth:
Matrix: Soil_Vapor
Analytical Method: 96,APH
Analytical Date: 05/06/21 08:20
Analyst: RY

Quality Control Information

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air - Mansfield Lab						
1,3-Butadiene	ND		ug/m3	1.6	--	3.3
Methyl tert butyl ether	ND		ug/m3	2.3	--	3.3
Benzene	ND		ug/m3	2.0	--	3.3
C5-C8 Aliphatics, Adjusted	29000		ug/m3	33	--	3.3
Toluene	ND		ug/m3	3.0	--	3.3
Ethylbenzene	ND		ug/m3	3.0	--	3.3
p/m-Xylene	ND		ug/m3	3.0	--	3.3
o-Xylene	ND		ug/m3	3.0	--	3.3
Naphthalene	ND		ug/m3	3.6	--	3.3
C9-C12 Aliphatics, Adjusted	4800		ug/m3	33	--	3.3
C9-C10 Aromatics Total	ND		ug/m3	33	--	3.3

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	102		50-200
Bromochloromethane	100		50-200
Chlorobenzene-d5	135		50-200

Project Name: HOMER STREET (SVE) **Lab Number:** L2122543

Project Number: T0311-018-001 **Report Date:** 05/07/21

Method Blank Analysis
Batch Quality Control

Analytical Method: 96,APH
Analytical Date: 05/05/21 17:45
Analyst: RY

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbons in Air - Mansfield Lab for sample(s): 01 Batch: WG1494894-4					
1,3-Butadiene	ND		ug/m3	0.50	--
Methyl tert butyl ether	ND		ug/m3	0.70	--
Benzene	ND		ug/m3	0.60	--
C5-C8 Aliphatics, Adjusted	ND		ug/m3	10	--
Toluene	ND		ug/m3	0.90	--
Ethylbenzene	ND		ug/m3	0.90	--
p/m-Xylene	ND		ug/m3	0.90	--
o-Xylene	ND		ug/m3	0.90	--
Naphthalene	ND		ug/m3	1.1	--
C9-C12 Aliphatics, Adjusted	ND		ug/m3	10	--
C9-C10 Aromatics Total	ND		ug/m3	10	--

Lab Control Sample Analysis

Batch Quality Control

Project Name: HOMER STREET (SVE)

Project Number: T0311-018-001

Lab Number: L2122543

Report Date: 05/07/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01 Batch: WG1494894-3								
1,3-Butadiene	122		-		70-130	-		
Methyl tert butyl ether	107		-		70-130	-		
Benzene	105		-		70-130	-		
C5-C8 Aliphatics, Adjusted	122		-		70-130	-		
Toluene	104		-		70-130	-		
Ethylbenzene	102		-		70-130	-		
p/m-Xylene	106		-		70-130	-		
o-Xylene	110		-		70-130	-		
Naphthalene	142		-		50-150	-		
C9-C12 Aliphatics, Adjusted	112		-		70-130	-		
C9-C10 Aromatics Total	93		-		70-130	-		

Lab Duplicate Analysis
Batch Quality Control

Project Name: HOMER STREET (SVE)
Project Number: T0311-018-001

Lab Number: L2122543
Report Date: 05/07/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Petroleum Hydrocarbons in Air - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1494894-5 QC Sample: L2122001-01 Client ID: DUP Sample						
1,3-Butadiene	ND	ND	ug/m3	NC		30
Methyl tert butyl ether	ND	ND	ug/m3	NC		30
Benzene	ND	ND	ug/m3	NC		30
C5-C8 Aliphatics, Adjusted	ND	ND	ug/m3	NC		30
Toluene	ND	ND	ug/m3	NC		30
Ethylbenzene	ND	ND	ug/m3	NC		30
p/m-Xylene	ND	ND	ug/m3	NC		30
o-Xylene	ND	ND	ug/m3	NC		30
Naphthalene	ND	ND	ug/m3	NC		30
C9-C12 Aliphatics, Adjusted	ND	ND	ug/m3	NC		30
C9-C10 Aromatics Total	ND	ND	ug/m3	NC		30

Project Name: HOMER STREET (SVE)

Project Number: T0311-018-001

Lab Number: L2122543

Report Date: 05/07/21

Canister and Flow Controller Information

Samplenum	Client ID	Media ID	Media Type	Date Prepared	Bottle Order	Cleaning Batch ID	Can Leak Check	Initial Pressure (in. Hg)	Pressure on Receipt (in. Hg)	Flow Controler Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2122543-01	HOMER STREET SVE	2301	2.7L Can	04/09/21	348436	L2115991-01	Pass	-29.1	-2.9	-	-	-	-
L2122543-02	UNUSED_CAN#422	422	2.7L Can	04/09/21	348436	L2115991-01	Pass	-29.3	-29.8	-	-	-	-

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

Lab Number: L2115991
Report Date: 05/07/21

Air Canister Certification Results

Lab ID: L2115991-01
Client ID: CAN 450 SHELF 8
Sample Location:

Date Collected: 03/30/21 16:00
Date Received: 03/31/21
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15
Analytical Date: 03/31/21 15:37
Analyst: EW

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2115991
Report Date: 05/07/21

Air Canister Certification Results

Lab ID: L2115991-01
Client ID: CAN 450 SHELF 8
Sample Location:

Date Collected: 03/30/21 16:00
Date Received: 03/31/21
Field Prep: Not Specified

Sample Depth:

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2115991
Report Date: 05/07/21

Air Canister Certification Results

Lab ID: L2115991-01
Client ID: CAN 450 SHELF 8
Sample Location:

Date Collected: 03/30/21 16:00
Date Received: 03/31/21
Field Prep: Not Specified

Sample Depth:

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

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2115991
Report Date: 05/07/21

Air Canister Certification Results

Lab ID: L2115991-01
Client ID: CAN 450 SHELF 8
Sample Location:

Date Collected: 03/30/21 16:00
Date Received: 03/31/21
Field Prep: Not Specified

Sample Depth:

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

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2115991

Project Number: CANISTER QC BAT **Report Date:** 05/07/21

Air Canister Certification Results

Lab ID: L2115991-01
Client ID: CAN 450 SHELF 8
Sample Location:

Date Collected: 03/30/21 16:00
Date Received: 03/31/21
Field Prep: Not Specified

Sample Depth:

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

	Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds					

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	84		60-140
Bromochloromethane	88		60-140
chlorobenzene-d5	83		60-140

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2115991
Report Date: 05/07/21

Air Canister Certification Results

Lab ID: L2115991-01
Client ID: CAN 450 SHELF 8
Sample Location:

Date Collected: 03/30/21 16:00
Date Received: 03/31/21
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Anaytical Method: 48,TO-15-SIM
Analytical Date: 03/31/21 15:37
Analyst: EW

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

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

Lab Number: L2115991
Report Date: 05/07/21

Air Canister Certification Results

Lab ID: L2115991-01
Client ID: CAN 450 SHELF 8
Sample Location:

Date Collected: 03/30/21 16:00
Date Received: 03/31/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV Results	ppbV RL	ppbV MDL	ug/m3 Results	ug/m3 RL	ug/m3 MDL	Qualifier	Dilution Factor
Volatile Organics in Air by SIM - Mansfield Lab								
1,2-Dichloropropane	ND	0.020	--	ND	0.092	--		1
Bromodichloromethane	ND	0.020	--	ND	0.134	--		1
1,4-Dioxane	ND	0.100	--	ND	0.360	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
cis-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.020	--	ND	0.091	--		1
1,1,2-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Toluene	ND	0.050	--	ND	0.188	--		1
Dibromochloromethane	ND	0.020	--	ND	0.170	--		1
1,2-Dibromoethane	ND	0.020	--	ND	0.154	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1
1,1,1,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
Chlorobenzene	ND	0.100	--	ND	0.461	--		1
Ethylbenzene	ND	0.020	--	ND	0.087	--		1
p/m-Xylene	ND	0.040	--	ND	0.174	--		1
Bromoform	ND	0.020	--	ND	0.207	--		1
Styrene	ND	0.020	--	ND	0.085	--		1
1,1,2,2-Tetrachloroethane	ND	0.020	--	ND	0.137	--		1
o-Xylene	ND	0.020	--	ND	0.087	--		1
Isopropylbenzene	ND	0.200	--	ND	0.983	--		1
4-Ethyltoluene	ND	0.020	--	ND	0.098	--		1
1,3,5-Trimethybenzene	ND	0.020	--	ND	0.098	--		1
1,2,4-Trimethylbenzene	ND	0.020	--	ND	0.098	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1
1,4-Dichlorobenzene	ND	0.020	--	ND	0.120	--		1

Project Name: BATCH CANISTER CERTIFICATION
Project Number: CANISTER QC BAT
Lab Number: L2115991
Report Date: 05/07/21

Air Canister Certification Results

Lab ID: L2115991-01
Client ID: CAN 450 SHELF 8
Sample Location:

Date Collected: 03/30/21 16:00
Date Received: 03/31/21
Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	83		60-140
bromochloromethane	87		60-140
chlorobenzene-d5	86		60-140

AIR Petro Can Certification

Project Name: BATCH CANISTER CERTIFICATION **Lab Number:** L2115991

Project Number: CANISTER QC BAT **Report Date:** 05/07/21

AIR CAN CERTIFICATION RESULTS

Lab ID:	L2115991-01	Date Collected:	03/30/21 16:00
Client ID:	CAN 450 SHELF 8	Date Received:	03/31/21
Sample Location:	Not Specified	Field Prep:	Not Specified
Matrix:	Air		
Analytical Method:	96,APH		
Analytical Date:	03/31/21 15:37		
Analyst:	EW		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Petroleum Hydrocarbons in Air						
1,3-Butadiene	ND		ug/m3	0.50	--	1
Methyl tert butyl ether	ND		ug/m3	0.70	--	1
Benzene	ND		ug/m3	0.60	--	1
C5-C8 Aliphatics, Adjusted	ND		ug/m3	10	--	1
Toluene	ND		ug/m3	0.90	--	1
Ethylbenzene	ND		ug/m3	0.90	--	1
p/m-Xylene	ND		ug/m3	0.90	--	1
o-Xylene	ND		ug/m3	0.90	--	1
Naphthalene	ND		ug/m3	1.1	--	1
C9-C12 Aliphatics, Adjusted	ND		ug/m3	10	--	1
C9-C10 Aromatics Total	ND		ug/m3	10	--	1

Project Name: HOMER STREET (SVE)
Project Number: T0311-018-001

Lab Number: L2122543
Report Date: 05/07/21

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(*)
L2122543-01A	Canister - 2.7 Liter	NA	NA			Y	Absent		APH-10(30),TO15-LL(30)
L2122543-02A	Canister - 2.7 Liter	NA	NA			Y	Absent		CLEAN-FEE()

*Values in parentheses indicate holding time in days

Project Name:	HOMER STREET (SVE)	**Lab Number:**	L2122543
Project Number:	T0311-018-001	**Report Date:**	05/07/21

GLOSSARY

Acronyms

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

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

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

EPA - Environmental Protection Agency.

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

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

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

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

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

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

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

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

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

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

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

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

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

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

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

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

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

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

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

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

Report Format: Data Usability Report

Project Name:	HOMER STREET (SVE)	**Lab Number:**	L2122543
Project Number:	T0311-018-001	**Report Date:**	05/07/21

Footnotes

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

Terms

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

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

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

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

Data Qualifiers

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

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

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

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

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

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

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

Report Format: Data Usability Report

Project Name:	HOMER STREET (SVE)	**Lab Number:**	L2122543
Project Number:	T0311-018-001	**Report Date:**	05/07/21

Data Qualifiers

the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

Report Format: Data Usability Report

REFERENCES

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

96 Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH), MassDEP, December 2009, Revision 1 with QC Requirements & Performance Standards for the Analysis of APH by GC/MS under the Massachusetts Contingency Plan, WSC-CAM-IXA, July 2010.

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 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.
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

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

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

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

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

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

AIR ANALYSIS

CHAIN OF CUSTODY

PAGE 1 OF 1

Date Rec'd in Lab: 05-1-21

ALPHA Job #: L2122543

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

Client Information

Client: Turnkey
Address: 2558 Hamburg Turnpike
716-864-2726
Phone: 716-225-3314
Fax:
Email: bgreene@bm-tk.com

❑ These samples have been previously analyzed by Alpha

Project Information

Project Name: Homer Street (SVE)
Project Location: Olean NY
Project #: T0311-018-001
Project Manager: Brock Greene
ALPHA Quote #:

Turn-Around Time

☑ Standard ❑ RUSH (only confirmed if pre-approved)

Date Due: Time:

Report Information - Data Deliverables

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

Billing Information

☒ Same as Client info PO #:

Regulatory Requirements/Report Limits

State/Fed	Program	Res / Comm

Other Project Specific Requirements/Comments:

Project-Specific Target Compound List: ❑

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	End Date	Start Time	End Time	Initial Vacuum	Final Vacuum	Sample Matrix*	Sampler's Initials	Can Size	I D Can	I D - Flow Controller	TO-15 (TCL, VOCs, TICs)	TO-15 SIM	APH	Fixed Gases	Sulfides & Mercaptans by TO-15	APH (DRO, GRO)	Sample Comments (i.e. PID)
22543-01	Homer Street SVE	4/29/21	13:15	13:15	-8.95	-0.07	SV	CWE	2.7L	2301	104	X					X	PID 20.2PPM

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

Container Type: CS

Relinquished By:	Date/Time	Received By:	Date/Time:
[signature]	4/30/21 0930	[signature] AAL	4/30/21 1450
[signature] AAL	4/30/21 1450	[signature]	5/1/21 0115
C. [signature]	5/1/21 0820	[signature]	5/1/21 8:20
[signature]	10:24 5-1-21	[signature]	5-1-21 1025

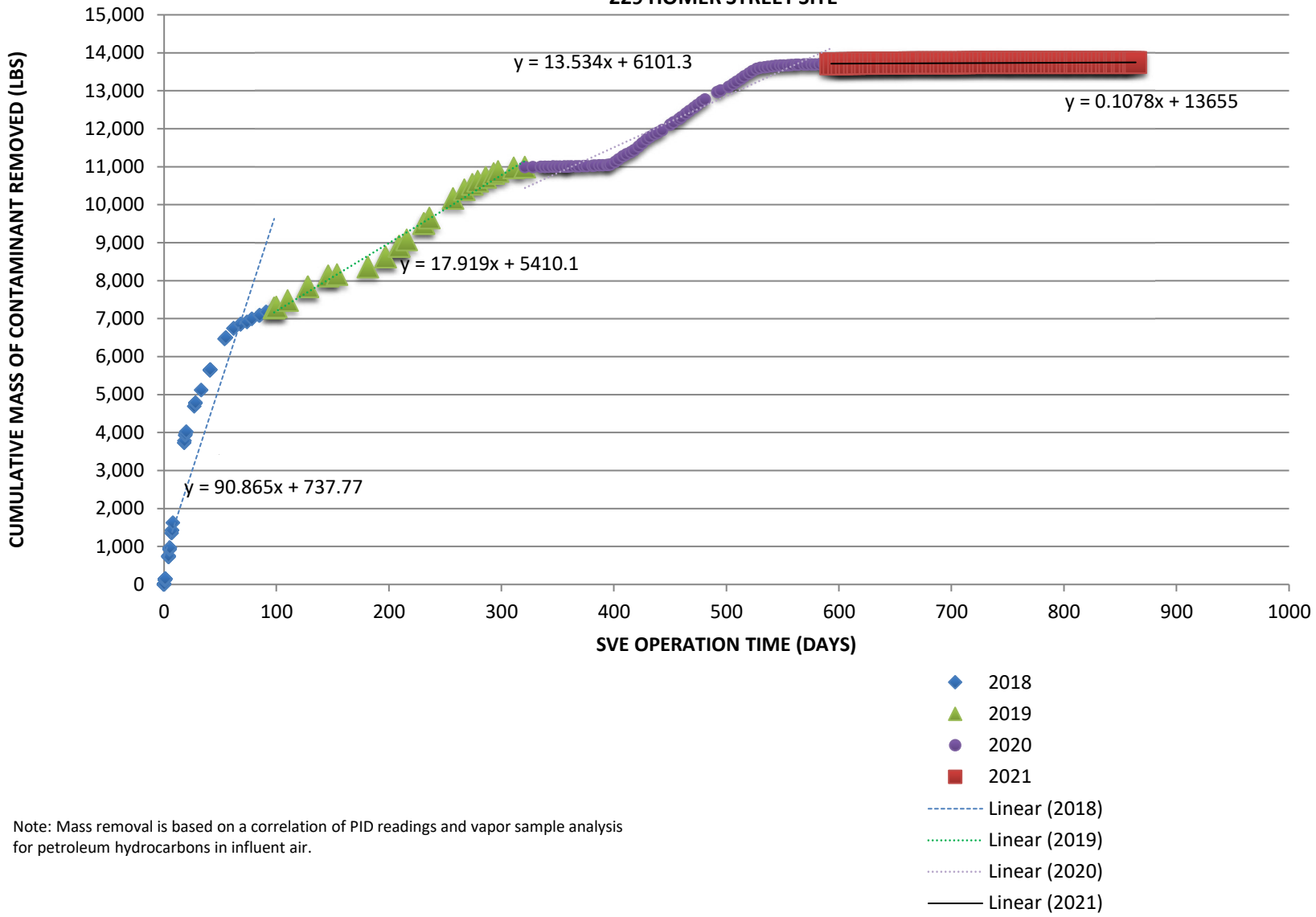
Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Form No: 101-02 Rev: (25-Sep-15)

ATTACHMENT 2

MASS REMOVAL TABLES AND CHARTS

CHART 1
CUMULATIVE MASS REMOVAL VERSUS TIME
SVE/AS SYSTEM
229 HOMER STREET SITE



Note: Mass removal is based on a correlation of PID readings and vapor sample analysis for petroleum hydrocarbons in influent air.

Table 1 - Summary of SVE System VOC Mass Removal

229 Homer Street Site
NYSDEC BCP Site No. C905044
Olean, New York

Date	SVE Operation Time (days)	Influent (Untreated) PID Reading (ppm)	Effluent PID Reading Biofilter (ppm)	Corrected Influent Concentration[1] (mg/m^3)	Vacuum (in of H_2O)	Air Flow Rate		Volume of Air Processed Since Previous Reading		Rate of VOC Removal		VOCs Removed Since Last Monitoring Period		Total VOC Removal to Date		Notes
						(ACFM)	(SCFM)	(CF)	(m^3)	(kg/day)	(lb/day)	(kg)	(lb)	(kg)	(lb)	
09/13/18	0.0	86	1.4	1237	52.0	490	401	0	0.00E+00	0.0	0.0	0.0	0.0	0.0	0	
09/13/18	0	105	28	1511	52.0	490	401	0	0.00E+00	0.0	0.0	0.0	0.0	0.0	0	
09/13/18	0	119	35	1712	51.0	495	405	8095	2.29E+02	28.3	62.3	0.2	0.4	0.2	0	
09/13/18	0	118	122	1698	51.0	495	405	8095	2.29E+02	28.0	61.8	0.4	0.9	0.6	1	
09/13/18	0	175	146	2518	52.0	490	401	10017	2.84E+02	41.1	90.7	0.6	1.3	1.2	3	
09/13/18	0	180	65	2590	50.0	500	409	6133	1.74E+02	43.2	95.2	0.4	1.0	1.6	4	
09/13/18	0	182	25	2619	52.0	490	401	24041	6.81E+02	42.8	94.3	1.8	3.9	3.4	8	
09/13/18	0	192	11	2762	52.0	490	401	12020	3.40E+02	45.1	99.5	0.9	2.0	4.3	10	
09/13/18	0	185	13	2662	52.0	490	401	10017	2.84E+02	43.5	95.9	0.8	1.7	5.1	11	
09/13/18	0	215	14	3093	52.0	490	401	14024	3.97E+02	50.5	111.4	1.1	2.5	6.2	14	
09/13/18	0	209	17	3007	51.0	495	405	20238	5.73E+02	49.6	109.4	1.7	3.8	8.0	18	
09/14/18	1	294	69	4230	50.0	500	409	433384	1.23E+04	70.5	155.5	44.2	97.5	52.2	115	
09/14/18	1	350	17	5036	48.0	510	417	25022	7.09E+02	85.6	188.8	3.3	7.2	55.5	122	
09/14/18	1	312	9	4489	51.0	495	405	16191	4.58E+02	74.1	163.4	2.2	4.9	57.7	127	
09/14/18	1	347	28	4993	51.0	495	405	16191	4.58E+02	82.4	181.7	2.2	4.8	59.9	132	
09/14/18	1	236	15	3396	50.0	500	409	53151	1.51E+03	56.6	124.8	6.3	13.8	66.1	146	
09/14/18	1	352	11	5064	49.0	505	413	12388	3.51E+02	85.3	188.0	1.5	3.3	67.6	149	
09/14/18	1	374	17	5381	50.0	500	409	12266	3.47E+02	89.7	197.8	1.8	4.0	69.4	153	
09/14/18	1	351	18	5050	49.0	505	413	12388	3.51E+02	85.0	187.5	1.8	4.0	71.2	157	
09/17/18	4	401	14	5769	49.0	505	413	1668282	4.72E+04	97.1	214.2	255.6	563.5	326.8	721	
09/17/18	4	382	13	5496	50.0	500	409	28620	8.10E+02	91.6	202.0	4.6	10.1	331.4	731	
09/17/18	4	356	23	5122	49.0	505	413	24776	7.02E+02	86.2	190.2	3.7	8.2	335.1	739	
09/17/18	4	400	37	5755	48.0	510	417	25022	7.09E+02	97.9	215.8	3.8	8.5	338.9	747	
09/17/18	4	388	21	5582	49.0	505	413	37165	1.05E+03	94.0	207.3	6.0	13.2	344.9	761	
09/18/18	5	389	11	5597	50.0	500	409	453826	1.29E+04	93.3	205.7	72.2	159.2	417.1	920	
09/18/18	5	380	14	5467	49.0	505	413	86718	2.46E+03	92.1	203.0	13.5	29.8	430.6	950	
09/18/18	5	400	21	5755	50.0	500	409	24531	6.95E+02	95.9	211.6	3.9	8.6	434.6	958	
09/18/18	5	384	14	5525	50.0	500	409	12266	3.47E+02	92.1	203.1	2.0	4.3	436.5	963	
09/18/18	5	392	18	5640	50.0	500	409	12266	3.47E+02	94.0	207.3	1.9	4.3	438.5	967	
09/20/18	7	450	17	6474	50.0	500	409	1018043	2.88E+04	107.9	238.0	174.6	385.0	613.1	1,352	

