



April 30, 2021

Ms. Melissa L. Sweet
Project Manager
Remedial Section C, Remedial Bureau A
Division of Environmental Remediation 625
Broadway-12th Floor
Albany, New York 12233-7015

Re: SMP Sampling Results Site # 130193
Elks Plaza Freeport, New York

Dear Ms. Sweet:

Tyll Engineering and Consulting, PC (TEC) has prepared this report to summarize the soil vapor sampling at the above referenced property in accordance with the Site Management Plan's (SMP) Section 2.2.2 Criteria for Completion of Remediation/Termination of Remedial Systems and the shutdown request workplan letter dated January 26, 2021 and approved by the NYSDEC on February 12, 2021. The SSDS system was shut down on January 22, 2021.

Background

As per the June 2014 Final Engineering Report (FER), engineering controls have been employed at the site since June 2012 to maintain acceptable indoor air quality. The initial control was a soil vapor extraction system (SVES) installed in June 2012 and operated as such until January 2013. In January 2013, the SVES was converted to a sub-slab depressurization system (SSDS).

As per the May 2014 SMP, "...remedial processes are considered completed when effectiveness monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.6 of NYSDEC DER-10". In addition, the SMP states "Operation of the SSD system will be terminated when the following are demonstrated in accordance with Indoor Air Matrix 2 of the NYSDOH's 2006 Guidance document:

- Indoor air concentrations of PCE in the laundromat are less than 3 ug/m³; and,
- Sub-slab vapor concentration of PCE below the laundromat is less than 100 ug/m³.

This is to be demonstrated during the winter heating season, to represent the worst-case scenario, and after the SSDS has been turned off for a period of 30 days or more. The NYSDEC and NYSDOH have asked for the system to be shut off for a minimum of 60 days.

Methodology

On January 22, 2021, the SSDS was shut down and the vent on the roof was covered. After the 67-day temporary SSDS shut down, sampling was conducted on March 30, 2021. Sub-slab vapor samples and co-

located indoor air samples were sampled at the 2010 Supplemental Soil Vapor Investigation baseline locations along with an outdoor ambient air sample (Figure 1). The sample in Unit 171 was not part of this scope of work due to prior sampling. Indoor air samples 181A, and 179A were collected in the Laundromat. Sub-slab soil vapor samples were also collected in Units 179A and 181A in the existing monitoring points. One ambient outdoor sample was collected outside of Unit 181A. As part of the vapor intrusion evaluation, a tracer gas, helium, was used in accordance with NYSDOH protocols.

All samples were collected using SUMMA canisters with regulators calibrated to fill over a period of eight hours. The Summa canisters were connected to the implants and sampling began early the morning of March 30. One indoor air sampling canister was co-located with each sub slab implant. The outside (ambient air) canister was set on an empty detergent drum outside of the laundromat. This location borders the Woodward School where school buses may be lined up and idling in place. Earlier in the day, MATA Paving was observed sawcutting and patching the asphalt in the curb cut along Merrick Road adjacent to the bank.

Sampling logs are included as Attachment A and representative photos are included in Attachment B. Laundry detergents appeared to be brought in with each customer. The doors to the inside enclosed mall and outside parking lot were constantly in motion with a number of customers entering and exiting. The majority of the laundry being washed were drop-off orders which increased as the day went on.

The SSDS was turned back on March 31, 2021. The samples were picked up by lab courier and brought to Alpha Analytical Laboratories, Mansfield, MA (NYSDOH ELAP #11627). EPA Method TO-15 SIM was used to analyze the air samples.

Results

The laboratory report is provided in Attachment C and detections in ug/m³ are summarized on Table 1 and a comparison of data from the 2020 sampling event on Table 1a. There were very low detections of PCE in the outdoor air sample (<0.136 ug/m³), , the Unit 179A indoor air sample (0.285 ug/m³), and the Unit 181A indoor air sample (0.312 ug/m³).

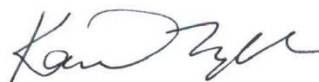
PCE was detected in the sub-slab vapor sample in laundromat Unit 179A (12.8 ug/m³). PCE was not detected in the laundromat Unit 181A sub-slab vapor sample (<11.6 ug/m³).

Data validation for soil vapor results was provided by L.A.B. Validation Corp. of East Northport, New York. The Data Usability Report (DUSRs) are included in Attachment D.

Please call or email me if you have any questions.

Sincerely,

TYLL ENGINEERING AND CONSULTING, PC



Karen G. Tyll, PE
President

eCC Lois Reisman, Elks Plaza LLC

TABLES



Table 1
Elks Plaza, Freeport, NY
Volatile Organic Compounds in Air
by EPA Method TO-15

Analyte	Sample:	OA	179A IA	181A IA	179A SSV	181A SSV
	Date:	3/30/2021	3/30/2021	3/30/2021	3/30/2021	3/30/2021
	Units:					
1,1,1-Trichloroethane	ug/m3	<0.109	<0.109	<0.109	<1.09	<9.33
1,1,2,2-Tetrachloroethane	ug/m3	<1.37	<1.37	<1.37	<1.37	<117.
1,1,2-Trichloroethane	ug/m3	<0.809	<0.809	<0.809	<0.809	<69.2
1,1-Dichloroethane	ug/m3	<0.079	<0.079	<0.079	<0.793	<67.8
1,1-Dichloroethene	ug/m3	<1.09	<1.09	<1.09	<1.09	<9.33
1,2,4-Trichlorobenzene	ug/m3	<1.54	<1.54	<1.54	<1.54	<131.
1,2,4-Trimethylbenzene	ug/m3	<1.20	<1.20	<1.20	<1.20	<103.
1,2-Dibromoethane	ug/m3	<0.809	<0.809	<0.809	<0.809	<69.2
1,2-Dichlorobenzene	ug/m3	<0.924	<0.924	<0.924	<0.924	<79.0
1,2-Dichloroethane	ug/m3	<1.48	<1.48	<1.48	<1.48	<127.
1,2-Dichloropropane	ug/m3	<0.983	<0.983	<0.983	23.7	<84.1
1,3,5-Trimethylbenzene	ug/m3	<0.442	<0.442	<0.442	<0.442	<37.8
1,3-Butadiene	ug/m3	<1.20	<1.20	<1.20	<1.20	<103.
1,3-Dichlorobenzene	ug/m3	<0.983	<0.983	<0.983	6.39	<84.1
1,4-Dichlorobenzene	ug/m3	<1.20	<1.20	<1.20	<1.20	<103.
1,4-Dioxane	ug/m3	<0.721	<0.721	<0.721	<0.721	<61.6
2,2,4-Trimethylpentane	ug/m3	<1.47	<1.47	<1.47	20.5	321
2-Butanone	ug/m3	<0.820	<0.820	<0.820	<0.820	<70.1
2-Hexanone	ug/m3	<0.934	0.958	1.19	1.96	<79.9
3-Chloropropene	ug/m3	<0.626	<0.626	<0.626	<0.626	<53.5
4-Ethyltoluene	ug/m3	<0.983	<0.983	<0.983	6.69	<84.1
4-Methyl-2-pentanone	ug/m3	<2.05	<2.05	<2.05	<2.05	<175.
Acetone	ug/m3	5.72	85.3	155	47.7	6600
Benzene	ug/m3	<0.639	1.72	2	4.82	<54.6
Benzyl chloride	ug/m3	<1.04	<1.04	<1.04	<1.04	<88.5
Bromodichloromethane	ug/m3	<1.34	<1.34	<1.34	<1.34	<115.
Bromoform	ug/m3	<2.07	<2.07	<2.07	<2.07	<177.
Bromomethane	ug/m3	<0.777	<0.777	<0.777	<0.777	<66.4
Carbon disulfide	ug/m3	<0.623	<0.623	<0.623	<0.623	<53.3
Carbon tetrachloride	ug/m3	0.39	0.925	1.05	<1.26	<10.8
Chlorobenzene	ug/m3	<0.921	<0.921	<0.921	<0.921	<78.8
Chloroethane	ug/m3	<0.528	<0.528	<0.528	<0.528	<45.1
Chloroform	ug/m3	<0.977	6.98	7.57	3.75	<83.5
Chloromethane	ug/m3	1.17	5.66	11.1	2.75	<35.3
cis-1,2-Dichloroethene	ug/m3	<0.079	<0.079	<0.079	<0.793	<6.78
cis-1,3-Dichloropropene	ug/m3	<0.908	<0.908	<0.908	<0.908	<77.6
Cyclohexane	ug/m3	<0.688	<0.688	<0.688	1.88	647
Dibromochloromethane	ug/m3	<1.70	<1.70	<1.70	<1.70	<146.
Dichlorodifluoromethane	ug/m3	2.02	2.09	2.12	2.04	<84.6
Ethanol	ug/m3	15.1	556	742	121	<805



Table 1
Elks Plaza, Freeport, NY
Volatile Organic Compounds in Air
by EPA Method TO-15

	Sample:	OA	179A IA	181A IA	179A SSV	181A SSV
	Date:	3/30/2021	3/30/2021	3/30/2021	3/30/2021	3/30/2021
Analyte	Units:					
Ethyl Acetate	ug/m3	<1.80	6.27	9.77	<1.80	<154.
Ethylbenzene	ug/m3	<0.869	<0.869	<0.869	15	<74.3
Freon-113	ug/m3	<1.53	<1.53	<1.53	<1.53	<131.
Freon-114	ug/m3	<1.40	<1.40	<1.40	<1.40	<120.
Heptane	ug/m3	<0.820	1.08	1.33	7.13	<70.1
Hexachlorobutadiene	ug/m3	<2.13	<2.13	<2.13	<2.13	<182.
Isopropanol	ug/m3	<1.23	84.6	141	21.2	114
Methyl tert butyl ether	ug/m3	<0.721	<0.721	<0.721	<0.721	<61.7
Methylene chloride	ug/m3	<1.74	<1.74	<1.74	10.9	<148
n-Hexane	ug/m3	<0.705	1.67	2.03	6.94	<60.3
o-Xylene	ug/m3	<0.869	<0.869	<0.869	20.4	<74.3
p/m-Xylene	ug/m3	<1.74	<1.74	<1.74	61.2	<148.
Styrene	ug/m3	<0.852	<0.852	<0.852	1.61	<72.8
Tertiary butyl Alcohol	ug/m3	<1.52	<1.52	<1.52	2.58	870
Tetrachloroethene	ug/m3	<0.136	0.285	0.312	12.8	<11.6
Tetrahydrofuran	ug/m3	<1.47	<1.47	<1.47	<1.47	<126.
Toluene	ug/m3	<0.754	5.99	6.63	59.5	19800
trans-1,2-Dichloroethene	ug/m3	<0.793	<0.793	<0.793	0.797	<67.8
trans-1,3-Dichloropropene	ug/m3	<0.908	<0.908	<0.908	<0.908	<77.6
Trichloroethene	ug/m3	<0.107	<0.107	<0.107	<1.07	<9.19
Trichlorofluoromethane	ug/m3	<1.12	1.75	2.06	2.3	<96.1
Vinyl bromide	ug/m3	<0.874	<0.874	<0.874	<0.874	<74.8
Vinyl chloride	ug/m3	<0.051	<0.051	<0.051	<0.511	<4.37



