17 August 2018

Mr. Glenn May
NYSDEC – Region 9
Division of Environmental Remediation
270 Michigan Ave.
Buffalo, New York 14203

RE: Summary of Sub-Slab Soil Vapor Sampling
Fashion Outlets of Niagara Falls BCP
Brownfield Cleanup Program Site #: C932162
Town of Niagara, New York
Langan Project No.: 140091418

Dear Glenn:

On behalf of Macerich-Niagara, LLC (Macerich), Langan Engineering, Environmental, Surveying Landscape Architecture, and Geology, D.P.C. (Langan) has prepared this report for the Fashion Outlets of Niagara Falls (FONF) Brownfield Cleanup Program (BCP) project (BCP No. C932162) located at 1705 Factory Outlet Boulevard in the Town of Niagara, New York (the "Site"). This report summarizes the results of Langan's sub-slab soil vapor sampling that was completed with the objective of converting of the active sub-slab depressurization (SSD) system into a passive system. The sampling program was completed in accordance with Langan's 22 May 2018 SSD System Modification Work Plan (Work Plan), which was approved by the New York State Department of Environmental Conservation (the "Department") on 29 May 2018.

BACKGROUND AND PURPOSE

The engineering controls at the Site consist of a site-wide cap/cover system encompassing the mall expansion and two active SSD systems; one beneath the FONF mall expansion building and one beneath the Secure Storage office building. The SSD system at the FONF mall expansion building is the system that is the subject of this Work Plan. The SSD system is located beneath the concrete slab of the ±225,000 square-foot mall expansion and consists of the following components:

- A 6-inch layer of ¾-inch clean crushed stone;
- 20-mil impermeable vapor barrier (20-mil Stego Wrap); and
- The 6-inch stone later is vented by a network of a 4-inch PVC piping (which runs along select support columns and overhead ceilings) connecting the sub-slab stone to two roof-mounted blowers.

The SSD system also includes 14 permanent vapor monitoring points throughout the building's concrete floor to allow for pressure field monitoring. The below- and above-slab SSD system components are protected and managed in accordance with a NYSDEC-approved Site Management Plan (SMP), dated 15 November 2015. As-built drawings for the Site's SSD System are included as Attachment 1.

As outlined in Langan's 22 May 2018 SSD System Modification Work Plan, continuing power surges at the Site have resulted in the need to assess and repair the blower equipment at an unreasonable frequency (monthly to quarterly). The sub-slab soil vapor sampling outlined in this report was implemented with the aim of converting the active SSD system (current roof-mounted blowers) into a passive system (new wind-driven turbines).

SUB-SLAB SOIL VAPOR ASSESSMENT

Prior to sample collection, a Langan field representative, Justin Hall, completed a visual assessment of the building indoor environments to identify and account for potential volatile organic compound (VOC) emitters. During the survey, Langan observed assorted liquid cleaning chemicals and disinfectants (less than 5-gallon containers) stored in the closets and hallways throughout the Site. Field screening of the air throughout and outside the building was also completed with a photo-ionization detector (PID) capable of reading VOC concentrations in parts per million (ppm). Background ambient PID readings from inside the building ranged from 0 to 1.5 ppm, and background ambient PID readings from outside the building ranged from 0 to 2.5 ppm.

Sub-Slab and Ambient Air Sample Collection

With the current SSD blowers turned off for a period of at least 72 hours, Langan collected sub-slab soil vapor samples at 12[1] of the 14 permanent sub-slab monitoring points. Vapor sampling was conducted in accordance with the New York State Department of Health (NYSDOH) Guidance on Soil Vapor Intrusion, dated October 2006.

Prior to sample collection, a PID (which pumps air at approximately 0.2 liters per minute) was used to purge each monitoring point and associated dedicated Teflon tubing for at least 10 minutes. The purged sub-slab soil vapor was also monitored with the PID and the highest value was recorded. After screening was complete[2], the intake of the flow controllers was fitted with

1 Monitoring Point #6 (SV-06) was not sampled due to an access-limiting obstruction that was located on top of the monitoring point, and Monitoring Point #8 (SV-08) was not sampled due to water infiltration within the monitoring point.
2 A helium gas tracer test was not performed as part of this investigation considering the samples were collected from permanent monitoring points that were installed beneath an impermeable vapor barrier that has been previously tested using a helium gas tracer test during following installation.

Teflon tubing that was connected to the barbed sampling apparatus at each monitoring point. The samples were collected using laboratory-provided, 6-liter air canisters equipped with 2-hour sample interval flow controllers. The air canisters arrived from the laboratory with approximately 30 inches of mercury vacuum. Sampling was started by fully opening the canister valve. When approximately 6 liters of sample had been collected or the canister pressure dropped below approximately 5 inches of mercury, the sampling was stopped by closing the valve. For Quality Assurance/Quality Control (QA/QC) purposes, one blind duplicate sub-slab sample was collected using a laboratory-supplied T assembly component that allows for the simultaneous collection of samples. Additionally, one outdoor air sample was collected to document background ambient air conditions at the site.

The sub-slab soil vapor samples were transported to York Analytical Laboratories, Inc. (York) in Stratford, CT for analysis of VOCs via EPA Method TO-15. The locations of air samples are shown on Figure 1 and a soil vapor sampling log is presented in Table 1.

Evaluation of Sub-Slab Soil Vapor Results

This section summarizes the sub-slab soil vapor VOC results generated by this assessment. Twelve sub-slab soil-vapor samples, one outdoor ambient air sample, and one duplicate sample[3] were submitted for laboratory analysis. The soil vapor sampling and analytical data summaries are in Tables 1 and 2, and the raw analytical data report and chain-of-custody documentation is included as Attachment 2.

Indoor air samples were not completed as part of this vapor sampling program, therefore a strict comparison to the decision matrices established by the NYSDOH Guidance on Soil Vapor Intrusion, October 2006 (matrices revised May 2017) is not appropriate. However, for the purposes of this evaluation, we have taken a conservative approach and assumed a sub-slab to indoor air attenuation factor of 0.3, which is 10 times greater than the attenuation factor for residential structures as published in Table 6-1 of EPA's 2015 Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air. The matrices address the compounds trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), 1,1-dichloroethene (1,1-DCE), carbon tetrachloride, tetrachloroethene (PCE), 1,1,1-trichloroethane (1,1,1-TCA), methylene chloride, and vinyl chloride. The analytical results, compared to the NYSDOH decision matrices, are summarized below:

3 A duplicate soil vapor sample was collected from Monitoring Point #14 (SV-14). For conservative purposes, the higher of the two results (for "SV-14" and "2018.06.26-SVDUP01") were used for Langan's data evaluation and NYSDOH matrix comparison.

Decision Matrix A (included below for reference)

Analytes Assigned:

Trichloroethene (TCE), cis-1,2-Dichloroethene (Cis-1,2-DCE), 1,1-Dichloroethene (1,1-DCE), Carbon Tetrachloride

	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m³)		
SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m³)	< 0.2	0.2 to < 1	1 and above
< 6	1. No further action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
6 to < 60	4. No further action	5. MONITOR	6. MITIGATE
60 and above	7. MITIGATE	8. MITIGATE	9. MITIGATE

- **TCE** – TCE was detected in each sub-slab vapor sample at concentrations ranging from 0.25 to 2.8 micrograms per cubic meter (µg/m^3), which are below the lowest sub-slab matrix concentration of 6.0 µg/m^3 listed in row #1 of Decision Matrix A. TCE was also detected in the outdoor ambient air sample at a concentration of 0.17 µg/ m^3.

  Using a conservative sub-slab to indoor air attenuation factor[4] of 0.30 results in the highest corresponding indoor air concentration for TCE of 0.84 µg/m^3, which yields "no further action" in the decision matrix.

- **Cis-1,2-DCE** – Cis-1,2-DCE was detected in 2 of the 12 sub-slab vapor samples (SV-13 and SV-14 [duplicate]) at concentrations of 0.51 and 0.44 µg/m^3, respectively, which are below the lowest sub-slab matrix concentration of 6.0 µg/m^3 listed in row #1 of Decision Matrix A. Cis-1,2-DCE was not detected in the outdoor ambient air sample.

  If we assume no attenuation factor for sub-slab vapor to indoor air, the corresponding matrix comparison for cis-1,2-DCE would yield a recommendation for "no further action" in the decision matrix.

- **1,1-DCE** – 1,1-DCE was detected in 1 of the 12 sub-slab vapor samples (SV-14 [duplicate]) at a concentration of 0.44 µg/m^3, which is below the lowest sub-slab matrix concentration of 6.0 µg/m^3 listed in row #1 of Decision Matrix A. 1,1-DCE was not detected in the outdoor ambient air sample.

  Using a conservative sub-slab to indoor air attenuation factor of 0.30 results in the highest corresponding indoor air concentration for 1,1-DCE at 0.13 µg/m^3, which yields "no further action" in the decision matrix.

4 A vapor attenuation factor is an inverse measurement of the overall dilution that occurs as vapors migrate from a point of measurement in the subsurface into a building (EPA Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway from Subsurface Vapor Sources to Indoor Air, 2015). Vapor attenuation refers to the reduction in volatile chemical concentrations that occurs during vapor migration in the subsurface, coupled with the dilution that can occur when the vapors enter a building and mix with indoor air (Johnson and Ettinger 1991).

- **Carbon tetrachloride** – Carbon tetrachloride was detected in 11 of the 12 sub-slab vapor samples at concentrations ranging from 0.29 to 1.1 (µg/m^3), which are below the lowest sub-slab matrix concentration of 6.0 µg/m^3 listed in row #1 of Decision Matrix A. Carbon tetrachloride was also detected in the outdoor ambient air sample at a concentration of 0.3 µg/m^3.

  Using a conservative sub-slab to indoor air attenuation factor of 0.30 results in the highest corresponding indoor air concentration for carbon tetrachloride of 0.33 µg/m^3, which yields "no further action" in the decision matrix.

Decision Matrix B (included below for reference)

Analytes Assigned:

Tetrachloroethene (PCE), 1,1,1-Trichloroethane (1,1,1-TCA), Methylene Chloride

	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m^3)		
SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m^3)	< 3	3 to < 10	10 and above
< 100	1. No further action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
100 to < 1,000	4. No further action	5. MONITOR	6. MITIGATE
1,000 and above	7. MITIGATE	8. MITIGATE	9. MITIGATE

- **PCE** – PCE was detected in each sub-slab vapor sample at concentrations ranging from 2.5 to 4.3 µg/m^3, which are below the lowest sub-slab matrix concentration of 100 µg/m^3 listed in row #1 of Decision Matrix B. PCE was also detected in the outdoor ambient air sample at a concentration of 0.98 µg/m^3.

  If we assume no attenuation factor for sub-slab vapor to indoor air, the corresponding matrix comparison for PCE would yield a recommendation for "no further action" in the decision matrix.

- **1,1,1-TCA** – 1,1,1-TCA was detected in 1 of the 12 sub-slab vapor samples (SV-03) at a concentration of 1.4 µg/m^3, which is below the lowest sub-slab matrix concentration of 100 µg/m^3 listed in row #1 of Decision Matrix B. 1,1,T-TCA was not detected in the outdoor ambient air sample.

  If we assume no attenuation factor for sub-slab vapor to indoor air, the corresponding matrix comparison for 1,1,1-TCA would yield a recommendation for "no further action" in the decision matrix.

- **Methylene Chloride** – Methylene Chloride was detected in 8 of the 12 sub-slab vapor samples at concentrations of 1.1 to 7.0 µg/m^3, which are below the lowest sub-slab

matrix concentration of 100 µg/m^3 listed in row #1 of Decision Matrix B. Methylene Chloride was also detected in the outdoor ambient air sample at a concentration of 2.0 µg/m^3.

If we assume no attenuation factor for sub-slab vapor to indoor air, the corresponding matrix comparison for methylene chloride would yield a recommendation for "no further action" in the decision matrix.

Decision Matrix C (included below for reference)

Analytes Assigned:

Vinyl Chloride

	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m^3)	
SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m^3)	< 0.2	0.2 and above
< 6	1. No further action	2. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
6 to < 60	3. MONITOR	4. MITIGATE
60 and above	5. MITIGATE	6. MITIGATE

- **Vinyl Chloride** – Vinyl Chloride was not detected at concentrations above laboratory reporting limits in the sub-slab vapor samples or the outdoor ambient air sample.

Data Usability

Category B laboratory reports for the soil vapor samples were provided by York and were forwarded to Langan's data validator for samples collected during this assessment. A copy of the Data Usability Summary Report (DUSR) is provided in Attachment 3. The results of the data validation review are summarized below.