TurnKey Benchmark

Table 1 - Summary of SVE System VOC Mass Removal

229 Homer Street Site
NYSDEC BCP Site No. C905044
Olean, New York

Date	SVE Operation Time (days)	Influent (Untreated) PID Reading (ppm)	Effluent PID Reading Biofilter (ppm)	Corrected Influent Concentration[1] (mg/m^3)	Vacuum (in of H_2O)	Air Flow Rate		Volume of Air Processed Since Previous Reading		Rate of VOC Removal		VOCs Removed Since Last Monitoring Period		Total VOC Removal to Date		Notes
						(ACFM)	(SCFM)	(CF)	(m^3)	(kg/day)	(lb/day)	(kg)	(lb)	(kg)	(lb)	
09/20/18	7	575	20	8273	38.0	560	458	162560	4.60E+03	154.5	340.6	32.3	71.3	645.4	1,423	
09/20/18	7	517	19	7438	40.0	550	450	13492	3.82E+02	136.4	300.8	3.0	6.7	648.4	1,430	
09/21/18	8	326	21	4695	42.0	540	442	505587	1.43E+04	84.5	186.4	87.8	193.7	736.3	1,624	
10/01/18	18	450	3.9	6474	51.0	495	405	5816459	1.65E+05	106.9	235.6	955.0	2105.8	1691.3	3,729	
10/01/18	18	360	14	5180	49.0	505	413	148659	4.21E+03	87.2	192.3	24.3	53.5	1715.5	3,783	
10/02/18	19	337	8	4849	50.0	500	409	466092	1.32E+04	80.8	178.2	66.5	146.7	1782.1	3,929	
10/02/18	19	177	3	2547	52.0	490	401	120203	3.40E+03	41.6	91.7	12.8	28.1	1794.8	3,958	
10/03/18	20	198	4	2849	52.0	490	401	384648	1.09E+04	46.5	102.6	29.4	64.8	1824.2	4,022	
10/10/18	27	165	NM	2374	52.0	490	401	4110931	1.16E+05	38.8	85.5	304.0	670.3	2128.2	4,693	
10/11/18	28	173	4	2489	52.0	490	401	534902	1.51E+04	40.7	89.7	36.8	81.2	2165.0	4,774	
10/11/18	28	152	4	2187	45.0	525	429	64394	1.82E+03	38.3	84.4	4.1	9.1	2169.1	4,783	Remove water blockage in vapor piping from SVE wells SVE-6, 10, 12 and -14
10/11/18	28	124	3	1784	46.0	520	425	19134	5.42E+02	30.9	68.2	1.1	2.4	2170.2	4,785	
10/16/18	33	116	NM	1669	46.0	520	425	3112513	8.81E+04	28.9	63.8	152.2	335.5	2322.4	5,121	
10/24/18	41	137	ND	1971	54.0	480	392	4403832	1.25E+05	31.5	69.6	235.6	519.6	2558.0	5,640	Measure PID on individual SVE wells
10/24/18	41	199	ND	2863	47.0	515	421	44217	1.25E+03	49.2	108.4	2.9	6.5	2561.0	5,647	Turn off wells 1. 2. 11 & 14
10/24/18	41	119	ND	1712	49.0	505	413	18582	5.26E+02	28.8	63.6	1.2	2.7	2562.2	5,650	Air sparge on. 1 hour each Zones 1 and 2
10/24/18	41	197	ND	2834	49.0	505	413	37165	1.05E+03	47.7	105.2	2.4	5.3	2564.6	5,655	Shut sparge off at 12:30
10/24/18	41	185	ND	2662	51.0	495	405	24286	6.88E+02	43.9	96.9	1.9	4.2	2566.5	5,659	Adjust sparge to 15 minutes all wells per day
11/06/18	54	56.5	1	813	53.0	485	397	7340825	2.08E+05	13.1	29.0	366.8	808.9	2933.3	6,468	
11/07/18	55	47	0	676	53.0	485	397	547290	1.55E+04	10.9	24.1	11.5	25.4	2944.9	6,493	
11/07/18	55	68	0	978	50.0	500	409	134921	3.82E+03	16.3	36.0	3.1	6.9	2948.0	6,500	
11/14/18	62	68	0	978	50.0	500	409	3961781	1.12E+05	16.3	36.0	109.8	242.0	3057.7	6,742	System shut down due to freezing temperatures
11/15/18	62	68	0	978	50.0	500	409	0	0.00E+00	0.0	0.0	0.0	0.0	3057.7	6,742	Restart system

TurnKey Benchmark

Table 1 - Summary of SVE System VOC Mass Removal

229 Homer Street Site
NYSDEC BCP Site No. C905044
Olean, New York

Date	SVE Operation Time (days)	Influent (Untreated) PID Reading (ppm)	Effluent PID Reading Biofilter (ppm)	Corrected Influent Concentration[1] (mg/m^3)	Vacuum (in of H_2O)	Air Flow Rate		Volume of Air Processed Since Previous Reading		Rate of VOC Removal		VOCs Removed Since Last Monitoring Period		Total VOC Removal to Date		Notes
						(ACFM)	(SCFM)	(CF)	(m^3)	(kg/day)	(lb/day)	(kg)	(lb)	(kg)	(lb)	
11/21/18	68	68	0	978	50.0	500	409	3630611	1.03E+05	16.3	36.0	50.3	110.9	3108.0	6,853	System shut down due to freezing temperatures
11/24/18	68	68	0	978	50.0	500	409	0	0.00E+00	0.0	0.0	0.0	0.0	3108.0	6,853	Restart system
11/30/18	74	39	0	561	53.0	485	397	3343228	9.47E+04	9.1	20.0	26.6	58.6	3134.6	6,912	
12/04/18	78	34	0	489	33.0	585	478	2855794	8.09E+04	9.5	21.0	38.6	85.1	3173.2	6,997	
12/11/18	85	10	0	144	36.0	570	466	4586344	1.30E+05	2.7	6.0	41.9	92.5	3215.1	7,089	
12/11/18	85	24	0	347	53.0	485	397	154669	4.38E+03	5.6	12.4	1.1	2.5	3216.3	7,092	
12/17/18	91	35		501	53.0	485	397	3343228	9.47E+04	8.1	17.9	40.1	88.4	3256.4	7,180	
12/24/18	98	21	0	302	55.0	475	388	3833606	1.09E+05	4.8	10.6	44.1	97.3	3300.5	7,278	System shut down due to freezing temperatures
04/24/19	98	21	0	302	40.0	550	450	0	0.00E+00	0.0	0.0	0.0	0.0	3300.5	7,278	Sparge off
04/24/19	98	21	0	304	45.0	525	429	83713	2.37E+03	5.3	11.7	0.4	0.8	3300.9	7,278	
04/26/19	100	37	0	527	50.0	500	409	1060972	3.00E+04	8.8	19.4	12.7	28.0	3313.6	7,306	
05/06/19	110	28	0	397	52.0	490	401	5871899	1.66E+05	6.5	14.3	77.7	171.3	3391.3	7,478	
05/24/19	128	52	0	751	56.0	470	384	9863608	2.79E+05	11.8	26.0	162.7	358.8	3554.0	7,836	
05/24/19	128	49	0	708	54.0	480	392	74575	2.11E+03	11.3	25.0	1.5	3.4	3555.5	7,840	
06/11/19	146	14	0	196	58.0	460	376	9689478	2.74E+05	3.0	6.6	128.2	282.6	3683.7	8,122	
06/11/19	146	14	0	201	54.0	480	392	100087	2.83E+03	3.2	7.1	0.6	1.2	3684.2	8,124	
06/19/19	154	5	0	71	57.0	465	380	4317544	1.22E+05	1.1	2.4	17.0	37.5	3701.2	8,161	
07/16/19	181	24	0	341	56.0	470	384	15092301	4.27E+05	5.3	11.8	87.8	193.5	3789.0	8,355	
08/01/19	197	44	0	626	56.0	470	384	8704879	2.46E+05	9.8	21.6	119.2	262.8	3908.2	8,618	
08/01/19	197	54	0	773	46.0	520	425	38269	1.08E+03	13.4	29.5	0.7	1.6	3908.9	8,619	
08/13/19	209	32	0	456	41.0	545	446	7640657	2.16E+05	8.3	18.3	129.1	284.6	4038.0	8,904	
08/13/19	209	33	0	478	37.0	565	462	76231	2.16E+03	9.0	19.8	1.0	2.2	4039.0	8,906	
08/13/19	209	41	0	588	39.0	555	454	61267	1.73E+03	10.9	24.0	0.9	2.1	4039.9	8,908	
08/20/19	216	48	0	692	51.0	495	405	3964664	1.12E+05	11.4	25.2	75.9	167.3	4115.8	9,075	
09/04/19	231	62	0	888	52.0	490	401	8654591	2.45E+05	14.5	32.0	194.4	428.7	4310.2	9,504	
09/04/19	231	51	0	738	42.0	540	442	105975	3.00E+03	13.3	29.3	2.3	5.1	4312.5	9,509	
09/09/19	236	46	0.4	662	42.0	540	442	3165991	8.97E+04	11.9	26.3	62.8	138.4	4375.3	9,648	

TurnKey Benchmark

Table 1 - Summary of SVE System VOC Mass Removal

229 Homer Street Site
NYSDEC BCP Site No. C905044
Olean, New York

Date	SVE Operation Time (days)	Influent (Untreated) PID Reading (ppm)	Effluent PID Reading Biofilter (ppm)	Corrected Influent Concentration[1] (mg/m^3)	Vacuum (in of H_2O)	Air Flow Rate		Volume of Air Processed Since Previous Reading		Rate of VOC Removal		VOCs Removed Since Last Monitoring Period		Total VOC Removal to Date		Notes
						(ACFM)	(SCFM)	(CF)	(m^3)	(kg/day)	(lb/day)	(kg)	(lb)	(kg)	(lb)	
09/30/19	257	44	0.8	633	51.0	495	405	12264350	3.47E+05	10.4	23.0	235.3	518.8	4610.6	10,166	
10/10/19	267	43	0.6	617	50.0	500	409	5862945	1.66E+05	10.3	22.7	103.3	227.7	4713.9	10,394	
10/17/19	274	32	0.7	458	50.0	500	409	4170296	1.18E+05	7.6	16.8	63.5	139.9	4777.3	10,534	System shut down on 10-22-19
11/07/19	279	33	0.3	469	51.0	495	405	2865729	8.11E+04	7.7	17.1	37.8	83.3	4815.1	10,617	System restarted, sparge off
11/14/19	286	25	0.1	355	50.0	500	409	4121234	1.17E+05	5.9	13.1	47.8	105.5	4862.9	10,723	
11/21/19	293	28.5	0.1	410	50.0	500	409	4121234	1.17E+05	6.8	15.1	44.7	98.5	4907.6	10,821	
11/25/19	297	22	0	311	50.0	500	409	2354991	6.67E+04	5.2	11.4	24.0	53.0	4931.6	10,874	
12/09/19	311	5.2	0	75	52.0	490	401	8053577	2.28E+05	1.2	2.7	44.7	98.5	4976.3	10,973	
12/19/19	321	0.8	0	12	56.0	470	384	5441991	1.54E+05	0.2	0.4	6.9	15.2	4983.2	10,988	System off for the winter
03/23/20	321	2.6	0	7	54.0	480	392	23550	6.67E+02	0.1	0.3	0.0	0.0	4983.2	10,988	Sparge off
03/30/20	328	6.9	0	19	55.0	475	388	3938477	1.12E+05	0.3	0.7	1.5	3.3	4984.7	10,991	
04/06/20	335	6.0	0	17	56.0	470	384	3873960	1.10E+05	0.3	0.6	2.0	4.4	4986.7	10,996	
04/10/20	339	6.9	0.2	19	56.0	470	384	2075335	5.88E+04	0.3	0.7	1.1	2.3	4987.7	10,998	
04/10/20	339	7.4	0.1	21	52.0	490	401	48081	1.36E+03	0.3	0.7	0.0	0.1	4987.8	10,998	
04/13/20	342	5.1	0	14	55.0	475	388	1747845	4.95E+04	0.2	0.5	0.9	1.9	4988.6	11,000	
04/17/20	346	3.8	0.1	11	55.0	475	388	2120718	6.01E+04	0.2	0.4	0.7	1.6	4989.4	11,002	
04/17/20	346	4.2	0.1	12	46.0	520	425	127562	3.61E+03	0.2	0.4	0.0	0.1	4989.4	11,002	
04/20/20	349	5.8	0.1	16	55.0	475	388	1701235	4.82E+04	0.3	0.6	0.7	1.5	4990.1	11,003	
04/23/20	352	3.1	0	9	53.0	485	397	1713256	4.85E+04	0.1	0.3	0.6	1.3	4990.7	11,004	
04/27/20	356	3.4	0	9	53.0	485	397	2260546	6.40E+04	0.2	0.3	0.6	1.3	4991.3	11,006	
04/27/20	356	4.2	0	12	53.0	485	397	23795	6.74E+02	0.2	0.4	0.0	0.0	4991.3	11,006	
05/04/20	359	0.3	0	1	53.0	485	397	1689460	4.78E+04	0.0	0.0	0.3	0.7	4991.6	11,006	
05/04/20	359	3.2	0	9	52.0	490	401	96162	2.72E+03	0.1	0.3	0.0	0.0	4991.6	11,006	
05/07/20	362	8.9	0	25	54.0	480	392	1648493	4.67E+04	0.4	0.9	0.8	1.7	4992.4	11,008	
05/11/20	366	8.1	0	23	53.0	485	397	2308136	6.54E+04	0.4	0.8	1.5	3.4	4993.9	11,012	
05/14/20	369	8.9	0	25	55.0	475	388	1677931	4.75E+04	0.4	0.9	1.1	2.5	4995.1	11,014	
05/18/20	373	7.8	0	22	55.0	475	388	2260546	6.40E+04	0.3	0.8	1.5	3.3	4996.5	11,017	
05/21/20	376	14.7	0	41	55.0	475	388	1631322	4.62E+04	0.6	1.4	1.4	3.2	4998.0	11,021	
05/26/20	381	13.6	0	38	56.0	470	384	2767114	7.84E+04	0.6	1.3	3.1	6.8	5001.1	11,027	

TurnKey Benchmark

Table 1 - Summary of SVE System VOC Mass Removal

229 Homer Street Site
NYSDEC BCP Site No. C905044
Olean, New York

Date	SVE Operation Time (days)	Influent (Untreated) PID Reading (ppm)	Effluent PID Reading Biofilter (ppm)	Corrected Influent Concentration[1] (mg/m^3)	Vacuum (in of H_2O)	Air Flow Rate		Volume of Air Processed Since Previous Reading		Rate of VOC Removal		VOCs Removed Since Last Monitoring Period		Total VOC Removal to Date		Notes
						(ACFM)	(SCFM)	(CF)	(m^3)	(kg/day)	(lb/day)	(kg)	(lb)	(kg)	(lb)	
05/28/20	383	12.9	0	36	55.0	475	388	1141925	3.23E+04	0.6	1.3	1.2	2.6	5002.3	11,030	
06/01/20	387	16.6	0	46	53.0	485	397	2236750	6.33E+04	0.7	1.6	2.6	5.7	5004.8	11,036	
06/04/20	390	10.8	0	30	56.0	470	384	1706387	4.83E+04	0.5	1.0	1.9	4.1	5006.7	11,040	
06/08/20	394	13.5	0	38	53.0	485	397	2308136	6.54E+04	0.6	1.3	2.2	4.8	5008.9	11,045	
06/09/20	395	4.8	0	13	53.0	485	397	499700	1.41E+04	0.2	0.5	0.4	0.8	5009.3	11,045	AS turned on
06/11/20	397	111.8	0	311	52.0	490	401	1177986	3.34E+04	5.1	11.2	5.4	11.9	5014.7	11,057	
06/15/20	401	223.5	0	621	50.0	500	409	2354991	6.67E+04	10.4	22.8	30.9	68.1	5045.5	11,125	
06/18/20	404	197.5	0	549	50.0	500	409	1790774	5.07E+04	9.2	20.2	29.7	65.4	5075.2	11,191	
06/22/20	408	224.8	0	625	53.0	485	397	2284341	6.47E+04	10.1	22.3	38.5	84.9	5113.7	11,276	6-23-20 reduced AS from 24 to 17 hours/day
06/25/20	411	138.9	0	386	55.0	475	388	1677931	4.75E+04	6.1	13.5	24.3	53.6	5138.0	11,329	
06/29/20	415	154.6	0	430	54.0	480	392	2237241	6.34E+04	6.9	15.2	25.7	56.7	5163.7	11,386	
07/02/20	418	210.9	0	586	53.0	485	397	1737051	4.92E+04	9.5	20.9	24.9	54.8	5188.6	11,441	
07/06/20	422	263.8	0	733	52.0	490	401	2259810	6.40E+04	12.0	26.4	42.0	92.7	5230.6	11,534	
07/09/20	425	308.4	0.2	857	52.0	490	401	1754959	4.97E+04	14.0	30.9	39.5	87.1	5270.1	11,621	
07/13/20	429	207.4	0	576	53.0	485	397	2284341	6.47E+04	9.3	20.6	46.6	102.9	5316.8	11,724	
07/16/20	432	202.4	0	563	53.0	485	397	1713256	4.85E+04	9.1	20.1	27.6	60.9	5344.4	11,784	
07/20/20	436	150.2	0.3	417	53.0	485	397	2284341	6.47E+04	6.8	14.9	31.7	69.9	5376.1	11,854	
07/23/20	439	158.7	0.2	441	53.0	485	397	1713256	4.85E+04	7.1	15.7	20.8	45.9	5396.9	11,900	
07/27/20	443	182.8	0.1	508	52.0	490	401	2307891	6.54E+04	8.3	18.3	30.9	68.1	5427.8	11,968	
08/03/20	450	210.5	0	585	53.0	485	397	3997597	1.13E+05	9.5	20.9	62.2	137.1	5490.0	12,105	
08/06/20	453	203.8	0	566	52.0	490	401	1730918	4.90E+04	9.3	20.4	28.1	61.9	5518.0	12,167	
08/10/20	458	178.9	0.1	497	52.0	490	401	2740620	7.76E+04	8.1	17.9	41.3	91.0	5559.3	12,258	
08/13/20	460	220.9	1	614	51.0	495	405	1287150	3.64E+04	10.1	22.3	20.2	44.4	5579.5	12,303	Fluff bio-filter
08/17/20	464	240.7	1.7	669	50.0	500	409	2379522	6.74E+04	11.2	24.6	43.0	94.8	5622.5	12,398	
08/20/20	467	215.8	1.5	600	50.0	500	409	1766243	5.00E+04	10.0	22.0	31.7	70.0	5654.2	12,468	
08/24/20	471	214.9	1.3	597	50.0	500	409	2354991	6.67E+04	10.0	22.0	39.9	88.0	5694.1	12,556	
08/27/20	474	223.1	1.3	620	50.0	500	409	1766243	5.00E+04	10.3	22.8	30.4	67.1	5724.6	12,623	
08/31/20	478	204.8	1.7	569	49.0	505	413	2378541	6.74E+04	9.6	21.1	39.8	87.9	5764.4	12,710	
09/03/20	481	208.1	1.7	578	49.0	505	413	1783905	5.05E+04	9.7	21.5	29.0	63.9	5793.4	12,774	9-10-20 reduced AS from 17 to 12 hrs/day

TurnKey Benchmark

Table 1 - Summary of SVE System VOC Mass Removal

229 Homer Street Site
NYSDEC BCP Site No. C905044
Olean, New York

Date	SVE Operation Time (days)	Influent (Untreated) PID Reading (ppm)	Effluent PID Reading Biofilter (ppm)	Corrected Influent Concentration[1] (mg/m^3)	Vacuum (in of H_2O)	Air Flow Rate		Volume of Air Processed Since Previous Reading		Rate of VOC Removal		VOCs Removed Since Last Monitoring Period		Total VOC Removal to Date		Notes
						(ACFM)	(SCFM)	(CF)	(m^3)	(kg/day)	(lb/day)	(kg)	(lb)	(kg)	(lb)	
09/14/20	492	129.4	1.9	360	49.0	505	413	6516210	1.85E+05	6.1	13.4	86.5	190.8	5879.9	12,965	
09/17/20	495	142.7	1.5	397	48.0	510	417	1801568	5.10E+04	6.7	14.9	19.2	42.3	5899.1	13,008	
09/24/20	502	123.2	1.5	342	48.0	510	417	4178636	1.18E+05	5.8	12.8	43.7	96.4	5942.8	13,104	
09/28/20	506	215.1	1.6	598	48.0	510	417	2427112	6.87E+04	10.2	22.4	32.3	71.2	5975.1	13,175	
10/01/20	509	188.7	1.8	524	51.0	495	405	1724295	4.88E+04	8.7	19.1	27.8	61.4	6003.0	13,237	
10/05/20	513	208.4	2.4	579	51.0	495	405	2331441	6.60E+04	9.6	21.1	36.4	80.3	6039.4	13,317	
10/08/20	516	204.2	2.1	568	51.0	495	405	1748581	4.95E+04	9.4	20.7	28.4	62.6	6067.8	13,380	
10/12/20	520	187.7	1.2	522	51.0	495	405	2331441	6.60E+04	8.6	19.0	36.0	79.3	6103.8	13,459	
10/15/20	523	178.4	0.5	496	50.0	500	409	1766243	5.00E+04	8.3	18.2	25.3	55.8	6129.1	13,515	After readings turned air sparge system off
10/19/20	527	125.5	1.9	349	53.0	485	397	2284341	6.47E+04	5.6	12.4	27.8	61.3	6156.9	13,576	
10/22/20	530	54.6	0.2	152	50.0	500	409	1815305	5.14E+04	2.5	5.6	12.6	27.8	6169.5	13,604	
10/26/20	534	33.1	0.2	92	50.0	500	409	2330459	6.60E+04	1.5	3.4	8.0	17.7	6177.5	13,621	
10/29/20	537	34.1	0.1	95	51.0	495	405	1724295	4.88E+04	1.6	3.4	4.6	10.1	6182.1	13,632	Turned air sparge back on on 10/27/20
11/02/20	541	47.7	0.8	133	50.0	500	409	2354991	6.67E+04	2.2	4.9	7.5	16.6	6189.7	13,648	
11/05/20	544	12	0.1	33	51.0	495	405	1797152	5.09E+04	0.6	1.2	4.3	9.4	6193.9	13,658	
11/09/20	548	14.7	0.3	41	49.0	505	413	2353764	6.67E+04	0.7	1.5	2.5	5.4	6196.4	13,663	
11/12/20	551	24.4	0.5	68	50.0	500	409	1766243	5.00E+04	1.1	2.5	2.7	6.0	6199.1	13,669	
11/16/20	555	9.7	0.1	27	50.0	500	409	2379522	6.74E+04	0.4	1.0	3.2	7.0	6202.3	13,676	After readings turned air sparge system off
11/19/20	558	12.6	0.1	35	50.0	500	409	1741712	4.93E+04	0.6	1.3	1.5	3.4	6203.8	13,679	
11/23/20	562	11.4	0.1	32	50.0	500	409	2330459	6.60E+04	0.5	1.2	2.2	4.9	6206.0	13,684	
11/25/20	564	9.4	0.3	26	50.0	500	409	1152964	3.26E+04	0.4	1.0	0.9	2.1	6207.0	13,686	
11/30/20	569	4.2	0.1	12	50.0	500	409	2968269	8.41E+04	0.2	0.4	1.6	3.5	6208.5	13,690	
12/03/20	572	2.6	0.1	7	50.0	500	409	1766243	5.00E+04	0.1	0.3	0.5	1.0	6209.0	13,691	
12/07/20	576	5.8	0.2	16	50.0	500	409	2232335	6.32E+04	0.3	0.6	0.7	1.6	6209.8	13,693	
12/10/20	579	6	0.2	17	50.0	500	409	1888899	5.35E+04	0.3	0.6	0.9	1.9	6210.6	13,694	
12/14/20	583	6	0.1	17	50.0	500	409	2330459	6.60E+04	0.3	0.6	1.1	2.4	6211.7	13,697	
12/18/20	587	8.4	0.2	23	51.0	495	405	2258583	6.40E+04	0.4	0.8	1.3	2.8	6213.0	13,700	
12/24/20	593	8	0.2	22	50.0	500	409	3655142	1.04E+05	0.4	0.8	2.3	5.2	6215.4	13,705	
04/12/21	593	4.5	0.4	8	53.0	485	397	47590	1.35E+03	0.1	0.3	0.0	0.0	6215.4	13,705	