**Table 2 - Comparison
Elks Plaza, Freeport, NY
Volatile Organic Compounds in Air
by EPA Method TO-15**

Analyte	Sample: Date: Units:	OA		179A IA		181A IA		179A SSV		181A SSV		171 IA
		1/15/2020	3/30/2021	1/15/2020	3/30/2021	1/15/2020	3/30/2021	1/15/2020	3/30/2021	1/15/2020	3/30/2021	1/15/2020
1,1,1-Trichloroethane	ug/m3	<0.109	<0.109	<0.109	<0.109	<0.109	<0.109	<1.09	<1.09	<2.18	<9.33	<0.109
1,1,2,2-Tetrachloroethane	ug/m3	<1.37	<1.37	<1.37	<1.37	<1.37	<1.37	<1.37	<1.37	<2.75	<117.	<1.37
1,1,2-Trichloroethane	ug/m3	<1.09	<0.809	<1.09	<0.809	<1.09	<0.809	<1.09	<0.809	<2.18	<69.2	<1.09
1,1-Dichloroethane	ug/m3	<0.809	<0.079	<0.809	<0.079	<0.809	<0.079	<0.809	<0.793	<1.62	<67.8	<0.809
1,1-Dichloroethene	ug/m3	<0.079	<1.09	<0.079	<1.09	<0.079	<1.09	<0.793	<1.09	<1.59	<9.33	<0.079
1,2,4-Trichlorobenzene	ug/m3	<1.48	<1.54	<1.48	<1.54	<1.48	<1.54	<1.48	<1.54	<2.97	<131.	<1.48
1,2,4-Trimethylbenzene	ug/m3	<0.983	<1.20	1.21	<1.20	1.37	<1.20	3.3	<1.20	24.1	<103.	1.2
1,2-Dibromoethane	ug/m3	<1.54	<0.809	<1.54	<0.809	<1.54	<0.809	<1.54	<0.809	<3.07	<69.2	<1.54
1,2-Dichlorobenzene	ug/m3	<1.20	<0.924	<1.20	<0.924	<1.20	<0.924	<1.20	<0.924	<2.40	<79.0	<1.20
1,2-Dichloroethane	ug/m3	<0.809	<1.48	<0.809	<1.48	<0.809	<1.48	<0.809	<1.48	<1.62	<127.	<0.809
1,2-Dichloropropane	ug/m3	<0.924	<0.983	<0.924	<0.983	<0.924	<0.983	<0.924	23.7	<1.85	<84.1	<0.924
1,3,5-Trimethylbenzene	ug/m3	<0.983	<0.442	<0.983	<0.442	<0.983	<0.442	<0.983	<0.442	6.54	<37.8	<0.983
1,3-Butadiene	ug/m3	<0.442	<1.20	<0.442	<1.20	<0.442	<1.20	<0.442	<1.20	1.38	<103.	<0.442
1,3-Dichlorobenzene	ug/m3	<1.20	<0.983	<1.20	<0.983	<1.20	<0.983	<1.20	6.39	<2.40	<84.1	<1.20
1,4-Dichlorobenzene	ug/m3	<1.20	<1.20	<1.20	<1.20	<1.20	<1.20	<1.20	<1.20	<2.40	<103.	<1.20
1,4-Dioxane	ug/m3	<0.721	<0.721	<0.721	<0.721	<0.721	<0.721	<0.721	<0.721	<1.44	<61.6	<0.721
2,2,4-Trimethylpentane	ug/m3	<0.934	<1.47	<0.934	<1.47	<0.934	<1.47	1.44	20.5	<1.87	321	<0.934
2-Butanone	ug/m3	1.51	<0.820	<1.47	<0.820	1.52	<0.820	3.63	<0.820	6.81	<70.1	<1.47
2-Hexanone	ug/m3	<0.820	<0.934	<0.820	0.958	<0.820	1.19	<0.820	1.96	<1.64	<79.9	<0.820
3-Chloropropene	ug/m3	<0.626	<0.626	<0.626	<0.626	<0.626	<0.626	<0.626	<0.626	<1.25	<53.5	<0.626
4-Ethyltoluene	ug/m3	<0.983	<0.983	<0.983	<0.983	<0.983	<0.983	<0.983	6.69	4.65	<84.1	<0.983
4-Methyl-2-pentanone	ug/m3	<2.05	<2.05	<2.05	<2.05	<2.05	<2.05	<2.05	<2.05	<4.10	<175.	<2.05
Acetone	ug/m3	16	5.72	88.1	85.3	105	155	116	47.7	137	6600	49.4
Benzene	ug/m3	0.757	<0.639	2.15	1.72	2.12	2	2.66	4.82	3.55	<54.6	1.5
Benzyl chloride	ug/m3	<1.04	<1.04	<1.04	<1.04	<1.04	<1.04	<1.04	<1.04	<2.07	<88.5	<1.04
Bromodichloromethane	ug/m3	<1.34	<1.34	<1.34	<1.34	<1.34	<1.34	<1.34	<1.34	<2.68	<115.	<1.34
Bromoform	ug/m3	<2.07	<2.07	<2.07	<2.07	<2.07	<2.07	<2.07	<2.07	<4.14	<177.	<2.07
Bromomethane	ug/m3	<0.777	<0.777	<0.777	<0.777	<0.777	<0.777	<0.777	<0.777	<1.55	<66.4	<0.777
Carbon disulfide	ug/m3	<0.623	<0.623	<0.623	<0.623	<0.623	<0.623	<0.623	<0.623	1.83	<53.3	<0.623
Carbon tetrachloride	ug/m3	0.384	0.39	0.484	0.925	0.434	1.05	<1.26	<1.26	<2.52	<10.8	0.421
Chlorobenzene	ug/m3	<0.921	<0.921	<0.921	<0.921	<0.921	<0.921	<0.921	<0.921	<1.84	<78.8	<0.921
Chloroethane	ug/m3	<0.528	<0.528	<0.528	<0.528	<0.528	<0.528	<0.528	<0.528	<1.06	<45.1	<0.528
Chloroform	ug/m3	<0.977	<0.977	1.5	6.98	1.63	7.57	3.28	3.75	2.58	<83.5	<0.977
Chloromethane	ug/m3	1.07	1.17	1.33	5.66	1.25	11.1	1.35	2.75	<0.826	<35.3	1.06
cis-1,2-Dichloroethene	ug/m3	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	<0.793	<0.793	<1.59	<6.78	<0.079
cis-1,3-Dichloropropene	ug/m3	<0.908	<0.908	<0.908	<0.908	<0.908	<0.908	<0.908	<0.908	<1.82	<77.6	<0.908
Cyclohexane	ug/m3	<0.688	<0.688	<0.688	<0.688	<0.688	<0.688	1.22	1.88	3.44	647	<0.688
Dibromochloromethane	ug/m3	<1.70	<1.70	<1.70	<1.70	<1.70	<1.70	<1.70	<1.70	<3.41	<146.	<1.70
Dichlorodifluoromethane	ug/m3	2.12	2.02	2.34	2.09	2.25	2.12	2.42	2.04	2.45	<84.6	2.34
Ethanol	ug/m3	25.1	15.1	535	556	686	742	452	121	124	<805	626
Ethyl Acetate	ug/m3	<1.80	<1.80	5.51	6.27	6.96	9.77	4.29	<1.80	<3.60	<154.	7.1
Ethylbenzene	ug/m3	<0.869	<0.869	<0.869	<0.869	<0.869	<0.869	1.33	15	10	<74.3	<0.869
Freon-113	ug/m3	<1.53	<1.53	<1.53	<1.53	<1.53	<1.53	<1.53	<1.53	<3.07	<131.	<1.53
Freon-114	ug/m3	<1.40	<1.40	<1.40	<1.40	<1.40	<1.40	<1.40	<1.40	<2.80	<120.	<1.40
Heptane	ug/m3	<0.820	<0.820	<0.820	1.08	0.947	1.33	1.91	7.13	5.98	<70.1	<0.820
Hexachlorobutadiene	ug/m3	<2.13	<2.13	<2.13	<2.13	<2.13	<2.13	<2.13	<2.13	<4.27	<182.	<2.13
Isopropanol	ug/m3	1.54	<1.23	88.5	84.6	104	141	71.8	21.2	11.4	114	65.9
Methyl tert butyl ether	ug/m3	<0.721	<0.721	<0.721	<0.721	<0.721	<0.721	<0.721	<0.721	<1.44	<61.7	<0.721
Methylene chloride	ug/m3	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74	10.9	<3.47	<148	<1.74
n-Hexane	ug/m3	<0.705	<0.705	1.13	1.67	1.15	2.03	3.15	6.94	6.91	<60.3	1.02
o-Xylene	ug/m3	<0.869	<0.869	<0.869	<0.869	<0.869	<0.869	2.06	20.4	17.9	<74.3	<0.869
p/m-Xylene	ug/m3	<1.74	<1.74	<1.74	<1.74	<1.74	<1.74	4.78	61.2	41.6	<148.	<1.74
Styrene	ug/m3	<0.852	<0.852	<0.852	<0.852	<0.852	<0.852	<0.852	1.61	<1.70	<72.8	<0.852
Tertiary butyl Alcohol	ug/m3	<1.52	<1.52	<1.52	<1.52	<1.52	<1.52	<1.52	2.58	<3.03	870	<1.52
Tetrachloroethene	ug/m3	0.441	<0.136	0.373	0.285	0.427	0.312	<1.36	12.8	922	<11.6	0.319
Tetrahydrofuran	ug/m3	<1.47	<1.47	<1.47	<1.47	<1.47	<1.47	<1.47	<1.47	<2.95	<126.	<1.47
Toluene	ug/m3	1.44	<0.754	3.19	5.99	3.75	6.63	6.07	59.5	23.1	19800	3.21
trans-1,2-Dichloroethene	ug/m3	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	<0.793	0.797	<1.59	<67.8	<0.793
trans-1,3-Dichloropropene	ug/m3	<0.908	<0.908	<0.908	<0.908	<0.908	<0.908	<0.908	<0.908	<1.82	<77.6	<0.908
Trichloroethene	ug/m3	<0.107	<0.107	<0.107	<0.107	<0.107	<0.107	<1.07	<1.07	3.47	<9.19	<0.107
Trichlorofluoromethane	ug/m3	<1.12	<1.12	2.46	1.75	2.73	2.06	2.35	2.3	4.74	<96.1	2.39
Vinyl bromide	ug/m3	<0.874	<0.874	<0.874	<0.874	<0.874	<0.874	<0.874	<0.874	<1.75	<74.8	<0.874
Vinyl chloride	ug/m3	<0.051	<0.051	<0.051	<0.051	<0.051	<0.051	<0.511	<0.511	<1.02	<4.37	<0.051

FIGURES



PREPARED BY:		TITLE:		DWN:	SCALE:	DATE:	PROJECT NO.:
 TYLL ENGINEERING & CONSULTING PC 169 Commack Road, Suite H173, Commack, NY 11725 PHONE: (631) 629-5373 Info@tyllengineering.com		SVI SAMPLE MAP ELKS PLAZA FREEPORT, NY		-	NTS	1-25-2021	ELK1901
				CHKD:	APPD:	REV.:	NOTES:
				KT	KT	-	-
				FIGURE NO.: 1			

Attachment A

Canister Field Sampling Record Logs



Tyll Engineering
And Consulting

CANISTER FIELD SAMPLING RECORD

Date: 03/30/2021

Project: Elks Plaza

Site Location: 157 - 189 West Merrick Road, Freeport, New York

Sample ID 179A SSV Canister ID 2055
Sampler K.Tyll Canister Volume 6 liter
Location by soap dispensers + coke machine Flow Controller ID 01629
Height floor + 1.5 ft Flow Controller Setting 8 hour
Sample Type (sub-slab, soil gas, amb, indoor) SSV

READING	DATE	TIME	VACUUM
Initial Canister Vacuum	3/30/2021	8:22 AM	-30.70
Final Canister Vacuum	3/30/2021	4:22 pm	-5.98

Weather or Ambient Conditions: : ≈ 35°-58° F partly sunny

Comments: _____



Tyll Engineering
And Consulting

CANISTER FIELD SAMPLING RECORD

Date: 03/30/2021

Project: Elks Plaza
Site Location: 157 - 189 West Merrick Road, Freeport, New York

Sample ID OA Canister ID 3052
Sampler K.Tyll Canister Volume 6 liter
Location on drum outside rear door Flow Controller ID 0695
Height 4.5' Flow Controller Setting 8 hour
Sample Type (sub-slab, soil gas, amb, indoor) Ambient (outdoor)

READING	DATE	TIME	VACUUM
Initial Canister Vacuum	3/30/2021	8:04 AM	-30.68
Final Canister Vacuum	3/30/2021	4:05 pm	-4.04

Weather or Ambient Conditions: : ~35°-58°F partly sunny

Comments: Marta Paving (Huntington Sta., NY) was observed saw
cutting and asphalt patching the curb cut along Merrick Rd
adjacent to the bank.



Tyll Engineering
And Consulting

CANISTER FIELD SAMPLING RECORD

Date: 03/30/2021

Project: Elks Plaza
Site Location: 157 - 189 West Merrick Road, Freeport, New York

Sample ID 179A 1A Canister ID 2486
Sampler K.Tyll Canister Volume 6 liter
Location Table Flow Controller ID 01530
Height ≈ 58" Flow Controller Setting 8 hour
Sample Type (sub-slab, soil gas, amb, indoor) indoor

READING	DATE	TIME	VACUUM
Initial Canister Vacuum	3/30/2021	808 am	-31.04
Final Canister Vacuum	3/30/2021	408 am	-6.45

Weather or Ambient Conditions: : ≈ 35°-58°F partly sunny

Comments: _____



Tyll Engineering
And Consulting

CANISTER FIELD SAMPLING RECORD

Date: 03/30/2021

Project: Elks Plaza
Site Location: 157 - 189 West Merrick Road, Freeport, New York

Sample ID 181A SSV Canister ID 1557
Sampler K.Tyll Canister Volume 6 liter
Location by front desk Flow Controller ID 0779
Height floor + 18" Flow Controller Setting 8 hour
Sample Type (sub-slab, soil gas, amb, indoor) SSV

READING	DATE	TIME	VACUUM
Initial Canister Vacuum	3/30/2021	800 AM	-30.48
Final Canister Vacuum	3/30/2021	400 PM	-6.08

Weather or Ambient Conditions: : ±58° partly sunny

Comments: _____



Tyll Engineering
And Consulting

CANISTER FIELD SAMPLING RECORD

Date: 03/30/2021

Project: Elks Plaza

Site Location: 157 - 189 West Merrick Road, Freeport, New York

Sample ID 181A 1A

Canister ID 780

Sampler K.Tyll

Canister Volume 6 liter

Location Table in corner

Flow Controller ID 01791

Height ~ 5'

Flow Controller Setting 8 hour

Sample Type (sub-slab, soil gas, amb, indoor) indoor

READING	DATE	TIME	VACUUM
Initial Canister Vacuum	3/30/2021	7:44 Am	-30.89
Final Canister Vacuum	3/30/2021	3:45 pm	-6.56

Weather or Ambient Conditions: : ~ 58° F outside

Comments: _____

Attachment B
Photos



OA



179A SSV

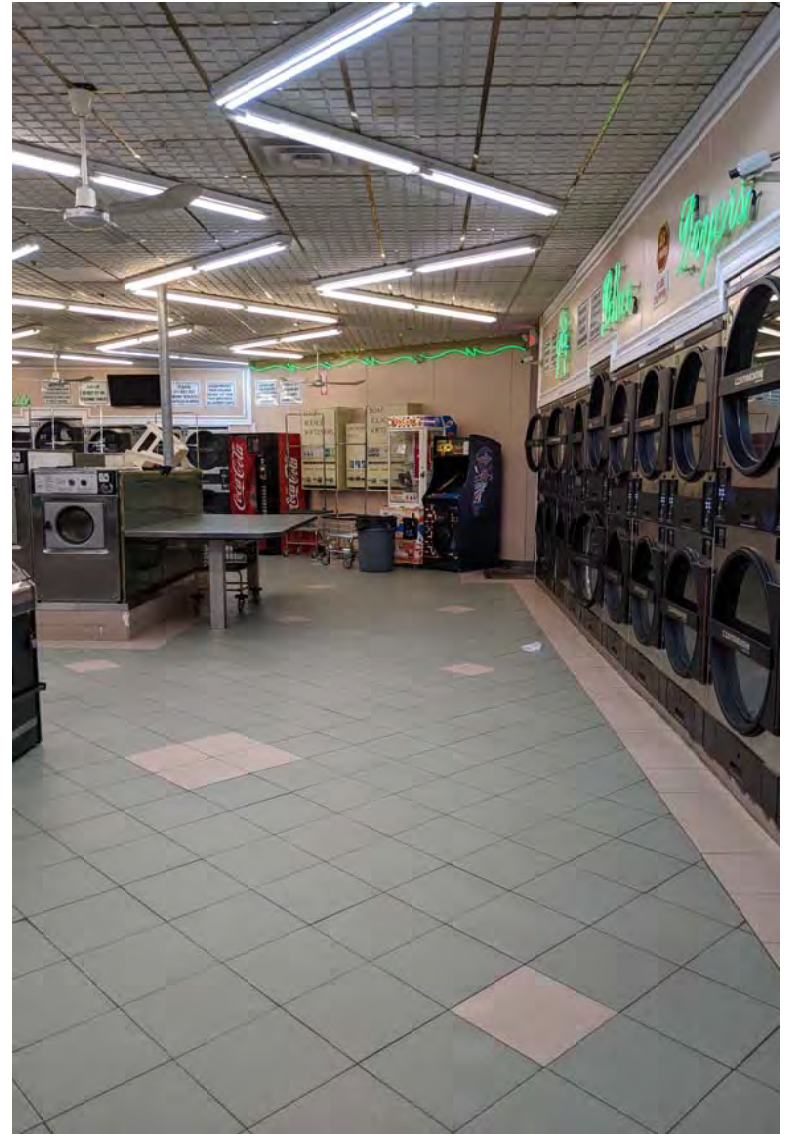


179A IA



181A IA









Attachment C
Laboratory Analytical



ANALYTICAL REPORT

Lab Number:	L2115928
Client:	Tyll Engineering and Consulting PC 169 Commack Road Suite H173 Commack, NY 11725
ATTN:	Karen Tyll
Phone:	(631) 664-6477
Project Name:	ELKS PLAZA
Project Number:	Not Specified
Report Date:	04/28/21