The data were determined to be acceptable. Completeness, defined as the percentage of analytical results that are judged to be valid, is 100%. Major deficiencies were not identified in any analytical reports for soil vapor.

CONCLUSIONS AND RECOMMENDATIONS

The results of Langan's sub-slab soil vapor sampling were compared to the decision matrices established by the NYSDOH Guidance on Soil Vapor Intrusion. The matrices address the compounds TCE, cis-1,2-DCE, 1,1-DCE, carbon tetrachloride, PCE, 1,1,1-TCA, methylene chloride, and vinyl chloride. With the exception of vinyl chloride, each of these compounds was detected in at least one sub-slab soil vapor sample at a concentration above laboratory reporting

levels; however, each of the detections was below the lowest sub-slab matrix concentrations presented in Decision Matrices A, B, and C. Moreover, using conservative air attenuation factors to predict indoor air concentrations to allow for a direct comparison to the decision matrices yields a recommendation for "no further action" for each compound evaluated. Therefore, it is our opinion that the sub-slab soil vapor concentrations (beneath the building-wide 20-mil vapor barrier) do not warrant the need for continued active sub-slab depressurization.

CLOSURE

Based on the information presented in this letter, Langan requests Department approval to remove the roof-mounted blowers and to install wind-driven turbines (i.e., McMaster-Carr Stainless Steel, 12" Base Diameter Wind-Driven Roof-Mount Exhaust Fan, or engineer-approved equivalent) in their place. Should you have any questions or require additional information regarding the information contained in this letter, please do not hesitate to contact us.

Sincerely,
Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C.

Ryan J. Wohlstrom
Senior Project Manager

Jamie P. Barr
Senior Associate/Vice President

Enclosure(s): Table 1 – Sub-Slab Soil Vapor Sample Summary Table
Table 2 – Sub-Slab Soil Vapor Analytical Summary Data Table
Figure 1 – Sub-Slab Soil Vapor Sample Location Map
Attachment 1 – As-Built Drawings for SSD System
Attachment 2 – Laboratory Analytical Report
Attachment 3 – Data Usability Summary Report

cc: Aladdin Ghafari – Macerich

TABLES

Table 1
Sub-Slab Soil Vapor Sample Summary Table
Fashion Outlets of Niagara Falls BCP
Town of Niagara, New York
Langan Project No.: 140091418

Location	Canister ID	Flow Controller ID	PID Test of Purge (ppm)	Total Purge Time (min)	Sample Start Time	Sample Start Vacuum (in. Hg)	Sample End Time	Sample End Vacuum (in. Hg)	Total Sample Time (min)
SV-01	23799	3540	1.3	10	17:11	28.66	19:14	4.31	123
SV-02	18294	7416	3.2 - 0.4	10	12:11	28.58	14:13	4.26	122
SV-03	18310	Y41	3.1	10	16:58	28.81	19:35	4.80	157
SV-04	28854	Y48	152 - 2.5	8	11:17	28.77	13:25	4.62	128
SV-05	23802	3542	0.1	10	10:21	28.74	11:22	3.65	121
SV-06	Not sampled due to access-limiting obstruction over monitoring point								
SV-07	7268	Y63	1.6	10	11:46	28.94	13:41	4.08	115
SV-08	Not sampled due to water infiltration within the monitoring point								
SV-09	18304	Y22	2.9	7	10:52	28.73	13:07	4.35	135
SV-10	28842	7270	0.6	10	16:30	29.07	18:32	4.06	122
SV-11	28846	7360	0.3	7	10:42	29.11	12:54	3.47	132
SV-12	28316	Y1	0.4	8	10:33	29.12	12:46	4.30	133
SV-13	15529	Y47	0.3	10	16:06	28.50	18:22	4.77	136
SV-14	28304	Y39	3.6	30	15:38	28.84	17:55	3.94	137
2018.06.26 - SVDUP01	23196	3350	3.6	30	15:38	29.01	17:55	4.60	137
2018.06.26-OA01	15524	Y17	0.0	N/A	16:16	28.90	18:29	4.49	133

Notes:

ppm = parts per billion

in. Hg = inches of mercury

Sample "2018.06.26 - SVDUP01" is a duplicate sample collected from SV-14

Table 2
Sub-Slab Soil Vapor Analytical Summary Table
Fashion Outlets of Niagara Falls BCP
Town of Niagara, New York
Langan Project No.: 140091418

Sample ID	SV-01		SV-02		SV-03		SV-04		SV-05		SV-07		SV-09		SV-10		SV-11		SV-12		SV-13		SV-14		2018.06.26-SVDUP01		2018.06.26-OA01	
York ID	18F1218-12		18F1218-07		18F1218-11		18F1218-05		18F1218-01		18F1218-06		18F1218-04		18F1218-10		18F1218-03		18F1218-02		18F1218-09		18F1218-08		18F1218-13		18F1218-14	
Sampling Date	6/26/2018		6/26/2018		6/26/2018		6/26/2018		6/26/2018		6/26/2018		6/26/2018		6/26/2018		6/26/2018		6/26/2018		6/26/2018		6/26/2018		6/26/2018		6/26/2018	
Client Matrix	Soil Vapor		Soil Vapor		Soil Vapor		Soil Vapor		Soil Vapor		Soil Vapor		Soil Vapor		Soil Vapor		Soil Vapor		Soil Vapor		Soil Vapor		Soil Vapor		Soil Vapor		Outdoor Ambient Air	
Compound	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Volatile Organics, EPA TO15 Full List	ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3		ug/m3	
Dilution Factor	32.82		127.6		33.5		127.6		1.529		1.558		1.564		65.92		1.523		1.564		1.621		1.546		1.602		0.533	
1,1,1-Trichloroethane	0.9	U	0.87	U	1.4	D	0.87	U	0.83	U	0.85	U	0.85	U	0.90	U	0.83	U	0.85	U	0.88	U	0.84	U	0.87	U	0.29	U
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	1.3	U	1.2	U	1.3	U	1.20	U	1.2	U	1.2	U	1.2	U	1.3	U	1.2	U	1.2	U	1.2	U	1.2	U	1.4	D	0.41	U
1,1-Dichloroethane	0.66	U	0.65	U	0.68	U	0.65	U	0.62	U	0.63	U	6.10	D	0.67	U	0.62	U	0.63	U	0.66	U	0.63	U	0.65	U	0.22	U
1,1-Dichloroethylene	0.16	U	0.16	U	0.17	U	0.16	U	0.15	U	0.15	U	0.16	U	0.16	U	0.15	U	0.16	U	0.16	U	0.15	U	0.44	D	0.053	U
1,2,4-Trimethylbenzene	1.3	D	1.3	D	1.7	D	1.6	D	5.4	D	3.3	D	3.2	D	1.4	D	1.1	D	2.5	D	3.5	D	5.7	D	1.4	D	0.29	D
1,2-Dichlorotetrafluoroethane	1.1	U	1.1	U	1.2	U	1.1	U	1.1	U	1.1	U	1.1	U	1.2	U	1.1	U	1.1	U	1.1	U	1.1	U	1.2	D	0.37	U
1,3,5-Trimethylbenzene	0.81	U	0.78	U	0.82	U	0.78	U	1.9	D	1.1	D	0.92	D	0.81	U	0.75	U	0.77	D	1.3	D	1.9	D	0.87	D	0.26	U
1,3-Dichlorobenzene	1.7	D	2.3	D	3.4	D	0.96	U	0.92	U	0.94	U	0.94	U	2.10	D	0.92	U	0.94	U	0.97	U	0.93	U	1.2	D	0.32	U
2-Butanone	250	D	1,200	D	170	D	5,500	D	18	D	50	D	54	D	500	D	33	D	88	D	15	D	41	D	120	D	2	D
2-Hexanone	1.3	U	1.3	U	1.4	U	7.8	D	1.3	U	1.3	U	1.3	U	1.4	U	2.7	D	1.3	U	1.3	U	1.3	U	1.3	U	0.44	U
4-Methyl-2-pentanone	0.67	D	0.65	U	0.69	U	0.65	U	0.81	D	0.64	U	0.64	U	0.68	U	0.62	U	0.64	U	0.73	D	6.4	D	0.66	U	0.24	D
Acetone	290	D	1,500	D	150	D	1,400	D	5.2	D	28	D	41	D	330	D	15	D	53	D	8.8	D	63	D	41	D	29	D
Acrylonitrile	5.1	D	0.35	U	0.36	U	1.5	D	0.33	U	2.5	D	2.6	D	12	D	0.33	U	0.34	U	0.35	U	0.34	U	0.35	U	0.12	U
Benzene	0.52	U	0.87	D	0.54	U	0.51	U	0.49	U	0.5	U	0.5	U	0.90	D	0.49	U	0.50	U	0.52	U	3.3	D	0.61	D	0.2	D
Carbon disulfide	3.7	D	33	D	13	D	18	D	7.8	D	2.1	D	1.3	D	3.9	D	0.81	D	0.49	U	11	D	0.96	D	3.6	D	0.25	D
Carbon tetrachloride	0.41	D	1.10	D	0.42	D	0.4	D	0.38	D	0.29	D	0.30	D	0.83	D	0.24	U	0.39	D	0.31	D	0.58	D	1	D	0.3	D
Chloroform	0.8	U	0.78	U	0.82	U	0.78	U	0.75	U	0.76	U	0.76	U	0.8	U	0.74	U	0.76	U	0.79	U	0.75	U	1.6	D	0.94	D
Chloromethane	3.2	D	0.33	U	3.2	D	0.33	U	3.4	D	0.32	U	0.32	U	3.9	D	0.31	U	0.32	U	5.7	D	2.6	D	1.9	D	0.9	D
cis-1,2-Dichloroethylene	0.16	U	0.16	U	0.17	U	0.16	U	0.15	U	0.15	U	0.16	U	0.16	U	0.15	U	0.16	U	0.51	D	0.15	U	0.44	D	0.05	U
Cyclohexane	0.56	U	0.55	U	0.58	U	0.55	U	0.53	U	0.54	U	0.54	U	0.57	U	0.52	U	0.54	U	0.56	U	2.6	D	0.77	D	0.24	D
Dichlorodifluoromethane	2.2	D	6	D	2.4	D	2	D	2.3	D	1.9	D	2.1	D	4.2	D	2.2	D	2.2	D	1.9	D	50	D	2.3	D	1.1	D
Ethyl acetate	1.7	D	1.1	U	3.3	D	1.1	U	1.1	U	1.1	U	1.1	U	11	D	1.1	U	1.1	U	1.2	U	19	D	1.2	U	1.8	D
Ethyl Benzene	0.86	D	0.69	U	0.73	D	0.9	D	0.93	D	0.95	D	0.95	D	0.93	D	0.73	D	0.88	D	0.77	D	9.7	D	0.9	D	0.49	D
Isopropanol	9.2	D	36	D	7.2	D	4.2	D	1.4	D	1.7	D	2.7	D	10	D	2.6	D	2.7	D	1.4	D	45	D	0.91	D	9.8	D
Methylene chloride	1.1	U	2	D	1.6	D	1.1	D	1.3	D	1.1	U	2.6	D	1.8	D	1.1	U	7	D	1.1	U	4.1	D	1.9	D	2	D
n-Heptane	0.67	U	0.65	U	1.6	D	0.65	U	1.1	D	0.7	D	0.6	D	3.2	D	0.62	U	0.64	U	0.66	D	6.40	D	0.66	U	0.44	D
n-Hexane	0.81	D	1.6	D	0.77	D	1.4	D	1.8	D	0.6	D	2.4	D	2.5	D	0.64	D	0.55	U	0.74	D	8.8	D	1.4	D	2.3	D
o-Xylene	0.78	D	0.7	U	0.73	D	1.3	D	1.4	D	1.4	D	1.3	D	0.86	D	1.1	D	1.4	D	1.1	D	8.5	D	0.8	D	0.51	D
p- & m- Xylenes	2.5	D	1.9	D	2.5	D	3.5	D	3.1	D	3.2	D	3.3	D	3	D	2.7	D	3.2	D	2.7	D	31	D	2.1	D	1.2	D
p-Ethyltoluene	1.1	D	1.3	D	1.5	D	1.4	D	3.10	D	2.1	D	2.2	D	1.1	D	0.90	D	1.5	D	2.4	D	5.6	D	1.1	D	0.31	D
Propylene	0.48	D	1.0	D	0.43	D	0.27	U	0.26	U	0.27	D	0.27	U	1	D	0.26	U	0.35	D	0.28	D	2.3	D	0.28	U	1.1	D
Styrene	2.4	D	1.8	D	0.71	U	0.68	U	0.65	U	1.2	D	1.1	D	0.7	U	0.65	U	0.67	U	0.69	U	2.8	D	0.68	U	0.73	D
Tetrachloroethylene	3.5	D	2.5	D	2.6	D	2.6	D	3.1	D	2.7	D	4.3	D	2.5	D	2.5	D	2.9	D	2.9	D	2.8	D	2.9	D	0.98	D
Tetrahydrofuran	1,400	D	620	D	1,900	D	140	D	67	D	110	D	100	D	2,200	D	61	D	150	D	230	DE	32	D	120	D	0.31	U
Toluene	3.8	D	3.3	D	3.5	D	3.7	D	2.5	D	2.5	D	3.4	D	4.5	D	2.8	D	2.8	D	2.7	D	63	D	1.6	D	4.9	D
Trichloroethylene	0.44	D	0.26	D	0.27	D	0.6	D	0.41	D	0.25	D	2.8	D	0.44	D	0.41	D	0.42	D	1.70	D	0.21	U	0.86	D	0.17	D
Trichlorofluoromethane (Freon 11)	1.4	D	3.5	D	8.4	D	1.3	D	1.3	D	1.5	D	1.3	D	3.2	D	1.4	D	1.5	D	1.2	D	1.8	D	1.8	D	0.78	D
Vinyl Chloride	0.1	U	0.1	U	0.11	U	0.1	U	0.098	U	0.1	U	0.1	U	0.11	U	0.097	U	0.1	U	0.1	U	0.099	U	0.1	U	0.034	U

Notes:

Only soil vapor samples with detections are displayed on table.