TurnKey Benchmark

Table 1 - Summary of SVE System VOC Mass Removal

229 Homer Street Site
NYSDEC BCP Site No. C905044
Olean, New York

Date	SVE Operation Time (days)	Influent (Untreated) PID Reading (ppm)	Effluent PID Reading Biofilter (ppm)	Corrected Influent Concentration[1] (mg/m^3)	Vacuum (in of H_2O)	Air Flow Rate		Volume of Air Processed Since Previous Reading		Rate of VOC Removal		VOCs Removed Since Last Monitoring Period		Total VOC Removal to Date		Notes
						(ACFM)	(SCFM)	(CF)	(m^3)	(kg/day)	(lb/day)	(kg)	(lb)	(kg)	(lb)	
04/15/21	596	5.5	0.6	9	52.0	490	401	1706878	4.83E+04	0.2	0.3	0.4	0.9	6215.8	13,706	Turned air sparge on for one day
04/19/21	600	4.1	0.6	7	50.0	500	409	2330459	6.60E+04	0.1	0.3	0.5	1.2	6216.3	13,707	Turned air sparge on for 12 hour per day
04/22/21	603	10.1	0.3	17	51.0	495	405	1748581	4.95E+04	0.3	0.6	0.6	1.3	6216.9	13,708	
04/26/21	607	9.5	0.3	16	51.0	495	405	2331441	6.60E+04	0.3	0.6	1.1	2.4	6218.0	13,711	
04/29/21	610	19.9	0.4	33	52.0	490	401	1730918	4.90E+04	0.5	1.2	1.2	2.7	6219.2	13,713	
05/03/21	614	4.1	0.2	7	50.0	500	409	2379522	6.74E+04	0.1	0.3	1.3	2.9	6220.5	13,716	
05/06/21	617	2.6	0.2	4	53.0	485	397	1689460	4.78E+04	0.1	0.2	0.3	0.6	6220.8	13,717	
05/10/21	621	2	0	3	52.0	490	401	2331931	6.60E+04	0.1	0.1	0.3	0.6	6221.1	13,717	
05/13/21	624	3.5	0	6	52.0	490	401	1682837	4.77E+04	0.1	0.2	0.2	0.5	6221.3	13,718	
05/17/21	628	6.5	0	11	50.0	500	409	2379522	6.74E+04	0.2	0.4	0.6	1.2	6221.8	13,719	
05/20/21	631	11.3	0	19	51.0	495	405	1748581	4.95E+04	0.3	0.7	0.7	1.6	6222.6	13,721	
05/24/21	635	7.6	0	13	52.0	490	401	2283850	6.47E+04	0.2	0.5	1.0	2.3	6223.6	13,723	
05/27/21	638	9.4	0	16	51.0	495	405	1772866	5.02E+04	0.3	0.6	0.7	1.6	6224.3	13,725	
06/01/21	643	2.3	0	4	53.0	485	397	2879221	8.15E+04	0.1	0.1	0.8	1.8	6225.1	13,726	
06/03/21	645	4.5	0	8	53.0	485	397	1118375	3.17E+04	0.1	0.3	0.2	0.4	6225.3	13,727	
06/07/21	649	2	0	3	53.0	485	397	2236750	6.33E+04	0.1	0.1	0.3	0.8	6225.6	13,728	
06/10/21	652	4.1	0	7	53.0	485	397	1689460	4.78E+04	0.1	0.2	0.2	0.5	6225.9	13,728	
06/14/21	656	4.4	0	7	53.0	485	397	2260546	6.40E+04	0.1	0.3	0.5	1.0	6226.3	13,729	
06/17/21	659	4.9	0	8	52.0	490	401	1754959	4.97E+04	0.1	0.3	0.4	0.8	6226.7	13,730	
06/21/21	663	3.5	0	6	53.0	485	397	2260546	6.40E+04	0.1	0.2	0.5	1.0	6227.2	13,731	
06/24/21	666	2.4	0	4	54.0	480	392	1719143	4.87E+04	0.1	0.1	0.2	0.5	6227.4	13,731	
06/28/21	670	4.6	0	8	53.0	485	397	2260546	6.40E+04	0.1	0.3	0.4	0.8	6227.8	13,732	
07/01/21	673	5.5	0	9	48.0	510	417	1826590	5.17E+04	0.2	0.3	0.4	0.9	6228.2	13,733	
07/06/21	678	3.5	0	6	49.0	505	413	2948399	8.35E+04	0.1	0.2	0.6	1.4	6228.9	13,735	
07/08/21	680	2.1	0	4	50.0	500	409	1202026	3.40E+04	0.1	0.1	0.2	0.4	6229.0	13,735	
07/12/21	684	2.8	0	5	51.0	495	405	2331441	6.60E+04	0.1	0.2	0.3	0.6	6229.3	13,736	
07/15/21	687	1.1	0	2	52.0	490	401	1730918	4.90E+04	0.0	0.1	0.2	0.4	6229.5	13,736	
07/19/21	691	0.2	0	0	51.0	495	405	2331441	6.60E+04	0.0	0.0	0.1	0.2	6229.5	13,736	
07/22/21	694	0.9	0	2	51.0	495	405	1748581	4.95E+04	0.0	0.1	0.0	0.1	6229.6	13,736	

TurnKey Benchmark

Table 1 - Summary of SVE System VOC Mass Removal

229 Homer Street Site
NYSDEC BCP Site No. C905044
Olean, New York

Date	SVE Operation Time (days)	Influent (Untreated) PID Reading (ppm)	Effluent PID Reading Biofilter (ppm)	Corrected Influent Concentration[1] (mg/m^3)	Vacuum (in of H_2O)	Air Flow Rate		Volume of Air Processed Since Previous Reading		Rate of VOC Removal		VOCs Removed Since Last Monitoring Period		Total VOC Removal to Date		Notes
						(ACFM)	(SCFM)	(CF)	(m^3)	(kg/day)	(lb/day)	(kg)	(lb)	(kg)	(lb)	
07/26/21	698	0.1	0	0	50.0	500	409	2330459	6.60E+04	0.0	0.0	0.1	0.1	6229.6	13,736	
07/29/21	701	0.3	0	1	51.0	495	405	1772866	5.02E+04	0.0	0.0	0.0	0.0	6229.6	13,736	
08/02/21	705	1.3	0	2	50.0	500	409	2354991	6.67E+04	0.0	0.1	0.1	0.2	6229.7	13,737	
08/05/21	708	0.6	0	1	50.0	500	409	1766243	5.00E+04	0.0	0.0	0.1	0.2	6229.8	13,737	
08/09/21	712	0.9	0	2	50.0	500	409	2354991	6.67E+04	0.0	0.1	0.1	0.2	6229.9	13,737	
08/12/21	715	1.7	0	3	50.0	500	409	1766243	5.00E+04	0.0	0.1	0.1	0.2	6230.0	13,737	
08/16/21	719	1.6	0	3	50.0	500	409	2354991	6.67E+04	0.0	0.1	0.2	0.4	6230.2	13,738	
08/19/21	722	0.6	0	1	51.0	495	405	1748581	4.95E+04	0.0	0.0	0.1	0.2	6230.3	13,738	
08/23/21	726	0	0	0	50.0	500	409	2354991	6.67E+04	0.0	0.0	0.0	0.1	6230.3	13,738	
08/26/21	729	0.3	0	1	51.0	495	405	1748581	4.95E+04	0.0	0.0	0.0	0.0	6230.3	13,738	
08/30/21	733	0.5	0	1	50.0	500	409	2354991	6.67E+04	0.0	0.0	0.0	0.1	6230.4	13,738	
09/02/21	736	0.8	0	1	50.0	500	409	1766243	5.00E+04	0.0	0.0	0.1	0.1	6230.4	13,738	
09/07/21	741	0.7	0	1	50.0	500	409	2943738	8.34E+04	0.0	0.0	0.1	0.2	6230.5	13,738	
09/10/21	744	1	0	2	49.0	505	413	1684800	4.77E+04	0.0	0.1	0.1	0.1	6230.6	13,738	
09/13/21	747	0.4	0	1	50.0	500	409	1864368	5.28E+04	0.0	0.0	0.1	0.1	6230.7	13,739	
09/16/21	750	0.6	0	1	51.0	495	405	1874057	5.31E+04	0.0	0.0	0.0	0.1	6230.7	13,739	
09/20/21	754	1	0	2	50.0	500	409	2330459	6.60E+04	0.0	0.1	0.1	0.2	6230.8	13,739	
09/23/21	757	0.3	0	1	53.0	485	397	1713256	4.85E+04	0.0	0.0	0.1	0.1	6230.8	13,739	
09/27/21	761	0.6	0	1	52.0	490	401	2355972	6.67E+04	0.0	0.0	0.1	0.1	6230.9	13,739	
09/30/21	764	0.6	0	1	52.0	490	401	1682837	4.77E+04	0.0	0.0	0.0	0.1	6230.9	13,739	
10/04/21	768	0.8	0	1	52.0	490	401	2307891	6.54E+04	0.0	0.0	0.1	0.2	6231.0	13,739	
10/07/21	771	0.8	0	1	52.0	490	401	1754959	4.97E+04	0.0	0.0	0.1	0.1	6231.1	13,740	
10/11/21	775	1.1	0	2	52.0	490	401	2283850	6.47E+04	0.0	0.1	0.1	0.2	6231.2	13,740	
10/14/21	778	1.3	0	2	49.0	505	413	1808682	5.12E+04	0.0	0.1	0.1	0.2	6231.3	13,740	
10/18/21	782	1.3	0	2	51.0	495	405	2331441	6.60E+04	0.0	0.1	0.1	0.3	6231.4	13,740	
10/21/21	785	1	0	2	52.0	490	401	1730918	4.90E+04	0.0	0.1	0.1	0.2	6231.5	13,741	
10/25/21	789	0.7	0	1	53.0	485	397	2284341	6.47E+04	0.0	0.0	0.1	0.2	6231.6	13,741	
10/28/21	792	0.4	0	1	53.0	485	397	1713256	4.85E+04	0.0	0.0	0.0	0.1	6231.7	13,741	
11/01/21	796	0.4	0	1	54.0	480	392	2260791	6.40E+04	0.0	0.0	0.0	0.1	6231.7	13,741	

Table 1 - Summary of SVE System VOC Mass Removal

229 Homer Street Site
NYSDEC BCP Site No. C905044
Olean, New York

Date	SVE Operation Time (days)	Influent (Untreated) PID Reading (ppm)	Effluent PID Reading Biofilter (ppm)	Corrected Influent Concentration[1] (mg/m^3)	Vacuum (in of H_2O)	Air Flow Rate		Volume of Air Processed Since Previous Reading		Rate of VOC Removal		VOCs Removed Since Last Monitoring Period		Total VOC Removal to Date		Notes
						(ACFM)	(SCFM)	(CF)	(m^3)	(kg/day)	(lb/day)	(kg)	(lb)	(kg)	(lb)	
11/04/21	799	0.3	0	1	54.0	480	392	1695593	4.80E+04	0.0	0.0	0.0	0.1	6231.7	13,741	
11/08/21	803	0.4	0	1	53.0	485	397	2308136	6.54E+04	0.0	0.0	0.0	0.1	6231.8	13,741	
11/11/21	806	0.3	0	1	53.0	485	397	1713256	4.85E+04	0.0	0.0	0.0	0.1	6231.8	13,741	
11/15/21	810	0.3	0	1	54.0	480	392	2237241	6.34E+04	0.0	0.0	0.0	0.1	6231.8	13,741	
11/17/21	812	0.5	0	1	53.0	485	397	1070785	3.03E+04	0.0	0.0	0.0	0.0	6231.9	13,741	
11/22/21	817	0.4	0	1	54.0	480	392	2920188	8.27E+04	0.0	0.0	0.1	0.1	6231.9	13,741	
11/26/21	821	0.4	0	1	54.0	480	392	2166591	6.14E+04	0.0	0.0	0.0	0.1	6232.0	13,741	
11/29/21	824	0.3	0	1	54.0	480	392	1742693	4.93E+04	0.0	0.0	0.0	0.1	6232.0	13,742	
12/02/21	827	0.2	0	0	53.0	485	397	1737051	4.92E+04	0.0	0.0	0.0	0.0	6232.0	13,742	
12/06/21	831	0.2	0	0	54.0	480	392	2260791	6.40E+04	0.0	0.0	0.0	0.0	6232.0	13,742	
12/09/21	834	0.2	0	0	55.0	475	388	1701235	4.82E+04	0.0	0.0	0.0	0.0	6232.0	13,742	
12/13/21	838	0.2	0	0	54.0	480	392	2237241	6.34E+04	0.0	0.0	0.0	0.0	6232.1	13,742	
12/16/21	841	0.2	0	0	53.0	485	397	1713256	4.85E+04	0.0	0.0	0.0	0.0	6232.1	13,742	
12/20/21	845	0.2	0	0	54.0	480	392	2284341	6.47E+04	0.0	0.0	0.0	0.0	6232.1	13,742	
12/22/21	847	0.2	0	0	53.0	485	397	1165966	3.30E+04	0.0	0.0	0.0	0.0	6232.1	13,742	
12/27/21	852	0.2	0	0	54.0	480	392	2778889	7.87E+04	0.0	0.0	0.0	0.1	6232.1	13,742	
12/29/21	854	0.2	0	0	54.0	480	392	1130396	3.20E+04	0.0	0.0	0.0	0.0	6232.2	13,742	
01/02/22	859	0.1	0	0	54.0	480	392	2825989	8.00E+04	0.0	0.0	0.0	0.0	6232.2	13,742	
01/06/22	862	0.2	0	0	54.0	480	392	1695593	4.80E+04	0.0	0.0	0.0	0.0	6232.2	13,742	
01/13/22	864	0.1	0	0	54.0	480	392	1036196	2.93E+04	0.0	0.0	0.0	0.0	6232.2	13,742	System off for the winter

Notes:

1. The estimated mass of contamination is based on ratio of the sum of the gasoline and diesel range organics (GRO and DRO) as measured by a vapor sample collected with a summa canister to the contemporaneous PID reading.
2. The ratio for 2018 and 2019 is 14.39 milligrams per cubic meter for each 1 part per million on the PID.
3. The ratio for 2020 is 2.78 milligrams per cubic meter for each 1 part per million on the PID.
4. The ratio for 2021 is 1.67 milligrams per cubic meter for each 1 part per million on the PID.

ATTACHMENT 3

2022 SOIL BORING LOGS AND ANALYTICAL DATA PACKAGE

TurnKey Environmental Restoration LLC

FIELD BOREHOLE LOG

PROJECT: 229 Homer St Site	Log of Boring No.: VSS-1
BORING LOCATION: " " "	ELEVATION AND DATUM:
DRILLING CONTRACTOR: TREC	DATE STARTED: 1-26-22 / 920 — DATE FINISHED:
DRILLING METHOD: Direct drive	TOTAL DEPTH: 14' — SCREEN INTERVAL: NA
DRILLING EQUIPMENT: Geoprobe 66DT	DEPTH TO WATER: FIRST: 12' — COMPL.: — CASING: NA
SAMPLING METHOD: Macro core	LOGGED BY: BMG
HAMMER WEIGHT: NA — DROP: NA	RESPONSIBLE PROFESSIONAL: — REG. NO.

Depth (fbgs)	Sample No.	Sample	Blows (per 6")	SPT N-Value	Recovery	PID Scan (ppm)	SAMPLE DESCRIPTION (ASTM D 2488) USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), Consistency/Density (Standard Penetration Test, SPT), Weathering/Fracturing, Odor, Fill Materials (if present), Other. SURFACE ELEVATION (FMSL):	REMARKS
							Asphalt and subbase	Set up CAMP #4 @ 920
	1			2.3	3.7	0	Dark brown, moist, Fill with some lean clay and little fine sand, no odor, trace brick	
						0	Brown, moist, fine sand with few clay, No odor.	
4							SAA	
						0	Brown moist, Gravely sand, Some sand with little med gravel, no odor.	
	2				2.5	0		Megan on site 945 +/-
8							SAA	
	3					1.0		
					2.1	0.6	SAA with gray mottling	
12								
					1.0	0.4	SAA, wet	
14								

Prepared By: BMG

TurnKey Environmental Restoration LLC

FIELD BOREHOLE LOG

PROJECT: 229 Hanover St	**Log of Boring No.: VSS-2**
BORING LOCATION: " " "	ELEVATION AND DATUM:
DRILLING CONTRACTOR: TREC	DATE ~~STARTED~~: 1-26-22 / DATE FINISHED: 1
DRILLING METHOD: Direct drive (DD)	TOTAL DEPTH: 14 / SCREEN INTERVAL: NA
DRILLING EQUIPMENT: 6-60T	DEPTH TO WATER: FIRST: 12 COMPL.: / CASING: NA
SAMPLING METHOD: Macro Core (MC)	LOGGED BY: BMG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: / REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	Sample	Blows (per 6")	SPT N-Value	Recovery	PID Scan (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)	REMARKS
							USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), Consistency/Density (Standard Penetration Test, SPT), Weathering/Fracturing, Odor, Fill Materials (if present), Other	
							SURFACE ELEVATION (FMSL):	
1					2	0.2	Brown, moist, clayey sand,	Driller used same MC bar for failed attempt that stopped on refusal on large rocks.
4					1.5	24	Brown, moist, clayey sand, some clay with little fine sand, ~~no odor~~ slight odor	
						26.9		
8					2.4	25.0	Brown, moist, gravelly sand, some fine to coarse sand with little rounded gravel, slight odor	
						16.2		
12					0.5	14.6	SHA wet	
14								

Prepared By: BMG

TurnKey Environmental Restoration LLC

FIELD BOREHOLE LOG

PROJECT: 229 Homer St.	**Log of Boring No.:** VSS-3
BORING LOCATION: " "	ELEVATION AND DATUM: NA
DRILLING CONTRACTOR: TREC	DATE STARTED: 1-26-22 / DATE FINISHED:
DRILLING METHOD: DD	TOTAL DEPTH: 14' / SCREEN INTERVAL: NA
DRILLING EQUIPMENT: C66 DT	DEPTH TO WATER: FIRST: 12' COMPL.: / CASING: NA
SAMPLING METHOD: MC	LOGGED BY: BMB
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: / REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	Sample	Blows (per 6")	SPT N-Value	Recovery	PID Scan (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)	REMARKS
							USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), Consistency/Density (Standard Penetration Test, SPT), Weathering/Fracturing, Odor, Fill Materials (if present), Other	
							SURFACE ELEVATION (FMSL):	
-						0	Brown, moist, Gravelly sand, Some F to C sand with some F to C gravel (rounded) and trace clay, No odor	
-					3.7	0	Brown, moist, lean clay, Some clay with few fine sand, and few gravel, No odor	
4							SHA	
-					1.5	0		
-						0	Dark Brown, moist, Fill, Some fines with few sand, few wood fibers, No odor (no plastic)	
8							SHA	
-						0	Brown, moist, lean clay SHA 1.5-6.5' No odor	
-					1.8	0		
12							SHA, wet	
-					1.2	0.3		wet
14						58		

Prepared By: BMB

TurnKey Environmental Restoration LLC

FIELD BOREHOLE LOG

PROJECT: 224 Homer St. Site		Log of Boring No.: VSS-4	
BORING LOCATION: " "		ELEVATION AND DATUM: NA	
DRILLING CONTRACTOR: TREC		DATE ~~STARTED~~: 1-26-22	DATE FINISHED:
DRILLING METHOD: DD		TOTAL DEPTH: 14'	SCREEN INTERVAL: NA
DRILLING EQUIPMENT: C66 DT		DEPTH TO WATER: FIRST: 12' COMPL.:	CASING: NA
SAMPLING METHOD: MC		LOGGED BY: BMG	
HAMMER WEIGHT: NA	DROP: NA	RESPONSIBLE PROFESSIONAL:	REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	Sample	Blows (per 6")	SPT N-Value	Recovery	PID Scan (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)	REMARKS
							USCS Classification: Color, Moisture Condition, Primary Soil Type, Secondary Soil Type (<5% Trace, 5-10% Few, 15-25% Little, 30-45% Some), Structure (varved, stratified, thinly bedded, bedded, thickly bedded, laminated, fissured, blocky, lensed, massive), Consistency/Density (Standard Penetration Test, SPT), Weathering/Fracturing, Odor, Fill Materials (if present), Other	
							SURFACE ELEVATION (FMSL):	
						0	cover soil	
					2.7	0.5	Dark brown to gray, moist, lean clay, some plastic fines, with little fine sand, and trace gravel, No odor	
4						0.3	SAA	
					2.8	0.1	Brown, moist, Gravelly sand, some F to C sand with little F to C gravel, No odor	
8						0	SAA	
					2.3	0		
12						0.5	SAA, Wet	
					0.6			
14								

Took down CAMP #4 @ 1230
max PID = 0 ppm
Max dust = 0.067 mg/m³

Prepared By: BMG

TurnKey Environmental Restoration LLC

FIELD BOREHOLE LOG

PROJECT: 229 Howe St. Site	Log of Boring No.: VSS - 5
BORING LOCATION: " "	ELEVATION AND DATUM: NA
DRILLING CONTRACTOR: TREC	DATE STARTED: 1-20-22 / DATE FINISHED:
DRILLING METHOD: DD	TOTAL DEPTH: 14' / SCREEN INTERVAL: NA
DRILLING EQUIPMENT: 66 DT	DEPTH TO WATER: FIRST: 12.5' COMPL.: / CASING: NA
SAMPLING METHOD: MC	LOGGED BY: BMG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: / REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	Sample	Blows (per 6")	SPT N-Value	Recovery	PID Scan (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)	REMARKS
							SURFACE ELEVATION (FMSL):	
						0	Cover soil	
					2.0	0	Brown, moist, Lean clay, some plastic fines, with little, fine sand, and few gravel; no odor	
4								
						0	SAA	
					1.0		SAA increased plastic fines, soft, increased moisture, No odor	
						0		
8								
						0	SAA	
					2.0		Brown, Moist, Gravely sandy some Fine, sand with little Fine rounded gravel, trace plastic fines, No odor	
						0		
12								
						23	SAA	
					1.0	118	SAA, wet	
14								
								Begun left-site 1145

Prepared By: BMG

TurnKey Environmental Restoration LLC

FIELD BOREHOLE LOG

PROJECT: 229 Hanover St	**Log of Boring No.:** VSS-6
BORING LOCATION: " " "	ELEVATION AND DATUM: NA
DRILLING CONTRACTOR: TREC	DATE STARTED: 1-26-22 / DATE FINISHED:
DRILLING METHOD: DD	TOTAL DEPTH: 14 / SCREEN INTERVAL: NA
DRILLING EQUIPMENT: 66 DT	DEPTH TO WATER: FIRST: 12' COMPL.: / CASING: NA
SAMPLING METHOD: MC	LOGGED BY: BMG
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: / REG. NO.