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

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

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



Project Name: ELKS PLAZA
Project Number: Not Specified

Lab Number: L2115928
Report Date: 04/28/21

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2115928-01	181A IA	AIR	FREEPORT, NY	03/30/21 15:45	03/30/21
L2115928-02	181A SSV	SOIL_VAPOR	FREEPORT, NY	03/30/21 16:00	03/30/21
L2115928-03	179A IA	AIR	FREEPORT, NY	03/30/21 16:08	03/30/21
L2115928-04	179A SSV	SOIL_VAPOR	FREEPORT, NY	03/30/21 16:22	03/30/21
L2115928-05	OA	AIR	FREEPORT, NY	03/30/21 16:04	03/30/21

Project Name: ELKS PLAZA
Project Number: Not Specified

Lab Number: L2115928
Report Date: 04/28/21

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: ELKS PLAZA
Project Number: Not Specified

Lab Number: L2115928
Report Date: 04/28/21

Case Narrative (continued)

Report Revision

April 28, 2021; the report has been amended to report TO15 SIM for select compounds for the sample designated 181A SSV (L2115928-02).

Volatile Organics in Air

Canisters were released from the laboratory on March 29, 2021. The canister certification results are provided as an addendum.

L2115928-02D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

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

Authorized Signature:  Christopher J. Anderson

Title: Technical Director/Representative

Date: 04/28/21

AIR

Project Name: ELKS PLAZA**Project Number:** Not Specified**Lab Number:** L2115928**Report Date:** 04/28/21**SAMPLE RESULTS**

Lab ID: L2115928-01
 Client ID: 181A IA
 Sample Location: FREEPORT, NY

Date Collected: 03/30/21 15:45
 Date Received: 03/30/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 04/09/21 20:47
 Analyst: EW

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.428	0.200	--	2.12	0.989	--		1
Chloromethane	5.38	0.200	--	11.1	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	394	5.00	--	742	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	65.2	1.00	--	155	2.38	--		1
Trichlorofluoromethane	0.367	0.200	--	2.06	1.12	--		1
Isopropanol	57.4	0.500	--	141	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	2.71	0.500	--	9.77	1.80	--		1
Chloroform	1.55	0.200	--	7.57	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1



Project Name: ELKS PLAZA**Project Number:** Not Specified**Lab Number:** L2115928**Report Date:** 04/28/21**SAMPLE RESULTS**

Lab ID: L2115928-01
 Client ID: 181A IA
 Sample Location: FREEPORT, NY

Date Collected: 03/30/21 15:45
 Date Received: 03/30/21
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.576	0.200	--	2.03	0.705	--		1
Benzene	0.625	0.200	--	2.00	0.639	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	0.255	0.200	--	1.19	0.934	--		1
Heptane	0.325	0.200	--	1.33	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	1.76	0.200	--	6.63	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1



Project Name: ELKS PLAZA**Lab Number:** L2115928**Project Number:** Not Specified**Report Date:** 04/28/21**SAMPLE RESULTS**

Lab ID: L2115928-01
 Client ID: 181A IA
 Sample Location: FREEPORT, NY

Date Collected: 03/30/21 15:45
 Date Received: 03/30/21
 Field Prep: Not Specified

Sample Depth:

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

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



Project Name: ELKS PLAZA**Lab Number:** L2115928**Project Number:** Not Specified**Report Date:** 04/28/21**SAMPLE RESULTS**

Lab ID: L2115928-01
 Client ID: 181A IA
 Sample Location: FREEPORT, NY

Date Collected: 03/30/21 15:45
 Date Received: 03/30/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 04/09/21 20:47
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.167	0.020	--	1.05	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.046	0.020	--	0.312	0.136	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	97		60-140
bromochloromethane	97		60-140
chlorobenzene-d5	98		60-140



Project Name: ELKS PLAZA**Project Number:** Not Specified**Lab Number:** L2115928**Report Date:** 04/28/21**SAMPLE RESULTS**

Lab ID: L2115928-02 D

Client ID: 181A SSV

Sample Location: FREEPORT, NY

Date Collected: 03/30/21 16:00

Date Received: 03/30/21

Field Prep: Not Specified

Sample Depth:

Matrix: Soil_Vapor

Analytical Method: 48,TO-15

Analytical Date: 04/09/21 23:22

Analyst: EW

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	ND	17.1	--	ND	84.6	--		85.32
Chloromethane	ND	17.1	--	ND	35.3	--		85.32
Freon-114	ND	17.1	--	ND	120	--		85.32
Vinyl chloride	ND	17.1	--	ND	43.7	--		85.32
1,3-Butadiene	ND	17.1	--	ND	37.8	--		85.32
Bromomethane	ND	17.1	--	ND	66.4	--		85.32
Chloroethane	ND	17.1	--	ND	45.1	--		85.32
Ethanol	ND	427	--	ND	805	--		85.32
Vinyl bromide	ND	17.1	--	ND	74.8	--		85.32
Acetone	2780	85.3	--	6600	203	--		85.32
Trichlorofluoromethane	ND	17.1	--	ND	96.1	--		85.32
Isopropanol	46.2	42.7	--	114	105	--		85.32
1,1-Dichloroethene	ND	17.1	--	ND	67.8	--		85.32
Tertiary butyl Alcohol	287	42.7	--	870	129	--		85.32
Methylene chloride	ND	42.7	--	ND	148	--		85.32
3-Chloropropene	ND	17.1	--	ND	53.5	--		85.32
Carbon disulfide	ND	17.1	--	ND	53.3	--		85.32
Freon-113	ND	17.1	--	ND	131	--		85.32
trans-1,2-Dichloroethene	ND	17.1	--	ND	67.8	--		85.32
1,1-Dichloroethane	ND	17.1	--	ND	69.2	--		85.32
Methyl tert butyl ether	ND	17.1	--	ND	61.7	--		85.32
2-Butanone	109	42.7	--	321	126	--		85.32
cis-1,2-Dichloroethene	ND	17.1	--	ND	67.8	--		85.32



Project Name: ELKS PLAZA**Lab Number:** L2115928**Project Number:** Not Specified**Report Date:** 04/28/21**SAMPLE RESULTS**

Lab ID: L2115928-02 D

Client ID: 181A SSV

Sample Location: FREEPORT, NY

Date Collected: 03/30/21 16:00

Date Received: 03/30/21

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	42.7	--	ND	154	--		85.32
Chloroform	ND	17.1	--	ND	83.5	--		85.32
Tetrahydrofuran	ND	42.7	--	ND	126	--		85.32
1,2-Dichloroethane	ND	17.1	--	ND	69.2	--		85.32
n-Hexane	ND	17.1	--	ND	60.3	--		85.32
1,1,1-Trichloroethane	ND	17.1	--	ND	93.3	--		85.32
Benzene	ND	17.1	--	ND	54.6	--		85.32
Carbon tetrachloride	ND	17.1	--	ND	108	--		85.32
Cyclohexane	188	17.1	--	647	58.9	--		85.32
1,2-Dichloropropane	ND	17.1	--	ND	79.0	--		85.32
Bromodichloromethane	ND	17.1	--	ND	115	--		85.32
1,4-Dioxane	ND	17.1	--	ND	61.6	--		85.32
Trichloroethene	ND	17.1	--	ND	91.9	--		85.32
2,2,4-Trimethylpentane	ND	17.1	--	ND	79.9	--		85.32
Heptane	ND	17.1	--	ND	70.1	--		85.32
cis-1,3-Dichloropropene	ND	17.1	--	ND	77.6	--		85.32
4-Methyl-2-pentanone	ND	42.7	--	ND	175	--		85.32
trans-1,3-Dichloropropene	ND	17.1	--	ND	77.6	--		85.32
1,1,2-Trichloroethane	ND	17.1	--	ND	93.3	--		85.32
Toluene	5250	17.1	--	19800	64.4	--		85.32
2-Hexanone	ND	17.1	--	ND	70.1	--		85.32
Dibromochloromethane	ND	17.1	--	ND	146	--		85.32
1,2-Dibromoethane	ND	17.1	--	ND	131	--		85.32
Tetrachloroethene	ND	17.1	--	ND	116	--		85.32
Chlorobenzene	ND	17.1	--	ND	78.8	--		85.32
Ethylbenzene	ND	17.1	--	ND	74.3	--		85.32



Project Name: ELKS PLAZA**Lab Number:** L2115928**Project Number:** Not Specified**Report Date:** 04/28/21**SAMPLE RESULTS**

Lab ID: L2115928-02 D

Date Collected: 03/30/21 16:00

Client ID: 181A SSV

Date Received: 03/30/21

Sample Location: FREEPORT, NY

Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	ND	34.1	--	ND	148	--		85.32
Bromoform	ND	17.1	--	ND	177	--		85.32
Styrene	ND	17.1	--	ND	72.8	--		85.32
1,1,2,2-Tetrachloroethane	ND	17.1	--	ND	117	--		85.32
o-Xylene	ND	17.1	--	ND	74.3	--		85.32
4-Ethyltoluene	ND	17.1	--	ND	84.1	--		85.32
1,3,5-Trimethylbenzene	ND	17.1	--	ND	84.1	--		85.32
1,2,4-Trimethylbenzene	ND	17.1	--	ND	84.1	--		85.32
Benzyl chloride	ND	17.1	--	ND	88.5	--		85.32
1,3-Dichlorobenzene	ND	17.1	--	ND	103	--		85.32
1,4-Dichlorobenzene	ND	17.1	--	ND	103	--		85.32
1,2-Dichlorobenzene	ND	17.1	--	ND	103	--		85.32
1,2,4-Trichlorobenzene	ND	17.1	--	ND	127	--		85.32
Hexachlorobutadiene	ND	17.1	--	ND	182	--		85.32

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	99		60-140
chlorobenzene-d5	97		60-140



Project Name: ELKS PLAZA**Lab Number:** L2115928**Project Number:** Not Specified**Report Date:** 04/28/21**SAMPLE RESULTS**

Lab ID: L2115928-02 D

Client ID: 181A SSV

Sample Location: FREEPORT, NY

Date Collected: 03/30/21 16:00

Date Received: 03/30/21

Field Prep: Not Specified

Sample Depth:

Matrix: Soil_Vapor

Analytical Method: 48,TO-15-SIM

Analytical Date: 04/09/21 23:22

Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	1.71	--	ND	4.37	--		85.32
1,1-Dichloroethene	ND	1.71	--	ND	6.78	--		85.32
cis-1,2-Dichloroethene	ND	1.71	--	ND	6.78	--		85.32
1,1,1-Trichloroethane	ND	1.71	--	ND	9.33	--		85.32
Carbon tetrachloride	ND	1.71	--	ND	10.8	--		85.32
Trichloroethene	ND	1.71	--	ND	9.19	--		85.32
Tetrachloroethene	ND	1.71	--	ND	11.6	--		85.32

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	102		60-140
bromochloromethane	101		60-140
chlorobenzene-d5	98		60-140



Project Name: ELKS PLAZA**Project Number:** Not Specified**Lab Number:** L2115928**Report Date:** 04/28/21**SAMPLE RESULTS**

Lab ID: L2115928-03
 Client ID: 179A IA
 Sample Location: FREEPORT, NY

Date Collected: 03/30/21 16:08
 Date Received: 03/30/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 04/09/21 21:27
 Analyst: EW

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.422	0.200	--	2.09	0.989	--		1
Chloromethane	2.74	0.200	--	5.66	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	295	5.00	--	556	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	35.9	1.00	--	85.3	2.38	--		1
Trichlorofluoromethane	0.311	0.200	--	1.75	1.12	--		1
Isopropanol	34.4	0.500	--	84.6	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	1.74	0.500	--	6.27	1.80	--		1
Chloroform	1.43	0.200	--	6.98	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1



Project Name: ELKS PLAZA**Lab Number:** L2115928**Project Number:** Not Specified**Report Date:** 04/28/21**SAMPLE RESULTS**

Lab ID: L2115928-03
 Client ID: 179A IA
 Sample Location: FREEPORT, NY

Date Collected: 03/30/21 16:08
 Date Received: 03/30/21
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	0.473	0.200	--	1.67	0.705	--		1
Benzene	0.538	0.200	--	1.72	0.639	--		1
Cyclohexane	ND	0.200	--	ND	0.688	--		1
1,2-Dichloropropane	ND	0.200	--	ND	0.924	--		1
Bromodichloromethane	ND	0.200	--	ND	1.34	--		1
1,4-Dioxane	ND	0.200	--	ND	0.721	--		1
2,2,4-Trimethylpentane	0.205	0.200	--	0.958	0.934	--		1
Heptane	0.263	0.200	--	1.08	0.820	--		1
cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--		1
trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--		1
1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Toluene	1.59	0.200	--	5.99	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	ND	0.200	--	ND	0.869	--		1
p/m-Xylene	ND	0.400	--	ND	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1



Project Name: ELKS PLAZA**Lab Number:** L2115928**Project Number:** Not Specified**Report Date:** 04/28/21**SAMPLE RESULTS**

Lab ID: L2115928-03
 Client ID: 179A IA
 Sample Location: FREEPORT, NY

Date Collected: 03/30/21 16:08
 Date Received: 03/30/21
 Field Prep: Not Specified