µg/m3 = micrograms per cubic meter

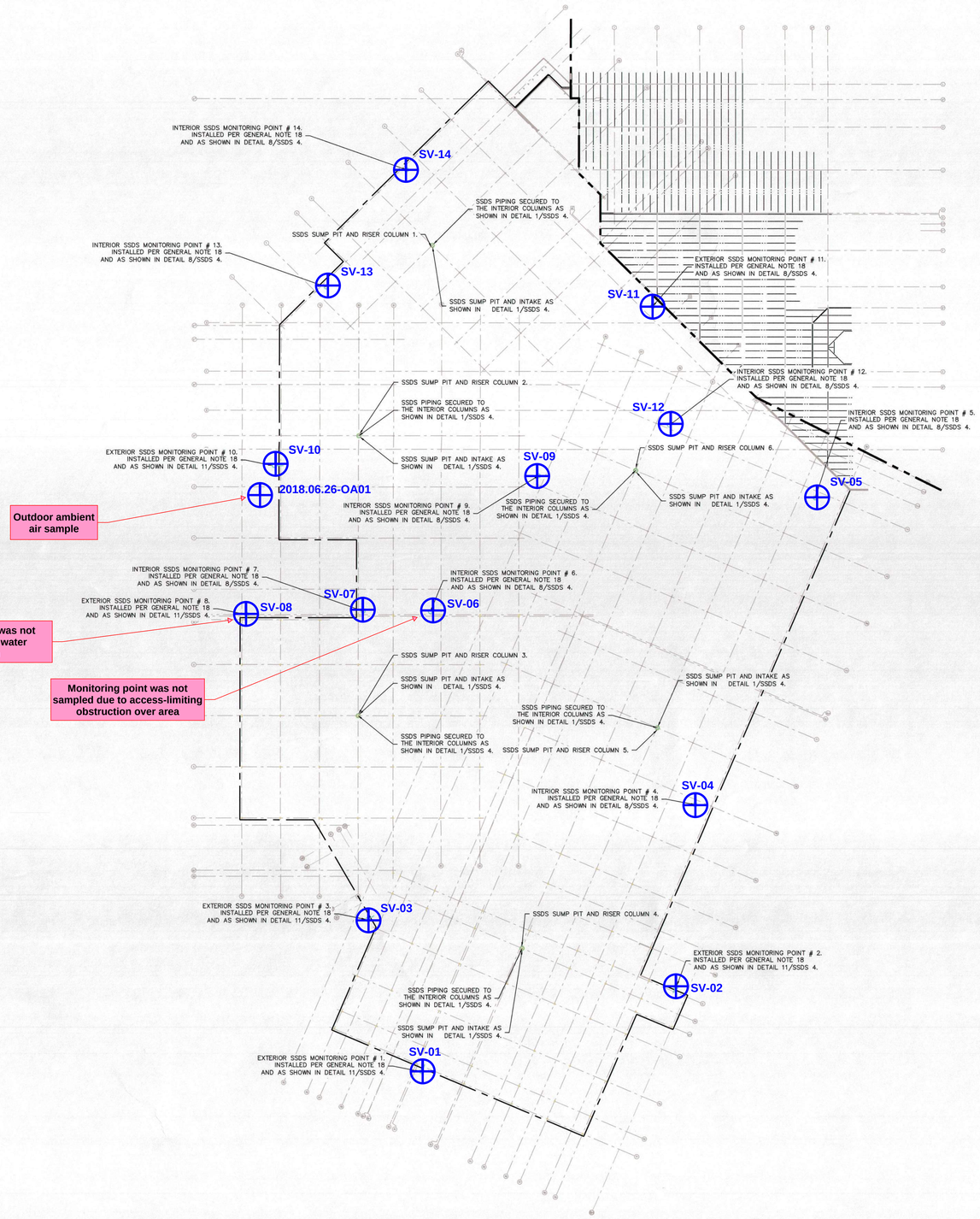
ND = Not detected above laboratory reporting limits

D = Result is from an analysis that required a dilution

Shading indicates compounds idetified by the decision matrices established by the New York State Department of Health (NYSDOH) Final Guidance on Soil Vapor Intrusion, October 2006 (revised May 2017)

Sample "2018.06.26 - SVDUP01" is a duplicate sample collected from SV-14

FIGURES



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Date	Description	No.
REVISIONS		

STATE OF NEW YORK — JOEL B. LANDES — 076348 — LICENSED PROFESSIONAL ENGINEER

SIGNATURE 11/13/14 DATE SIGNED

JOEL B. LANDES
NEW YORK STATE PROFESSIONAL ENGINEER
STATE LIC. No. 076348

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Langan Engineering and Environmental Services, Inc.
Langan International LLC
Collectively known as Langan

Project
FONF EXPANSION/SABRE PARK BCP
TOWN OF NIAGARA
NIAGARA COUNTY NEW YORK

Figure Title
SUB-SLAB SOIL VAPOR SAMPLE LOCATION MAP

Project No.	140091401
Date	10 NOVEMBER 2014
Scale	1"=40'
Drawn By	JPH
Checked By	RJW
Submission Date	15 NOVEMBER 2014

FIGURE 1

Filename: \\langan.com\data\NH\data4\140091401\Cadd Data - 140091401\2D-Design Files\SSDS\MallAS_BUILT_Mall SSDS.dwg Date: 11/13/2014 Time: 14:33 User: jhall Style Table: Langan.stb Layout: FOUNDATION

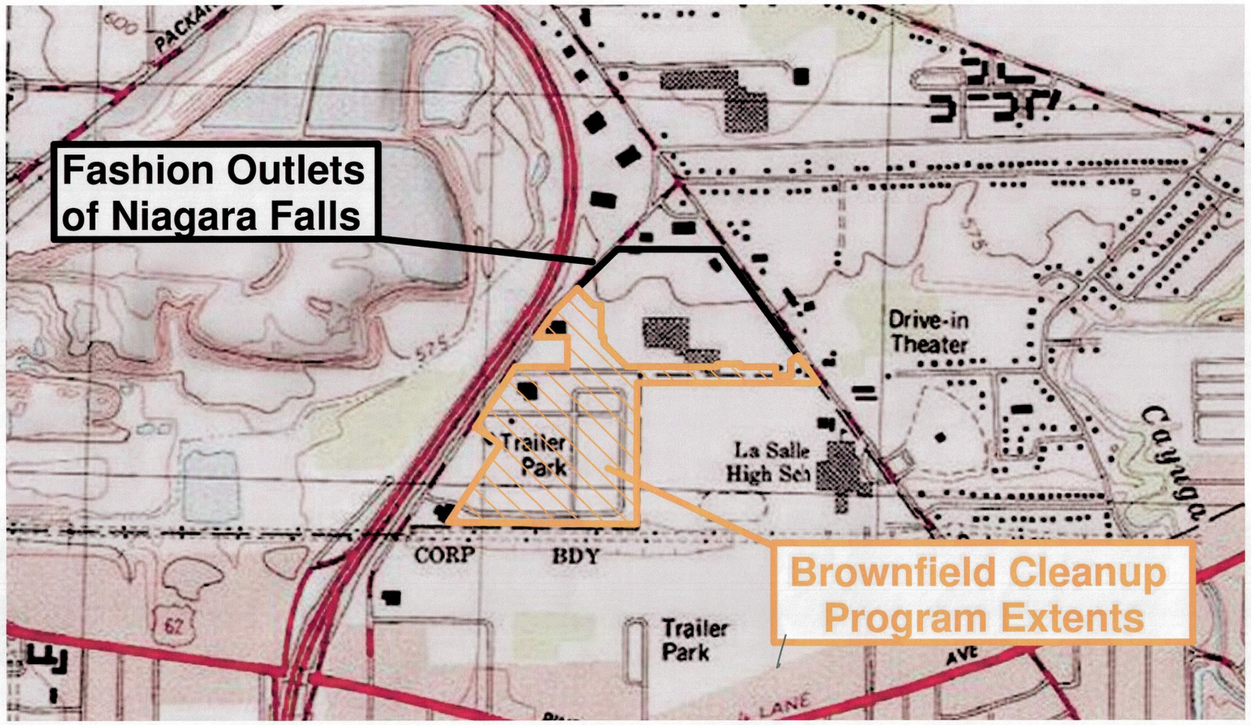
ATTACHMENT 1

As-Built Drawings for SSD System

FASHION OUTLETS OF NIAGARA FALLS EXPANSION AND SABRE PARK BCP

1705 FACTORY OUTLETS BOULEVARD
TOWN OF NIAGARA, NEW YORK 14304

FONF EXPANSION SUB-SLAB DEPRESSURIZATION SYSTEM AS-BUILT DRAWINGS



MAP REFERENCE: USGS 7.5 QUANDRANGLE

SITE LOCATION MAP

SCALE: 1" = 500'

SSDS AS BUILT DRAWING INDEX

NUMBER	DRAWING TITLE	DATE	SUBMISSION DATE
SSDS-1	COVER SHEET	11/10/2014	11/15/2014
SSDS-2	FONF MALL EXPANSION SSDS FOUNDATION PLAN	11/10/2014	11/15/2014
SSDS-3	FONF MALL EXPANSION SSDS ROOFING PLAN	11/10/2014	11/15/2014
SSDS-4	FONF MALL EXPANSION SSDS DETAILS	11/10/2014	11/15/2014

Date	Description	No.
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Project	FONF EXPANSION/SABRE PARK BCP
	TOWN OF NIAGARA
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Drawing Title	COVER SHEET
Project No.	140091401
Date	10 NOVEMBER 2014
Scale	
Drawn By	JPH
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	SSDS - 1
	Sheet 1 of 4