Depth (fbgs)	SAMPLES: Sample No.	Sample	Blows (per 6")	SPT N-Value	Recovery	PID Scan (ppm)	SAMPLE DESCRIPTION (ASTM D 2488)	REMARKS
					2.1'	0	Brown, moist, gravely sand,	cover soil
						0	Grayish brown, moist, lean clay, clay with sand, fine sand, and few gravel, No odor	
4							SAA	
					3.5'	0		
						0.7		
8							SAA	
						0.5		
					2.4'	87.3	Brown, moist, gravely sand, F to C sand with F to C rounded gravel, slight oder	11.9' PID = 43 ppm
12							SAA, wet	
					0.1'	0.3		
14								

Prepared By: BMG

ANALYTICAL REPORT

Lab Number:	L2204966
Client:	Turnkey Environmental Restoration, LLC 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Lori Riker
Phone:	(716) 856-0599
Project Name:	229 HOMER ST SITE
Project Number:	T0311-018-001-005
Report Date:	04/29/22

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: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 04/29/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2204966-01	VSS-1	SOIL	229 HOMER ST SITE	01/26/22 09:50	01/31/22
L2204966-02	VSS-2	SOIL	229 HOMER ST SITE	01/26/22 10:26	01/31/22
L2204966-03	VSS-6	SOIL	229 HOMER ST SITE	01/26/22 10:50	01/31/22
L2204966-04	VSS-3	SOIL	229 HOMER ST SITE	01/26/22 11:20	01/31/22
L2204966-05	VSS-5	SOIL	229 HOMER ST SITE	01/26/22 11:44	01/31/22
L2204966-06	VSS-4	SOIL	229 HOMER ST SITE	01/26/22 12:10	01/31/22

Project Name:	229 HOMER ST SITE	**Lab Number:**	L2204966
Project Number:	T0311-018-001-005	**Report Date:**	04/29/22

Case Narrative

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

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

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

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

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

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

Project Name:	229 HOMER ST SITE	**Lab Number:**	L2204966
Project Number:	T0311-018-001-005	**Report Date:**	04/29/22

Case Narrative (continued)

Report Revision

April 29, 2022: At the client's request, the report has been amended to include Volatile Organics TICs.

Report Submission

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

Volatile Organics

Any reported concentrations that are below 200 ug/kg may be biased low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

L2204966-04: The concentration of TICs should be considered estimated due to suspected contamination from a previously analyzed, highly concentrated sample.

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

Authorized Signature: Kelly Stenstrom

Title: Technical Director/Representative Date: 04/29/22

ORGANICS

VOLATILES

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-01
Client ID: VSS-1
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 09:50
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/05/22 11:04
Analyst: AJK
Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	4.9	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.98	0.14	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	0.98	0.22	1
1,2-Dichloropropane	ND		ug/kg	0.98	0.12	1
Dibromochloromethane	ND		ug/kg	0.98	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	0.98	0.26	1
Tetrachloroethene	ND		ug/kg	0.49	0.19	1
Chlorobenzene	ND		ug/kg	0.49	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.9	0.68	1
1,2-Dichloroethane	ND		ug/kg	0.98	0.25	1
1,1,1-Trichloroethane	ND		ug/kg	0.49	0.16	1
Bromodichloromethane	ND		ug/kg	0.49	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	0.98	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.49	0.15	1
Bromoform	ND		ug/kg	3.9	0.24	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.49	0.16	1
Benzene	ND		ug/kg	0.49	0.16	1
Toluene	0.65	J	ug/kg	0.98	0.53	1
Ethylbenzene	ND		ug/kg	0.98	0.14	1
Chloromethane	ND		ug/kg	3.9	0.91	1
Bromomethane	ND		ug/kg	2.0	0.57	1
Vinyl chloride	ND		ug/kg	0.98	0.33	1
Chloroethane	ND		ug/kg	2.0	0.44	1
1,1-Dichloroethene	ND		ug/kg	0.98	0.23	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.13	1
Trichloroethene	ND		ug/kg	0.49	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-01
Client ID: VSS-1
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 09:50
Date Received: 01/31/22
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/kg	2.0	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.55	1
o-Xylene	ND		ug/kg	0.98	0.28	1
cis-1,2-Dichloroethene	ND		ug/kg	0.98	0.17	1
Styrene	ND		ug/kg	0.98	0.19	1
Dichlorodifluoromethane	ND		ug/kg	9.8	0.89	1
Acetone	5.2	J	ug/kg	9.8	4.7	1
Carbon disulfide	ND		ug/kg	9.8	4.4	1
2-Butanone	ND		ug/kg	9.8	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	9.8	1.2	1
2-Hexanone	ND		ug/kg	9.8	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.20	1
1,2-Dibromoethane	ND		ug/kg	0.98	0.27	1
n-Butylbenzene	ND		ug/kg	0.98	0.16	1
sec-Butylbenzene	ND		ug/kg	0.98	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.9	0.98	1
Isopropylbenzene	ND		ug/kg	0.98	0.11	1
p-Isopropyltoluene	ND		ug/kg	0.98	0.11	1
n-Propylbenzene	ND		ug/kg	0.98	0.17	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.31	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33	1
Methyl Acetate	ND		ug/kg	3.9	0.93	1
Cyclohexane	ND		ug/kg	9.8	0.53	1
1,4-Dioxane	ND		ug/kg	78	34.	1
Freon-113	ND		ug/kg	3.9	0.68	1
Methyl cyclohexane	ND		ug/kg	3.9	0.59	1

Tentatively Identified Compounds				
Total TIC Compounds	6.96	J	ug/kg	1
Unknown	2.66	J	ug/kg	1
Unknown	4.30	J	ug/kg	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-01
Client ID: VSS-1
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 09:50
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	98		70-130

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-02
Client ID: VSS-2
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 10:26
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/05/22 11:30
Analyst: AJK
Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.2	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.6	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.24	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.13	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.28	1
Tetrachloroethene	ND		ug/kg	0.52	0.20	1
Chlorobenzene	ND		ug/kg	0.52	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.2	0.72	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.27	1
1,1,1-Trichloroethane	ND		ug/kg	0.52	0.17	1
Bromodichloromethane	ND		ug/kg	0.52	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.28	1
cis-1,3-Dichloropropene	ND		ug/kg	0.52	0.16	1
Bromoform	ND		ug/kg	4.2	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.52	0.17	1
Benzene	ND		ug/kg	0.52	0.17	1
Toluene	ND		ug/kg	1.0	0.56	1
Ethylbenzene	ND		ug/kg	1.0	0.15	1
Chloromethane	ND		ug/kg	4.2	0.97	1
Bromomethane	ND		ug/kg	2.1	0.60	1
Vinyl chloride	ND		ug/kg	1.0	0.35	1
Chloroethane	ND		ug/kg	2.1	0.47	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.14	1
Trichloroethene	ND		ug/kg	0.52	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-02
Client ID: VSS-2
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 10:26
Date Received: 01/31/22
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/kg	2.1	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.21	1
p/m-Xylene	ND		ug/kg	2.1	0.58	1
o-Xylene	ND		ug/kg	1.0	0.30	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.95	1
Acetone	ND		ug/kg	10	5.0	1
Carbon disulfide	ND		ug/kg	10	4.7	1
2-Butanone	ND		ug/kg	10	2.3	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.1	0.21	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.29	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.1	1.0	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
n-Propylbenzene	ND		ug/kg	1.0	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.33	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.28	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.35	1
Methyl Acetate	ND		ug/kg	4.2	0.99	1
Cyclohexane	ND		ug/kg	10	0.56	1
1,4-Dioxane	ND		ug/kg	83	36.	1
Freon-113	ND		ug/kg	4.2	0.72	1
Methyl cyclohexane	ND		ug/kg	4.2	0.63	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-02
Client ID: VSS-2
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 10:26
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tentatively Identified Compounds						
Total TIC Compounds	139	J	ug/kg			1
Unknown	8.18	J	ug/kg			1
Unknown	9.60	J	ug/kg			1
Unknown Cycloalkane	13.5	J	ug/kg			1
Unknown	8.70	J	ug/kg			1
Unknown	10.4	J	ug/kg			1
Unknown	10.5	J	ug/kg			1
Unknown	13.7	J	ug/kg			1
Unknown Naphthalene	7.53	J	ug/kg			1
Unknown	7.18	J	ug/kg			1
Unknown	9.91	J	ug/kg			1
Unknown	6.72	J	ug/kg			1
Unknown	7.08	J	ug/kg			1
Unknown	7.83	J	ug/kg			1
Unknown Naphthalene	9.23	J	ug/kg			1
Unknown	9.29	J	ug/kg			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	100		70-130

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-03
Client ID: VSS-6
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 10:50
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/05/22 11:56
Analyst: AJK
Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.4	2.5	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.1	0.25	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.13	1
Dibromochloromethane	ND		ug/kg	1.1	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.29	1
Tetrachloroethene	ND		ug/kg	0.54	0.21	1
Chlorobenzene	ND		ug/kg	0.54	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.3	0.75	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	0.54	0.18	1
Bromodichloromethane	ND		ug/kg	0.54	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.29	1
cis-1,3-Dichloropropene	ND		ug/kg	0.54	0.17	1
Bromoform	ND		ug/kg	4.3	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.54	0.18	1
Benzene	ND		ug/kg	0.54	0.18	1
Toluene	ND		ug/kg	1.1	0.59	1
Ethylbenzene	ND		ug/kg	1.1	0.15	1
Chloromethane	ND		ug/kg	4.3	1.0	1
Bromomethane	ND		ug/kg	2.2	0.63	1
Vinyl chloride	ND		ug/kg	1.1	0.36	1
Chloroethane	ND		ug/kg	2.2	0.49	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1
Trichloroethene	ND		ug/kg	0.54	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	0.16	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-03
Client ID: VSS-6
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 10:50
Date Received: 01/31/22
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/kg	2.2	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.22	1
p/m-Xylene	ND		ug/kg	2.2	0.60	1
o-Xylene	ND		ug/kg	1.1	0.31	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1
Styrene	ND		ug/kg	1.1	0.21	1
Dichlorodifluoromethane	ND		ug/kg	11	0.99	1
Acetone	19		ug/kg	11	5.2	1
Carbon disulfide	ND		ug/kg	11	4.9	1
2-Butanone	ND		ug/kg	11	2.4	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.2	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.30	1
n-Butylbenzene	ND		ug/kg	1.1	0.18	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.2	1.1	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
n-Propylbenzene	ND		ug/kg	1.1	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	0.35	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	0.29	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.2	0.21	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.2	0.36	1
Methyl Acetate	ND		ug/kg	4.3	1.0	1
Cyclohexane	ND		ug/kg	11	0.59	1
1,4-Dioxane	ND		ug/kg	86	38.	1
Freon-113	ND		ug/kg	4.3	0.75	1
Methyl cyclohexane	1.8	J	ug/kg	4.3	0.65	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-03
Client ID: VSS-6
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 10:50
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Tentatively Identified Compounds						
Total TIC Compounds	341	J	ug/kg			1
Unknown	38.8	J	ug/kg			1
Unknown	22.6	J	ug/kg			1
Unknown	15.7	J	ug/kg			1
Unknown Cyclohexane	16.4	J	ug/kg			1
Unknown Cycloalkane	25.4	J	ug/kg			1
Unknown Alkane	23.7	J	ug/kg			1
Unknown	14.3	J	ug/kg			1
Unknown	13.7	J	ug/kg			1
Unknown Alkane	20.5	J	ug/kg			1
Unknown	27.4	J	ug/kg			1
Unknown	14.1	J	ug/kg			1
Unknown	13.8	J	ug/kg			1
Unknown	29.0	J	ug/kg			1
Unknown Alkane	38.0	J	ug/kg			1
Nonane, 3,7-dimethyl-	27.9	NJ	ug/kg			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	95		70-130

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-04
Client ID: VSS-3
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 11:20
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/05/22 12:23
Analyst: AJK
Percent Solids: 77%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	6.2	2.8	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.18	1
Chloroform	ND		ug/kg	1.8	0.17	1
Carbon tetrachloride	ND		ug/kg	1.2	0.28	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.33	1
Tetrachloroethene	ND		ug/kg	0.62	0.24	1
Chlorobenzene	ND		ug/kg	0.62	0.16	1
Trichlorofluoromethane	ND		ug/kg	4.9	0.86	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.32	1
1,1,1-Trichloroethane	ND		ug/kg	0.62	0.21	1
Bromodichloromethane	ND		ug/kg	0.62	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.34	1
cis-1,3-Dichloropropene	ND		ug/kg	0.62	0.20	1
Bromoform	ND		ug/kg	4.9	0.30	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.62	0.20	1
Benzene	ND		ug/kg	0.62	0.20	1
Toluene	ND		ug/kg	1.2	0.67	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	4.9	1.2	1
Bromomethane	ND		ug/kg	2.5	0.72	1
Vinyl chloride	ND		ug/kg	1.2	0.41	1
Chloroethane	ND		ug/kg	2.5	0.56	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.29	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.17	1
Trichloroethene	0.17	J	ug/kg	0.62	0.17	1
1,2-Dichlorobenzene	ND		ug/kg	2.5	0.18	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-04
Client ID: VSS-3
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 11:20
Date Received: 01/31/22
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/kg	2.5	0.18	1
1,4-Dichlorobenzene	ND		ug/kg	2.5	0.21	1
Methyl tert butyl ether	ND		ug/kg	2.5	0.25	1
p/m-Xylene	ND		ug/kg	2.5	0.69	1
o-Xylene	ND		ug/kg	1.2	0.36	1
cis-1,2-Dichloroethene	1.0	J	ug/kg	1.2	0.22	1
Styrene	ND		ug/kg	1.2	0.24	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	9.7	J	ug/kg	12	5.9	1
Carbon disulfide	ND		ug/kg	12	5.6	1
2-Butanone	ND		ug/kg	12	2.7	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.6	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.5	0.25	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.34	1
n-Butylbenzene	ND		ug/kg	1.2	0.21	1
sec-Butylbenzene	ND		ug/kg	1.2	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.7	1.2	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
n-Propylbenzene	ND		ug/kg	1.2	0.21	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.5	0.40	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.5	0.34	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.5	0.24	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.5	0.41	1
Methyl Acetate	ND		ug/kg	4.9	1.2	1
Cyclohexane	ND		ug/kg	12	0.67	1
1,4-Dioxane	ND		ug/kg	99	43.	1
Freon-113	ND		ug/kg	4.9	0.86	1
Methyl cyclohexane	ND		ug/kg	4.9	0.74	1

Tentatively Identified Compounds				
Total TIC Compounds	2.48	J	ug/kg	1
Unknown Alkane	2.48	J	ug/kg	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-04
Client ID: VSS-3
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 11:20
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	99		70-130

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-05
Client ID: VSS-5
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 11:44
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/05/22 12:49
Analyst: AJK
Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.2	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.0	0.24	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.13	1
Dibromochloromethane	ND		ug/kg	1.0	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.28	1
Tetrachloroethene	ND		ug/kg	0.52	0.20	1
Chlorobenzene	ND		ug/kg	0.52	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.2	0.73	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.27	1
1,1,1-Trichloroethane	ND		ug/kg	0.52	0.18	1
Bromodichloromethane	ND		ug/kg	0.52	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.29	1
cis-1,3-Dichloropropene	ND		ug/kg	0.52	0.16	1
Bromoform	ND		ug/kg	4.2	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.52	0.17	1
Benzene	ND		ug/kg	0.52	0.17	1
Toluene	ND		ug/kg	1.0	0.57	1
Ethylbenzene	ND		ug/kg	1.0	0.15	1
Chloromethane	ND		ug/kg	4.2	0.98	1
Bromomethane	ND		ug/kg	2.1	0.61	1
Vinyl chloride	ND		ug/kg	1.0	0.35	1
Chloroethane	ND		ug/kg	2.1	0.47	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.14	1
Trichloroethene	ND		ug/kg	0.52	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-05
Client ID: VSS-5
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 11:44
Date Received: 01/31/22
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/kg	2.1	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.21	1
p/m-Xylene	ND		ug/kg	2.1	0.59	1
o-Xylene	ND		ug/kg	1.0	0.30	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.96	1
Acetone	ND		ug/kg	10	5.0	1
Carbon disulfide	ND		ug/kg	10	4.8	1
2-Butanone	ND		ug/kg	10	2.3	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.1	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.29	1
n-Butylbenzene	ND		ug/kg	1.0	0.18	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.1	1.0	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
n-Propylbenzene	ND		ug/kg	1.0	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.34	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.28	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.35	1
Methyl Acetate	ND		ug/kg	4.2	1.0	1
Cyclohexane	ND		ug/kg	10	0.57	1
1,4-Dioxane	ND		ug/kg	84	37.	1
Freon-113	ND		ug/kg	4.2	0.73	1
Methyl cyclohexane	ND		ug/kg	4.2	0.63	1

Tentatively Identified Compounds				
Total TIC Compounds	3.01	J	ug/kg	1
Unknown	3.01	J	ug/kg	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-05
Client ID: VSS-5
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 11:44
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	99		70-130

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-06
Client ID: VSS-4
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 12:10
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/05/22 13:15
Analyst: AJK
Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.1	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.23	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.13	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27	1
Tetrachloroethene	ND		ug/kg	0.51	0.20	1
Chlorobenzene	ND		ug/kg	0.51	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.0	0.70	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.51	0.17	1
Bromodichloromethane	ND		ug/kg	0.51	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.28	1
cis-1,3-Dichloropropene	ND		ug/kg	0.51	0.16	1
Bromoform	ND		ug/kg	4.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.51	0.17	1
Benzene	ND		ug/kg	0.51	0.17	1
Toluene	ND		ug/kg	1.0	0.55	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Chloromethane	ND		ug/kg	4.0	0.94	1
Bromomethane	ND		ug/kg	2.0	0.59	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
Chloroethane	ND		ug/kg	2.0	0.46	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1
Trichloroethene	ND		ug/kg	0.51	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.15	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-06
Client ID: VSS-4
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 12:10
Date Received: 01/31/22
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/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.57	1
o-Xylene	ND		ug/kg	1.0	0.30	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.93	1
Acetone	92		ug/kg	10	4.9	1
Carbon disulfide	ND		ug/kg	10	4.6	1
2-Butanone	14		ug/kg	10	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.21	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.28	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
n-Propylbenzene	ND		ug/kg	1.0	0.17	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.33	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.28	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.34	1
Methyl Acetate	ND		ug/kg	4.0	0.96	1
Cyclohexane	ND		ug/kg	10	0.55	1
1,4-Dioxane	ND		ug/kg	81	36.	1
Freon-113	ND		ug/kg	4.0	0.70	1
Methyl cyclohexane	ND		ug/kg	4.0	0.61	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/kg	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-06
Client ID: VSS-4
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 12:10
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	99		70-130

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/05/22 10:12
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1601983-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/05/22 10:12
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1601983-5					
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
Methyl Acetate	ND		ug/kg	4.0	0.95
Cyclohexane	ND		ug/kg	10	0.54
1,4-Dioxane	ND		ug/kg	80	35.
Freon-113	ND		ug/kg	4.0	0.69
Methyl cyclohexane	ND		ug/kg	4.0	0.60