Sample Depth:

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

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



Project Name: ELKS PLAZA**Project Number:** Not Specified**Lab Number:** L2115928**Report Date:** 04/28/21**SAMPLE RESULTS**

Lab ID: L2115928-03
 Client ID: 179A IA
 Sample Location: FREEPORT, NY

Date Collected: 03/30/21 16:08
 Date Received: 03/30/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 04/09/21 21:27
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.147	0.020	--	0.925	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	0.042	0.020	--	0.285	0.136	--		1

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



Project Name: ELKS PLAZA**Project Number:** Not Specified**Lab Number:** L2115928**Report Date:** 04/28/21**SAMPLE RESULTS**

Lab ID: L2115928-04
 Client ID: 179A SSV
 Sample Location: FREEPORT, NY

Date Collected: 03/30/21 16:22
 Date Received: 03/30/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil_Vapor
 Analytical Method: 48,TO-15
 Analytical Date: 04/09/21 22:46
 Analyst: EW

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.413	0.200	--	2.04	0.989	--		1
Chloromethane	1.33	0.200	--	2.75	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	64.3	5.00	--	121	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	20.1	1.00	--	47.7	2.38	--		1
Trichlorofluoromethane	0.410	0.200	--	2.30	1.12	--		1
Isopropanol	8.63	0.500	--	21.2	1.23	--		1
1,1-Dichloroethene	ND	0.200	--	ND	0.793	--		1
Tertiary butyl Alcohol	0.850	0.500	--	2.58	1.52	--		1
Methylene chloride	3.14	0.500	--	10.9	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	0.201	0.200	--	0.797	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	6.94	0.500	--	20.5	1.47	--		1
cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1



Project Name: ELKS PLAZA**Lab Number:** L2115928**Project Number:** Not Specified**Report Date:** 04/28/21**SAMPLE RESULTS**

Lab ID: L2115928-04
 Client ID: 179A SSV
 Sample Location: FREEPORT, NY

Date Collected: 03/30/21 16:22
 Date Received: 03/30/21
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	0.768	0.200	--	3.75	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1
1,2-Dichloroethane	ND	0.200	--	ND	0.809	--		1
n-Hexane	1.97	0.200	--	6.94	0.705	--		1
1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--		1
Benzene	1.51	0.200	--	4.82	0.639	--		1
Carbon tetrachloride	ND	0.200	--	ND	1.26	--		1
Cyclohexane	0.546	0.200	--	1.88	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	0.419	0.200	--	1.96	0.934	--		1
Heptane	1.74	0.200	--	7.13	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	15.8	0.200	--	59.5	0.754	--		1
2-Hexanone	ND	0.200	--	ND	0.820	--		1
Dibromochloromethane	ND	0.200	--	ND	1.70	--		1
1,2-Dibromoethane	ND	0.200	--	ND	1.54	--		1
Tetrachloroethene	1.89	0.200	--	12.8	1.36	--		1
Chlorobenzene	ND	0.200	--	ND	0.921	--		1
Ethylbenzene	3.45	0.200	--	15.0	0.869	--		1



Project Name: ELKS PLAZA**Lab Number:** L2115928**Project Number:** Not Specified**Report Date:** 04/28/21**SAMPLE RESULTS**

Lab ID: L2115928-04
 Client ID: 179A SSV
 Sample Location: FREEPORT, NY

Date Collected: 03/30/21 16:22
 Date Received: 03/30/21
 Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
p/m-Xylene	14.1	0.400	--	61.2	1.74	--		1
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	0.379	0.200	--	1.61	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	4.69	0.200	--	20.4	0.869	--		1
4-Ethyltoluene	1.36	0.200	--	6.69	0.983	--		1
1,3,5-Trimethylbenzene	1.30	0.200	--	6.39	0.983	--		1
1,2,4-Trimethylbenzene	4.83	0.200	--	23.7	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	101		60-140
Bromochloromethane	100		60-140
chlorobenzene-d5	103		60-140



Project Name: ELKS PLAZA**Project Number:** Not Specified**Lab Number:** L2115928**Report Date:** 04/28/21**SAMPLE RESULTS**

Lab ID: L2115928-05
 Client ID: OA
 Sample Location: FREEPORT, NY

Date Collected: 03/30/21 16:04
 Date Received: 03/30/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15
 Analytical Date: 04/09/21 16:50
 Analyst: EW

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab								
Dichlorodifluoromethane	0.409	0.200	--	2.02	0.989	--		1
Chloromethane	0.567	0.200	--	1.17	0.413	--		1
Freon-114	ND	0.200	--	ND	1.40	--		1
1,3-Butadiene	ND	0.200	--	ND	0.442	--		1
Bromomethane	ND	0.200	--	ND	0.777	--		1
Chloroethane	ND	0.200	--	ND	0.528	--		1
Ethanol	8.04	5.00	--	15.1	9.42	--		1
Vinyl bromide	ND	0.200	--	ND	0.874	--		1
Acetone	2.41	1.00	--	5.72	2.38	--		1
Trichlorofluoromethane	ND	0.200	--	ND	1.12	--		1
Isopropanol	ND	0.500	--	ND	1.23	--		1
Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--		1
Methylene chloride	ND	0.500	--	ND	1.74	--		1
3-Chloropropene	ND	0.200	--	ND	0.626	--		1
Carbon disulfide	ND	0.200	--	ND	0.623	--		1
Freon-113	ND	0.200	--	ND	1.53	--		1
trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--		1
1,1-Dichloroethane	ND	0.200	--	ND	0.809	--		1
Methyl tert butyl ether	ND	0.200	--	ND	0.721	--		1
2-Butanone	ND	0.500	--	ND	1.47	--		1
Ethyl Acetate	ND	0.500	--	ND	1.80	--		1
Chloroform	ND	0.200	--	ND	0.977	--		1
Tetrahydrofuran	ND	0.500	--	ND	1.47	--		1



Project Name: ELKS PLAZA**Lab Number:** L2115928**Project Number:** Not Specified**Report Date:** 04/28/21**SAMPLE RESULTS**

Lab ID: L2115928-05
 Client ID: OA
 Sample Location: FREEPORT, NY

Date Collected: 03/30/21 16:04
 Date Received: 03/30/21
 Field Prep: Not Specified

Sample Depth:

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



Project Name: ELKS PLAZA**Lab Number:** L2115928**Project Number:** Not Specified**Report Date:** 04/28/21**SAMPLE RESULTS**

Lab ID: L2115928-05
 Client ID: OA
 Sample Location: FREEPORT, NY

Date Collected: 03/30/21 16:04
 Date Received: 03/30/21
 Field Prep: Not Specified

Sample Depth:

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

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



Project Name: ELKS PLAZA**Lab Number:** L2115928**Project Number:** Not Specified**Report Date:** 04/28/21**SAMPLE RESULTS**

Lab ID: L2115928-05
 Client ID: OA
 Sample Location: FREEPORT, NY

Date Collected: 03/30/21 16:04
 Date Received: 03/30/21
 Field Prep: Not Specified

Sample Depth:
 Matrix: Air
 Analytical Method: 48,TO-15-SIM
 Analytical Date: 04/09/21 16:50
 Analyst: TS

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	0.062	0.020	--	0.390	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

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



Project Name: ELKS PLAZA

Lab Number: L2115928

Project Number: Not Specified

Report Date: 04/28/21

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 04/09/21 15:15

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-05 Batch: WG1484512-4								
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: ELKS PLAZA

Lab Number: L2115928

Project Number: Not Specified

Report Date: 04/28/21

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 04/09/21 15:15

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-05 Batch: WG1484512-4								
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: ELKS PLAZA

Lab Number: L2115928

Project Number: Not Specified

Report Date: 04/28/21

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15

Analytical Date: 04/09/21 15:15

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air - Mansfield Lab for sample(s): 01-05 Batch: WG1484512-4								
Bromoform	ND	0.200	--	ND	2.07	--		1
Styrene	ND	0.200	--	ND	0.852	--		1
1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--		1
o-Xylene	ND	0.200	--	ND	0.869	--		1
4-Ethyltoluene	ND	0.200	--	ND	0.983	--		1
1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--		1
Benzyl chloride	ND	0.200	--	ND	1.04	--		1
1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--		1
1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--		1
Hexachlorobutadiene	ND	0.200	--	ND	2.13	--		1



Project Name: ELKS PLAZA

Lab Number: L2115928

Project Number: Not Specified

Report Date: 04/28/21

Method Blank Analysis Batch Quality Control

Analytical Method: 48,TO-15-SIM

Analytical Date: 04/09/21 15:54

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab for sample(s): 01-03,05 Batch: WG1484513-4								
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,1-Dichloroethene	ND	0.020	--	ND	0.079	--		1
cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--		1
1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--		1
Carbon tetrachloride	ND	0.020	--	ND	0.126	--		1
Trichloroethene	ND	0.020	--	ND	0.107	--		1
Tetrachloroethene	ND	0.020	--	ND	0.136	--		1

Lab Control Sample Analysis

Batch Quality Control

Project Name: ELKS PLAZA

Project Number: Not Specified

Lab Number: L2115928

Report Date: 04/28/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 Batch: WG1484512-3								
Dichlorodifluoromethane	97		-		70-130	-		
Chloromethane	104		-		70-130	-		
Freon-114	99		-		70-130	-		
Vinyl chloride	96		-		70-130	-		
1,3-Butadiene	105		-		70-130	-		
Bromomethane	103		-		70-130	-		
Chloroethane	94		-		70-130	-		
Ethanol	94		-		40-160	-		
Vinyl bromide	95		-		70-130	-		
Acetone	80		-		40-160	-		
Trichlorofluoromethane	92		-		70-130	-		
Isopropanol	80		-		40-160	-		
1,1-Dichloroethene	100		-		70-130	-		
Tertiary butyl Alcohol	86		-		70-130	-		
Methylene chloride	101		-		70-130	-		
3-Chloropropene	109		-		70-130	-		
Carbon disulfide	89		-		70-130	-		
Freon-113	96		-		70-130	-		
trans-1,2-Dichloroethene	98		-		70-130	-		
1,1-Dichloroethane	101		-		70-130	-		
Methyl tert butyl ether	90		-		70-130	-		
2-Butanone	102		-		70-130	-		
cis-1,2-Dichloroethene	103		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: ELKS PLAZA

Project Number: Not Specified

Lab Number: L2115928

Report Date: 04/28/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 Batch: WG1484512-3								
Ethyl Acetate	100		-		70-130	-		
Chloroform	98		-		70-130	-		
Tetrahydrofuran	100		-		70-130	-		
1,2-Dichloroethane	95		-		70-130	-		
n-Hexane	98		-		70-130	-		
1,1,1-Trichloroethane	98		-		70-130	-		
Benzene	95		-		70-130	-		
Carbon tetrachloride	98		-		70-130	-		
Cyclohexane	99		-		70-130	-		
1,2-Dichloropropane	105		-		70-130	-		
Bromodichloromethane	101		-		70-130	-		
1,4-Dioxane	102		-		70-130	-		
Trichloroethene	99		-		70-130	-		
2,2,4-Trimethylpentane	101		-		70-130	-		
Heptane	108		-		70-130	-		
cis-1,3-Dichloropropene	107		-		70-130	-		
4-Methyl-2-pentanone	110		-		70-130	-		
trans-1,3-Dichloropropene	91		-		70-130	-		
1,1,2-Trichloroethane	103		-		70-130	-		
Toluene	104		-		70-130	-		
2-Hexanone	111		-		70-130	-		
Dibromochloromethane	108		-		70-130	-		
1,2-Dibromoethane	105		-		70-130	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: ELKS PLAZA

Project Number: Not Specified

Lab Number: L2115928

Report Date: 04/28/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 Batch: WG1484512-3								
Tetrachloroethene	100		-		70-130	-		
Chlorobenzene	104		-		70-130	-		
Ethylbenzene	107		-		70-130	-		
p/m-Xylene	109		-		70-130	-		
Bromoform	110		-		70-130	-		
Styrene	108		-		70-130	-		
1,1,2,2-Tetrachloroethane	116		-		70-130	-		
o-Xylene	110		-		70-130	-		
4-Ethyltoluene	106		-		70-130	-		
1,3,5-Trimethylbenzene	108		-		70-130	-		
1,2,4-Trimethylbenzene	111		-		70-130	-		
Benzyl chloride	113		-		70-130	-		
1,3-Dichlorobenzene	109		-		70-130	-		
1,4-Dichlorobenzene	108		-		70-130	-		
1,2-Dichlorobenzene	110		-		70-130	-		
1,2,4-Trichlorobenzene	98		-		70-130	-		
Hexachlorobutadiene	101		-		70-130	-		

Lab Control Sample Analysis Batch Quality Control

Project Name: ELKS PLAZA

Project Number: Not Specified

Lab Number: L2115928

Report Date: 04/28/21

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03,05 Batch: WG1484513-3								
Vinyl chloride	98		-		70-130	-		25
1,1-Dichloroethene	101		-		70-130	-		25
cis-1,2-Dichloroethene	104		-		70-130	-		25
1,1,1-Trichloroethane	95		-		70-130	-		25
Carbon tetrachloride	95		-		70-130	-		25
Trichloroethene	98		-		70-130	-		25
Tetrachloroethene	98		-		70-130	-		25

Lab Duplicate Analysis

Batch Quality Control

Project Name: ELKS PLAZA

Project Number: Not Specified

Lab Number: L2115928

Report Date: 04/28/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1484512-5 QC Sample: L2115928-03 Client ID: 179A IA						
Dichlorodifluoromethane	0.422	0.419	ppbV	1		25
Chloromethane	2.74	2.76	ppbV	1		25
Freon-114	ND	ND	ppbV	NC		25
1,3-Butadiene	ND	ND	ppbV	NC		25
Bromomethane	ND	ND	ppbV	NC		25
Chloroethane	ND	ND	ppbV	NC		25
Ethanol	295	294	ppbV	0		25
Vinyl bromide	ND	ND	ppbV	NC		25
Acetone	35.9	37.0	ppbV	3		25
Trichlorofluoromethane	0.311	0.316	ppbV	2		25
Isopropanol	34.4	34.4	ppbV	0		25
Tertiary butyl Alcohol	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
Freon-113	ND	ND	ppbV	NC		25
trans-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1-Dichloroethane	ND	ND	ppbV	NC		25
Methyl tert butyl ether	ND	ND	ppbV	NC		25
2-Butanone	ND	ND	ppbV	NC		25
Ethyl Acetate	1.74	1.64	ppbV	6		25