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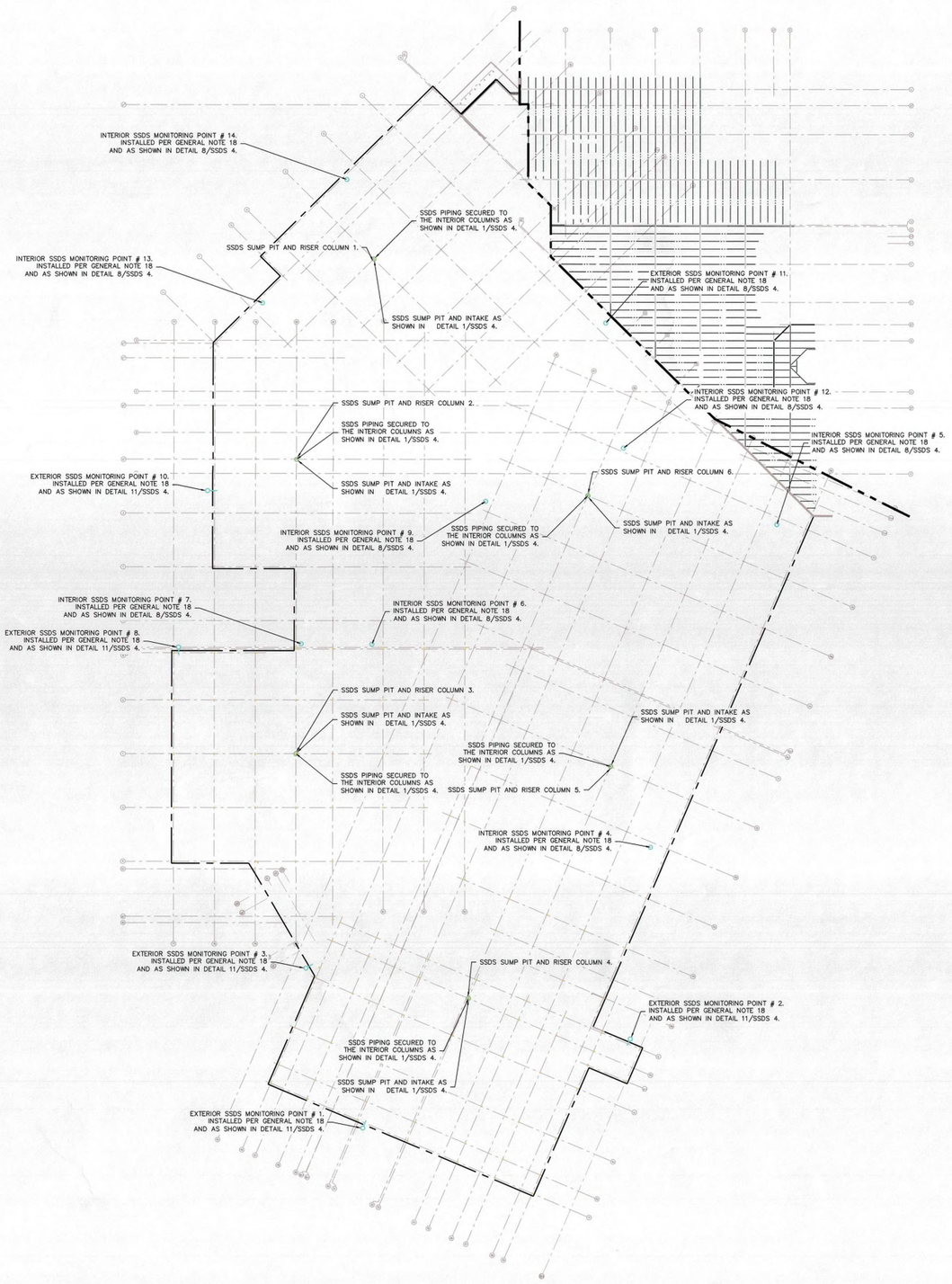

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Project: FONF EXPANSION/SABRE PARK BCP
TOWN OF NIAGARA
NIAGARA COUNTY NEW YORK

Drawing Title: FONF MALL EXPANSION SSDS FOUNDATION AS-BUILT DRAWING

Project No.	140091401
Date	10 NOVEMBER 2014
Scale	1"=40'
Drawn By	JPH
Checked By	RJW
Submission Date	15 NOVEMBER 2014

SSDS-2
Sheet 2 of 4

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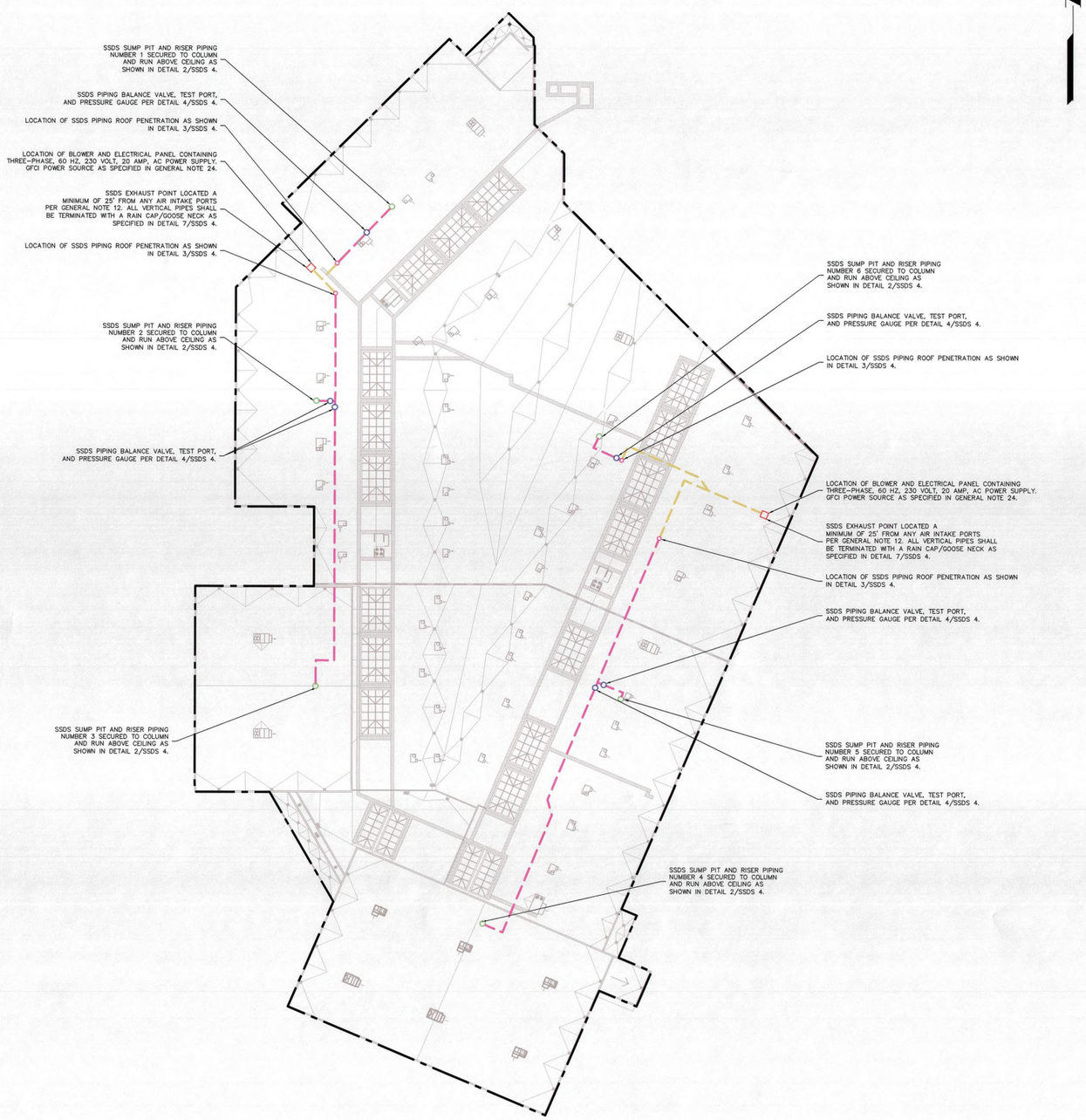

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20. ARCHITECT AND STRUCTURAL ENGINEER CONFIRMED ACCEPTABILITY OF DETAIL 11 AND ANY WALL OR FOUNDATION PENETRATIONS
21. THE LOCATION OF ALL INTERIOR MONITORING POINTS WERE COORDINATED WITH ARCHITECT, STRUCTURAL, AND MECHANICAL ENGINEERS TO MINIMIZE CONFLICTS WITH WALKWAYS AND TENANT SPACES.

BLOWER NOTES:

22. THE TWO REGENERATIVE BLOWER UNITS ARE BOTH AN AIRTECH VACUUM A-353 3BA1930-7A116.
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24. THE BLOWER MOTORS REQUIRE A STANDARD THREE-PHASE, 60 HZ, 230 VOLT, 20 AMP AC POWER SUPPLY.
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   - SUB-SLAB VAPOR VENTING SYSTEM ALARM
   - BLOWER MALFUNCTION IF LIT
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REFERENCES:

27. BASEMAP, BASEMAP DETAILS, UTILITY AND STRUCTURAL DRAWINGS PREPARED BY RTKL ASSOCIATES INC., DATED 7/25/13 AND PROVIDED ON 8/16/13 AND 10/2/2013.
28. SPECIFICATION SECTION 026216 – SUB-SLAB DEPRESSURIZATION SYSTEM.
29. NYSDOH GUIDANCE FOR EVALUATING SOIL VAPOR INTRUSION IN THE STATE OF NEW YORK (OCTOBER 2006).

LEGEND

- EXISTING MALL EXTENTS
- SSDS PIPING LOCATED ABOVE MALL CEILING
- SSDS PIPING LOCATED ON MALL ROOFTOP
- SSDS PIPING ROOFTOP PENETRATION PER DETAIL 3/SSDS 4.
- SSDS PIPING BALANCE VALVE, TEST PORT, AND PRESSURE GAUGE PER DETAIL 4/SSDS 4.
- COLUMN WHERE SSDS VERTICAL PIPING RUNS FROM SUB GRADE TO ABOVE THE MALL CEILING
- SSDS STORAGE BLOWER LOCATION

40 0 10 25 40
SCALE IN FEET

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.

Date	Description	No.
REVISIONS		

STATE OF NEW YORK JOEL B. LANDES 076348 LICENSED PROFESSIONAL ENGINEER

SIGNATURE 11/13/14 DATE SIGNED

JOEL B. LANDES
NEW YORK STATE PROFESSIONAL ENGINEER
STATE LIC. No. 076348

LANGAN
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DUBAI ISTANBUL
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan International LLC.
Collectively known as Langan

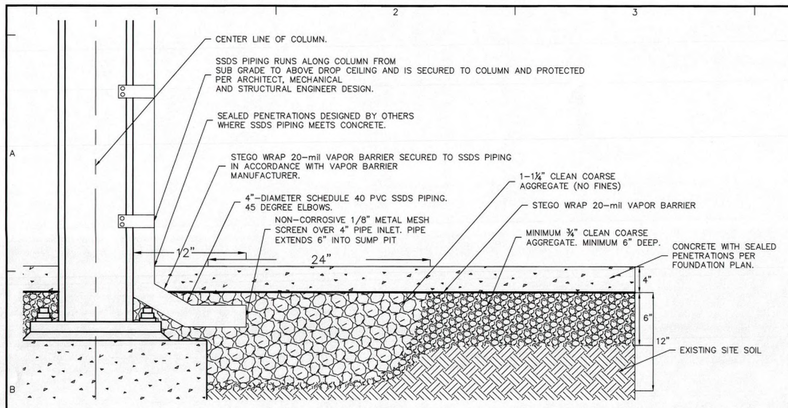
Project
FONF EXPANSION/SABRE PARK BCP
TOWN OF NIAGARA
NIAGARA COUNTY NEW YORK

Drawing Title
FONF MALL EXPANSION SSDS ROOFING AS-BUILT

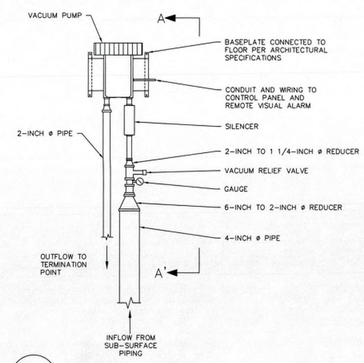
Project No.	140091401
Date	10 NOVEMBER 2014
Scale	1"=40'
Drawn By	JPH
Checked By	RJW
Submission Date	15 NOVEMBER 2014

SSDS-3
Sheet 3 of 4

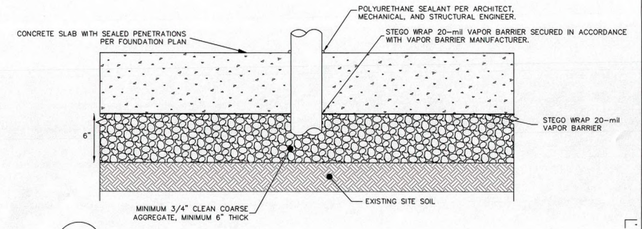
Filename: \\langan.com\data\NH\data4\140091401\Cadd Data - 140091401\2D-DesignFiles\SSDS\MalRAS_BUILT_Mall SSDS.dwg Date: 11/13/2014 Time: 14:32 User: jhall Style Table: Langan.stb Layout: ROOF