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/05/22 10:12
Analyst: LAC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1601983-5					
Tentatively Identified Compounds					
No Tentatively Identified Compounds	ND		ug/kg		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	95		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 04/29/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1601983-3 WG1601983-4								
Methylene chloride	88		88		70-130	0		30
1,1-Dichloroethane	95		92		70-130	3		30
Chloroform	93		87		70-130	7		30
Carbon tetrachloride	95		93		70-130	2		30
1,2-Dichloropropane	102		102		70-130	0		30
Dibromochloromethane	91		94		70-130	3		30
1,1,2-Trichloroethane	105		108		70-130	3		30
Tetrachloroethene	102		99		70-130	3		30
Chlorobenzene	98		96		70-130	2		30
Trichlorofluoromethane	79		75		70-139	5		30
1,2-Dichloroethane	90		91		70-130	1		30
1,1,1-Trichloroethane	95		92		70-130	3		30
Bromodichloromethane	95		97		70-130	2		30
trans-1,3-Dichloropropene	92		94		70-130	2		30
cis-1,3-Dichloropropene	92		93		70-130	1		30
Bromoform	90		94		70-130	4		30
1,1,2,2-Tetrachloroethane	107		112		70-130	5		30
Benzene	101		99		70-130	2		30
Toluene	96		94		70-130	2		30
Ethylbenzene	98		96		70-130	2		30
Chloromethane	102		97		52-130	5		30
Bromomethane	69		65		57-147	6		30
Vinyl chloride	89		84		67-130	6		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 04/29/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1601983-3 WG1601983-4								
Chloroethane	76		71		50-151	7		30
1,1-Dichloroethene	93		90		65-135	3		30
trans-1,2-Dichloroethene	94		90		70-130	4		30
Trichloroethene	100		99		70-130	1		30
1,2-Dichlorobenzene	96		96		70-130	0		30
1,3-Dichlorobenzene	98		96		70-130	2		30
1,4-Dichlorobenzene	97		96		70-130	1		30
Methyl tert butyl ether	106		110		66-130	4		30
p/m-Xylene	100		98		70-130	2		30
o-Xylene	97		97		70-130	0		30
cis-1,2-Dichloroethene	92		91		70-130	1		30
Styrene	97		97		70-130	0		30
Dichlorodifluoromethane	80		75		30-146	6		30
Acetone	130		130		54-140	0		30
Carbon disulfide	86		83		59-130	4		30
2-Butanone	114		119		70-130	4		30
4-Methyl-2-pentanone	100		107		70-130	7		30
2-Hexanone	117		123		70-130	5		30
Bromochloromethane	91		89		70-130	2		30
1,2-Dibromoethane	90		94		70-130	4		30
n-Butylbenzene	102		98		70-130	4		30
sec-Butylbenzene	101		98		70-130	3		30
1,2-Dibromo-3-chloropropane	84		91		68-130	8		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 04/29/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1601983-3 WG1601983-4								
Isopropylbenzene	103		99		70-130	4		30
p-Isopropyltoluene	100		97		70-130	3		30
n-Propylbenzene	102		100		70-130	2		30
1,2,3-Trichlorobenzene	102		101		70-130	1		30
1,2,4-Trichlorobenzene	101		100		70-130	1		30
1,3,5-Trimethylbenzene	97		96		70-130	1		30
1,2,4-Trimethylbenzene	98		96		70-130	2		30
Methyl Acetate	98		104		51-146	6		30
Cyclohexane	105		101		59-142	4		30
1,4-Dioxane	103		115		65-136	11		30
Freon-113	95		92		50-139	3		30
Methyl cyclohexane	99		97		70-130	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	89		90		70-130
Toluene-d8	98		98		70-130
4-Bromofluorobenzene	105		106		70-130
Dibromofluoromethane	90		91		70-130

SEMIVOLATILES

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-01
Client ID: VSS-1
Sample Location: 229 HOMER ST SITE

Date Collected: 01/26/22 09:50
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 02/08/22 00:29
Analyst: IM
Percent Solids: 89%

Extraction Method: EPA 3546
Extraction Date: 02/06/22 05:52

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	19.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	25.	1
2-Chloronaphthalene	ND		ug/kg	190	18.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	50.	1
2,4-Dinitrotoluene	ND		ug/kg	190	37.	1
2,6-Dinitrotoluene	ND		ug/kg	190	32.	1
Fluoranthene	ND		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	19.	1
Hexachlorobutadiene	ND		ug/kg	190	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	530	170	1
Hexachloroethane	ND		ug/kg	150	30.	1
Isophorone	ND		ug/kg	170	24.	1
Naphthalene	ND		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	29.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	64.	1
Butyl benzyl phthalate	ND		ug/kg	190	47.	1
Di-n-butylphthalate	ND		ug/kg	190	35.	1
Di-n-octylphthalate	ND		ug/kg	190	63.	1
Diethyl phthalate	ND		ug/kg	190	17.	1
Dimethyl phthalate	ND		ug/kg	190	39.	1
Benzo(a)anthracene	ND		ug/kg	110	21.	1
Benzo(a)pyrene	ND		ug/kg	150	45.	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-01
Client ID: VSS-1
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 09:50
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	110	31.	1
Benzo(k)fluoranthene	ND		ug/kg	110	30.	1
Chrysene	ND		ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	150	29.	1
Anthracene	ND		ug/kg	110	36.	1
Benzo(ghi)perylene	ND		ug/kg	150	22.	1
Fluorene	ND		ug/kg	190	18.	1
Phenanthrene	ND		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	26.	1
Pyrene	ND		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	420	24.	1
4-Chloroaniline	ND		ug/kg	190	34.	1
2-Nitroaniline	ND		ug/kg	190	36.	1
3-Nitroaniline	ND		ug/kg	190	35.	1
4-Nitroaniline	ND		ug/kg	190	77.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	19.	1
Acetophenone	ND		ug/kg	190	23.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	35.	1
p-Chloro-m-cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	30.	1
2,4-Dimethylphenol	ND		ug/kg	190	61.	1
2-Nitrophenol	ND		ug/kg	400	70.	1
4-Nitrophenol	ND		ug/kg	260	76.	1
2,4-Dinitrophenol	ND		ug/kg	890	87.	1
4,6-Dinitro-o-cresol	ND		ug/kg	480	89.	1
Pentachlorophenol	ND		ug/kg	150	41.	1
Phenol	ND		ug/kg	190	28.	1
2-Methylphenol	ND		ug/kg	190	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	29.	1
2,4,5-Trichlorophenol	ND		ug/kg	190	36.	1
Carbazole	ND		ug/kg	190	18.	1
Atrazine	ND		ug/kg	150	65.	1
Benzaldehyde	ND		ug/kg	240	50.	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-01
Client ID: VSS-1
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 09:50
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	190	57.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	190	38.	1
Tentatively Identified Compounds						
Total TIC Compounds	585	J	ug/kg			1
Unknown	272	J	ug/kg			1
Unknown Amide	313	J	ug/kg			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	71		25-120
Phenol-d6	94		10-120
Nitrobenzene-d5	45		23-120
2-Fluorobiphenyl	91		30-120
2,4,6-Tribromophenol	48		10-136
4-Terphenyl-d14	72		18-120

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-02
Client ID: VSS-2
Sample Location: 229 HOMER ST SITE

Date Collected: 01/26/22 10:26
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 02/08/22 00:53
Analyst: IM
Percent Solids: 86%

Extraction Method: EPA 3546
Extraction Date: 02/06/22 05:52

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	20.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	50.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	32.	1
Fluoranthene	ND		ug/kg	110	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	540	170	1
Hexachloroethane	ND		ug/kg	150	30.	1
Isophorone	ND		ug/kg	170	24.	1
Naphthalene	ND		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	29.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	65.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	64.	1
Diethyl phthalate	ND		ug/kg	190	17.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	ND		ug/kg	110	21.	1
Benzo(a)pyrene	ND		ug/kg	150	46.	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-02
Client ID: VSS-2
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 10:26
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	110	32.	1
Benzo(k)fluoranthene	ND		ug/kg	110	30.	1
Chrysene	ND		ug/kg	110	20.	1
Acenaphthylene	ND		ug/kg	150	29.	1
Anthracene	ND		ug/kg	110	37.	1
Benzo(ghi)perylene	ND		ug/kg	150	22.	1
Fluorene	ND		ug/kg	190	18.	1
Phenanthrene	ND		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	26.	1
Pyrene	ND		ug/kg	110	19.	1
Biphenyl	ND		ug/kg	430	24.	1
4-Chloroaniline	ND		ug/kg	190	34.	1
2-Nitroaniline	ND		ug/kg	190	36.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	78.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	23.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	36.	1
p-Chloro-m-cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	30.	1
2,4-Dimethylphenol	ND		ug/kg	190	62.	1
2-Nitrophenol	ND		ug/kg	410	71.	1
4-Nitrophenol	ND		ug/kg	260	77.	1
2,4-Dinitrophenol	ND		ug/kg	910	88.	1
4,6-Dinitro-o-cresol	ND		ug/kg	490	91.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	28.	1
2-Methylphenol	ND		ug/kg	190	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	30.	1
2,4,5-Trichlorophenol	ND		ug/kg	190	36.	1
Carbazole	ND		ug/kg	190	18.	1
Atrazine	ND		ug/kg	150	66.	1
Benzaldehyde	ND		ug/kg	250	51.	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-02
Client ID: VSS-2
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 10:26
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	190	57.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	190	38.	1
Tentatively Identified Compounds						
Total TIC Compounds	5740	J	ug/kg			1
Unknown	739	J	ug/kg			1
Unknown	268	J	ug/kg			1
Unknown Amide	243	J	ug/kg			1
Unknown	311	J	ug/kg			1
Unknown Cycloalkane	269	J	ug/kg			1
Unknown	409	J	ug/kg			1
Unknown Organic Acid	280	J	ug/kg			1
Unknown Alkane	288	J	ug/kg			1
Unknown Alkane	434	J	ug/kg			1
Unknown Alkane	829	J	ug/kg			1
Unknown	266	J	ug/kg			1
Unknown	299	J	ug/kg			1
Unknown	268	J	ug/kg			1
Unknown	308	J	ug/kg			1
Unknown	526	J	ug/kg			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		25-120
Phenol-d6	60		10-120
Nitrobenzene-d5	34		23-120
2-Fluorobiphenyl	54		30-120
2,4,6-Tribromophenol	53		10-136
4-Terphenyl-d14	45		18-120

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-03
Client ID: VSS-6
Sample Location: 229 HOMER ST SITE

Date Collected: 01/26/22 10:50
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 02/08/22 01:17
Analyst: IM
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 02/06/22 05:52

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	19.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	25.	1
2-Chloronaphthalene	ND		ug/kg	190	18.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	50.	1
2,4-Dinitrotoluene	ND		ug/kg	190	37.	1
2,6-Dinitrotoluene	ND		ug/kg	190	32.	1
Fluoranthene	ND		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	19.	1
Hexachlorobutadiene	ND		ug/kg	190	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	530	170	1
Hexachloroethane	ND		ug/kg	150	30.	1
Isophorone	ND		ug/kg	170	24.	1
Naphthalene	ND		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	29.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	64.	1
Butyl benzyl phthalate	ND		ug/kg	190	47.	1
Di-n-butylphthalate	ND		ug/kg	190	35.	1
Di-n-octylphthalate	ND		ug/kg	190	63.	1
Diethyl phthalate	ND		ug/kg	190	17.	1
Dimethyl phthalate	ND		ug/kg	190	39.	1
Benzo(a)anthracene	ND		ug/kg	110	21.	1
Benzo(a)pyrene	ND		ug/kg	150	45.	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-03
Client ID: VSS-6
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 10:50
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	110	31.	1
Benzo(k)fluoranthene	ND		ug/kg	110	30.	1
Chrysene	ND		ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	150	29.	1
Anthracene	ND		ug/kg	110	36.	1
Benzo(ghi)perylene	ND		ug/kg	150	22.	1
Fluorene	ND		ug/kg	190	18.	1
Phenanthrene	ND		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	26.	1
Pyrene	ND		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	420	24.	1
4-Chloroaniline	ND		ug/kg	190	34.	1
2-Nitroaniline	ND		ug/kg	190	36.	1
3-Nitroaniline	ND		ug/kg	190	35.	1
4-Nitroaniline	ND		ug/kg	190	77.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	19.	1
Acetophenone	ND		ug/kg	190	23.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	35.	1
p-Chloro-m-cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	30.	1
2,4-Dimethylphenol	ND		ug/kg	190	61.	1
2-Nitrophenol	ND		ug/kg	400	70.	1
4-Nitrophenol	ND		ug/kg	260	76.	1
2,4-Dinitrophenol	ND		ug/kg	890	87.	1
4,6-Dinitro-o-cresol	ND		ug/kg	480	89.	1
Pentachlorophenol	ND		ug/kg	150	41.	1
Phenol	ND		ug/kg	190	28.	1
2-Methylphenol	ND		ug/kg	190	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	29.	1
2,4,5-Trichlorophenol	ND		ug/kg	190	36.	1
Carbazole	ND		ug/kg	190	18.	1
Atrazine	ND		ug/kg	150	65.	1
Benzaldehyde	ND		ug/kg	240	50.	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-03
Client ID: VSS-6
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 10:50
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	190	57.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	190	38.	1
Tentatively Identified Compounds						
Total TIC Compounds	3440	J	ug/kg			1
Unknown Alkane	156	J	ug/kg			1
Unknown	161	J	ug/kg			1
Unknown Naphthalene	156	J	ug/kg			1
Unknown Alkane	295	J	ug/kg			1
Unknown Cycloalkane	175	J	ug/kg			1
Unknown Alkane	473	J	ug/kg			1
Unknown	265	J	ug/kg			1
Unknown Alkane	272	J	ug/kg			1
Unknown	159	J	ug/kg			1
Unknown	289	J	ug/kg			1
Unknown Alkane	1040	J	ug/kg			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	81		25-120
Phenol-d6	88		10-120
Nitrobenzene-d5	50		23-120
2-Fluorobiphenyl	73		30-120
2,4,6-Tribromophenol	62		10-136
4-Terphenyl-d14	61		18-120

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-04
Client ID: VSS-3
Sample Location: 229 HOMER ST SITE

Date Collected: 01/26/22 11:20
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 02/08/22 01:41
Analyst: IM
Percent Solids: 77%

Extraction Method: EPA 3546
Extraction Date: 02/06/22 05:52

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	170	22.	1
Hexachlorobenzene	ND		ug/kg	130	24.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	29.	1
2-Chloronaphthalene	ND		ug/kg	210	21.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	57.	1
2,4-Dinitrotoluene	ND		ug/kg	210	43.	1
2,6-Dinitrotoluene	ND		ug/kg	210	37.	1
Fluoranthene	300		ug/kg	130	25.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	23.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	33.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	260	37.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	22.	1
Hexachlorobutadiene	ND		ug/kg	210	31.	1
Hexachlorocyclopentadiene	ND		ug/kg	610	190	1
Hexachloroethane	ND		ug/kg	170	35.	1
Isophorone	ND		ug/kg	190	28.	1
Naphthalene	72	J	ug/kg	210	26.	1
Nitrobenzene	ND		ug/kg	190	32.	1
NDPA/DPA	ND		ug/kg	170	24.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	33.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	210	74.	1
Butyl benzyl phthalate	ND		ug/kg	210	54.	1
Di-n-butylphthalate	ND		ug/kg	210	41.	1
Di-n-octylphthalate	ND		ug/kg	210	73.	1
Diethyl phthalate	ND		ug/kg	210	20.	1
Dimethyl phthalate	ND		ug/kg	210	45.	1
Benzo(a)anthracene	240		ug/kg	130	24.	1
Benzo(a)pyrene	310		ug/kg	170	52.	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-04
Client ID: VSS-3
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 11:20
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	470		ug/kg	130	36.	1
Benzo(k)fluoranthene	170		ug/kg	130	34.	1
Chrysene	290		ug/kg	130	22.	1
Acenaphthylene	50	J	ug/kg	170	33.	1
Anthracene	92	J	ug/kg	130	42.	1
Benzo(ghi)perylene	150	J	ug/kg	170	25.	1
Fluorene	24	J	ug/kg	210	21.	1
Phenanthrene	230		ug/kg	130	26.	1
Dibenzo(a,h)anthracene	38	J	ug/kg	130	25.	1
Indeno(1,2,3-cd)pyrene	180		ug/kg	170	30.	1
Pyrene	270		ug/kg	130	21.	1
Biphenyl	ND		ug/kg	490	28.	1
4-Chloroaniline	ND		ug/kg	210	39.	1
2-Nitroaniline	ND		ug/kg	210	41.	1
3-Nitroaniline	ND		ug/kg	210	40.	1
4-Nitroaniline	ND		ug/kg	210	89.	1
Dibenzofuran	35	J	ug/kg	210	20.	1
2-Methylnaphthalene	110	J	ug/kg	260	26.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	22.	1
Acetophenone	27	J	ug/kg	210	27.	1
2,4,6-Trichlorophenol	ND		ug/kg	130	41.	1
p-Chloro-m-cresol	ND		ug/kg	210	32.	1
2-Chlorophenol	ND		ug/kg	210	25.	1
2,4-Dichlorophenol	ND		ug/kg	190	34.	1
2,4-Dimethylphenol	ND		ug/kg	210	71.	1
2-Nitrophenol	ND		ug/kg	460	81.	1
4-Nitrophenol	ND		ug/kg	300	88.	1
2,4-Dinitrophenol	ND		ug/kg	1000	100	1
4,6-Dinitro-o-cresol	ND		ug/kg	560	100	1
Pentachlorophenol	ND		ug/kg	170	47.	1
Phenol	ND		ug/kg	210	32.	1
2-Methylphenol	ND		ug/kg	210	33.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	310	34.	1
2,4,5-Trichlorophenol	ND		ug/kg	210	41.	1
Carbazole	32	J	ug/kg	210	21.	1
Atrazine	ND		ug/kg	170	75.	1
Benzaldehyde	75	J	ug/kg	280	58.	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-04
Client ID: VSS-3
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 11:20
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	210	65.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	210	43.	1
Tentatively Identified Compounds						
Total TIC Compounds	3390	J	ug/kg			1
Unknown	215	J	ug/kg			1
Unknown Organic Acid	287	J	ug/kg			1
Unknown	2050	J	ug/kg			1
Unknown	329	J	ug/kg			1
Unknown Amide	212	J	ug/kg			1
Unknown Alkane	300	J	ug/kg			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		25-120
Phenol-d6	72		10-120
Nitrobenzene-d5	46		23-120
2-Fluorobiphenyl	71		30-120
2,4,6-Tribromophenol	74		10-136
4-Terphenyl-d14	59		18-120

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-05
Client ID: VSS-5
Sample Location: 229 HOMER ST SITE

Date Collected: 01/26/22 11:44
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 02/08/22 02:05
Analyst: IM
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 02/06/22 05:52

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	20.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	50.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	32.	1
Fluoranthene	ND		ug/kg	110	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	540	170	1
Hexachloroethane	ND		ug/kg	150	30.	1
Isophorone	ND		ug/kg	170	24.	1
Naphthalene	ND		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	29.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	65.	1
Butyl benzyl phthalate	ND		ug/kg	190	47.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	64.	1
Diethyl phthalate	ND		ug/kg	190	17.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	ND		ug/kg	110	21.	1
Benzo(a)pyrene	ND		ug/kg	150	46.	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-05
Client ID: VSS-5
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 11:44
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	110	32.	1
Benzo(k)fluoranthene	ND		ug/kg	110	30.	1
Chrysene	ND		ug/kg	110	20.	1
Acenaphthylene	ND		ug/kg	150	29.	1
Anthracene	ND		ug/kg	110	37.	1
Benzo(ghi)perylene	ND		ug/kg	150	22.	1
Fluorene	ND		ug/kg	190	18.	1
Phenanthrene	ND		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	26.	1
Pyrene	ND		ug/kg	110	19.	1
Biphenyl	ND		ug/kg	430	24.	1
4-Chloroaniline	ND		ug/kg	190	34.	1
2-Nitroaniline	ND		ug/kg	190	36.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	78.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	23.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	36.	1
p-Chloro-m-cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	30.	1
2,4-Dimethylphenol	ND		ug/kg	190	62.	1
2-Nitrophenol	ND		ug/kg	410	71.	1
4-Nitrophenol	ND		ug/kg	260	77.	1
2,4-Dinitrophenol	ND		ug/kg	900	88.	1
4,6-Dinitro-o-cresol	ND		ug/kg	490	90.	1
Pentachlorophenol	ND		ug/kg	150	41.	1
Phenol	ND		ug/kg	190	28.	1
2-Methylphenol	ND		ug/kg	190	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	30.	1
2,4,5-Trichlorophenol	ND		ug/kg	190	36.	1
Carbazole	ND		ug/kg	190	18.	1
Atrazine	ND		ug/kg	150	66.	1
Benzaldehyde	ND		ug/kg	250	51.	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-05
Client ID: VSS-5
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 11:44
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	190	57.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	190	38.	1
Tentatively Identified Compounds						
Total TIC Compounds	1170	J	ug/kg			1
Unknown	256	J	ug/kg			1
Unknown	910	J	ug/kg			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	69		25-120
Phenol-d6	74		10-120
Nitrobenzene-d5	28		23-120
2-Fluorobiphenyl	68		30-120
2,4,6-Tribromophenol	31		10-136
4-Terphenyl-d14	55		18-120

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-06
Client ID: VSS-4
Sample Location: 229 HOMER ST SITE

Date Collected: 01/26/22 12:10
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 02/08/22 02:29
Analyst: IM
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 02/06/22 05:52

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	20.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	50.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	32.	1
Fluoranthene	ND		ug/kg	110	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	540	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	24.	1
Naphthalene	ND		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	29.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	65.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	64.	1
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	ND		ug/kg	110	21.	1
Benzo(a)pyrene	ND		ug/kg	150	46.	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-06
Client ID: VSS-4
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 12:10
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	110	32.	1
Benzo(k)fluoranthene	ND		ug/kg	110	30.	1
Chrysene	ND		ug/kg	110	20.	1
Acenaphthylene	ND		ug/kg	150	29.	1
Anthracene	ND		ug/kg	110	37.	1
Benzo(ghi)perylene	ND		ug/kg	150	22.	1
Fluorene	ND		ug/kg	190	18.	1
Phenanthrene	ND		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	26.	1
Pyrene	ND		ug/kg	110	19.	1
Biphenyl	ND		ug/kg	430	24.	1
4-Chloroaniline	ND		ug/kg	190	34.	1
2-Nitroaniline	ND		ug/kg	190	36.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	78.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	23.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	36.	1
p-Chloro-m-cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	30.	1
2,4-Dimethylphenol	ND		ug/kg	190	62.	1
2-Nitrophenol	ND		ug/kg	410	71.	1
4-Nitrophenol	ND		ug/kg	260	77.	1
2,4-Dinitrophenol	ND		ug/kg	910	88.	1
4,6-Dinitro-o-cresol	ND		ug/kg	490	91.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	28.	1
2-Methylphenol	ND		ug/kg	190	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	30.	1
2,4,5-Trichlorophenol	ND		ug/kg	190	36.	1
Carbazole	ND		ug/kg	190	18.	1
Atrazine	ND		ug/kg	150	66.	1
Benzaldehyde	ND		ug/kg	250	51.	1

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-06
Client ID: VSS-4
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 12:10
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	190	57.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	190	38.	1
Tentatively Identified Compounds						
Total TIC Compounds	368	J	ug/kg			1
Unknown Amide	188	J	ug/kg			1
Unknown	180	J	ug/kg			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		25-120
Phenol-d6	67		10-120
Nitrobenzene-d5	32		23-120
2-Fluorobiphenyl	60		30-120
2,4,6-Tribromophenol	35		10-136
4-Terphenyl-d14	45		18-120

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 04/29/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 02/07/22 19:40
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 02/06/22 05:52

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1601858-1					
Acenaphthene	ND		ug/kg	130	17.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	99	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 04/29/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 02/07/22 19:40
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 02/06/22 05:52

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1601858-1					
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	370	21.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	360	62.
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	790	77.
4,6-Dinitro-o-cresol	ND		ug/kg	430	79.
Pentachlorophenol	ND		ug/kg	130	36.