Lab Duplicate Analysis

Batch Quality Control

Project Name: ELKS PLAZA

Project Number: Not Specified

Lab Number: L2115928

Report Date: 04/28/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1484512-5 QC Sample: L2115928-03 Client ID: 179A IA						
Chloroform	1.43	1.46	ppbV	2		25
Tetrahydrofuran	ND	ND	ppbV	NC		25
1,2-Dichloroethane	ND	ND	ppbV	NC		25
n-Hexane	0.473	0.473	ppbV	0		25
Benzene	0.538	0.523	ppbV	3		25
Cyclohexane	ND	ND	ppbV	NC		25
1,2-Dichloropropane	ND	ND	ppbV	NC		25
Bromodichloromethane	ND	ND	ppbV	NC		25
1,4-Dioxane	ND	ND	ppbV	NC		25
2,2,4-Trimethylpentane	0.205	ND	ppbV	NC		25
Heptane	0.263	0.246	ppbV	7		25
cis-1,3-Dichloropropene	ND	ND	ppbV	NC		25
4-Methyl-2-pentanone	ND	ND	ppbV	NC		25
trans-1,3-Dichloropropene	ND	ND	ppbV	NC		25
1,1,2-Trichloroethane	ND	ND	ppbV	NC		25
Toluene	1.59	1.54	ppbV	3		25
2-Hexanone	ND	ND	ppbV	NC		25
Dibromochloromethane	ND	ND	ppbV	NC		25
1,2-Dibromoethane	ND	ND	ppbV	NC		25
Chlorobenzene	ND	ND	ppbV	NC		25
Ethylbenzene	ND	ND	ppbV	NC		25

Lab Duplicate Analysis Batch Quality Control

Project Name: ELKS PLAZA

Project Number: Not Specified

Lab Number: L2115928

Report Date: 04/28/21

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics in Air - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1484512-5 QC Sample: L2115928-03 Client ID: 179A IA						
p/m-Xylene	ND	ND	ppbV	NC		25
Bromoform	ND	ND	ppbV	NC		25
Styrene	ND	ND	ppbV	NC		25
1,1,2,2-Tetrachloroethane	ND	ND	ppbV	NC		25
o-Xylene	ND	ND	ppbV	NC		25
4-Ethyltoluene	ND	ND	ppbV	NC		25
1,3,5-Trimethylbenzene	ND	ND	ppbV	NC		25
1,2,4-Trimethylbenzene	ND	ND	ppbV	NC		25
Benzyl chloride	ND	ND	ppbV	NC		25
1,3-Dichlorobenzene	ND	ND	ppbV	NC		25
1,4-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2-Dichlorobenzene	ND	ND	ppbV	NC		25
1,2,4-Trichlorobenzene	ND	ND	ppbV	NC		25
Hexachlorobutadiene	ND	ND	ppbV	NC		25
Volatile Organics in Air by SIM - Mansfield Lab Associated sample(s): 01-03,05 QC Batch ID: WG1484513-5 QC Sample: L2115928-03 Client ID: 179A IA						
Vinyl chloride	ND	ND	ppbV	NC		25
1,1-Dichloroethene	ND	ND	ppbV	NC		25
cis-1,2-Dichloroethene	ND	ND	ppbV	NC		25
1,1,1-Trichloroethane	ND	ND	ppbV	NC		25
Carbon tetrachloride	0.147	0.147	ppbV	0		25
Trichloroethene	ND	ND	ppbV	NC		25
Tetrachloroethene	0.042	0.039	ppbV	7		25

Project Name: ELKS PLAZA

Serial_No:04282115:24
Lab Number: L2115928

Project Number:

Report Date: 04/28/21

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 Controller Leak Chk	Flow Out mL/min	Flow In mL/min	% RPD
L2115928-01	181A IA	01791	Flow 4	03/29/21	346431		-	-	-	Pass	10.0	9.5	5
L2115928-01	181A IA	780	6.0L Can	03/29/21	346431	L2114594-04	Pass	-29.1	-5.6	-	-	-	-
L2115928-02	181A SSV	0779	Flow 4	03/29/21	346431		-	-	-	Pass	10.0	10.1	1
L2115928-02	181A SSV	1557	6.0L Can	03/29/21	346431	L2114594-04	Pass	-29.1	-4.7	-	-	-	-
L2115928-03	179A IA	01530	Flow 4	03/29/21	346431		-	-	-	Pass	10.0	10.1	1
L2115928-03	179A IA	2486	6.0L Can	03/29/21	346431	L2114594-04	Pass	-29.2	-5.2	-	-	-	-
L2115928-04	179A SSV	01629	Flow 4	03/29/21	346431		-	-	-	Pass	10.0	10.2	2
L2115928-04	179A SSV	2055	6.0L Can	03/29/21	346431	L2114594-04	Pass	-29.1	-4.7	-	-	-	-
L2115928-05	OA	0695	Flow 4	03/29/21	346431		-	-	-	Pass	10.0	9.9	1
L2115928-05	OA	3052	6.0L Can	03/29/21	346431	L2114594-04	Pass	-29.1	-4.7	-	-	-	-

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

Lab Number: L2114594
Report Date: 04/28/21

Air Canister Certification Results

Lab ID: L2114594-04
Client ID: CAN 1531 SHELF 52
Sample Location:

Date Collected: 03/23/21 16:00
Date Received: 03/24/21
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15
Analytical Date: 03/24/21 19:46
Analyst: EW

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



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

Lab Number: L2114594
Report Date: 04/28/21

Air Canister Certification Results

Lab ID: L2114594-04
Client ID: CAN 1531 SHELF 52
Sample Location:

Date Collected: 03/23/21 16:00
Date Received: 03/24/21
Field Prep: Not Specified

Sample Depth:

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



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

Lab Number: L2114594
Report Date: 04/28/21

Air Canister Certification Results

Lab ID: L2114594-04
Client ID: CAN 1531 SHELF 52
Sample Location:

Date Collected: 03/23/21 16:00
Date Received: 03/24/21
Field Prep: Not Specified

Sample Depth:

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



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

Lab Number: L2114594
Report Date: 04/28/21

Air Canister Certification Results

Lab ID: L2114594-04
Client ID: CAN 1531 SHELF 52
Sample Location:

Date Collected: 03/23/21 16:00
Date Received: 03/24/21
Field Prep: Not Specified

Sample Depth:

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



Project Name: BATCH CANISTER CERTIFICATION**Lab Number:** L2114594**Project Number:** CANISTER QC BAT**Report Date:** 04/28/21**Air Canister Certification Results**

Lab ID: L2114594-04

Date Collected: 03/23/21 16:00

Client ID: CAN 1531 SHELF 52

Date Received: 03/24/21

Sample Location:

Field Prep: Not Specified

Sample Depth:

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

Results	Qualifier	Units	RDL	Dilution Factor
Tentatively Identified Compounds				

No Tentatively Identified Compounds

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-Difluorobenzene	86		60-140
Bromochloromethane	90		60-140
chlorobenzene-d5	85		60-140



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

Lab Number: L2114594
Report Date: 04/28/21

Air Canister Certification Results

Lab ID: L2114594-04
Client ID: CAN 1531 SHELF 52
Sample Location:

Date Collected: 03/23/21 16:00
Date Received: 03/24/21
Field Prep: Not Specified

Sample Depth:
Matrix: Air
Analytical Method: 48,TO-15-SIM
Analytical Date: 03/24/21 19:46
Analyst: EW

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
Dichlorodifluoromethane	ND	0.200	--	ND	0.989	--		1
Chloromethane	ND	0.200	--	ND	0.413	--		1
Freon-114	ND	0.050	--	ND	0.349	--		1
Vinyl chloride	ND	0.020	--	ND	0.051	--		1
1,3-Butadiene	ND	0.020	--	ND	0.044	--		1
Bromomethane	ND	0.020	--	ND	0.078	--		1
Chloroethane	ND	0.100	--	ND	0.264	--		1
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: L2114594
Report Date: 04/28/21

Air Canister Certification Results

Lab ID: L2114594-04
Client ID: CAN 1531 SHELF 52
Sample Location:

Date Collected: 03/23/21 16:00
Date Received: 03/24/21
Field Prep: Not Specified

Sample Depth:

Parameter	ppbV			ug/m3			Qualifier	Dilution Factor
	Results	RL	MDL	Results	RL	MDL		
Volatile Organics in Air by SIM - Mansfield Lab								
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
1,1,1,2,2-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: L2114594
Report Date: 04/28/21

Air Canister Certification Results

Lab ID: L2114594-04
Client ID: CAN 1531 SHELF 52
Sample Location:

Date Collected: 03/23/21 16:00
Date Received: 03/24/21
Field Prep: Not Specified

Sample Depth:

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

Internal Standard	% Recovery	Qualifier	Acceptance Criteria
1,4-difluorobenzene	79		60-140
bromochloromethane	82		60-140
chlorobenzene-d5	83		60-140



Project Name: ELKS PLAZA**Lab Number:** L2115928**Project Number:** Not Specified**Report Date:** 04/28/21**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(*)
L2115928-01A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2115928-02A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)
L2115928-03A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-SIM(30),TO15-LL(30)
L2115928-04A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30)
L2115928-05A	Canister - 6 Liter	NA	NA			Y	Absent		TO15-LL(30),TO15-SIM(30)

Project Name: ELKS PLAZA
Project Number: Not Specified

Lab Number: L2115928
Report Date: 04/28/21

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: ELKS PLAZA
Project Number: Not Specified

Lab Number: L2115928
Report Date: 04/28/21

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: ELKS PLAZA
Project Number: Not Specified

Lab Number: L2115928
Report Date: 04/28/21

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.

Project Name: ELKS PLAZA
Project Number: Not Specified

Lab Number: L2115928
Report Date: 04/28/21

REFERENCES

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

LIMITATION OF LIABILITIES

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

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



Certification Information

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

Westborough Facility

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

EPA 625/625.1: alpha-Terpineol

EPA 8260C/8260D: 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.

Attachment D
Data Usability Summary Report

DATA USABILITY SUMMARY REPORT (DUSR)

ORGANIC ANALYSIS

**EPA Compendium Method TO-15
LOW LEVEL VOLATILES BY GC/MS
For Soil Vapor and Ambient Air Samples
Collected March 30, 2021
From Elks Plaza
Freeport, New York
by Tyll Engineering and Consulting**

**SAMPLE DELIVERY GROUP NUMBER:
L2115928
Alpha Analytical (ELAP #11148)**

SUBMITTED TO:

**Ms. Karen Tyll
Tyll Engineering and Consulting
169 Commack Road, Suite H173
Commack, NY 11725**

**April 25, 2021
*Updated April 29, 2021***

PREPARED BY:

**Lori A. Beyer/President
L.A.B. Validation Corp.
14 West Point Drive
East Northport, NY 11731**

Lori A Beyer

Elks Plaza, Freeport, New York; March 2021

Data Validation Report: Volatile Organics by EPA Method TO15

Table of Contents:

	Introduction
	Data Qualifier Definitions
	Sample Receipt
1.0	Volatile Organics by GC/MS EPA Compendium Method TO-15
1.1	Holding Time
1.2	Surrogate Standards
1.3	Matrix Spikes (MS), Matrix Spike Duplicates (MSD), Laboratory Duplicate, Field Duplicate Analysis
1.4	Laboratory Control Sample
1.5	Blank Contamination
1.6	GC/MS Instrument Performance Check
1.7	Initial and Continuing Calibrations
1.8	Internal Standards
1.9	Target Compound List Identification
1.10	Compound Quantification and Reported Detection Limits
1.11	Overall System Performance

APPENDICES:

- A. Chain of Custody Document and Sample Receipt Checklist
- B. Case Narrative
- C. Data Summary Form Is with Qualifications

Introduction:

A validation was performed on soil vapor and ambient air samples for Volatile Organic analysis collected by Tyll Engineering and submitted to Alpha Analytical for subsequent analysis under chain of custody documentation. This report contains the laboratory and validation results for the field samples itemized below. The samples were collected on March 30, 2021.

The samples were analyzed by Alpha Analytical utilizing EPA Method TO-15 and in accordance with NYSDEC Analytical Services Protocol (2005) and submitted under NYSDEC ASP Category B equivalent deliverable requirements for the associated analytical methodology employed. The analytical testing consisted of the TO-15 Compound List. Ambient Air samples were also analyzed by Selective Ion Monitoring (SIM) techniques for select chlorinated compounds to achieve NYSDOH Guidance Value reporting levels.

The data was evaluated in accordance with the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review (Publication 9240.1-05), EPA SOP #HW31 (Revision 6-Updated September 2016) and in conjunction with the analytical methodology for which the samples were analyzed, where applicable and relevant.

The data validation report pertains to the following field air samples:

Sample Identification	Laboratory Identification	Sample Matrix (Air Type)	Collection Date
181A IA	L2115928-01	Ambient Air	03/30/2021
181A SSV	L2115928-02	Soil Vapor	03/30/2021
179A IA	L2115928-03	Ambient Air	03/30/2021
179A SSV	L2115928-04	Soil Vapor	03/30/2021
OA	L2115928-05	Ambient Air	03/30/2021

Data Qualifier Definitions:

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

- U** - The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- J** - The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- J+** - The result is an estimated quantity, but the result may be biased high. Equis qualified, **JK**.
- J-** - The result is an estimated quantity, but the result may be biased low. Equis qualified, **JL**.
- NJ** - The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ** - The analyte was analyzed for but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
- R** - The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.
- D** - Analyte concentration was obtained from diluted analysis.

Sample Receipt:

The Chain of Custody document indicates that the air samples were received on the same day following completion of the sampling event via laboratory courier. Sample login notes and the chain of custody indicate that at the Validated Time of Sample Receipt (VTSR) at the laboratory no discrepancies were notated and therefore the integrity of the summa canister samples is assumed to be good.

Summa Canisters were leak tested prior to collection of each sample. Initial pressure gauge is recorded on the chain of custody and is required to be approximately 30 psi with zero air. Acceptable canister pressure was observed for these samples. All canisters pass the leak check requirements.