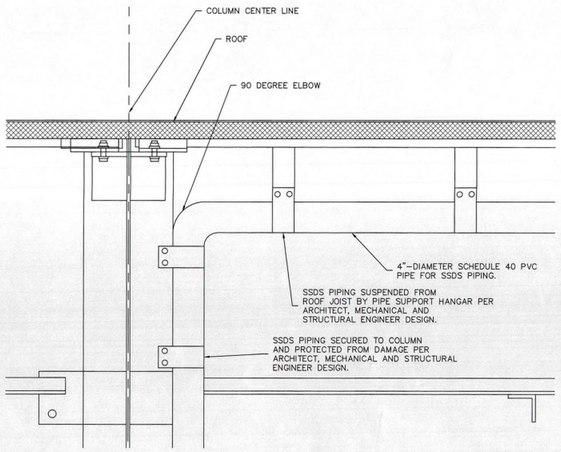
1 SSDS-4 SSDS PIPING CONNECTION TO BUILDING COLUMN (NTS)



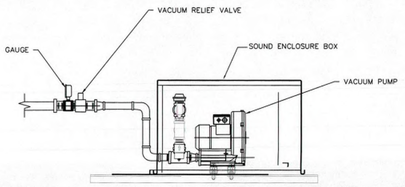
5 SSDS-4 TYPICAL VACUUM BLOWER PLAN VIEW (NTS)



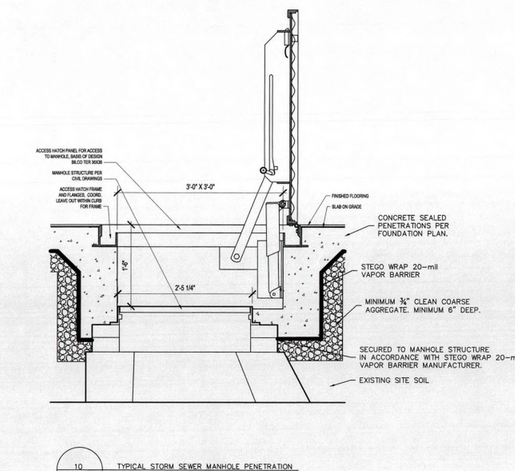
9 SSDS-4 TYPICAL CONCRETE SLAB PENETRATION (NTS)



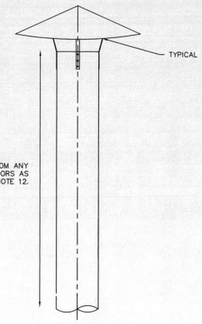
2 SSDS-4 SSDS PIPING CEILING SUPPORT (NTS)



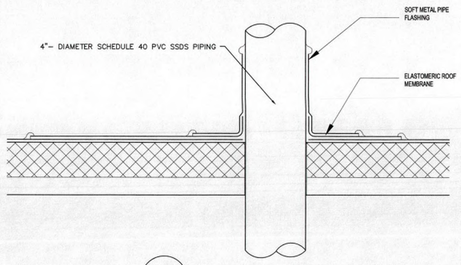
6 SSDS-4 TYPICAL VACUUM BLOWER SECTION (A-A') (NTS)



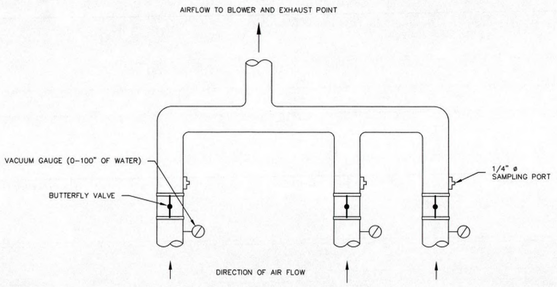
10 SSDS-4 TYPICAL STORM SEWER MANHOLE PENETRATION (NTS)



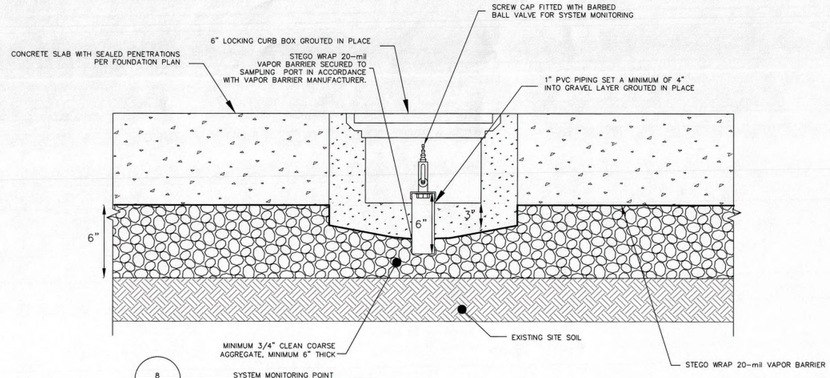
7 SSDS-4 STACK PIPE SECTION VIEW (NTS)



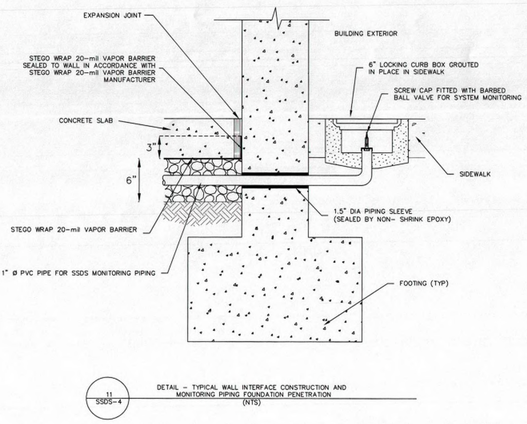
3 SSDS-4 TYPICAL ROOF PENETRATION (NTS)



4 SSDS-4 MANIFOLD ASSEMBLY #1 (NTS)



8 SSDS-4 SYSTEM MONITORING POINT (NTS)



11 SSDS-4 DETAIL - TYPICAL WALL INTERFACE CONSTRUCTION AND MONITORING PIPING FOUNDATION PENETRATION (NTS)

GENERAL NOTES

1. BASE MAP TAKEN FROM THE FOUNDATION PLAN, PREPARED BY RTKL ASSOCIATES INC., TRANSMITTED TO LANGAN ON 16 AUGUST 2013.
2. DESIGN DETAILS AND DRAWING ARE ADAPTED FROM EPA DOCUMENT EPA/625/R-92/016.
3. THE SSDS SYSTEM WAS INSTALLED IN ACCORDANCE WITH THE NEW YORK STATE PLUMBING CODE, INCLUDING, BUT NOT LIMITED TO, THOSE REQUIREMENTS PERTAINING TO:
   - PROTECTION OF SYSTEM COMPONENTS
   - TRENCHING, EXCAVATION, AND BACKFILL
   - STRUCTURAL SAFETY
   - PIPING SUPPORT
   - JOINTS
4. INSTALLATION OF THE SSDS WAS COORDINATED WITH THE INSTALLATION OF OTHER UTILITIES AND STRUCTURAL COMPONENTS.
5. ALL CONNECTIONS AT PIPE FITTINGS AND JOINTS ARE LEAK FREE. THIS WAS DEMONSTRATED BY THE PERFORMANCE OF A 3 PSI (MIN.) AIR PRESSURE TEST FOLLOWING PIPE/FITTINGS ASSEMBLY.
6. ALL PIPE CONNECTIONS AND SYSTEM COMPONENTS ARE CONNECTED WITH A NON-VOLATILE ORGANIC COMPOUND (VOC) CONTAINING GLUE (APPROVED BY DESIGN ENGINEER PRIOR TO USE).
7. ALL SSDS PIPING IS CONSTRUCTED OF 4" DIAMETER SCHEDULE 40 PVC PIPE (UNLESS OTHERWISE NOTED) OR OTHER APPROVED MATERIAL, IN ACCORDANCE WITH THE NEW YORK STATE PLUMBING CODE.
8. RISER PIPE IS CLEARLY LABELED "CAUTION: DO NOT ALTER SUB SLAB VENT PIPE" IN EACH ACCESSIBLE AREA (A MINIMUM OF EVERY 10 LINEAR FEET OF RISER PIPE RUN).
9. ALL HORIZONTAL PIPE RUNS ARE PITCHED A MINIMUM OF 1/8" PER FOOT TO ALLOW CONDENSATION TO DRAIN BACK TO THE SUB-GRADE.
10. VACUUM GAUGES HAVE A RANGE OF 0 TO 100 INCHES OF WATER WITH MINOR DIVISIONS OF 10.0 INCHES OF WATER IF NEEDED.
11. ARCHITECT CONFIRMED ACCEPTABILITY OF PIPING WITHIN THE MALL CEILING BASED ON TENANTS USE OF THE SPACE.
12. TO AVOID ENTRY OF SUBSURFACE VAPORS INTO THE BUILDING, THE VENT PIPES ARE AT LEAST 10 FEET ABOVE GROUND LEVEL, AT LEAST 25 FEET AWAY FROM ANY OPENING THAT IS LESS THAN 2 FEET BELOW THE EXHAUST POINT, AND 25 FEET FROM ANY ADJOINING OR ADJACENT BUILDING, OR HVAC INTAKES OR SUPPLY REGISTERS. RAIN GUARDS, CAPS/GOOSE NECKS ARE PLACED ON THE EXHAUST POINT SO AS NOT TO INCREASE THE POTENTIAL FOR SUBSURFACE VAPORS TO ENTER THE BUILDING.
13. CONTINUOUSLY SEALED STEGO WRAP 20-mil VAPOR BARRIER IS INSTALLED BELOW THE BUILDINGS CONCRETE SLAB-ON-GRADE. ANY PENETRATION OF THE VAPOR BARRIER WAS REPAIRED, SEALED, AND APPROVED BY OWNERS ENGINEER.
14. THE STEGO WRAP 20-mil VAPOR BARRIER WAS INSTALLED IN ACCORDANCE WITH ALL APPLICABLE MANUFACTURER GUIDELINES AND DETAILS.
15. THE STEGO WRAP 20-mil VAPOR BARRIER WAS INSTALLED BY A MANUFACTURER-CERTIFIED INSTALLER.
16. THE STEGO WRAP 20-mil VAPOR BARRIER WAS INSPECTED IMMEDIATELY BEFORE CONCRETE PLACEMENT. ALL PENETRATIONS, HOLES, OR TEARS WERE SEALED BEFORE CONCRETE IS PLACED.
17. CONTRACTOR PROVIDED AS-BUILT DRAWINGS OF COMPLETE SSDS TO ENGINEER FOLLOWING INSTALLATION.
18. SSDS MONITORING PIPING WAS CONSTRUCTED OF 1/2-INCH SCHEDULE 40 PVC PIPE AND EACH PIPE WAS CAPPED AND FITTED WITH A BARBED BALL VALVE.
19. 3/4" CLEAN COARSE AGGREGATE MET THE FOLLOWING GRADATION SPECIFICATION:

SIEVE SIZE	% PASSING BY WEIGHT
1 ½ – INCH	100
1 – INCH	90-100
½ – INCH	0-5
200	< 1

20. ARCHITECT AND STRUCTURAL ENGINEER CONFIRMED ACCEPTABILITY OF DETAIL 11 AND ANY WALL OR FOUNDATION PENETRATIONS
21. THE LOCATION OF ALL INTERIOR MONITORING POINTS WERE COORDINATED WITH ARCHITECT, STRUCTURAL, AND MECHANICAL ENGINEERS TO MINIMIZE CONFLICTS WITH WALKWAYS AND TENANT SPACES.