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204966
Report Date: 04/29/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 02/07/22 19:40
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 02/06/22 05:52

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1601858-1					
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	32.
Carbazole	ND		ug/kg	160	16.
Atrazine	ND		ug/kg	130	58.
Benzaldehyde	ND		ug/kg	220	44.
Caprolactam	ND		ug/kg	160	50.
2,3,4,6-Tetrachlorophenol	ND		ug/kg	160	33.
Tentatively Identified Compounds					
No Tentatively Identified Compounds	ND		ug/kg		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	69		25-120
Phenol-d6	70		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	72		30-120
2,4,6-Tribromophenol	81		10-136
4-Terphenyl-d14	77		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 04/29/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1601858-2 WG1601858-3								
Acenaphthene	79		79		31-137	0		50
Hexachlorobenzene	86		86		40-140	0		50
Bis(2-chloroethyl)ether	67		70		40-140	4		50
2-Chloronaphthalene	82		82		40-140	0		50
3,3'-Dichlorobenzidine	49		50		40-140	2		50
2,4-Dinitrotoluene	83		82		40-132	1		50
2,6-Dinitrotoluene	86		86		40-140	0		50
Fluoranthene	81		83		40-140	2		50
4-Chlorophenyl phenyl ether	84		83		40-140	1		50
4-Bromophenyl phenyl ether	87		87		40-140	0		50
Bis(2-chloroisopropyl)ether	48		52		40-140	8		50
Bis(2-chloroethoxy)methane	71		75		40-117	5		50
Hexachlorobutadiene	83		81		40-140	2		50
Hexachlorocyclopentadiene	77		76		40-140	1		50
Hexachloroethane	72		73		40-140	1		50
Isophorone	67		71		40-140	6		50
Naphthalene	77		75		40-140	3		50
Nitrobenzene	69		71		40-140	3		50
NDPA/DPA	82		82		36-157	0		50
n-Nitrosodi-n-propylamine	67		70		32-121	4		50
Bis(2-ethylhexyl)phthalate	82		82		40-140	0		50
Butyl benzyl phthalate	81		82		40-140	1		50
Di-n-butylphthalate	80		82		40-140	2		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 04/29/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1601858-2 WG1601858-3								
Di-n-octylphthalate	82		82		40-140	0		50
Diethyl phthalate	81		80		40-140	1		50
Dimethyl phthalate	81		83		40-140	2		50
Benzo(a)anthracene	79		81		40-140	3		50
Benzo(a)pyrene	85		85		40-140	0		50
Benzo(b)fluoranthene	82		82		40-140	0		50
Benzo(k)fluoranthene	85		86		40-140	1		50
Chrysene	81		81		40-140	0		50
Acenaphthylene	82		83		40-140	1		50
Anthracene	80		83		40-140	4		50
Benzo(ghi)perylene	84		81		40-140	4		50
Fluorene	80		81		40-140	1		50
Phenanthrene	81		81		40-140	0		50
Dibenzo(a,h)anthracene	82		81		40-140	1		50
Indeno(1,2,3-cd)pyrene	84		83		40-140	1		50
Pyrene	80		82		35-142	2		50
Biphenyl	80		80		37-127	0		50
4-Chloroaniline	70		68		40-140	3		50
2-Nitroaniline	84		85		47-134	1		50
3-Nitroaniline	55		54		26-129	2		50
4-Nitroaniline	75		76		41-125	1		50
Dibenzofuran	81		82		40-140	1		50
2-Methylnaphthalene	81		81		40-140	0		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 04/29/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1601858-2 WG1601858-3								
1,2,4,5-Tetrachlorobenzene	82		82		40-117	0		50
Acetophenone	74		77		14-144	4		50
2,4,6-Trichlorophenol	87		89		30-130	2		50
p-Chloro-m-cresol	84		84		26-103	0		50
2-Chlorophenol	76		79		25-102	4		50
2,4-Dichlorophenol	82		87		30-130	6		50
2,4-Dimethylphenol	77		80		30-130	4		50
2-Nitrophenol	77		82		30-130	6		50
4-Nitrophenol	84		86		11-114	2		50
2,4-Dinitrophenol	27		35		4-130	26		50
4,6-Dinitro-o-cresol	75		80		10-130	6		50
Pentachlorophenol	76		81		17-109	6		50
Phenol	76		80		26-90	5		50
2-Methylphenol	77		80		30-130.	4		50
3-Methylphenol/4-Methylphenol	82		85		30-130	4		50
2,4,5-Trichlorophenol	90		90		30-130	0		50
Carbazole	82		83		54-128	1		50
Atrazine	79		81		40-140	3		50
Benzaldehyde	65		67		40-140	3		50
Caprolactam	67		71		15-130	6		50
2,3,4,6-Tetrachlorophenol	83		83		40-140	0		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 04/29/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1601858-2 WG1601858-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	75		77		25-120
Phenol-d6	76		79		10-120
Nitrobenzene-d5	69		71		23-120
2-Fluorobiphenyl	83		81		30-120
2,4,6-Tribromophenol	93		94		10-136
4-Terphenyl-d14	81		81		18-120

INORGANICS
&
MISCELLANEOUS

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-01
Client ID: VSS-1
Sample Location: 229 HOMER ST SITE

Date Collected: 01/26/22 09:50
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.6		%	0.100	NA	1	-	02/01/22 17:58	121,2540G	TR

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-02
Client ID: VSS-2
Sample Location: 229 HOMER ST SITE

Sample Depth:
Matrix: Soil

Date Collected: 01/26/22 10:26
Date Received: 01/31/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.2		%	0.100	NA	1	-	02/01/22 17:58	121,2540G	TR

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-03
Client ID: VSS-6
Sample Location: 229 HOMER ST SITE

Sample Depth:
Matrix: Soil

Date Collected: 01/26/22 10:50
Date Received: 01/31/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.4		%	0.100	NA	1	-	02/01/22 17:58	121,2540G	TR

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-04
Client ID: VSS-3
Sample Location: 229 HOMER ST SITE

Date Collected: 01/26/22 11:20
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	77.0		%	0.100	NA	1	-	02/01/22 17:58	121,2540G	TR

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-05
Client ID: VSS-5
Sample Location: 229 HOMER ST SITE

Sample Depth:
Matrix: Soil

Date Collected: 01/26/22 11:44
Date Received: 01/31/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.2		%	0.100	NA	1	-	02/01/22 17:58	121,2540G	TR

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 04/29/22

SAMPLE RESULTS

Lab ID: L2204966-06
Client ID: VSS-4
Sample Location: 229 HOMER ST SITE

Sample Depth:
Matrix: Soil

Date Collected: 01/26/22 12:10
Date Received: 01/31/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.0		%	0.100	NA	1	-	02/01/22 17:58	121,2540G	TR

Lab Duplicate Analysis
Batch Quality Control

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 04/29/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1600347-1 QC Sample: L2204861-03 Client ID: DUP Sample						
Solids, Total	77.5	77.0	%	1		20

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 04/29/22

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(*)
L2204966-01A	Vial Large Septa unpreserved (4oz)	A	NA		2.1	Y	Absent		NYTCL-8260-R2(14)
L2204966-01B	Glass 120ml/4oz unpreserved	A	NA		2.1	Y	Absent		NYTCL-8270(14),TS(7)
L2204966-01X	Vial MeOH preserved split	A	NA		2.1	Y	Absent		NYTCL-8260-R2(14)
L2204966-01Y	Vial Water preserved split	A	NA		2.1	Y	Absent	**05-FEB-22 05:12**	NYTCL-8260-R2(14)
L2204966-01Z	Vial Water preserved split	A	NA		2.1	Y	Absent	**05-FEB-22 05:12**	NYTCL-8260-R2(14)
L2204966-02A	Vial Large Septa unpreserved (4oz)	A	NA		2.1	Y	Absent		NYTCL-8260-R2(14)
L2204966-02B	Glass 120ml/4oz unpreserved	A	NA		2.1	Y	Absent		NYTCL-8270(14),TS(7)
L2204966-02X	Vial MeOH preserved split	A	NA		2.1	Y	Absent		NYTCL-8260-R2(14)
L2204966-02Y	Vial Water preserved split	A	NA		2.1	Y	Absent	**05-FEB-22 05:12**	NYTCL-8260-R2(14)
L2204966-02Z	Vial Water preserved split	A	NA		2.1	Y	Absent	**05-FEB-22 05:12**	NYTCL-8260-R2(14)
L2204966-03A	Vial Large Septa unpreserved (4oz)	A	NA		2.1	Y	Absent		NYTCL-8260-R2(14)
L2204966-03B	Glass 120ml/4oz unpreserved	A	NA		2.1	Y	Absent		NYTCL-8270(14),TS(7)
L2204966-03X	Vial MeOH preserved split	A	NA		2.1	Y	Absent		NYTCL-8260-R2(14)
L2204966-03Y	Vial Water preserved split	A	NA		2.1	Y	Absent	**05-FEB-22 05:12**	NYTCL-8260-R2(14)
L2204966-03Z	Vial Water preserved split	A	NA		2.1	Y	Absent	**05-FEB-22 05:12**	NYTCL-8260-R2(14)
L2204966-04A	Vial Large Septa unpreserved (4oz)	A	NA		2.1	Y	Absent		NYTCL-8260-R2(14)
L2204966-04B	Glass 120ml/4oz unpreserved	A	NA		2.1	Y	Absent		NYTCL-8270(14),TS(7)
L2204966-04X	Vial MeOH preserved split	A	NA		2.1	Y	Absent		NYTCL-8260-R2(14)
L2204966-04Y	Vial Water preserved split	A	NA		2.1	Y	Absent	**05-FEB-22 05:12**	NYTCL-8260-R2(14)
L2204966-04Z	Vial Water preserved split	A	NA		2.1	Y	Absent	**05-FEB-22 05:12**	NYTCL-8260-R2(14)
L2204966-05A	Vial Large Septa unpreserved (4oz)	A	NA		2.1	Y	Absent		NYTCL-8260-R2(14)
L2204966-05B	Glass 120ml/4oz unpreserved	A	NA		2.1	Y	Absent		NYTCL-8270(14),TS(7)
L2204966-05X	Vial MeOH preserved split	A	NA		2.1	Y	Absent		NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 04/29/22

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2204966-05Y	Vial Water preserved split	A	NA		2.1	Y	Absent	**05-FEB-22 05:12**	NYTCL-8260-R2(14)
L2204966-05Z	Vial Water preserved split	A	NA		2.1	Y	Absent	**05-FEB-22 05:12**	NYTCL-8260-R2(14)
L2204966-06A	Vial Large Septa unpreserved (4oz)	A	NA		2.1	Y	Absent		NYTCL-8260-R2(14)
L2204966-06B	Glass 120ml/4oz unpreserved	A	NA		2.1	Y	Absent		NYTCL-8270(14),TS(7)
L2204966-06X	Vial MeOH preserved split	A	NA		2.1	Y	Absent		NYTCL-8260-R2(14)
L2204966-06Y	Vial Water preserved split	A	NA		2.1	Y	Absent	**05-FEB-22 05:12**	NYTCL-8260-R2(14)
L2204966-06Z	Vial Water preserved split	A	NA		2.1	Y	Absent	**05-FEB-22 05:12**	NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name:	229 HOMER ST SITE	**Lab Number:**	L2204966
Project Number:	T0311-018-001-005	**Report Date:**	04/29/22

GLOSSARY

Acronyms

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

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

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

EPA - Environmental Protection Agency.

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

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

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

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

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

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

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

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

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

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

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

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

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

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

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

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

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

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

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

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

Report Format: DU Report with 'J' Qualifiers

Project Name:	229 HOMER ST SITE	**Lab Number:**	L2204966
Project Number:	T0311-018-001-005	**Report Date:**	04/29/22

Footnotes

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

Terms

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

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

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

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

Data Qualifiers

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

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

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

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

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

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

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.

Report Format: DU Report with 'J' Qualifiers

Project Name:	229 HOMER ST SITE	**Lab Number:**	L2204966
Project Number:	T0311-018-001-005	**Report Date:**	04/29/22

Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	229 HOMER ST SITE	**Lab Number:**	L2204966
Project Number:	T0311-018-001-005	**Report Date:**	04/29/22

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 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.
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

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

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

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

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

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193
Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 02/01/22

ALPHA Job #: L2204766

Client Information
Client: Turnkey Env.
Address: 2558 Hamburg Turnpke Buffalo, NY 14218
Phone: 716-225-3314
Fax:
Email: lriker@bmtk.com

Project Information
Project Name: 229 Homer St Site
Project Location: " " "
Project #: T0311-018-001-005
(Use Project name as Project #)
Project Manager: Lori Riker
ALPHAQuote #:

Turn-Around Time
Standard [X] Due Date:
Rush (only if pre approved) [ ] # of Days:

Deliverables
[ ] ASP-A [ ] ASP-B
[ ] EQuIS (1 File) [ ] EQuIS (4 File)
[ ] Other

Regulatory Requirement
[ ] NY TOGS [ ] NY Part 375
[ ] AWQ Standards [ ] NY CP-51
[ ] NY Restricted Use [ ] Other
[ ] NY Unrestricted Use
[ ] NYC Sewer Discharge

Billing Information
[X] Same as Client Info
PO #

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
[ ] NJ [ ] NY
[ ] Other:

These samples have been previously analyzed by Alpha [ ]

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
[ ] Done
[ ] Lab to do
Preservation
[ ] Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL + CP-51 VOCs	TCL + TICs SVOCs	Sample Specific Comments	Total Bottle
04766-01	VSS-1	1-26-22	950	Soil	BMG	X	X	8-10'	2
-02	VSS-2		1026			X	X	5-8'	2
-03	VSS-6		1050			X	X	10-12'	2
-04	VSS-3		1120			X	X	6-8'	2
-05	VSS-5		1144			X	X	10-12'	2
-06	VSS-4	1-26-22	1210	Soil	BMG	X	X	2-4'	2

Container Type: A A
Preservative: A A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Brook Greene	1-27-22/ 900	AAL	1/31/22 09:50
AAL	1/31/22 10:35		2/1/22 0840

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

ANALYTICAL REPORT

Lab Number:	L2204969
Client:	Turnkey Environmental Restoration, LLC 2558 Hamburg Turnpike Suite 300 Buffalo, NY 14218
ATTN:	Lori Riker
Phone:	(716) 856-0599
Project Name:	229 HOMER ST SITE
Project Number:	T0311-018-001-005
Report Date:	02/16/22

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: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204969
Report Date: 02/16/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2204969-01	VSS-3 WET	SOIL	229 HOMER ST SITE	01/26/22 11:21	01/31/22
L2204969-02	VSS-5 WET	SOIL	229 HOMER ST SITE	01/26/22 11:46	01/31/22

Project Name:	229 HOMER ST SITE	**Lab Number:**	L2204969
Project Number:	T0311-018-001-005	**Report Date:**	02/16/22

Case Narrative

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

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

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

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

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

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

Project Name:	229 HOMER ST SITE	**Lab Number:**	L2204969
Project Number:	T0311-018-001-005	**Report Date:**	02/16/22

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.

Volatile Organics

L2204969-01 and -02: Any reported concentrations that are below 200 ug/kg may be biased low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

L2204969-01: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (166%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report.

L2204969-02: The analysis of Volatile Organics was performed from a methanol extract due to the elevated concentrations of non-target compounds in the sample.

L2204969-02: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (132%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report.

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: 02/16/22

ORGANICS

VOLATILES

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204969
Report Date: 02/16/22

SAMPLE RESULTS

Lab ID: L2204969-01
Client ID: VSS-3 WET
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 11:21
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/08/22 22:38
Analyst: JC
Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	5.4	2.5	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.1	0.25	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.29	1
Tetrachloroethene	ND		ug/kg	0.54	0.21	1
Chlorobenzene	ND		ug/kg	0.54	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.3	0.75	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	0.54	0.18	1
Bromodichloromethane	ND		ug/kg	0.54	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.30	1
cis-1,3-Dichloropropene	ND		ug/kg	0.54	0.17	1
Bromoform	ND		ug/kg	4.3	0.27	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.54	0.18	1
Benzene	ND		ug/kg	0.54	0.18	1
Toluene	ND		ug/kg	1.1	0.59	1
Ethylbenzene	ND		ug/kg	1.1	0.15	1
Chloromethane	ND		ug/kg	4.3	1.0	1
Bromomethane	ND		ug/kg	2.2	0.63	1
Vinyl chloride	ND		ug/kg	1.1	0.36	1
Chloroethane	ND		ug/kg	2.2	0.49	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1
Trichloroethene	ND		ug/kg	0.54	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	0.16	1

Project Name: 229 HOMER ST SITE **Lab Number:** L2204969

Project Number: T0311-018-001-005 **Report Date:** 02/16/22

SAMPLE RESULTS

Lab ID: L2204969-01 Date Collected: 01/26/22 11:21

Client ID: VSS-3 WET Date Received: 01/31/22

Sample Location: 229 HOMER ST SITE 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/kg	2.2	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.22	1
p/m-Xylene	ND		ug/kg	2.2	0.60	1
o-Xylene	ND		ug/kg	1.1	0.31	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1
Styrene	ND		ug/kg	1.1	0.21	1
Dichlorodifluoromethane	ND		ug/kg	11	0.99	1
Acetone	7.5	J	ug/kg	11	5.2	1
Carbon disulfide	ND		ug/kg	11	4.9	1
2-Butanone	ND		ug/kg	11	2.4	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.2	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.30	1
n-Butylbenzene	ND		ug/kg	1.1	0.18	1
sec-Butylbenzene	0.16	J	ug/kg	1.1	0.16	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.2	1.1	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
n-Propylbenzene	ND		ug/kg	1.1	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	0.35	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	0.29	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.2	0.21	1
1,2,4-Trimethylbenzene	0.39	J	ug/kg	2.2	0.36	1
Methyl Acetate	ND		ug/kg	4.3	1.0	1
Cyclohexane	ND		ug/kg	11	0.59	1
1,4-Dioxane	ND		ug/kg	86	38.	1
Freon-113	ND		ug/kg	4.3	0.75	1
Methyl cyclohexane	6.7		ug/kg	4.3	0.65	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	**166**	Q	70-130
Dibromofluoromethane	91		70-130

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204969
Report Date: 02/16/22

SAMPLE RESULTS

Lab ID: L2204969-02
Client ID: VSS-5 WET
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 11:46
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260C
Analytical Date: 02/08/22 23:05
Analyst: JC
Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	310	140	1
1,1-Dichloroethane	ND		ug/kg	62	9.0	1
Chloroform	ND		ug/kg	93	8.7	1
Carbon tetrachloride	ND		ug/kg	62	14.	1
1,2-Dichloropropane	ND		ug/kg	62	7.8	1
Dibromochloromethane	ND		ug/kg	62	8.7	1
1,1,2-Trichloroethane	ND		ug/kg	62	16.	1
Tetrachloroethene	ND		ug/kg	31	12.	1
Chlorobenzene	ND		ug/kg	31	7.9	1
Trichlorofluoromethane	ND		ug/kg	250	43.	1
1,2-Dichloroethane	ND		ug/kg	62	16.	1
1,1,1-Trichloroethane	ND		ug/kg	31	10.	1
Bromodichloromethane	ND		ug/kg	31	6.8	1
trans-1,3-Dichloropropene	ND		ug/kg	62	17.	1
cis-1,3-Dichloropropene	ND		ug/kg	31	9.8	1
Bromoform	ND		ug/kg	250	15.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	31	10.	1
Benzene	ND		ug/kg	31	10.	1
Toluene	ND		ug/kg	62	34.	1
Ethylbenzene	ND		ug/kg	62	8.7	1
Chloromethane	ND		ug/kg	250	58.	1
Bromomethane	ND		ug/kg	120	36.	1
Vinyl chloride	ND		ug/kg	62	21.	1
Chloroethane	ND		ug/kg	120	28.	1
1,1-Dichloroethene	ND		ug/kg	62	15.	1
trans-1,2-Dichloroethene	ND		ug/kg	93	8.5	1
Trichloroethene	ND		ug/kg	31	8.5	1
1,2-Dichlorobenzene	ND		ug/kg	120	8.9	1

Project Name: 229 HOMER ST SITE **Lab Number:** L2204969

Project Number: T0311-018-001-005 **Report Date:** 02/16/22

SAMPLE RESULTS

Lab ID: L2204969-02 Date Collected: 01/26/22 11:46

Client ID: VSS-5 WET Date Received: 01/31/22

Sample Location: 229 HOMER ST SITE 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/kg	120	9.2	1
1,4-Dichlorobenzene	ND		ug/kg	120	11.	1
Methyl tert butyl ether	ND		ug/kg	120	12.	1
p/m-Xylene	ND		ug/kg	120	35.	1
o-Xylene	ND		ug/kg	62	18.	1
cis-1,2-Dichloroethene	ND		ug/kg	62	11.	1
Styrene	ND		ug/kg	62	12.	1
Dichlorodifluoromethane	ND		ug/kg	620	57.	1
Acetone	ND		ug/kg	620	300	1
Carbon disulfide	ND		ug/kg	620	280	1
2-Butanone	ND		ug/kg	620	140	1
4-Methyl-2-pentanone	ND		ug/kg	620	79.	1
2-Hexanone	ND		ug/kg	620	73.	1
Bromochloromethane	ND		ug/kg	120	13.	1
1,2-Dibromoethane	ND		ug/kg	62	17.	1
n-Butylbenzene	ND		ug/kg	62	10.	1
sec-Butylbenzene	12	J	ug/kg	62	9.0	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	190	62.	1
Isopropylbenzene	ND		ug/kg	62	6.8	1
p-Isopropyltoluene	ND		ug/kg	62	6.8	1
n-Propylbenzene	ND		ug/kg	62	11.	1
1,2,3-Trichlorobenzene	ND		ug/kg	120	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	120	17.	1
1,3,5-Trimethylbenzene	ND		ug/kg	120	12.	1
1,2,4-Trimethylbenzene	ND		ug/kg	120	21.	1
Methyl Acetate	ND		ug/kg	250	59.	1
Cyclohexane	ND		ug/kg	620	34.	1
1,4-Dioxane	ND		ug/kg	5000	2200	1
Freon-113	ND		ug/kg	250	43.	1
Methyl cyclohexane	1500		ug/kg	250	37.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	**132**	Q	70-130
Dibromofluoromethane	86		70-130

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204969
Report Date: 02/16/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/08/22 20:54
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1603080-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204969
Report Date: 02/16/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/08/22 20:54
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1603080-5					
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
Styrene	0.23	J	ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
Methyl Acetate	ND		ug/kg	4.0	0.95
Cyclohexane	ND		ug/kg	10	0.54
1,4-Dioxane	ND		ug/kg	80	35.
Freon-113	ND		ug/kg	4.0	0.69
Methyl cyclohexane	ND		ug/kg	4.0	0.60

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204969
Report Date: 02/16/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/08/22 20:54
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1603080-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	94		70-130

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204969
Report Date: 02/16/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/08/22 20:54
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1603084-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	ND		ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8
1,2-Dichlorobenzene	ND		ug/kg	100	7.2
1,3-Dichlorobenzene	ND		ug/kg	100	7.4

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204969
Report Date: 02/16/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/08/22 20:54
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1603084-5					
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	ND		ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
Styrene	12	J	ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.
Methyl Acetate	ND		ug/kg	200	48.
Cyclohexane	ND		ug/kg	500	27.
1,4-Dioxane	ND		ug/kg	4000	1800
Freon-113	ND		ug/kg	200	35.
Methyl cyclohexane	ND		ug/kg	200	30.