The data summary Form I's included in Appendix C includes all usable (qualified) and unusable (rejected) results for the samples identified above and summarize the detailed narrative section of the report. Data validation qualifications have been reported on the Form I's and also in the Equis file for ease of review and verification.

NOTE:

L.A.B. Validation Corp. believes it is appropriate to note that the data validation criteria utilized for data evaluation is different than the method requirements utilized by the laboratory. Qualified data does not necessarily mean that the laboratory was non-compliant in the analysis that was performed.

1.0 Volatile Organics by EPA Compendium Method TO-15

The following method criteria were reviewed: holding times, surrogate standards, LCS, Blanks, Laboratory Duplicate, Tunes, Calibrations, Internal Standards, Target Component Identification and Quantitation, Reported Quantitation Limits and Overall System Performance. The volatile results are valid and useable as noted on the data summary table in Appendix C and within the following text:

1.1 Holding Time

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the technical holding time is exceeded, the data may not be considered valid. Those analytes detected in the samples whose holding time has been exceeded will be qualified as estimates, "J". The non-detects (sample quantitation limits) are required to be flagged as estimated, "J", or unusable, "R", if the holding times are grossly exceeded.

Air samples pertaining to this SDG were performed within the method and technical required holding times of thirty (30) days from sample collection for analysis. No qualifications were required based upon holding time criteria.

1.2 Surrogate Standards

All samples are spiked with surrogate compounds prior to sample analysis to evaluate overall laboratory performance and efficiency of the analytical technique. If the measure of surrogate concentrations is outside contract specifications, qualifications are required to be applied to associated samples and analytes.

Samples were not spiked with surrogate standards. Method TO15 does not mandate the addition of surrogate standards.

1.3 Matrix Spikes (MS)/ Matrix Spike Duplicates (MSD)/Laboratory Duplicate /Field Duplicate Analysis

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices.

Matrix Spike/Matrix Spike Duplicate analysis was not performed on samples pertaining to this SDG.

Laboratory duplicate analysis was performed on 179A IA. Precision is acceptable and all detected analytes are below laboratory criteria of 25%. No qualifications are required based on laboratory duplicate analysis.

Field Duplicate analysis was not required for this sampling event. When performed, acceptable precision for air samples is 25%. The following criteria are utilized for Field/Lab Duplicate analysis when performed:

Criteria	Detected Compounds	Non-Detected Compounds
The RPD is within the limits of 0 and 25%	No qualification	No qualification
The RPD >25%	J in the parent and duplicate samples	Not applicable
The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample. However, the detected concentration was $\leq 2x$ the reporting limit	No qualification	No qualification
The RPD could not be calculated since the compound was only detected in either the parent or duplicate sample. However, the detected concentration was $> 2x$ the reporting limit.	J in the parent and duplicate sample	UJ in the parent of duplicate sample

No qualifications to the data were applied based on MS/MSD/Laboratory Duplicate or Field Duplicate analysis.

1.4 Laboratory Control Sample

The LCS data for laboratory control samples (LCS) are generated to provide information on the accuracy of the analytical method and on the laboratory performance.

The following table summarizes the LCS criteria and the data qualification guidelines for all associated field samples.

LCS	NOT QUALIFIED	J	R
% Recovery:			
Detects	70-130%	<70%, >130%	
Non-Detects	>=130%	50-69%	<50%
Absolute RT of LCS Compounds:			
LCS Compounds in samples RT: (min)	+/-0.33		>/-0.33

Acceptable LCS was analyzed with this SDG. Recovery values for all spiked compounds was determined to be >70%-<130% for all analytes.

1.5 Blank Contamination

Quality assurance (QA) blanks, i.e., method, trip and field blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field blanks measure cross-contamination of samples during field operations. Storage blanks measure cross-contamination during sample storage of the field samples and are not required for TO15 analysis. Canister blanks measure cross-contamination from the sampling media. The following table was utilized to qualify target analyte results due to method blank contamination. The largest value from all the associated blanks is required to be utilized. The largest value from all the associated blanks is required to be utilized:

Blank Type	Blank Result	Sample Result	Action for Samples
Method, Storage, field, Trip, Instrument	Detects	Not Detected	No qualification required
	<CRQL*	<CRQL*	Report CRQL value with a U
		>= CRQL* and <2x the CRQL**	No qualification required
	>CRQL*	<= CRQL*	Report CRQL value with a U
		>=CRQL* and <= blank concentration	Report blank value for sample concentration with a U
		>= CRQL* and > blank concentration	No qualification required
	=CRQL*	<= CRQL*	Report CRQL value with a U
	Gross Contamination**	>CRQL*	No qualification required
		Detects	Report blank value for sample concentration with a U

*2x the CRQL for methylene chloride, 2-butanone, and acetone.

**4x the CRQL for methylene chloride, 2-butanone, and acetone

***Qualifications based on instrument blank results affect only the sample analyzed immediately after the sample that has target compounds that exceed the calibration range or non-target compounds that exceed 100 ppbv.

The table below is utilized to qualify samples with target compound results also present in certification blanks:

Certification Contamination	Sample Result	Action for Sample
>=detect limit	>5x certification contamination	No qualification required
>=detect limit	<detect limit	Detection limit "U"
>=detect limit	>=detect limit and <= 5x certification contamination level	5x certification contamination "U"
<detect limit	<=detection limit and >= detection limit	No qualification

Below is a summary of the compounds in the sample and the associated qualifications that have been applied:

A) Method Blank Contamination:

Method and Canister blanks were determined to be free of any contamination.

**Acetone, Methylene Chloride, and 2-Butanone are common laboratory contaminants. The end user should proceed with caution when making decisions based on these detections since Acetone and Methylene Chloride are common solvents utilized in the organic extraction laboratory and could not be negated due to lack of presence in the corresponding blanks.*

A) Field Blank Contamination:

Field Blank analysis was not required.

B) Trip Blank Contamination:

Trip Blank analysis was not required.

1.6 GC/MS Instrument Performance Check

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The Tuning standard for volatile organics is Bromofluorobenzene (BFB).

Instrument performance was generated within acceptable limits and frequency (24 hours) for Bromofluorobenzene (BFB) for all analyses.

1.7 Initial and Continuing Calibrations

Satisfactory instrument calibration is established to ensure that the instrument can produce acceptable quantitative data. An initial calibration demonstrates that the instrument can give acceptable performance at the beginning of an experimental sequence. The continuing calibration checks document that the instrument is giving satisfactory daily performance.

A) Response Factor GC/MS:

The response factor measures the instrument's response to specific chemical compounds. The response factor for all compounds must be ≥ 0.05 in both initial and continuing calibrations. A value < 0.05 indicates a serious detection and quantitation problem (poor sensitivity). Analytes detected in the sample will be qualified as estimated, "J". All non-detects for that compound in the corresponding samples will be rejected, "R".

The following compounds can be ≥ 0.01 without qualification:

2-Butanone
Carbon Disulfide
Chloroethane
Chloromethane
1,2-Dibromoethane
1,2-Dichloropropane
1,4-Dioxane
1,2-Dibromo-3-chloropropane
Methylene Chloride

Response factors for the target analytes reported were found to be within acceptable limits (≥ 0.05) [or ≥ 0.01 for the 9 compounds above] and remaining analytes, for the initial and continuing calibrations.

B) Percent Relative Standard Deviation (%RSD) and Percent Difference (%D):
Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentrations. Percent D compares the response factor of the continuing calibration check to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. Percent RSD must be $< 30\%$ and %D must be $< 30\%$. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects are flagged "UJ". If %RSD and %D grossly exceed QC criteria ($> 90\%$), non-detect data may be qualified, "R", unusable. Additionally, in cases where the %RSD is $> 30\%$ and eliminating either the high or the low point of the curve does not restore the %RSD to less than or equal to 30% then positive results are qualified, "J". In cases where removal of either the low or high point restores the linearity, then only low or high-level results will be qualified, "J" in the portion of the curve where non-linearity exists. Acceptable ICV was analyzed.

Initial Calibrations: The initial calibrations provided and the %RSD was within acceptable limits (30%) and (40%) for poor responders for all requested target compounds. Initial calibration verification standard met QC requirements.

Continuing Calibrations: The continuing calibrations provided and the %D was within acceptable limits (30%) and (40%) for poor responders for all reported compounds.

1.8 Internal Standards

Internal Standards (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every experimental run. The internal standard area count must not vary by more than a factor of 2 (-40% to +40%) from the associated continuing calibration standard. The retention time of the internal standard must not vary more than +/-20 seconds from the associated continuing calibration standard. If the area count is outside the (-40% to +40%) range of the associated standard, all positive results for compounds quantitated using that IS are qualified as estimated, "J", and all non-detects as "UJ", or "R" if there is a severe loss of sensitivity. If an internal standard retention time varies by more than 20 seconds, professional judgment will be used to determine either partial or total rejection of the data for that sample fraction. **Internal Standard area responses met QC requirements for all analysis pertaining to this data set as compared to the continuing calibration.**

1.9 Target Compound List Identification

TCL compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within ± 0.06 RRT units of the standard compound and have an ion spectrum which has a ratio of the primary and secondary m/e intensities within 20% of that in the standard compound. **GC/MS spectra met the qualitative criteria for identification. Retention times were within required specifications.**

1.10 Compound Quantification and Reported Detection Limits

GC/MS quantitative analysis are acceptable. Correct internal standards and response factors and air volumes were used to calculate final concentrations.

Sample results have been presented in ug/m3 as well as ppbv on the laboratory reporting forms. Sample results in the Equis file are presented in ug/m3.

Samples were analyzed undiluted at 250mls except for 181A SSV which was analyzed at reduced volume (2.93 ml) based on results from the screen. There is potential that lower-level hits were lost in the dilution that was required. Review of the raw data supports the dilution that was performed, and raw concentrations are within the upper half of the instruments' linear calibration range. Ambient samples and 181A SSV were also reported by SIM (Selective Ion Monitoring) for select chlorinated compounds to achieve required NYSDOH action levels. Initial results with elevated reporting limits for these analytes in 181 A SSV have been rejected, "R" to assist the end user to make decisions based on the reported SIM concentrations (which were non-detect).

1.11 Overall System Performance

GC/MS analytical methodology was acceptable for this analysis. The data reported agrees with the raw data provided in the final report. The laboratory provided complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package.

Reviewer's Signature Jou A. B. Up Date 04/29/2021

**Appendix A
Chain of Custody Document
And Sample Receipt Checklist**

AIR ANALYSIS

CHAIN OF CUSTODY



320 Forbes Blvd, Mansfield, MA 02048
TEL 508-822-9300 FAX 508-822-3289

Client Information

Client: Tyll Engineering and Consulting
Address: 109 Connaught Rd, Suite H17, Connaught, NY 11725
Phone: 631 664 6477
Fax:

Project Information

Project Name: EIKS Plaza
Project Location: Frequent NY
Project #:
Project Manager: K. Tyll
ALPHA Quote #:
Turn-Around Time:

☒ Standard ☐ RUSH (only confirmed 24hrs-48hrs)

Date Due:

Time:

☐ These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments: Need CAT B deliverable, excel, + EGIS files

Project-Specific Target Compound List: ☐

All Columns Below Must Be Filled Out

ALPHA Lab ID (Lab Use Only)	Sample ID	COLLECTION				Sample Matrix*	Sample Initials	Can Size	ID Can	ID-Flow Controller	TO-15 SIM	TO-15	APM	Substrate from previous analysis	Substrate & Methodology by TO-15	Sample Comments (i.e. PID)
		End Date	Start Time	End Time	Initial Vacuum	Final Vacuum										
15928-01	181A 1A	3/30/21	0744	345pm	-30.59	-6.56	AA	6L	KT	730 01791	X					
-02	181A SSV	3/30/21	0800	400pm	-30.48	-6.08	SV	6L	KT	1557 03779	X					
-03	179A 1A	3/30/21	0808	400pm	-31.04	-6.45	AA	6L	KT	2486 61530	X					
-04	179A SSV	3/30/21	0822	422pm	-30.70	-5.99	SV	6L	KT	2055 0624	X					
-05	OA	3/30/21	0804	404pm	-30.68	-5.04	AA	6L	KT	3052 06495	X					

*SAMPLE MATRIX CODES

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

Relinquished By:

[Signature] 3/30/21 1700
[Signature] 3/30/21 1700

Date/Time:

Received By:

[Signature] 3/30/21 1700
[Signature] 3/30/21 1700

Date/Time:

Container Type

Please print clearly, legibly and completely. Samples can not be resubmitted until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.



Sample Delivery Group Summary

Alpha Job Number : L2115928

Received : 30-MAR-2021

Account Name : Tyll Engineering and Consulting PC

Reviewer : Dylan Snook

Project Number :

Project Name : ELKS PLAZA

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
NA	Absent/			

Condition Information

- | | |
|--|-----|
| 1) All samples on COC received? | YES |
| 2) Extra samples received? | NO |
| 3) Are there any sample container discrepancies? | NO |
| 4) Are there any discrepancies between sample labels & COC?
L2115928-01: 181A IA vs. 181 IA | YES |
| 5) Are samples in appropriate containers for requested analysis? | YES |
| 6) Are samples properly preserved for requested analysis? | YES |
| 7) Are samples within holding time for requested analysis? | YES |
| 8) All sampling equipment returned? | YES |

Volatile Organics/VPH

- | | |
|--|----|
| 1) Reagent Water Vials Frozen by Client? | NA |
|--|----|

**Appendix B
Case Narrative**

Project Name: ELKS PLAZA
Project Number: Not Specified

Lab Number: L2115928
Report Date: 04/12/21

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. 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: ELKS PLAZA
Project Number: Not Specified

Lab Number: L2115928
Report Date: 04/12/21

Case Narrative (continued)

Volatile Organics in Air

Canisters were released from the laboratory on March 29, 2021. The canister certification results are provided as an addendum.

L2115928-02D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

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

Authorized Signature: *Christopher J. Anderson*

Report Date: 04/12/21

Title: Technical Director/Representative

for 4/19/21

Project Name: ELKS PLAZA
Project Number: Not Specified

Lab Number: L2115928
Report Date: 04/28/21

Case Narrative (continued)

Report Revision

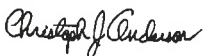
April 28, 2021; the report has been amended to report TO15 SIM for select compounds for the sample designated 181A SSV (L2115928-02).