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28. SPECIFICATION SECTION 026216 – SUB-SLAB DEPRESSURIZATION SYSTEM.
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DETAIL REFERENCES

DETAIL #	BASE REFERENCE
DETAIL 1	COLUMN TO CONCRETE SLAB BASE DRAWING DETAIL TAKEN FROM RTKL FOUNDATIONS SECTIONS AND DETAILS SECTION 303 DATED 25 JULY 2013
DETAIL 3	JOIST TO COLUMN BASE DRAWING DETAIL TAKEN FROM RTKL TYPICAL FRAMING DETAILS S-401 DATED 25 JULY 2013
DETAIL 5	ROOF PENETRATION DETAIL BASE DRAWING PROVIDED TO LANGAN BY RTKL ON 2 OCTOBER 2013
DETAIL 8	MANHOLE PENETRATION DETAIL BASE DRAWING PROVIDED TO LANGAN BY RTKL ON 2 OCTOBER 2013

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Date	Description	No.
REVISIONS		

STATE OF NEW YORK JOEL B. LANDES 076348 LICENSED PROFESSIONAL ENGINEER

SIGNATURE 11/13/14 DATE SIGNED

JOEL B. LANDES
NEW YORK STATE PROFESSIONAL ENGINEER
STATE LIC. No. 076348

LANGAN
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T: 203.562.5771 F: 203.789.6142 www.langan.com
NEW JERSEY NEW YORK VIRGINIA CALIFORNIA PENNSYLVANIA CONNECTICUT FLORIDA ABU DHABI ATHENS DOHA DUBAI ISTANBUL
Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan International LLC
Collectively known as Langan

Project	FONF EXPANSION/SABRE PARK BCP
	TOWN OF NIAGARA
	NIAGARA COUNTY NEW YORK
Drawing Title	FONF MALL EXPANSION SSDS AS-BUILT DETAILS
Project No.	140091401
Date	10 NOVEMBER 2014
Scale	NTS
Drawn By	JPH
Checked By	RJW
Submission Date	15 NOVEMBER 2014
	SSDS - 4
	Sheet 4 of 4

Filename: \\langan.com\data\NH\data4\140091401\Cadd Data - 140091401\2D-DesignFiles\SSDS\Mall\AS_BUILT_Mall SSDS.dwg Date: 11/13/2014 Time: 14:34 User: jhall Style Table: Langan.stb Layout: DETAIL

LANGAN

ATTACHMENT 2

Laboratory Analytical Report

Technical Report

prepared for:

Langan Engineering & Environmental Services (CT)
Long Wharf Maritime Center, 555 Long Wharf Drive
New Haven CT, 06511
Attention: Justin Hall

Report Date: 07/05/2018
Client Project ID: 140091417
York Project (SDG) No.: 18F1218

Report Date: 07/05/2018
Client Project ID: 140091417
York Project (SDG) No.: 18F1218

Langan Engineering & Environmental Services (CT)
Long Wharf Maritime Center, 555 Long Wharf Drive
New Haven CT, 06511
Attention: Justin Hall

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on June 27, 2018 and listed below. The project was identified as your project: **140091417**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

York Sample ID	Client Sample ID	Matrix	Date Collected	Date Received
18F1218-01	SV-05	Soil Vapor	06/26/2018	06/27/2018
18F1218-02	SV-12	Soil Vapor	06/26/2018	06/27/2018
18F1218-03	SV-11	Soil Vapor	06/26/2018	06/27/2018
18F1218-04	SV-09	Soil Vapor	06/26/2018	06/27/2018
18F1218-05	SV-04	Soil Vapor	06/26/2018	06/27/2018
18F1218-06	SV-07	Soil Vapor	06/26/2018	06/27/2018
18F1218-07	SV-02	Soil Vapor	06/26/2018	06/27/2018
18F1218-08	SV-14	Soil Vapor	06/26/2018	06/27/2018
18F1218-09	SV-13	Soil Vapor	06/26/2018	06/27/2018
18F1218-10	SV-10	Soil Vapor	06/26/2018	06/27/2018
18F1218-11	SV-03	Soil Vapor	06/26/2018	06/27/2018
18F1218-12	SV-01	Soil Vapor	06/26/2018	06/27/2018
18F1218-13	2018.06.26-SVDUP01	Soil Vapor	06/26/2018	06/27/2018
18F1218-14	2018.06.26-OA01	Outdoor Ambient Ai	06/26/2018	06/27/2018

General Notes for York Project (SDG) No.: 18F1218

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

Approved By:  **Date:** 07/05/2018

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: SV-05 **York Sample ID:** 18F1218-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 10:21 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.0	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:			
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.83	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.0	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.2	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.83	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.62	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.15	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.1	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-63-6	**1,2,4-Trimethylbenzene**	**5.4**		ug/m³	0.75	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.2	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.92	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.62	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.71	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	1.1	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-67-8	**1,3,5-Trimethylbenzene**	**1.9**		ug/m³	0.75	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-99-0	1,3-Butadiene	ND		ug/m³	1.0	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.92	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.71	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:			
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.92	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
123-91-1	1,4-Dioxane	ND		ug/m³	1.1	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-93-3	**2-Butanone**	**18**		ug/m³	0.45	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV-05** **York Sample ID:** **18F1218-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 10:21 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	1.3	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:			
107-05-1	3-Chloropropene	ND		ug/m³	2.4	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-10-1	**4-Methyl-2-pentanone**	**0.81**		ug/m³	0.63	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**5.2**		ug/m³	0.73	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	Acrylonitrile	ND		ug/m³	0.33	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	Benzene	ND		ug/m³	0.49	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.79	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	1.0	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	1.6	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND		ug/m³	0.59	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	**Carbon disulfide**	**7.8**		ug/m³	0.48	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	**Carbon tetrachloride**	**0.38**		ug/m³	0.24	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.70	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND		ug/m³	0.40	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	Chloroform	ND		ug/m³	0.75	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	**Chloromethane**	**3.4**		ug/m³	0.32	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.15	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.69	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	Cyclohexane	ND		ug/m³	0.53	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	1.3	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**2.3**		ug/m³	0.76	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV-05** **York Sample ID:** **18F1218-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 10:21 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
141-78-6	* Ethyl acetate	ND		ug/m³	1.1	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:			
100-41-4	**Ethyl Benzene**	**0.93**		ug/m³	0.66	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.6	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	**Isopropanol**	**1.4**		ug/m³	0.75	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
80-62-6	Methyl Methacrylate	ND		ug/m³	0.63	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.55	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	**Methylene chloride**	**1.3**		ug/m³	1.1	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	**n-Heptane**	**1.1**		ug/m³	0.63	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	**n-Hexane**	**1.8**		ug/m³	0.54	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	**o-Xylene**	**1.4**		ug/m³	0.66	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**3.1**		ug/m³	1.3	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	*** p-Ethyltoluene**	**3.1**		ug/m³	0.75	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:			
115-07-1	* Propylene	ND		ug/m³	0.26	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:			
100-42-5	Styrene	ND		ug/m³	0.65	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**3.1**		ug/m³	0.26	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	*** Tetrahydrofuran**	**67**		ug/m³	0.90	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:			
108-88-3	**Toluene**	**2.5**		ug/m³	0.58	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.61	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.69	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	**Trichloroethylene**	**0.41**		ug/m³	0.21	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	**Trichlorofluoromethane (Freon 11)**	**1.3**		ug/m³	0.86	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SV-05 **York Sample ID:** 18F1218-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 10:21 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		ug/m³	0.54	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND		ug/m³	0.67	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	Vinyl Chloride	ND		ug/m³	0.098	1.529	EPA TO-15	06/28/2018 17:35	06/28/2018 17:35	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: p-Bromofluorobenzene*	*104 %*	*70-130*

Sample Information

Client Sample ID: SV-12 **York Sample ID:** 18F1218-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 10:33 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.1	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:			
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.85	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.1	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.2	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.85	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.63	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.16	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.2	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-63-6	**1,2,4-Trimethylbenzene**	**2.5**		ug/m³	0.77	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.2	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.94	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.63	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.72	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	1.1	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-67-8	**1,3,5-Trimethylbenzene**	**0.77**		ug/m³	0.77	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-99-0	1,3-Butadiene	ND		ug/m³	1.0	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.94	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.72	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:			
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.94	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
123-91-1	1,4-Dioxane	ND		ug/m³	1.1	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-93-3	**2-Butanone**	**88**		ug/m³	0.46	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV-12** **York Sample ID:** **18F1218-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 10:33 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	1.3	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:			
107-05-1	3-Chloropropene	ND		ug/m³	2.4	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.64	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**53**		ug/m³	0.74	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	Acrylonitrile	ND		ug/m³	0.34	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	Benzene	ND		ug/m³	0.50	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.81	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	1.0	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	1.6	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND		ug/m³	0.61	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	Carbon disulfide	ND		ug/m³	0.49	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	**Carbon tetrachloride**	**0.39**		ug/m³	0.25	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.72	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND		ug/m³	0.41	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	Chloroform	ND		ug/m³	0.76	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	Chloromethane	ND		ug/m³	0.32	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.16	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.71	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	Cyclohexane	ND		ug/m³	0.54	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	1.3	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**2.2**		ug/m³	0.77	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SV-12 **York Sample ID:** 18F1218-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 10:33 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
141-78-6	* Ethyl acetate	ND		ug/m³	1.1	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:			
100-41-4	**Ethyl Benzene**	**0.88**		ug/m³	0.68	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.7	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	**Isopropanol**	**2.7**		ug/m³	0.77	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
80-62-6	Methyl Methacrylate	ND		ug/m³	0.64	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.56	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	**Methylene chloride**	**7.0**		ug/m³	1.1	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	n-Heptane	ND		ug/m³	0.64	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	n-Hexane	ND		ug/m³	0.55	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	**o-Xylene**	**1.4**		ug/m³	0.68	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**3.2**		ug/m³	1.4	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	*** p-Ethyltoluene**	**1.5**		ug/m³	0.77	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:			
115-07-1	*** Propylene**	**0.35**		ug/m³	0.27	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:			
100-42-5	Styrene	ND		ug/m³	0.67	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**2.9**		ug/m³	0.27	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	*** Tetrahydrofuran**	**150**		ug/m³	0.92	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:			
108-88-3	**Toluene**	**2.8**		ug/m³	0.59	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.62	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.71	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	**Trichloroethylene**	**0.42**		ug/m³	0.21	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	**Trichlorofluoromethane (Freon 11)**	**1.5**		ug/m³	0.88	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SV-12 **York Sample ID:** 18F1218-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 10:33 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		ug/m³	0.55	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND		ug/m³	0.68	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	Vinyl Chloride	ND		ug/m³	0.10	1.564	EPA TO-15	06/28/2018 18:28	06/28/2018 18:28	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: p-Bromofluorobenzene*	*103 %*	*70-130*

Sample Information

Client Sample ID: **SV-11** **York Sample ID:** **18F1218-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 10:42 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.0	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:			
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.83	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.0	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.2	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.83	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.62	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.15	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.1	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-63-6	**1,2,4-Trimethylbenzene**	**1.1**		ug/m³	0.75	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.2	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.92	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.62	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.70	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	1.1	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.75	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-99-0	1,3-Butadiene	ND		ug/m³	1.0	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.92	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.70	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:			
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.92	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
123-91-1	1,4-Dioxane	ND		ug/m³	1.1	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-93-3	**2-Butanone**	**33**		ug/m³	0.45	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV-11** **York Sample ID:** **18F1218-03**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 10:42 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	*** 2-Hexanone**	**2.7**		ug/m³	1.2	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:			
107-05-1	3-Chloropropene	ND		ug/m³	2.4	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.62	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**15**		ug/m³	0.72	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	Acrylonitrile	ND		ug/m³	0.33	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	Benzene	ND		ug/m³	0.49	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.79	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	1.0	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	1.6	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND		ug/m³	0.59	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	**Carbon disulfide**	**0.81**		ug/m³	0.47	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	Carbon tetrachloride	ND		ug/m³	0.24	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.70	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND		ug/m³	0.40	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	Chloroform	ND		ug/m³	0.74	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	Chloromethane	ND		ug/m³	0.31	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.15	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.69	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	Cyclohexane	ND		ug/m³	0.52	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	1.3	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**2.2**		ug/m³	0.75	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SV-11 **York Sample ID:** 18F1218-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 10:42 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
141-78-6	* Ethyl acetate	ND		ug/m³	1.1	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:			
100-41-4	**Ethyl Benzene**	**0.73**		ug/m³	0.66	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.6	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	**Isopropanol**	**2.6**		ug/m³	0.75	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
80-62-6	Methyl Methacrylate	ND		ug/m³	0.62	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.55	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	Methylene chloride	ND		ug/m³	1.1	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	n-Heptane	ND		ug/m³	0.62	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	**n-Hexane**	**0.64**		ug/m³	0.54	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	**o-Xylene**	**1.1**		ug/m³	0.66	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**2.7**		ug/m³	1.3	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	* **p-Ethyltoluene**	**0.90**		ug/m³	0.75	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:			
115-07-1	* Propylene	ND		ug/m³	0.26	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:			
100-42-5	Styrene	ND		ug/m³	0.65	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**2.5**		ug/m³	0.26	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	* **Tetrahydrofuran**	**61**		ug/m³	0.90	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:			
108-88-3	**Toluene**	**2.8**		ug/m³	0.57	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.60	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.69	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	**Trichloroethylene**	**0.41**		ug/m³	0.20	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	**Trichlorofluoromethane (Freon 11)**	**1.4**		ug/m³	0.86	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SV-11 **York Sample ID:** 18F1218-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 10:42 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		ug/m³	0.54	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND		ug/m³	0.67	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	Vinyl Chloride	ND		ug/m³	0.097	1.523	EPA TO-15	06/28/2018 19:20	06/28/2018 19:20	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: p-Bromofluorobenzene*	*100 %*	*70-130*