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204969
Report Date: 02/16/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 02/08/22 20:54
Analyst: AJK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG1603084-5					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	94		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204969
Report Date: 02/16/22

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: WG1603080-3 WG1603080-4								
Methylene chloride	89		88		70-130	1		30
1,1-Dichloroethane	94		93		70-130	1		30
Chloroform	91		92		70-130	1		30
Carbon tetrachloride	98		96		70-130	2		30
1,2-Dichloropropane	102		101		70-130	1		30
Dibromochloromethane	90		90		70-130	0		30
1,1,2-Trichloroethane	103		103		70-130	0		30
Tetrachloroethene	101		99		70-130	2		30
Chlorobenzene	96		94		70-130	2		30
Trichlorofluoromethane	82		81		70-139	1		30
1,2-Dichloroethane	94		93		70-130	1		30
1,1,1-Trichloroethane	98		96		70-130	2		30
Bromodichloromethane	98		98		70-130	0		30
trans-1,3-Dichloropropene	92		91		70-130	1		30
cis-1,3-Dichloropropene	94		93		70-130	1		30
Bromoform	89		89		70-130	0		30
1,1,2,2-Tetrachloroethane	106		106		70-130	0		30
Benzene	102		100		70-130	2		30
Toluene	95		93		70-130	2		30
Ethylbenzene	97		95		70-130	2		30
Chloromethane	96		91		52-130	5		30
Bromomethane	77		71		57-147	8		30
Vinyl chloride	91		88		67-130	3		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204969
Report Date: 02/16/22

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: WG1603080-3 WG1603080-4								
Chloroethane	80		78		50-151	3		30
1,1-Dichloroethene	92		91		65-135	1		30
trans-1,2-Dichloroethene	92		91		70-130	1		30
Trichloroethene	102		101		70-130	1		30
1,2-Dichlorobenzene	95		94		70-130	1		30
1,3-Dichlorobenzene	95		94		70-130	1		30
1,4-Dichlorobenzene	94		93		70-130	1		30
Methyl tert butyl ether	110		108		66-130	2		30
p/m-Xylene	99		98		70-130	1		30
o-Xylene	97		96		70-130	1		30
cis-1,2-Dichloroethene	93		92		70-130	1		30
Styrene	98		96		70-130	2		30
Dichlorodifluoromethane	72		69		30-146	4		30
Acetone	108		102		54-140	6		30
Carbon disulfide	84		82		59-130	2		30
2-Butanone	116		113		70-130	3		30
4-Methyl-2-pentanone	100		98		70-130	2		30
2-Hexanone	114		113		70-130	1		30
Bromochloromethane	90		90		70-130	0		30
1,2-Dibromoethane	90		90		70-130	0		30
n-Butylbenzene	98		95		70-130	3		30
sec-Butylbenzene	100		98		70-130	2		30
1,2-Dibromo-3-chloropropane	85		86		68-130	1		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204969
Report Date: 02/16/22

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: WG1603080-3 WG1603080-4								
Isopropylbenzene	101		100		70-130	1		30
p-Isopropyltoluene	98		97		70-130	1		30
n-Propylbenzene	101		99		70-130	2		30
1,2,3-Trichlorobenzene	99		98		70-130	1		30
1,2,4-Trichlorobenzene	97		95		70-130	2		30
1,3,5-Trimethylbenzene	96		95		70-130	1		30
1,2,4-Trimethylbenzene	96		96		70-130	0		30
Methyl Acetate	97		95		51-146	2		30
Cyclohexane	103		101		59-142	2		30
1,4-Dioxane	105		105		65-136	0		30
Freon-113	95		93		50-139	2		30
Methyl cyclohexane	100		99		70-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	92		92		70-130
Toluene-d8	97		97		70-130
4-Bromofluorobenzene	106		106		70-130
Dibromofluoromethane	90		91		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204969
Report Date: 02/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1603084-3 WG1603084-4								
Methylene chloride	89		88		70-130	1		30
1,1-Dichloroethane	94		93		70-130	1		30
Chloroform	91		92		70-130	1		30
Carbon tetrachloride	98		96		70-130	2		30
1,2-Dichloropropane	102		101		70-130	1		30
Dibromochloromethane	90		90		70-130	0		30
1,1,2-Trichloroethane	103		103		70-130	0		30
Tetrachloroethene	101		99		70-130	2		30
Chlorobenzene	96		94		70-130	2		30
Trichlorofluoromethane	82		81		70-139	1		30
1,2-Dichloroethane	94		93		70-130	1		30
1,1,1-Trichloroethane	98		96		70-130	2		30
Bromodichloromethane	98		98		70-130	0		30
trans-1,3-Dichloropropene	92		91		70-130	1		30
cis-1,3-Dichloropropene	94		93		70-130	1		30
Bromoform	89		89		70-130	0		30
1,1,2,2-Tetrachloroethane	106		106		70-130	0		30
Benzene	102		100		70-130	2		30
Toluene	95		93		70-130	2		30
Ethylbenzene	97		95		70-130	2		30
Chloromethane	96		91		52-130	5		30
Bromomethane	77		71		57-147	8		30
Vinyl chloride	91		88		67-130	3		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204969
Report Date: 02/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1603084-3 WG1603084-4								
Chloroethane	80		78		50-151	3		30
1,1-Dichloroethene	92		91		65-135	1		30
trans-1,2-Dichloroethene	92		91		70-130	1		30
Trichloroethene	102		101		70-130	1		30
1,2-Dichlorobenzene	95		94		70-130	1		30
1,3-Dichlorobenzene	95		94		70-130	1		30
1,4-Dichlorobenzene	94		93		70-130	1		30
Methyl tert butyl ether	110		108		66-130	2		30
p/m-Xylene	99		98		70-130	1		30
o-Xylene	97		96		70-130	1		30
cis-1,2-Dichloroethene	93		92		70-130	1		30
Styrene	98		96		70-130	2		30
Dichlorodifluoromethane	72		69		30-146	4		30
Acetone	108		102		54-140	6		30
Carbon disulfide	84		82		59-130	2		30
2-Butanone	116		113		70-130	3		30
4-Methyl-2-pentanone	100		98		70-130	2		30
2-Hexanone	114		113		70-130	1		30
Bromochloromethane	90		90		70-130	0		30
1,2-Dibromoethane	90		90		70-130	0		30
n-Butylbenzene	98		95		70-130	3		30
sec-Butylbenzene	100		98		70-130	2		30
1,2-Dibromo-3-chloropropane	85		86		68-130	1		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204969
Report Date: 02/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG1603084-3 WG1603084-4								
Isopropylbenzene	101		100		70-130	1		30
p-Isopropyltoluene	98		97		70-130	1		30
n-Propylbenzene	101		99		70-130	2		30
1,2,3-Trichlorobenzene	99		98		70-130	1		30
1,2,4-Trichlorobenzene	97		95		70-130	2		30
1,3,5-Trimethylbenzene	96		95		70-130	1		30
1,2,4-Trimethylbenzene	96		96		70-130	0		30
Methyl Acetate	97		95		51-146	2		30
Cyclohexane	103		101		59-142	2		30
1,4-Dioxane	105		105		65-136	0		30
Freon-113	95		93		50-139	2		30
Methyl cyclohexane	100		99		70-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	92		92		70-130
Toluene-d8	97		97		70-130
4-Bromofluorobenzene	106		106		70-130
Dibromofluoromethane	90		91		70-130

SEMIVOLATILES

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204969
Report Date: 02/16/22

SAMPLE RESULTS

Lab ID: L2204969-01
Client ID: VSS-3 WET
Sample Location: 229 HOMER ST SITE

Date Collected: 01/26/22 11:21
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 02/08/22 02:54
Analyst: SZ
Percent Solids: 90%

Extraction Method: EPA 3546
Extraction Date: 02/06/22 05:52

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	19.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	25.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	48.	1
2,4-Dinitrotoluene	ND		ug/kg	180	36.	1
2,6-Dinitrotoluene	ND		ug/kg	180	31.	1
Fluoranthene	ND		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	31.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	18.	1
Hexachlorobutadiene	ND		ug/kg	180	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	520	160	1
Hexachloroethane	ND		ug/kg	140	29.	1
Isophorone	ND		ug/kg	160	24.	1
Naphthalene	ND		ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	27.	1
NDPA/DPA	ND		ug/kg	140	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	63.	1
Butyl benzyl phthalate	ND		ug/kg	180	46.	1
Di-n-butylphthalate	ND		ug/kg	180	34.	1
Di-n-octylphthalate	ND		ug/kg	180	62.	1
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	38.	1
Benzo(a)anthracene	ND		ug/kg	110	20.	1
Benzo(a)pyrene	ND		ug/kg	140	44.	1

Project Name: 229 HOMER ST SITE **Lab Number:** L2204969

Project Number: T0311-018-001-005 **Report Date:** 02/16/22

SAMPLE RESULTS

Lab ID: L2204969-01 Date Collected: 01/26/22 11:21

Client ID: VSS-3 WET Date Received: 01/31/22

Sample Location: 229 HOMER ST SITE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	110	31.	1
Benzo(k)fluoranthene	ND		ug/kg	110	29.	1
Chrysene	ND		ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	140	28.	1
Anthracene	ND		ug/kg	110	35.	1
Benzo(ghi)perylene	ND		ug/kg	140	21.	1
Fluorene	ND		ug/kg	180	18.	1
Phenanthrene	ND		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	25.	1
Pyrene	ND		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	410	24.	1
4-Chloroaniline	ND		ug/kg	180	33.	1
2-Nitroaniline	ND		ug/kg	180	35.	1
3-Nitroaniline	ND		ug/kg	180	34.	1
4-Nitroaniline	ND		ug/kg	180	75.	1
Dibenzofuran	ND		ug/kg	180	17.	1
2-Methylnaphthalene	ND		ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	34.	1
p-Chloro-m-cresol	ND		ug/kg	180	27.	1
2-Chlorophenol	ND		ug/kg	180	21.	1
2,4-Dichlorophenol	ND		ug/kg	160	29.	1
2,4-Dimethylphenol	ND		ug/kg	180	60.	1
2-Nitrophenol	ND		ug/kg	390	68.	1
4-Nitrophenol	ND		ug/kg	250	74.	1
2,4-Dinitrophenol	ND		ug/kg	870	85.	1
4,6-Dinitro-o-cresol	ND		ug/kg	470	87.	1
Pentachlorophenol	ND		ug/kg	140	40.	1
Phenol	ND		ug/kg	180	27.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	28.	1
2,4,5-Trichlorophenol	ND		ug/kg	180	35.	1
Carbazole	ND		ug/kg	180	18.	1
Atrazine	ND		ug/kg	140	64.	1
Benzaldehyde	ND		ug/kg	240	49.	1

Project Name: 229 HOMER ST SITE
Lab Number: L2204969
Project Number: T0311-018-001-005
Report Date: 02/16/22

SAMPLE RESULTS

Lab ID: L2204969-01
Client ID: VSS-3 WET
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 11:21
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	180	55.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	180	37.	1
Tentatively Identified Compounds						
Total TIC Compounds	9940	J	ug/kg			1
Unknown	727	J	ug/kg			1
Unknown	890	J	ug/kg			1
Unknown Alkane	810	J	ug/kg			1
Unknown Cycloalkane	755	J	ug/kg			1
Unknown	477	J	ug/kg			1
Unknown Cycloalkane	707	J	ug/kg			1
Unknown	547	J	ug/kg			1
Unknown Alkane	656	J	ug/kg			1
Unknown	537	J	ug/kg			1
Unknown Alkane	694	J	ug/kg			1
Unknown	710	J	ug/kg			1
Unknown	589	J	ug/kg			1
Unknown Alkane	668	J	ug/kg			1
Unknown Naphthalene	632	J	ug/kg			1
Unknown	541	J	ug/kg			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	77		25-120
Phenol-d6	88		10-120
Nitrobenzene-d5	41		23-120
2-Fluorobiphenyl	84		30-120
2,4,6-Tribromophenol	36		10-136
4-Terphenyl-d14	74		18-120

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204969
Report Date: 02/16/22

SAMPLE RESULTS

Lab ID: L2204969-02
Client ID: VSS-5 WET
Sample Location: 229 HOMER ST SITE

Date Collected: 01/26/22 11:46
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 02/08/22 03:18
Analyst: SZ
Percent Solids: 86%

Extraction Method: EPA 3546
Extraction Date: 02/06/22 05:52

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	20.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	ND		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	ND		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	67.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	65.	1
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	150	47.	1

Project Name: 229 HOMER ST SITE **Lab Number:** L2204969

Project Number: T0311-018-001-005 **Report Date:** 02/16/22

SAMPLE RESULTS

Lab ID: L2204969-02 Date Collected: 01/26/22 11:46

Client ID: VSS-5 WET Date Received: 01/31/22

Sample Location: 229 HOMER ST SITE Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(b)fluoranthene	ND		ug/kg	120	32.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	150	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	150	23.	1
Fluorene	ND		ug/kg	190	19.	1
Phenanthrene	ND		ug/kg	120	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	27.	1
Pyrene	ND		ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	25.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	80.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	36.	1
p-Chloro-m-cresol	ND		ug/kg	190	29.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	170	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	64.	1
2-Nitrophenol	ND		ug/kg	420	72.	1
4-Nitrophenol	ND		ug/kg	270	78.	1
2,4-Dinitrophenol	ND		ug/kg	920	90.	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	92.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Carbazole	ND		ug/kg	190	19.	1
Atrazine	ND		ug/kg	150	67.	1
Benzaldehyde	ND		ug/kg	250	52.	1

Project Name: 229 HOMER ST SITE
Lab Number: L2204969
Project Number: T0311-018-001-005
Report Date: 02/16/22

SAMPLE RESULTS

Lab ID: L2204969-02
Client ID: VSS-5 WET
Sample Location: 229 HOMER ST SITE
Date Collected: 01/26/22 11:46
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Caprolactam	ND		ug/kg	190	58.	1
2,3,4,6-Tetrachlorophenol	ND		ug/kg	190	39.	1
Tentatively Identified Compounds						
Total TIC Compounds	69800	J	ug/kg			1
Unknown	2560	J	ug/kg			1
Unknown Alkane	22100	J	ug/kg			1
Unknown Cycloalkane	4160	J	ug/kg			1
Unknown	2460	J	ug/kg			1
Unknown	3650	J	ug/kg			1
Unknown Alkane	5070	J	ug/kg			1
Unknown Cycloalkane	3020	J	ug/kg			1
Unknown	4530	J	ug/kg			1
Unknown Alkane	4540	J	ug/kg			1
Unknown Cycloalkane	2690	J	ug/kg			1
Unknown	3110	J	ug/kg			1
Unknown	3340	J	ug/kg			1
Unknown Alkane	2740	J	ug/kg			1
Unknown	3050	J	ug/kg			1
Unknown Naphthalene	2780	J	ug/kg			1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	76		25-120
Phenol-d6	86		10-120
Nitrobenzene-d5	47		23-120
2-Fluorobiphenyl	87		30-120
2,4,6-Tribromophenol	34		10-136
4-Terphenyl-d14	85		18-120

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204969
Report Date: 02/16/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 02/07/22 19:40
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 02/06/22 05:52

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1601858-1					
Acenaphthene	ND		ug/kg	130	17.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	99	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204969
Report Date: 02/16/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 02/07/22 19:40
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 02/06/22 05:52

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1601858-1					
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	370	21.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	360	62.
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	790	77.
4,6-Dinitro-o-cresol	ND		ug/kg	430	79.
Pentachlorophenol	ND		ug/kg	130	36.

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005
Lab Number: L2204969
Report Date: 02/16/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 02/07/22 19:40
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 02/06/22 05:52

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1601858-1					
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	32.
Carbazole	ND		ug/kg	160	16.
Atrazine	ND		ug/kg	130	58.
Benzaldehyde	ND		ug/kg	220	44.
Caprolactam	ND		ug/kg	160	50.
2,3,4,6-Tetrachlorophenol	ND		ug/kg	160	33.
Tentatively Identified Compounds					
No Tentatively Identified Compounds	ND		ug/kg		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	69		25-120
Phenol-d6	70		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	72		30-120
2,4,6-Tribromophenol	81		10-136
4-Terphenyl-d14	77		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204969
Report Date: 02/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1601858-2 WG1601858-3								
Acenaphthene	79		79		31-137	0		50
Hexachlorobenzene	86		86		40-140	0		50
Bis(2-chloroethyl)ether	67		70		40-140	4		50
2-Chloronaphthalene	82		82		40-140	0		50
3,3'-Dichlorobenzidine	49		50		40-140	2		50
2,4-Dinitrotoluene	83		82		40-132	1		50
2,6-Dinitrotoluene	86		86		40-140	0		50
Fluoranthene	81		83		40-140	2		50
4-Chlorophenyl phenyl ether	84		83		40-140	1		50
4-Bromophenyl phenyl ether	87		87		40-140	0		50
Bis(2-chloroisopropyl)ether	48		52		40-140	8		50
Bis(2-chloroethoxy)methane	71		75		40-117	5		50
Hexachlorobutadiene	83		81		40-140	2		50
Hexachlorocyclopentadiene	77		76		40-140	1		50
Hexachloroethane	72		73		40-140	1		50
Isophorone	67		71		40-140	6		50
Naphthalene	77		75		40-140	3		50
Nitrobenzene	69		71		40-140	3		50
NDPA/DPA	82		82		36-157	0		50
n-Nitrosodi-n-propylamine	67		70		32-121	4		50
Bis(2-ethylhexyl)phthalate	82		82		40-140	0		50
Butyl benzyl phthalate	81		82		40-140	1		50
Di-n-butylphthalate	80		82		40-140	2		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204969
Report Date: 02/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1601858-2 WG1601858-3								
Di-n-octylphthalate	82		82		40-140	0		50
Diethyl phthalate	81		80		40-140	1		50
Dimethyl phthalate	81		83		40-140	2		50
Benzo(a)anthracene	79		81		40-140	3		50
Benzo(a)pyrene	85		85		40-140	0		50
Benzo(b)fluoranthene	82		82		40-140	0		50
Benzo(k)fluoranthene	85		86		40-140	1		50
Chrysene	81		81		40-140	0		50
Acenaphthylene	82		83		40-140	1		50
Anthracene	80		83		40-140	4		50
Benzo(ghi)perylene	84		81		40-140	4		50
Fluorene	80		81		40-140	1		50
Phenanthrene	81		81		40-140	0		50
Dibenzo(a,h)anthracene	82		81		40-140	1		50
Indeno(1,2,3-cd)pyrene	84		83		40-140	1		50
Pyrene	80		82		35-142	2		50
Biphenyl	80		80		37-127	0		50
4-Chloroaniline	70		68		40-140	3		50
2-Nitroaniline	84		85		47-134	1		50
3-Nitroaniline	55		54		26-129	2		50
4-Nitroaniline	75		76		41-125	1		50
Dibenzofuran	81		82		40-140	1		50
2-Methylnaphthalene	81		81		40-140	0		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204969
Report Date: 02/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1601858-2 WG1601858-3								
1,2,4,5-Tetrachlorobenzene	82		82		40-117	0		50
Acetophenone	74		77		14-144	4		50
2,4,6-Trichlorophenol	87		89		30-130	2		50
p-Chloro-m-cresol	84		84		26-103	0		50
2-Chlorophenol	76		79		25-102	4		50
2,4-Dichlorophenol	82		87		30-130	6		50
2,4-Dimethylphenol	77		80		30-130	4		50
2-Nitrophenol	77		82		30-130	6		50
4-Nitrophenol	84		86		11-114	2		50
2,4-Dinitrophenol	27		35		4-130	26		50
4,6-Dinitro-o-cresol	75		80		10-130	6		50
Pentachlorophenol	76		81		17-109	6		50
Phenol	76		80		26-90	5		50
2-Methylphenol	77		80		30-130.	4		50
3-Methylphenol/4-Methylphenol	82		85		30-130	4		50
2,4,5-Trichlorophenol	90		90		30-130	0		50
Carbazole	82		83		54-128	1		50
Atrazine	79		81		40-140	3		50
Benzaldehyde	65		67		40-140	3		50
Caprolactam	67		71		15-130	6		50
2,3,4,6-Tetrachlorophenol	83		83		40-140	0		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204969
Report Date: 02/16/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1601858-2 WG1601858-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	75		77		25-120
Phenol-d6	76		79		10-120
Nitrobenzene-d5	69		71		23-120
2-Fluorobiphenyl	83		81		30-120
2,4,6-Tribromophenol	93		94		10-136
4-Terphenyl-d14	81		81		18-120

INORGANICS
&
MISCELLANEOUS

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204969
Report Date: 02/16/22

SAMPLE RESULTS

Lab ID: L2204969-01
Client ID: VSS-3 WET
Sample Location: 229 HOMER ST SITE

Date Collected: 01/26/22 11:21
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.6		%	0.100	NA	1	-	02/01/22 17:58	121,2540G	TR

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204969
Report Date: 02/16/22

SAMPLE RESULTS

Lab ID: L2204969-02
Client ID: VSS-5 WET
Sample Location: 229 HOMER ST SITE

Date Collected: 01/26/22 11:46
Date Received: 01/31/22
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.2		%	0.100	NA	1	-	02/01/22 17:58	121,2540G	TR

Lab Duplicate Analysis

Batch Quality Control

Project Name: 229 HOMER ST SITE

Project Number: T0311-018-001-005

Lab Number: L2204969

Report Date: 02/16/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1600347-1 QC Sample: L2204861-03 Client ID: DUP Sample						
Solids, Total	77.5	77.0	%	1		20

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204969
Report Date: 02/16/22

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(*)
L2204969-01A	Vial Large Septa unpreserved (4oz)	A	NA		2.1	Y	Absent		NYTCL-8260-R2(14)
L2204969-01B	Glass 120ml/4oz unpreserved	A	NA		2.1	Y	Absent		NYTCL-8270(14),TS(7)
L2204969-01X	Vial MeOH preserved split	A	NA		2.1	Y	Absent		NYTCL-8260-R2(14)
L2204969-01Y	Vial Water preserved split	A	NA		2.1	Y	Absent	**05-FEB-22 05:12**	NYTCL-8260-R2(14)
L2204969-01Z	Vial Water preserved split	A	NA		2.1	Y	Absent	**05-FEB-22 05:12**	NYTCL-8260-R2(14)
L2204969-02A	Vial Large Septa unpreserved (4oz)	A	NA		2.1	Y	Absent		NYTCL-8260-R2(14)
L2204969-02B	Glass 120ml/4oz unpreserved	A	NA		2.1	Y	Absent		NYTCL-8270(14),TS(7)
L2204969-02X	Vial MeOH preserved split	A	NA		2.1	Y	Absent		NYTCL-8260-R2(14)
L2204969-02Y	Vial Water preserved split	A	NA		2.1	Y	Absent	**05-FEB-22 05:12**	NYTCL-8260-R2(14)
L2204969-02Z	Vial Water preserved split	A	NA		2.1	Y	Absent	**05-FEB-22 05:12**	NYTCL-8260-R2(14)

*Values in parentheses indicate holding time in days

Project Name:	229 HOMER ST SITE	**Lab Number:**	L2204969
Project Number:	T0311-018-001-005	**Report Date:**	02/16/22

GLOSSARY

Acronyms

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

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

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

EPA - Environmental Protection Agency.