Volatile Organics in Air

Canisters were released from the laboratory on March 29, 2021. The canister certification results are provided as an addendum.

L2115928-02D: The sample has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

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

Authorized Signature: 

Report Date: 04/28/21

Title: Technical Director/Representative

*for
4/29/21*



Appendix C
Data Summary Form I's
with Qualifications

Results Summary Form 1 Volatile Organics in Air

Client : Tyll Engineering and Consulting PC
Project Name : ELKS PLAZA
Lab ID : L2115928-01
Client ID : 181A IA
Sample Location : FREEPORT, NY
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R1720042
Sample Amount : 250 ml

Lab Number : L2115928
Project Number :
Date Collected : 03/30/21 15:45
Date Received : 03/30/21
Date Analyzed : 04/09/21 20:47
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRLAB17
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.428	0.200	--	2.12	0.989	--	
74-87-3	Chloromethane	5.38	0.200	--	11.1	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	394	5.00	--	742	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	65.2	1.00	--	155	2.38	--	
75-69-4	Trichlorofluoromethane	0.367	0.200	--	2.06	1.12	--	
67-63-0	Isopropanol	57.4	0.500	--	141	1.23	--	
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
141-78-6	Ethyl Acetate	2.71	0.500	--	9.77	1.80	--	
67-66-3	Chloroform	1.55	0.200	--	7.57	0.977	--	
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	0.576	0.200	--	2.03	0.705	--	
71-43-2	Benzene	0.625	0.200	--	2.00	0.639	--	



Results Summary Form 1 Volatile Organics in Air

Client : Tyll Engineering and Consulting PC
 Project Name : ELKS PLAZA
 Lab ID : L2115928-01
 Client ID : 181A IA
 Sample Location : FREEPORT, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1720042
 Sample Amount : 250 ml

Lab Number : L2115928
 Project Number :
 Date Collected : 03/30/21 15:45
 Date Received : 03/30/21
 Date Analyzed : 04/09/21 20:47
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRLAB17
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
540-84-1	2,2,4-Trimethylpentane	0.255	0.200	--	1.19	0.934	--	
142-82-5	Heptane	0.325	0.200	--	1.33	0.820	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	1.76	0.200	--	6.63	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



Results Summary Form 1 Volatile Organics in Air

Client : Tyll Engineering and Consulting PC
 Project Name : ELKS PLAZA
 Lab ID : L2115928-01
 Client ID : 181A IA
 Sample Location : FREEPORT, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1720042
 Sample Amount : 250 ml

Lab Number : L2115928
 Project Number :
 Date Collected : 03/30/21 15:45
 Date Received : 03/30/21
 Date Analyzed : 04/09/21 20:47
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRLAB17
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary Form 1 Volatile Organics in Air by SIM

Client : Tyll Engineering and Consulting PC
 Project Name : ELKS PLAZA
 Lab ID : L2115928-01
 Client ID : 181A IA
 Sample Location : FREEPORT, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R1720042_EV2
 Sample Amount : 250 ml

Lab Number : L2115928
 Project Number :
 Date Collected : 03/30/21 15:45
 Date Received : 03/30/21
 Date Analyzed : 04/09/21 20:47
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRLAB17
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.167	0.020	--	1.05	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.046	0.020	--	0.312	0.136	--	



Results Summary Form 1 Volatile Organics in Air

Client : Tyll Engineering and Consulting PC
Project Name : ELKS PLAZA
Lab ID : L2115928-02D
Client ID : 181A SSV
Sample Location : FREEPORT, NY
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R1720046
Sample Amount : 2.93 ml

Lab Number : L2115928
Project Number :
Date Collected : 03/30/21 16:00
Date Received : 03/30/21
Date Analyzed : 04/09/21 23:22
Dilution Factor : 85.32
Analyst : EW
Instrument ID : AIRLAB17
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	ND	17.1	--	ND	84.6	--	U
74-87-3	Chloromethane	ND	17.1	--	ND	35.3	--	U
76-14-2	Freon-114	ND	17.1	--	ND	120.	--	U
75-01-4	Vinyl chloride	ND	17.1	--	ND	43.7	--	U R
106-99-0	1,3-Butadiene	ND	17.1	--	ND	37.8	--	U
74-83-9	Bromomethane	ND	17.1	--	ND	66.4	--	U
75-00-3	Chloroethane	ND	17.1	--	ND	45.1	--	U
64-17-5	Ethanol	ND	427	--	ND	805	--	U
593-60-2	Vinyl bromide	ND	17.1	--	ND	74.8	--	U
67-64-1	Acetone	2780	85.3	--	6600	203	--	
75-69-4	Trichlorofluoromethane	ND	17.1	--	ND	96.1	--	U
67-63-0	Isopropanol	46.2	42.7	--	114	105	--	
75-35-4	1,1-Dichloroethene	ND	17.1	--	ND	67.8	--	U R
75-65-0	Tertiary butyl Alcohol	287	42.7	--	870	129	--	
75-09-2	Methylene chloride	ND	42.7	--	ND	148	--	U
107-05-1	3-Chloropropene	ND	17.1	--	ND	53.5	--	U
75-15-0	Carbon disulfide	ND	17.1	--	ND	53.3	--	U
76-13-1	Freon-113	ND	17.1	--	ND	131.	--	U
156-60-5	trans-1,2-Dichloroethene	ND	17.1	--	ND	67.8	--	U
75-34-3	1,1-Dichloroethane	ND	17.1	--	ND	69.2	--	U
1634-04-4	Methyl tert butyl ether	ND	17.1	--	ND	61.7	--	U
78-93-3	2-Butanone	109	42.7	--	321	126	--	
156-59-2	cis-1,2-Dichloroethene	ND	17.1	--	ND	67.8	--	U R
141-78-6	Ethyl Acetate	ND	42.7	--	ND	154.	--	U
67-66-3	Chloroform	ND	17.1	--	ND	83.5	--	U
109-99-9	Tetrahydrofuran	ND	42.7	--	ND	126.	--	U

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4/12/21



Results Summary Form 1 Volatile Organics in Air

Client : Tyll Engineering and Consulting PC
Project Name : ELKS PLAZA
Lab ID : L2115928-02D
Client ID : 181A SSV
Sample Location : FREEPORT, NY
Sample Matrix : SOIL_VAPOR
Analytical Method : 48,TO-15
Lab File ID : R1720046
Sample Amount : 2.93 ml

Lab Number : L2115928
Project Number :
Date Collected : 03/30/21 16:00
Date Received : 03/30/21
Date Analyzed : 04/09/21 23:22
Dilution Factor : 85.32
Analyst : EW
Instrument ID : AIRLAB17
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	17.1	--	ND	69.2	--	U
110-54-3	n-Hexane	ND	17.1	--	ND	60.3	--	U
71-55-6	1,1,1-Trichloroethane	ND	17.1	--	ND	93.3	--	U R
71-43-2	Benzene	ND	17.1	--	ND	54.6	--	U
56-23-5	Carbon tetrachloride	ND	17.1	--	ND	108.	--	U R
110-82-7	Cyclohexane	188	17.1	--	647	58.9	--	
78-87-5	1,2-Dichloropropane	ND	17.1	--	ND	79.0	--	U
75-27-4	Bromodichloromethane	ND	17.1	--	ND	115.	--	U
123-91-1	1,4-Dioxane	ND	17.1	--	ND	61.6	--	U
79-01-6	Trichloroethene	ND	17.1	--	ND	91.9	--	U R
540-84-1	2,2,4-Trimethylpentane	ND	17.1	--	ND	79.9	--	U
142-82-5	Heptane	ND	17.1	--	ND	70.1	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	17.1	--	ND	77.6	--	U
108-10-1	4-Methyl-2-pentanone	ND	42.7	--	ND	175.	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	17.1	--	ND	77.6	--	U
79-00-5	1,1,2-Trichloroethane	ND	17.1	--	ND	93.3	--	U
108-88-3	Toluene	5250	17.1	--	19800	64.4	--	
591-78-6	2-Hexanone	ND	17.1	--	ND	70.1	--	U
124-48-1	Dibromochloromethane	ND	17.1	--	ND	146.	--	U
106-93-4	1,2-Dibromoethane	ND	17.1	--	ND	131.	--	U
127-18-4	Tetrachloroethene	ND	17.1	--	ND	116.	--	U R
108-90-7	Chlorobenzene	ND	17.1	--	ND	78.8	--	U
100-41-4	Ethylbenzene	ND	17.1	--	ND	74.3	--	U
179601-23-1	p/m-Xylene	ND	34.1	--	ND	148.	--	U
75-25-2	Bromoform	ND	17.1	--	ND	177.	--	U
100-42-5	Styrene	ND	17.1	--	ND	72.8	--	U

Results Summary Form 1 Volatile Organics in Air

Client : Tyll Engineering and Consulting PC
 Project Name : ELKS PLAZA
 Lab ID : L2115928-02D
 Client ID : 181A SSV
 Sample Location : FREEPORT, NY
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R1720046
 Sample Amount : 2.93 ml

Lab Number : L2115928
 Project Number :
 Date Collected : 03/30/21 16:00
 Date Received : 03/30/21
 Date Analyzed : 04/09/21 23:22
 Dilution Factor : 85.32
 Analyst : EW
 Instrument ID : AIRLAB17
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	17.1	--	ND	117.	--	U
95-47-6	o-Xylene	ND	17.1	--	ND	74.3	--	U
622-96-8	4-Ethyltoluene	ND	17.1	--	ND	84.1	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	17.1	--	ND	84.1	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	17.1	--	ND	84.1	--	U
100-44-7	Benzyl chloride	ND	17.1	--	ND	88.5	--	U
541-73-1	1,3-Dichlorobenzene	ND	17.1	--	ND	103.	--	U
106-46-7	1,4-Dichlorobenzene	ND	17.1	--	ND	103.	--	U
95-50-1	1,2-Dichlorobenzene	ND	17.1	--	ND	103.	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	17.1	--	ND	127.	--	U
87-68-3	Hexachlorobutadiene	ND	17.1	--	ND	182.	--	U

for 4/12/21



Results Summary Form 1 Volatile Organics in Air by SIM

Client : Tyll Engineering and Consulting PC
 Project Name : ELKS PLAZA
 Lab ID : L2115928-02D
 Client ID : 181A SSV
 Sample Location : FREEPORT, NY
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R1720046_EV2
 Sample Amount : 2.93 ml

Lab Number : L2115928
 Project Number :
 Date Collected : 03/30/21 16:00
 Date Received : 03/30/21
 Date Analyzed : 04/09/21 23:22
 Dilution Factor : 85.32
 Analyst : TS
 Instrument ID : AIRLAB17
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	1.71	--	ND	4.37	--	U
75-35-4	1,1-Dichloroethene	ND	1.71	--	ND	6.78	--	U
156-59-2	cis-1,2-Dichloroethene	ND	1.71	--	ND	6.78	--	U
71-55-6	1,1,1-Trichloroethane	ND	1.71	--	ND	9.33	--	U
56-23-5	Carbon tetrachloride	ND	1.71	--	ND	10.8	--	U
79-01-6	Trichloroethene	ND	1.71	--	ND	9.19	--	U
127-18-4	Tetrachloroethene	ND	1.71	--	ND	11.6	--	U

for 4/29/21



Results Summary Form 1 Volatile Organics in Air

Client : Tyll Engineering and Consulting PC
Project Name : ELKS PLAZA
Lab ID : L2115928-03
Client ID : 179A IA
Sample Location : FREEPORT, NY
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R1720043
Sample Amount : 250 ml

Lab Number : L2115928
Project Number :
Date Collected : 03/30/21 16:08
Date Received : 03/30/21
Date Analyzed : 04/09/21 21:27
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRLAB17
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.422	0.200	--	2.09	0.989	--	
74-87-3	Chloromethane	2.74	0.200	--	5.66	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	295	5.00	--	556	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	35.9	1.00	--	85.3	2.38	--	
75-69-4	Trichlorofluoromethane	0.311	0.200	--	1.75	1.12	--	
67-63-0	Isopropanol	34.4	0.500	--	84.6	1.23	--	
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
141-78-6	Ethyl Acetate	1.74	0.500	--	6.27	1.80	--	
67-66-3	Chloroform	1.43	0.200	--	6.98	0.977	--	
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	0.473	0.200	--	1.67	0.705	--	
71-43-2	Benzene	0.538	0.200	--	1.72	0.639	--	



Results Summary Form 1 Volatile Organics in Air

Client : Tyll Engineering and Consulting PC
Project Name : ELKS PLAZA
Lab ID : L2115928-03
Client ID : 179A IA
Sample Location : FREEPORT, NY
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R1720043
Sample Amount : 250 ml

Lab Number : L2115928
Project Number :
Date Collected : 03/30/21 16:08
Date Received : 03/30/21
Date Analyzed : 04/09/21 21:27
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRLAB17
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
540-84-1	2,2,4-Trimethylpentane	0.205	0.200	--	0.958	0.934	--	
142-82-5	Heptane	0.263	0.200	--	1.08	0.820	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	1.59	0.200	--	5.99	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



Results Summary Form 1 Volatile Organics in Air

Client : Tyll Engineering and Consulting PC
Project Name : ELKS PLAZA
Lab ID : L2115928-03
Client ID : 179A IA
Sample Location : FREEPORT, NY
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R1720043
Sample Amount : 250 ml

Lab Number : L2115928
Project Number :
Date Collected : 03/30/21 16:08
Date Received : 03/30/21
Date Analyzed : 04/09/21 21:27
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRLAB17
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary Form 1 Volatile Organics in Air by SIM

Client : Tyll Engineering and Consulting PC
Project Name : ELKS PLAZA
Lab ID : L2115928-03
Client ID : 179A IA
Sample Location : FREEPORT, NY
Sample Matrix : AIR
Analytical Method : 48,TO-15-SIM
Lab File ID : R1720043_EV2
Sample Amount : 250 ml

Lab Number : L2115928
Project Number :
Date Collected : 03/30/21 16:08
Date Received : 03/30/21
Date Analyzed : 04/09/21 21:27
Dilution Factor : 1
Analyst : TS
Instrument ID : AIRLAB17
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.147	0.020	--	0.925	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	0.042	0.020	--	0.285	0.136	--	