Sample Information

Client Sample ID: **SV-09** **York Sample ID:** **18F1218-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 10:52 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.1	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:			
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.85	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.1	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.2	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.85	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-34-3	**1,1-Dichloroethane**	**6.1**		ug/m³	0.63	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.16	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.2	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-63-6	**1,2,4-Trimethylbenzene**	**3.2**		ug/m³	0.77	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.2	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.94	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.63	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.72	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	1.1	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-67-8	**1,3,5-Trimethylbenzene**	**0.92**		ug/m³	0.77	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-99-0	1,3-Butadiene	ND		ug/m³	1.0	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.94	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.72	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:			
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.94	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
123-91-1	1,4-Dioxane	ND		ug/m³	1.1	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-93-3	**2-Butanone**	**54**		ug/m³	0.46	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV-09** **York Sample ID:** **18F1218-04**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 10:52 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	1.3	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:			
107-05-1	3-Chloropropene	ND		ug/m³	2.4	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.64	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**41**		ug/m³	0.74	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	**Acrylonitrile**	**2.6**		ug/m³	0.34	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	Benzene	ND		ug/m³	0.50	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.81	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	1.0	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	1.6	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND		ug/m³	0.61	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	**Carbon disulfide**	**1.3**		ug/m³	0.49	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	**Carbon tetrachloride**	**0.30**		ug/m³	0.25	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.72	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND		ug/m³	0.41	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	Chloroform	ND		ug/m³	0.76	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	Chloromethane	ND		ug/m³	0.32	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.16	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.71	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	Cyclohexane	ND		ug/m³	0.54	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	1.3	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**2.1**		ug/m³	0.77	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SV-09 **York Sample ID:** 18F1218-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 10:52 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
141-78-6	* Ethyl acetate	ND		ug/m³	1.1	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:			
100-41-4	**Ethyl Benzene**	**0.95**		ug/m³	0.68	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.7	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	**Isopropanol**	**2.7**		ug/m³	0.77	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
80-62-6	Methyl Methacrylate	ND		ug/m³	0.64	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.56	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	**Methylene chloride**	**2.6**		ug/m³	1.1	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	**n-Heptane**	**0.64**		ug/m³	0.64	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	**n-Hexane**	**2.4**		ug/m³	0.55	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	**o-Xylene**	**1.3**		ug/m³	0.68	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**3.3**		ug/m³	1.4	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	*** p-Ethyltoluene**	**2.2**		ug/m³	0.77	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:			
115-07-1	* Propylene	ND		ug/m³	0.27	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:			
100-42-5	**Styrene**	**1.1**		ug/m³	0.67	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**4.3**		ug/m³	0.27	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	*** Tetrahydrofuran**	**100**		ug/m³	0.92	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:			
108-88-3	**Toluene**	**3.4**		ug/m³	0.59	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.62	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.71	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	**Trichloroethylene**	**2.8**		ug/m³	0.21	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	**Trichlorofluoromethane (Freon 11)**	**1.3**		ug/m³	0.88	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SV-09 **York Sample ID:** 18F1218-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 10:52 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		ug/m³	0.55	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND		ug/m³	0.68	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	Vinyl Chloride	ND		ug/m³	0.10	1.564	EPA TO-15	06/28/2018 20:12	06/28/2018 20:12	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: p-Bromofluorobenzene*	*102 %*	*70-130*

Sample Information

Client Sample ID: SV-04 **York Sample ID:** 18F1218-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 11:17 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.1	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:			
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.87	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.1	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.2	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.87	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.65	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.16	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.2	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-63-6	**1,2,4-Trimethylbenzene**	**1.6**		ug/m³	0.78	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.2	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.96	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.65	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.74	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	1.1	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.78	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-99-0	1,3-Butadiene	ND		ug/m³	1.1	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.96	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.74	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:			
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.96	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
123-91-1	1,4-Dioxane	ND		ug/m³	1.1	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-93-3	**2-Butanone**	**5500**		ug/m³	19	63.8	EPA TO-15	06/29/2018 08:11	06/29/2018 08:11	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV-04** **York Sample ID:** **18F1218-05**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 11:17 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	*** 2-Hexanone**	**7.8**		ug/m³	1.3	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:			
107-05-1	3-Chloropropene	ND		ug/m³	2.5	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.65	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**1400**		ug/m³	61	127.6	EPA TO-15	06/29/2018 15:11	06/29/2018 15:11	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	**Acrylonitrile**	**1.5**		ug/m³	0.35	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	Benzene	ND		ug/m³	0.51	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.83	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	1.1	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	1.6	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND		ug/m³	0.62	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	**Carbon disulfide**	**18**		ug/m³	0.50	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	**Carbon tetrachloride**	**0.40**		ug/m³	0.25	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.73	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND		ug/m³	0.42	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	Chloroform	ND		ug/m³	0.78	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	Chloromethane	ND		ug/m³	0.33	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.16	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.72	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	Cyclohexane	ND		ug/m³	0.55	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	1.4	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**2.0**		ug/m³	0.79	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SV-04 **York Sample ID:** 18F1218-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 11:17 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
141-78-6	* Ethyl acetate	ND		ug/m³	1.1	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:			
100-41-4	**Ethyl Benzene**	**0.90**		ug/m³	0.69	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.7	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	**Isopropanol**	**4.2**		ug/m³	0.78	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
80-62-6	Methyl Methacrylate	ND		ug/m³	0.65	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.58	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	**Methylene chloride**	**1.1**		ug/m³	1.1	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	n-Heptane	ND		ug/m³	0.65	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	**n-Hexane**	**1.4**		ug/m³	0.56	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	**o-Xylene**	**1.3**		ug/m³	0.69	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**3.5**		ug/m³	1.4	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	*** p-Ethyltoluene**	**1.4**		ug/m³	0.78	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:			
115-07-1	* Propylene	ND		ug/m³	0.27	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:			
100-42-5	Styrene	ND		ug/m³	0.68	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**2.6**		ug/m³	0.27	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	*** Tetrahydrofuran**	**140**		ug/m³	0.94	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:			
108-88-3	**Toluene**	**3.7**		ug/m³	0.60	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.63	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.72	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	**Trichloroethylene**	**0.60**		ug/m³	0.21	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	**Trichlorofluoromethane (Freon 11)**	**1.3**		ug/m³	0.90	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SV-04 **York Sample ID:** 18F1218-05

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 11:17 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		ug/m³	0.56	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND		ug/m³	0.70	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	Vinyl Chloride	ND		ug/m³	0.10	1.595	EPA TO-15	06/28/2018 21:04	06/28/2018 21:04	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: p-Bromofluorobenzene*	*102 %*	*70-130*

Sample Information

Client Sample ID: SV-07 **York Sample ID:** 18F1218-06

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 11:46 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.1	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:			
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.85	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.1	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.2	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.85	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.63	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.15	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.2	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-63-6	**1,2,4-Trimethylbenzene**	**3.3**		ug/m³	0.77	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.2	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.94	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.63	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.72	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	1.1	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-67-8	**1,3,5-Trimethylbenzene**	**1.1**		ug/m³	0.77	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-99-0	1,3-Butadiene	ND		ug/m³	1.0	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.94	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.72	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:			
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.94	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
123-91-1	1,4-Dioxane	ND		ug/m³	1.1	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-93-3	**2-Butanone**	**50**		ug/m³	0.46	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SV-07 **York Sample ID:** 18F1218-06

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 11:46 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	1.3	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:			
107-05-1	3-Chloropropene	ND		ug/m³	2.4	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.64	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**28**		ug/m³	0.74	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	**Acrylonitrile**	**2.5**		ug/m³	0.34	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	Benzene	ND		ug/m³	0.50	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.81	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	1.0	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	1.6	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND		ug/m³	0.60	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	**Carbon disulfide**	**2.1**		ug/m³	0.49	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	**Carbon tetrachloride**	**0.29**		ug/m³	0.25	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.72	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND		ug/m³	0.41	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	Chloroform	ND		ug/m³	0.76	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	Chloromethane	ND		ug/m³	0.32	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.15	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.71	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	Cyclohexane	ND		ug/m³	0.54	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	1.3	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**1.9**		ug/m³	0.77	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SV-07 **York Sample ID:** 18F1218-06

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 11:46 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
141-78-6	* Ethyl acetate	ND		ug/m³	1.1	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:			
100-41-4	**Ethyl Benzene**	**0.95**		ug/m³	0.68	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.7	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	**Isopropanol**	**1.7**		ug/m³	0.77	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
80-62-6	Methyl Methacrylate	ND		ug/m³	0.64	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.56	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	Methylene chloride	ND		ug/m³	1.1	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	**n-Heptane**	**0.70**		ug/m³	0.64	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	**n-Hexane**	**0.60**		ug/m³	0.55	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	**o-Xylene**	**1.4**		ug/m³	0.68	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**3.2**		ug/m³	1.4	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	*** p-Ethyltoluene**	**2.1**		ug/m³	0.77	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:			
115-07-1	*** Propylene**	**0.27**		ug/m³	0.27	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:			
100-42-5	**Styrene**	**1.2**		ug/m³	0.66	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**2.7**		ug/m³	0.26	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	*** Tetrahydrofuran**	**110**		ug/m³	0.92	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:			
108-88-3	**Toluene**	**2.5**		ug/m³	0.59	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.62	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.71	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	**Trichloroethylene**	**0.25**		ug/m³	0.21	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	**Trichlorofluoromethane (Freon 11)**	**1.5**		ug/m³	0.88	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SV-07 **York Sample ID:** 18F1218-06

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 11:46 am	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		ug/m³	0.55	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND		ug/m³	0.68	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	Vinyl Chloride	ND		ug/m³	0.10	1.558	EPA TO-15	06/28/2018 21:56	06/28/2018 21:56	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: p-Bromofluorobenzene*	*101 %*	*70-130*

Sample Information

Client Sample ID: SV-02 **York Sample ID:** 18F1218-07

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 12:11 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.1	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:			
71-55-6	1,1,1-Trichloroethane	ND	IS-LO	ug/m³	0.87	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.1	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	IS-LO	ug/m³	1.2	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.87	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-34-3	1,1-Dichloroethane	ND	IS-LO	ug/m³	0.65	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-35-4	1,1-Dichloroethylene	ND	IS-LO	ug/m³	0.16	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.2	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-63-6	**1,2,4-Trimethylbenzene**	**1.3**		ug/m³	0.78	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.2	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.96	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-06-2	1,2-Dichloroethane	ND	IS-LO	ug/m³	0.65	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.74	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-14-2	1,2-Dichlorotetrafluoroethane	ND	IS-LO	ug/m³	1.1	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.78	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-99-0	1,3-Butadiene	ND	IS-LO	ug/m³	1.1	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
541-73-1	**1,3-Dichlorobenzene**	**2.3**		ug/m³	0.96	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.74	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:			
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.96	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
123-91-1	1,4-Dioxane	ND		ug/m³	1.1	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-93-3	**2-Butanone**	**1200**		ug/m³	19	63.8	EPA TO-15	06/29/2018 08:57	06/29/2018 08:57	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV-02** **York Sample ID:** **18F1218-07**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 12:11 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	1.3	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:			
107-05-1	3-Chloropropene	ND	IS-LO	ug/m³	2.5	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.65	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**1500**		ug/m³	30	63.8	EPA TO-15	06/29/2018 08:57	06/29/2018 08:57	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	Acrylonitrile	ND	IS-LO	ug/m³	0.35	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	**Benzene**	**0.87**	IS-LO	ug/m³	0.51	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.83	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	1.1	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	1.6	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND	IS-LO	ug/m³	0.62	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	**Carbon disulfide**	**33**	IS-LO	ug/m³	0.50	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	**Carbon tetrachloride**	**1.1**	IS-LO	ug/m³	0.25	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.73	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND	IS-LO	ug/m³	0.42	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	Chloroform	ND	IS-LO	ug/m³	0.78	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	Chloromethane	ND	IS-LO	ug/m³	0.33	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	cis-1,2-Dichloroethylene	ND	IS-LO	ug/m³	0.16	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.72	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	Cyclohexane	ND	IS-LO	ug/m³	0.55	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	1.4	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**6.0**	IS-LO	ug/m³	0.79	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV-02** **York Sample ID:** **18F1218-07**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 12:11 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
141-78-6	* Ethyl acetate	ND	IS-LO	ug/m³	1.1	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:			
100-41-4	Ethyl Benzene	ND		ug/m³	0.69	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.7	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	**Isopropanol**	**36**	IS-LO	ug/m³	0.78	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
80-62-6	Methyl Methacrylate	ND		ug/m³	0.65	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND	IS-LO	ug/m³	0.58	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	**Methylene chloride**	**2.0**	IS-LO	ug/m³	1.1	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	n-Heptane	ND	IS-LO	ug/m³	0.65	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	**n-Hexane**	**1.6**	IS-LO	ug/m³	0.56	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	o-Xylene	ND		ug/m³	0.69	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**1.9**		ug/m³	1.4	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	*** p-Ethyltoluene**	**1.3**		ug/m³	0.78	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:			
115-07-1	*** Propylene**	**0.99**	IS-LO	ug/m³	0.27	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:			
100-42-5	**Styrene**	**1.8**		ug/m³	0.68	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**2.5**		ug/m³	0.27	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	*** Tetrahydrofuran**	**620**		ug/m³	75	127.6	EPA TO-15	06/29/2018 15:56	06/29/2018 15:56	LDS
							Certifications:			
108-88-3	**Toluene**	**3.3**		ug/m³	0.60	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND	IS-LO	ug/m³	0.63	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.72	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	**Trichloroethylene**	**0.26**		ug/m³	0.21	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	**Trichlorofluoromethane (Freon 11)**	**3.5**	IS-LO	ug/m³	0.90	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SV-02 **York Sample ID:** 18F1218-07