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

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

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

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

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

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

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

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

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

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

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

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

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

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

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

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

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

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

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

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

Report Format: DU Report with 'J' Qualifiers

Project Name:	229 HOMER ST SITE	**Lab Number:**	L2204969
Project Number:	T0311-018-001-005	**Report Date:**	02/16/22

Footnotes

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

Terms

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

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

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

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

Data Qualifiers

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

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

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

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

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

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

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.

Report Format: DU Report with 'J' Qualifiers

Project Name:	229 HOMER ST SITE	**Lab Number:**	L2204969
Project Number:	T0311-018-001-005	**Report Date:**	02/16/22

Data Qualifiers

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	229 HOMER ST SITE	**Lab Number:**	L2204969
Project Number:	T0311-018-001-005	**Report Date:**	02/16/22

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

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

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

Certification Information

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

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 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.
Biological Tissue Matrix: EPA 3050B

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

Westborough Facility:

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

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

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

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

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

NEW YORK CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

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

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 02/01/22

ALPHA Job #: L2204969

Project Information
Project Name: 229 Homer St Site
Project Location: " " "
Project #: TO311-0018-0019
(Use Project name as Project #) ☐
Project Manager: Lori Riker
ALPHAQuote #:

Turn-Around Time
Standard ☒ Due Date:
Rush (only if pre approved) ☐ # of Days:

Client Information
Client: Turnkey Env.
Address: 2558 Hamburg Turnpike, Buffalo, NY 14218
Phone: 716-225-3314
Fax:
Email: lriker@bm-tk.com

Deliverables
☐ ASP-A ☐ ASP-B
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Billing Information
☑ Same as Client Info
PO #

Regulatory Requirement
☐ NY TOGS ☐ NY Part 375
☐ AWQ Standards ☐ NY CP-51
☐ NY Restricted Use ☐ Other
☐ NY Unrestricted Use
☐ NYC Sewer Discharge

Disposal Site Information
Please identify below location of applicable disposal facilities.
Disposal Facility:
☐ NJ ☐ NY
☐ Other:

These samples have been previously analyzed by Alpha ☐

Other project specific requirements/comments:
Separate Report

Please specify Metals or TAL.

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TCL + CP-51 VOCs	TCL + TICs SVOCs	Sample Specific Comments	Total Bottles
04969-01	VSS-3 WET	1-26-22	1121	Soil	BMG	X	X	12.5-14'	2
-02	VSS-5 WET	1-26-22	1146	Soil	BMG	X	X	12.5-14'	2
Container Type						A	A		
Preservative						A	A		

Preservative Code	Container Code
A = None	P = Plastic
B = HCl	A = Amber Glass
C = HNO_3	V = Vial
D = H_2SO_4	G = Glass
E = NaOH	B = Bacteria Cup
F = MeOH	C = Cube
G = $NaHSO_4$	O = Other
H = $Na_2S_2O_3$	E = Encore
K/E = Zn Ac/NaOH	D = BOD Bottle
O = Other	

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Brock Greene	1-27-22/ 900	[signature] AAL	1/31/22 09:50
[signature] AAL	1/31/22 10:35	[signature]	2/1/22 00:10

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

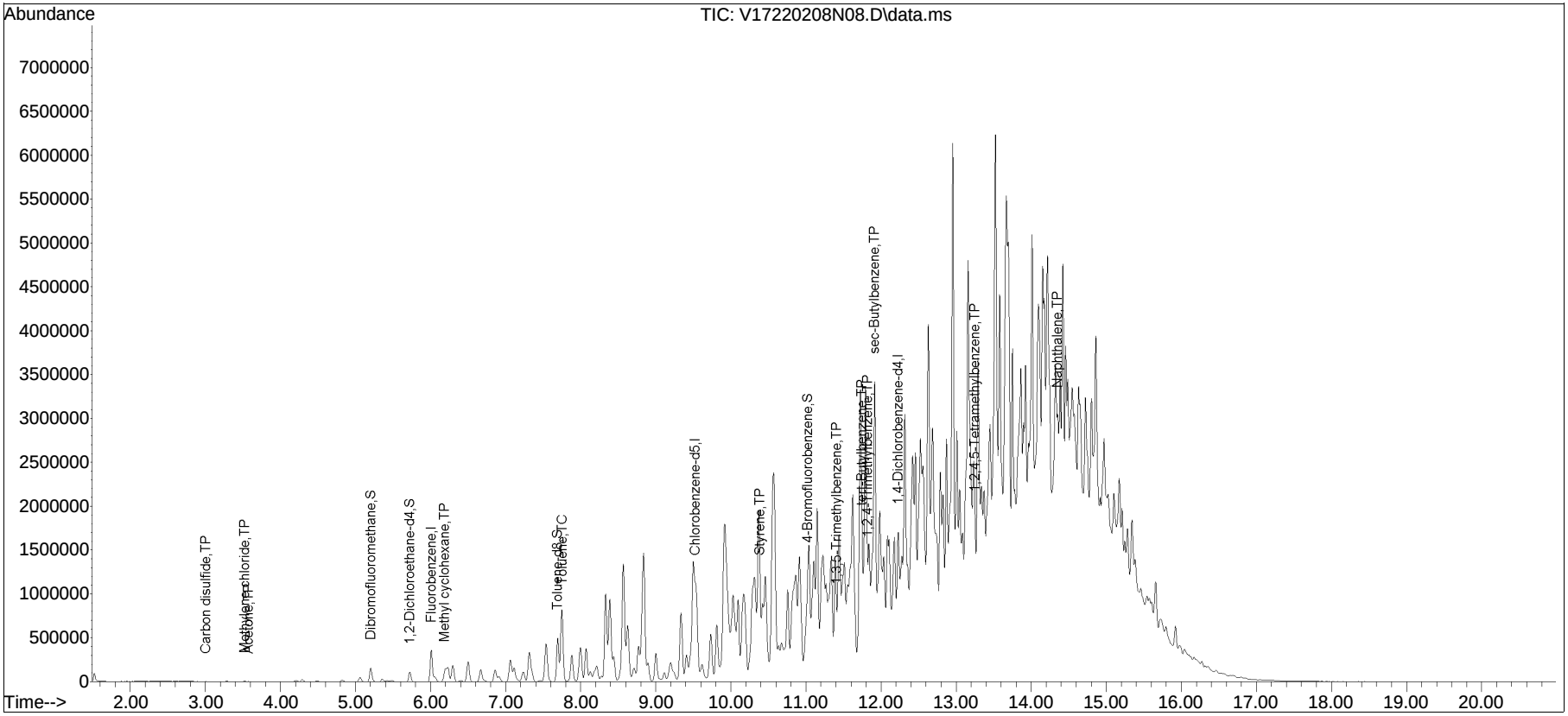
Form No: 01-25 HC (rev. 30-Sept-2013)

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA117\2022\220208N\
Data File : V17220208N08.D
Acq On : 08 Feb 2022 10:38 pm
Operator : VOA117:JC
Sample : L2204969-01,31,5.16,5,,Z,PRI
Misc : WG1603080,ICAL18616
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 09 07:22:52 2022
Quant Method : I:\VOLATILES\VOA117\2022\220208N\V117_220103N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jan 04 09:06:06 2022
Response via : Initial Calibration

Sub List : 8260-CurveSoil - Megamix plus Diox8N\V17220208N01.D•

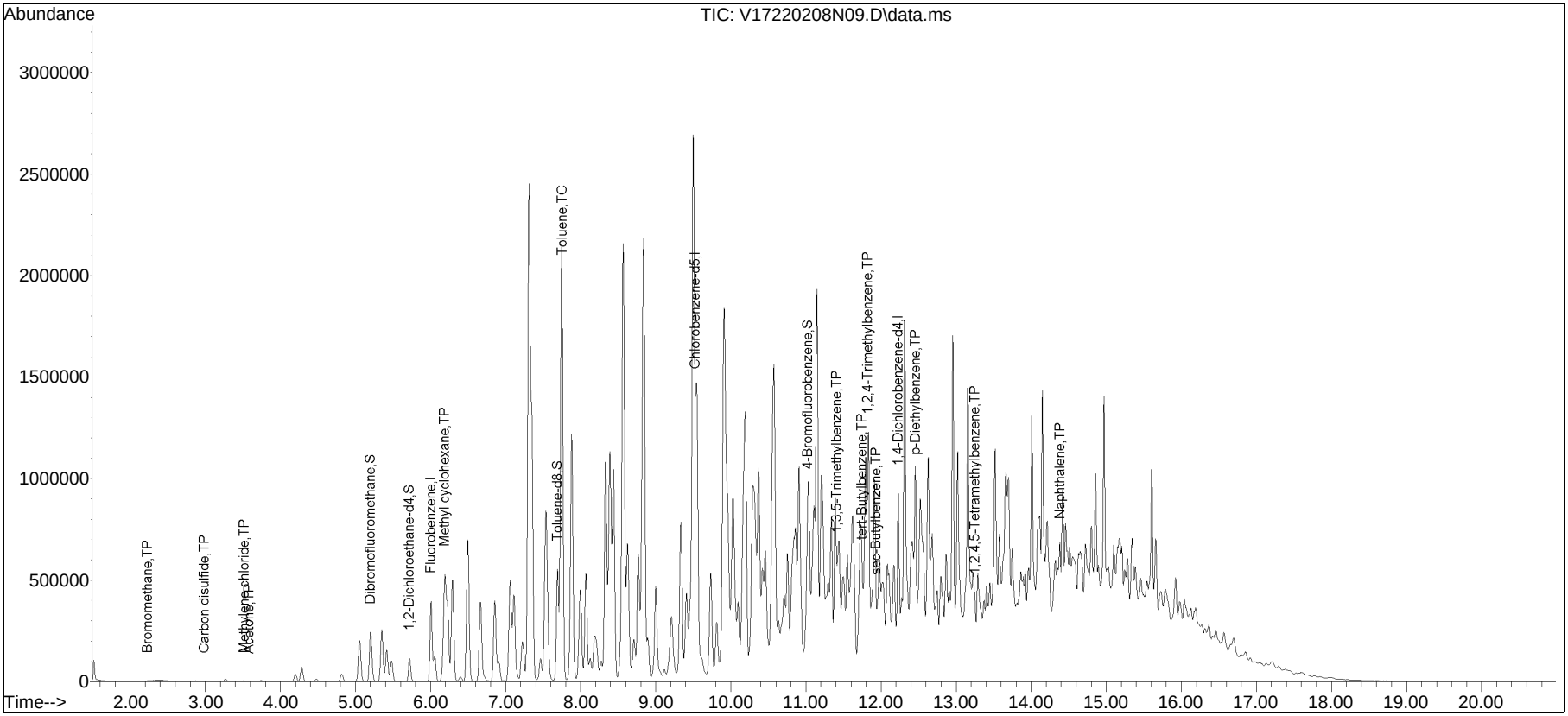


Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA117\2022\220208N\
Data File : V17220208N09.D
Acq On : 08 Feb 2022 11:05 pm
Operator : VOA117:JC
Sample : L2204969-02,31H,5.37,5,0.100,,X,PRI
Misc : WG1603084,ICAL18616
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Feb 09 07:24:34 2022
Quant Method : I:\VOLATILES\VOA117\2022\220208N\V117_220103N_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Tue Jan 04 09:06:06 2022
Response via : Initial Calibration

Sub List : 8260-CurveSoil - Megamix plus Diox8N\V17220208N01.D•



Data Validation Services

120 Cobble Creek Road P. O. Box 208
North Creek, NY 12853
Phone (518) 251-4429
harry@frontiernet.net

April 25, 2022

Charlotte Clark
Turnkey Environmental Restoration, LLC
2558 Hamburg Turnpike Suite 300
Buffalo, NY 14218

RE: Validation of 229 Homer Street Analytical Data of VVS Soils
Data Usability Summary Report (DUSR)
Alpha Analytical SDG No. L2204966

Dear Ms. Clark:

Review has been completed for the data package generated by Alpha Analytical that pertains to samples collected between 01/26/22 at the 229 Home Street site. Six soil samples were processed for TCL and NYCRR Part 375 CP-51 volatiles and for TCL and an expanded list of semivolatiles. Tentatively Identified Compounds (TICs) were also processed. The analytical methodologies are those of the USEPA SW846.

The data packages submitted by the laboratory contain full deliverables for validation, and this usability report is generated from review of the QC summary form information, with full review of sample raw data and limited review of associated QC raw data. The reported QC summary forms and sample raw data have been reviewed for application of validation qualifiers, with guidance from the USEPA national and regional validation documents and the specific requirements of the analytical methodology. The following items were reviewed:

* Data Completeness
* Case Narrative
* Custody Documentation
* Holding Times
* Surrogate/Internal Standard Recoveries
* Method/Preparation Blanks
* Laboratory Control Sample (LCS)
* Instrumental Tunes

* Initial and Continuing Calibration Standards
* Method Compliance
* Sample Result Verification

Those items listed above which show deficiencies are discussed within the text of this narrative. All of the other items were determined to be acceptable for the DUSR level review, as discussed in NYS DER-10 Appendix B Section 2.0 (c). Documentation of the outlying parameters cited in this report can be found in the laboratory data package.

In summary, the results for the samples are usable either as reported or with minor qualification, with the exception that the results for 1,4-dioxane that are derived from the volatile fraction are rejected and not usable due to limitations of the methodology.

Data completeness, representativeness, reproducibility, and comparability are acceptable. Matrix accuracy and precision were not evaluated with this set of samples.

Validation data qualifier definitions and client sample identifications are attached to this text. Also included in this report are the laboratory EDDs with recommended qualifiers/edits applied in red.

TCL and CP-51 Volatile Analyses by EPA 8260D

The results for 1,4-dioxane in the samples are rejected due to low response inherent in the methodology. Other calibration standards show responses within validation action levels, with the exception of that for bromomethane (32%D), results for which are qualified as estimated in the samples.

Holding times were met. Surrogate and internal standard recoveries are within validation guidelines, and blanks show no contamination.

Matrix spikes and field duplicate evaluations were not performed with this group of samples. and the effect of matrix on these specific samples is not evaluated.

TCL Semivolatile Analyses by EPA8270E

Holding times were met. Surrogate and internal standard recoveries are compliant. Blanks show no contamination.

Calibration standards show responses within validation action levels.

Matrix spikes and field duplicate evaluations were not performed with this group of samples. and the effect of matrix on these specific samples is not evaluated.

Please do not hesitate to contact me if questions or comments arise during your review of this report.

Very truly yours,

Judy Harry

Judy Harry

Attachments: Validation Data Qualifier Definitions
Sample Identifications
Qualified Laboratory EQuIS EDDs

VALIDATION DATA QUALIFIER DEFINITIONS

U	The analyte was analyzed for, but was not detected above the level of the associated reported quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
J-	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased low.
J+	The analyte was positively identified; the associated numerical value is an estimated quantity that may be biased high.
UJ	The analyte was analyzed for, but was not detected. The associated reported quantitation limit is approximate and may be inaccurate or imprecise.
NJ	The detection is tentative in identification and estimated in value. Although there is presumptive evidence of the analyte, the result should be used with caution as a potential false positive and/or elevated quantitative value.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control limits. The analyte may or may not be present.
EMPC	The results do not meet all criteria for a confirmed identification. The quantitative value represents the Estimated Maximum Possible Concentration of the analyte in the sample.

Sample Summaries

Project Name: 229 HOMER ST SITE
Project Number: T0311-018-001-005

Lab Number: L2204966
Report Date: 02/14/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2204966-01	VSS-1	SOIL	229 HOMER ST SITE	01/26/22 09:50	01/31/22
L2204966-02	VSS-2	SOIL	229 HOMER ST SITE	01/26/22 10:26	01/31/22
L2204966-03	VSS-6	SOIL	229 HOMER ST SITE	01/26/22 10:50	01/31/22
L2204966-04	VSS-3	SOIL	229 HOMER ST SITE	01/26/22 11:20	01/31/22
L2204966-05	VSS-5	SOIL	229 HOMER ST SITE	01/26/22 11:44	01/31/22
L2204966-06	VSS-4	SOIL	229 HOMER ST SITE	01/26/22 12:10	01/31/22

ATTACHMENT 4

PHOTOGRAPHIC LOG OF VSS SOIL BORING CORES

SITE PHOTOGRAPHS

VSS-1

VSS-2

VSS-3

VSS-4

Order of Cores:

First Core (Top of Photo): 0-4'
Second Core: 4-8'
Third Core: 8-12'
Fourth Core (Bottom of Photo): 12-16'

SITE PHOTOGRAPHS

VSS-5

VSS-6

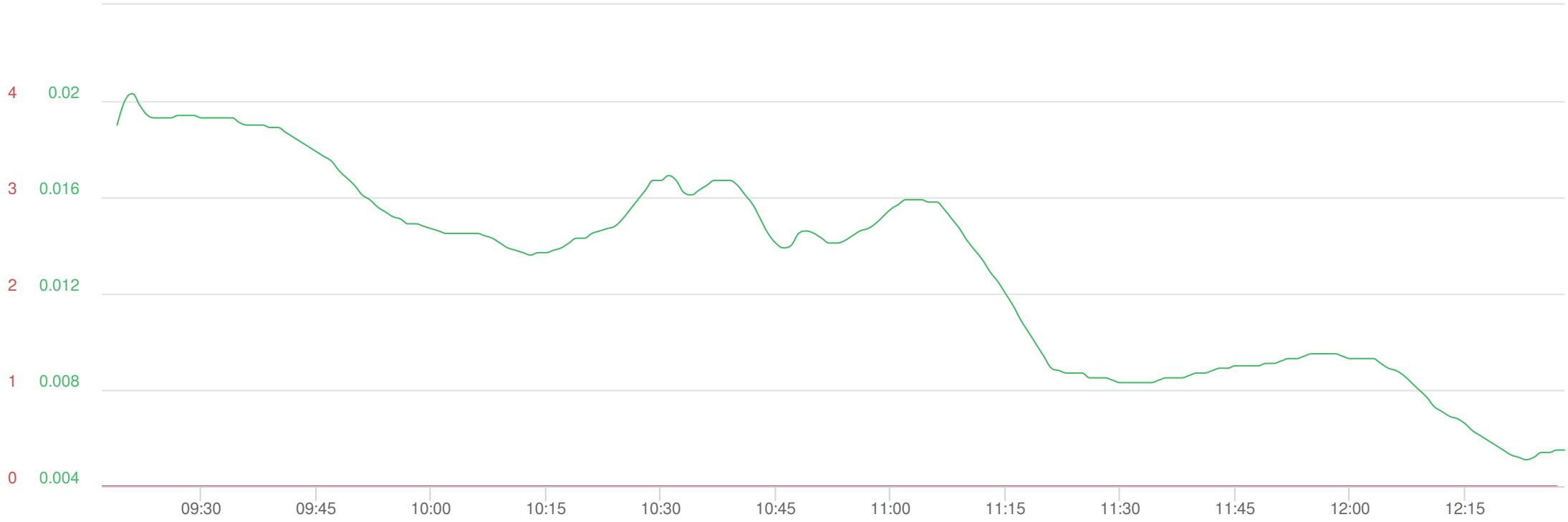
Order of Cores:

First Core (Top of Photo): 0-4'
Second Core: 4-8'
Third Core: 8-12'
Fourth Core (Bottom of Photo): 12-16'

ATTACHMENT 5

COMMUNITY AIR MONITORING PROGRAM (CAMP) RESULTS

01/26/2022 0:00:57 – 01/27/2022 0:00:00
(GMT-05:00) Eastern Time (US & Canada)



Mass Conc. Total (AVG 15m) mg/m³

DustTrak-8530

RS232(C)

MIN	AVG	MAX
0.0051	**0.013**	**0.0203**

VOC ppm AVG 15m ppm

miniRAE 3000

RS232(A)

MIN	AVG	MAX
0	**0**	**0**

Name	CAMP Station #4
S/N	0B052904
Description	CAMP Station #4
Location	220 Homer St, Olean, NY 14760, USA