Results Summary Form 1 Volatile Organics in Air

Client : Tyll Engineering and Consulting PC
 Project Name : ELKS PLAZA
 Lab ID : L2115928-04
 Client ID : 179A SSV
 Sample Location : FREEPORT, NY
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R1720045
 Sample Amount : 250 ml

Lab Number : L2115928
 Project Number :
 Date Collected : 03/30/21 16:22
 Date Received : 03/30/21
 Date Analyzed : 04/09/21 22:46
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRLAB17
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.413	0.200	--	2.04	0.989	--	
74-87-3	Chloromethane	1.33	0.200	--	2.75	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
75-01-4	Vinyl chloride	ND	0.200	--	ND	0.511	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	64.3	5.00	--	121	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	20.1	1.00	--	47.7	2.38	--	
75-69-4	Trichlorofluoromethane	0.410	0.200	--	2.30	1.12	--	
67-63-0	Isopropanol	8.63	0.500	--	21.2	1.23	--	
75-35-4	1,1-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-65-0	Tertiary butyl Alcohol	0.850	0.500	--	2.58	1.52	--	
75-09-2	Methylene chloride	3.14	0.500	--	10.9	1.74	--	
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	0.201	0.200	--	0.797	0.793	--	
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	6.94	0.500	--	20.5	1.47	--	
156-59-2	cis-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	0.768	0.200	--	3.75	0.977	--	
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U



Results Summary Form 1 Volatile Organics in Air

Client : Tyll Engineering and Consulting PC
 Project Name : ELKS PLAZA
 Lab ID : L2115928-04
 Client ID : 179A SSV
 Sample Location : FREEPORT, NY
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R1720045
 Sample Amount : 250 ml

Lab Number : L2115928
 Project Number :
 Date Collected : 03/30/21 16:22
 Date Received : 03/30/21
 Date Analyzed : 04/09/21 22:46
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRLAB17
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	1.97	0.200	--	6.94	0.705	--	
71-55-6	1,1,1-Trichloroethane	ND	0.200	--	ND	1.09	--	U
71-43-2	Benzene	1.51	0.200	--	4.82	0.639	--	
56-23-5	Carbon tetrachloride	ND	0.200	--	ND	1.26	--	U
110-82-7	Cyclohexane	0.546	0.200	--	1.88	0.688	--	
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
79-01-6	Trichloroethene	ND	0.200	--	ND	1.07	--	U
540-84-1	2,2,4-Trimethylpentane	0.419	0.200	--	1.96	0.934	--	
142-82-5	Heptane	1.74	0.200	--	7.13	0.820	--	
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	15.8	0.200	--	59.5	0.754	--	
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
127-18-4	Tetrachloroethene	1.89	0.200	--	12.8	1.36	--	
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	3.45	0.200	--	15.0	0.869	--	
179601-23-1	p/m-Xylene	14.1	0.400	--	61.2	1.74	--	
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	0.379	0.200	--	1.61	0.852	--	



Results Summary Form 1 Volatile Organics in Air

Client : Tyll Engineering and Consulting PC
 Project Name : ELKS PLAZA
 Lab ID : L2115928-04
 Client ID : 179A SSV
 Sample Location : FREEPORT, NY
 Sample Matrix : SOIL_VAPOR
 Analytical Method : 48,TO-15
 Lab File ID : R1720045
 Sample Amount : 250 ml

Lab Number : L2115928
 Project Number :
 Date Collected : 03/30/21 16:22
 Date Received : 03/30/21
 Date Analyzed : 04/09/21 22:46
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRLAB17
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	4.69	0.200	--	20.4	0.869	--	
622-96-8	4-Ethyltoluene	1.36	0.200	--	6.69	0.983	--	
108-67-8	1,3,5-Trimethylbenzene	1.30	0.200	--	6.39	0.983	--	
95-63-6	1,2,4-Trimethylbenzene	4.83	0.200	--	23.7	0.983	--	
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary Form 1 Volatile Organics in Air

Client : Tyll Engineering and Consulting PC
Project Name : ELKS PLAZA
Lab ID : L2115928-05
Client ID : OA
Sample Location : FREEPORT, NY
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R1720036
Sample Amount : 250 ml

Lab Number : L2115928
Project Number :
Date Collected : 03/30/21 16:04
Date Received : 03/30/21
Date Analyzed : 04/09/21 16:50
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRLAB17
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-71-8	Dichlorodifluoromethane	0.409	0.200	--	2.02	0.989	--	
74-87-3	Chloromethane	0.567	0.200	--	1.17	0.413	--	
76-14-2	Freon-114	ND	0.200	--	ND	1.40	--	U
106-99-0	1,3-Butadiene	ND	0.200	--	ND	0.442	--	U
74-83-9	Bromomethane	ND	0.200	--	ND	0.777	--	U
75-00-3	Chloroethane	ND	0.200	--	ND	0.528	--	U
64-17-5	Ethanol	8.04	5.00	--	15.1	9.42	--	
593-60-2	Vinyl bromide	ND	0.200	--	ND	0.874	--	U
67-64-1	Acetone	2.41	1.00	--	5.72	2.38	--	
75-69-4	Trichlorofluoromethane	ND	0.200	--	ND	1.12	--	U
67-63-0	Isopropanol	ND	0.500	--	ND	1.23	--	U
75-65-0	Tertiary butyl Alcohol	ND	0.500	--	ND	1.52	--	U
75-09-2	Methylene chloride	ND	0.500	--	ND	1.74	--	U
107-05-1	3-Chloropropene	ND	0.200	--	ND	0.626	--	U
75-15-0	Carbon disulfide	ND	0.200	--	ND	0.623	--	U
76-13-1	Freon-113	ND	0.200	--	ND	1.53	--	U
156-60-5	trans-1,2-Dichloroethene	ND	0.200	--	ND	0.793	--	U
75-34-3	1,1-Dichloroethane	ND	0.200	--	ND	0.809	--	U
1634-04-4	Methyl tert butyl ether	ND	0.200	--	ND	0.721	--	U
78-93-3	2-Butanone	ND	0.500	--	ND	1.47	--	U
141-78-6	Ethyl Acetate	ND	0.500	--	ND	1.80	--	U
67-66-3	Chloroform	ND	0.200	--	ND	0.977	--	U
109-99-9	Tetrahydrofuran	ND	0.500	--	ND	1.47	--	U
107-06-2	1,2-Dichloroethane	ND	0.200	--	ND	0.809	--	U
110-54-3	n-Hexane	ND	0.200	--	ND	0.705	--	U
71-43-2	Benzene	ND	0.200	--	ND	0.639	--	U



Results Summary Form 1 Volatile Organics in Air

Client : Tyll Engineering and Consulting PC
 Project Name : ELKS PLAZA
 Lab ID : L2115928-05
 Client ID : OA
 Sample Location : FREEPORT, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15
 Lab File ID : R1720036
 Sample Amount : 250 ml

Lab Number : L2115928
 Project Number :
 Date Collected : 03/30/21 16:04
 Date Received : 03/30/21
 Date Analyzed : 04/09/21 16:50
 Dilution Factor : 1
 Analyst : EW
 Instrument ID : AIRLAB17
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
110-82-7	Cyclohexane	ND	0.200	--	ND	0.688	--	U
78-87-5	1,2-Dichloropropane	ND	0.200	--	ND	0.924	--	U
75-27-4	Bromodichloromethane	ND	0.200	--	ND	1.34	--	U
123-91-1	1,4-Dioxane	ND	0.200	--	ND	0.721	--	U
540-84-1	2,2,4-Trimethylpentane	ND	0.200	--	ND	0.934	--	U
142-82-5	Heptane	ND	0.200	--	ND	0.820	--	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
108-10-1	4-Methyl-2-pentanone	ND	0.500	--	ND	2.05	--	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.200	--	ND	0.908	--	U
79-00-5	1,1,2-Trichloroethane	ND	0.200	--	ND	1.09	--	U
108-88-3	Toluene	ND	0.200	--	ND	0.754	--	U
591-78-6	2-Hexanone	ND	0.200	--	ND	0.820	--	U
124-48-1	Dibromochloromethane	ND	0.200	--	ND	1.70	--	U
106-93-4	1,2-Dibromoethane	ND	0.200	--	ND	1.54	--	U
108-90-7	Chlorobenzene	ND	0.200	--	ND	0.921	--	U
100-41-4	Ethylbenzene	ND	0.200	--	ND	0.869	--	U
179601-23-1	p/m-Xylene	ND	0.400	--	ND	1.74	--	U
75-25-2	Bromoform	ND	0.200	--	ND	2.07	--	U
100-42-5	Styrene	ND	0.200	--	ND	0.852	--	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.200	--	ND	1.37	--	U
95-47-6	o-Xylene	ND	0.200	--	ND	0.869	--	U
622-96-8	4-Ethyltoluene	ND	0.200	--	ND	0.983	--	U
108-67-8	1,3,5-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
95-63-6	1,2,4-Trimethylbenzene	ND	0.200	--	ND	0.983	--	U
100-44-7	Benzyl chloride	ND	0.200	--	ND	1.04	--	U
541-73-1	1,3-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U



Results Summary Form 1 Volatile Organics in Air

Client : Tyll Engineering and Consulting PC
Project Name : ELKS PLAZA
Lab ID : L2115928-05
Client ID : OA
Sample Location : FREEPORT, NY
Sample Matrix : AIR
Analytical Method : 48,TO-15
Lab File ID : R1720036
Sample Amount : 250 ml

Lab Number : L2115928
Project Number :
Date Collected : 03/30/21 16:04
Date Received : 03/30/21
Date Analyzed : 04/09/21 16:50
Dilution Factor : 1
Analyst : EW
Instrument ID : AIRLAB17
GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
106-46-7	1,4-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
95-50-1	1,2-Dichlorobenzene	ND	0.200	--	ND	1.20	--	U
120-82-1	1,2,4-Trichlorobenzene	ND	0.200	--	ND	1.48	--	U
87-68-3	Hexachlorobutadiene	ND	0.200	--	ND	2.13	--	U



Results Summary Form 1 Volatile Organics in Air by SIM

Client : Tyll Engineering and Consulting PC
 Project Name : ELKS PLAZA
 Lab ID : L2115928-05
 Client ID : OA
 Sample Location : FREEPORT, NY
 Sample Matrix : AIR
 Analytical Method : 48,TO-15-SIM
 Lab File ID : R1720036_EV2
 Sample Amount : 250 ml

Lab Number : L2115928
 Project Number :
 Date Collected : 03/30/21 16:04
 Date Received : 03/30/21
 Date Analyzed : 04/09/21 16:50
 Dilution Factor : 1
 Analyst : TS
 Instrument ID : AIRLAB17
 GC Column : RTX-1

CAS NO.	Parameter	ppbV			ug/m3			Qualifier
		Results	RL	MDL	Results	RL	MDL	
75-01-4	Vinyl chloride	ND	0.020	--	ND	0.051	--	U
75-35-4	1,1-Dichloroethene	ND	0.020	--	ND	0.079	--	U
156-59-2	cis-1,2-Dichloroethene	ND	0.020	--	ND	0.079	--	U
71-55-6	1,1,1-Trichloroethane	ND	0.020	--	ND	0.109	--	U
56-23-5	Carbon tetrachloride	0.062	0.020	--	0.390	0.126	--	
79-01-6	Trichloroethene	ND	0.020	--	ND	0.107	--	U
127-18-4	Tetrachloroethene	ND	0.020	--	ND	0.136	--	U



Attachment D
Data Usability Summary Report

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

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

Preparer's Name K. Tyll Date/Time Prepared 3/30/21

Preparer's Affiliation environmental consultant Phone No. _____

Purpose of Investigation SVI investigation to turn off SSDS

1. OCCUPANT:

Interviewed: Y ☒ N

Last Name: _____ First Name: _____

Address: _____

County: _____

Home Phone: _____ Office Phone: _____

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

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

Interviewed: ☒ Y ☐ N

Last Name: Reisman First Name: ~~Reisman~~ Lois

Address: 28 Campbell Lane Dix Hills NY 11746

County: Suffolk

Home Phone: _____ Office Phone: (516) 383-6893

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential
Industrial

School
Church

Commercial/Multi-use
Other: _____

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

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

If multiple units, how many? _____

If the property is commercial, type?

Business Type(s) Retail stores in strip mall

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

Other characteristics:

Number of floors 1

Building age _____

Is the building insulated? (Y) N

How air tight? Tight (Average) / Not Tight

4. AIRFLOW

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

Airflow between floors

Airflow near source

Outdoor air infiltration

Infiltration into air ducts

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

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

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

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

none seen on floor in + around
laundromat

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

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

Hot air circulation	Heat pump	Hot water baseboard
Space Heaters	Stream radiation	Radiant floor
Electric baseboard	Wood stove	Outdoor wood boiler
		Other _____

The primary type of fuel used is:

Natural Gas	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

Domestic hot water tank fueled by: _____

Boiler/furnace located in: Basement Outdoors Main Floor Other _____

Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? Y / N

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

7. OCCUPANCY

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

Level General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)

Basement	
1 st Floor	<u>Retail</u>
2 nd Floor	
3 rd Floor	
4 th Floor	

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

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

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

Are there odors in the building?

If yes, please describe: its a laundromat ☒ Y / N

Do any of the building occupants use solvents at work? Y / ☒ N

(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used? _____

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

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

Yes, use dry-cleaning regularly (weekly)

Yes, use dry-cleaning infrequently (monthly or less)

Yes, work at a dry-cleaning service

No

☒ Unknown

Is there a radon mitigation system for the building/structure? ☒ Y / N Date of Installation: _____

Is the system active or passive? ☒ Active / Passive

9. WATER AND SEWAGE

Water Supply: ☒ Public Water Drilled Well Driven Well Dug Well Other: _____

Sewage Disposal: ☒ Public Sewer Septic Tank Leach Field Dry Well Other: _____

10. RELOCATION INFORMATION (for oil spill residential emergency)

N/A

a. Provide reasons why relocation is recommended: _____

b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel

c. Responsibility for costs associated with reimbursement explained? Y / N

d. Relocation package provided and explained to residents? Y / N

11. FLOOR PLANS

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

Basement:

First Floor:

See attached figure