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 12:11 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND	IS-LO	ug/m³	0.56	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND	IS-LO	ug/m³	0.70	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	Vinyl Chloride	ND	IS-LO	ug/m³	0.10	1.595	EPA TO-15	06/28/2018 22:48	06/28/2018 22:48	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: p-Bromofluorobenzene*	*107 %*	*70-130*

Sample Information

Client Sample ID: **SV-14** **York Sample ID:** **18F1218-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 3:38 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.1	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:			
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.84	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.1	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.2	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.84	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.63	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.15	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.1	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-63-6	**1,2,4-Trimethylbenzene**	**5.7**		ug/m³	0.76	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.2	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.93	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.63	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.71	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	1.1	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-67-8	**1,3,5-Trimethylbenzene**	**1.9**		ug/m³	0.76	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-99-0	1,3-Butadiene	ND		ug/m³	1.0	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.93	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.71	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:			
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.93	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
123-91-1	1,4-Dioxane	ND		ug/m³	1.1	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-93-3	**2-Butanone**	**41**		ug/m³	0.46	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV-14** **York Sample ID:** **18F1218-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 3:38 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	1.3	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:			
107-05-1	3-Chloropropene	ND		ug/m³	2.4	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-10-1	**4-Methyl-2-pentanone**	**6.4**		ug/m³	0.63	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**63**		ug/m³	0.73	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	Acrylonitrile	ND		ug/m³	0.34	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	**Benzene**	**3.3**		ug/m³	0.49	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.80	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	1.0	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	1.6	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND		ug/m³	0.60	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	**Carbon disulfide**	**0.96**		ug/m³	0.48	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	**Carbon tetrachloride**	**0.58**		ug/m³	0.24	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.71	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND		ug/m³	0.41	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	Chloroform	ND		ug/m³	0.75	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	**Chloromethane**	**2.6**		ug/m³	0.32	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.15	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.70	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	**Cyclohexane**	**2.6**		ug/m³	0.53	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	1.3	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**50**		ug/m³	0.76	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV-14** **York Sample ID:** **18F1218-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 3:38 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
141-78-6	*** Ethyl acetate**	**19**		ug/m³	1.1	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:			
100-41-4	**Ethyl Benzene**	**9.7**		ug/m³	0.67	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.6	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	**Isopropanol**	**45**		ug/m³	0.76	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
80-62-6	Methyl Methacrylate	ND		ug/m³	0.63	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.56	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	**Methylene chloride**	**4.1**		ug/m³	1.1	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	**n-Heptane**	**6.4**		ug/m³	0.63	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	**n-Hexane**	**8.8**		ug/m³	0.54	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	**o-Xylene**	**8.5**		ug/m³	0.67	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**31**		ug/m³	1.3	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	*** p-Ethyltoluene**	**5.6**		ug/m³	0.76	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:			
115-07-1	*** Propylene**	**2.3**		ug/m³	0.27	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:			
100-42-5	**Styrene**	**2.8**		ug/m³	0.66	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**2.8**		ug/m³	0.26	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	*** Tetrahydrofuran**	**32**		ug/m³	0.91	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:			
108-88-3	**Toluene**	**63**		ug/m³	0.58	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.61	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.70	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	Trichloroethylene	ND		ug/m³	0.21	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	**Trichlorofluoromethane (Freon 11)**	**1.8**		ug/m³	0.87	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV-14** **York Sample ID:** **18F1218-08**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 3:38 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		ug/m³	0.54	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND		ug/m³	0.68	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	Vinyl Chloride	ND		ug/m³	0.099	1.546	EPA TO-15	06/28/2018 23:41	06/28/2018 23:41	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: p-Bromofluorobenzene*	*108 %*	*70-130*

Sample Information

Client Sample ID: **SV-13** **York Sample ID:** **18F1218-09**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 4:06 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.1	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:			
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.88	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.1	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.2	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.88	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.66	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.16	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.2	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-63-6	**1,2,4-Trimethylbenzene**	**3.5**		ug/m³	0.80	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.2	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.97	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.66	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.75	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	1.1	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-67-8	**1,3,5-Trimethylbenzene**	**1.3**		ug/m³	0.80	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-99-0	1,3-Butadiene	ND		ug/m³	1.1	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.97	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.75	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:			
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.97	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
123-91-1	1,4-Dioxane	ND		ug/m³	1.2	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-93-3	**2-Butanone**	**15**		ug/m³	0.48	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV-13** **York Sample ID:** **18F1218-09**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 4:06 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	1.3	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:			
107-05-1	3-Chloropropene	ND		ug/m³	2.5	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-10-1	**4-Methyl-2-pentanone**	**0.73**		ug/m³	0.66	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**8.8**		ug/m³	0.77	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	Acrylonitrile	ND		ug/m³	0.35	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	Benzene	ND		ug/m³	0.52	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.84	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	1.1	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	1.7	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND		ug/m³	0.63	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	**Carbon disulfide**	**11**		ug/m³	0.50	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	**Carbon tetrachloride**	**0.31**		ug/m³	0.25	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.75	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND		ug/m³	0.43	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	Chloroform	ND		ug/m³	0.79	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	**Chloromethane**	**5.7**		ug/m³	0.33	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	**cis-1,2-Dichloroethylene**	**0.51**		ug/m³	0.16	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.74	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	Cyclohexane	ND		ug/m³	0.56	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	1.4	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**1.9**		ug/m³	0.80	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SV-13 **York Sample ID:** 18F1218-09

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 4:06 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
141-78-6	* Ethyl acetate	ND		ug/m³	1.2	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:			
100-41-4	**Ethyl Benzene**	**0.77**		ug/m³	0.70	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.7	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	**Isopropanol**	**1.4**		ug/m³	0.80	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
80-62-6	Methyl Methacrylate	ND		ug/m³	0.66	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.58	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	Methylene chloride	ND		ug/m³	1.1	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	**n-Heptane**	**0.66**		ug/m³	0.66	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	**n-Hexane**	**0.74**		ug/m³	0.57	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	**o-Xylene**	**1.1**		ug/m³	0.70	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**2.7**		ug/m³	1.4	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	*** p-Ethyltoluene**	**2.4**		ug/m³	0.80	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:			
115-07-1	*** Propylene**	**0.28**		ug/m³	0.28	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:			
100-42-5	Styrene	ND		ug/m³	0.69	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**2.9**		ug/m³	0.27	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	*** Tetrahydrofuran**	**230**	E	ug/m³	0.96	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:			
108-88-3	**Toluene**	**2.7**		ug/m³	0.61	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.64	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.74	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	**Trichloroethylene**	**1.7**		ug/m³	0.22	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	**Trichlorofluoromethane (Freon 11)**	**1.2**		ug/m³	0.91	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SV-13 **York Sample ID:** 18F1218-09

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 4:06 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		ug/m³	0.57	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND		ug/m³	0.71	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	Vinyl Chloride	ND		ug/m³	0.10	1.621	EPA TO-15	06/29/2018 00:33	06/29/2018 00:33	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: p-Bromofluorobenzene*	*98.9 %*	*70-130*

Sample Information

Client Sample ID: **SV-10** **York Sample ID:** **18F1218-10**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 4:30 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.1	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:			
71-55-6	1,1,1-Trichloroethane	ND	IS-LO	ug/m³	0.90	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.1	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	IS-LO	ug/m³	1.3	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.90	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-34-3	1,1-Dichloroethane	ND	IS-LO	ug/m³	0.67	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-35-4	1,1-Dichloroethylene	ND	IS-LO	ug/m³	0.16	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.2	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-63-6	**1,2,4-Trimethylbenzene**	**1.4**		ug/m³	0.81	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.3	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.99	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-06-2	1,2-Dichloroethane	ND	IS-LO	ug/m³	0.67	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.76	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-14-2	1,2-Dichlorotetrafluoroethane	ND	IS-LO	ug/m³	1.2	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.81	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-99-0	1,3-Butadiene	ND	IS-LO	ug/m³	1.1	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
541-73-1	**1,3-Dichlorobenzene**	**2.1**		ug/m³	0.99	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.76	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:			
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.99	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
123-91-1	1,4-Dioxane	ND		ug/m³	1.2	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-93-3	**2-Butanone**	**500**		ug/m³	19	65.92	EPA TO-15	06/29/2018 09:42	06/29/2018 09:42	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV-10** **York Sample ID:** **18F1218-10**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 4:30 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	1.4	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:			
107-05-1	3-Chloropropene	ND	IS-LO	ug/m³	2.6	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.68	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**330**		ug/m³	31	65.92	EPA TO-15	06/29/2018 09:42	06/29/2018 09:42	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	**Acrylonitrile**	**12**	IS-LO	ug/m³	0.36	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	**Benzene**	**0.90**	IS-LO	ug/m³	0.53	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.85	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	1.1	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	1.7	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND	IS-LO	ug/m³	0.64	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	**Carbon disulfide**	**3.9**	IS-LO	ug/m³	0.51	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	**Carbon tetrachloride**	**0.83**	IS-LO	ug/m³	0.26	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.76	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND	IS-LO	ug/m³	0.43	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	Chloroform	ND	IS-LO	ug/m³	0.80	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	**Chloromethane**	**3.9**	IS-LO	ug/m³	0.34	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	cis-1,2-Dichloroethylene	ND	IS-LO	ug/m³	0.16	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.75	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	Cyclohexane	ND	IS-LO	ug/m³	0.57	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	1.4	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**4.2**	IS-LO	ug/m³	0.81	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV-10** **York Sample ID:** **18F1218-10**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 4:30 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
141-78-6	*** Ethyl acetate**	**11**	IS-LO	ug/m³	1.2	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:			
100-41-4	**Ethyl Benzene**	**0.93**		ug/m³	0.72	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.8	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	**Isopropanol**	**10**	IS-LO	ug/m³	0.81	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
80-62-6	Methyl Methacrylate	ND		ug/m³	0.67	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND	IS-LO	ug/m³	0.59	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	**Methylene chloride**	**1.8**	IS-LO	ug/m³	1.1	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	**n-Heptane**	**3.2**	IS-LO	ug/m³	0.68	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	**n-Hexane**	**2.5**	IS-LO	ug/m³	0.58	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	**o-Xylene**	**0.86**		ug/m³	0.72	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**3.0**		ug/m³	1.4	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	*** p-Ethyltoluene**	**1.1**		ug/m³	0.81	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:			
115-07-1	*** Propylene**	**1.0**	IS-LO	ug/m³	0.28	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:			
100-42-5	Styrene	ND		ug/m³	0.70	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**2.5**		ug/m³	0.28	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	*** Tetrahydrofuran**	**2200**		ug/m³	39	65.92	EPA TO-15	06/29/2018 09:42	06/29/2018 09:42	LDS
							Certifications:			
108-88-3	**Toluene**	**4.5**		ug/m³	0.62	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND	IS-LO	ug/m³	0.65	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.75	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	**Trichloroethylene**	**0.44**		ug/m³	0.22	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	**Trichlorofluoromethane (Freon 11)**	**3.2**	IS-LO	ug/m³	0.93	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SV-10 **York Sample ID:** 18F1218-10

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 4:30 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND	IS-LO	ug/m³	0.58	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND	IS-LO	ug/m³	0.72	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	Vinyl Chloride	ND	IS-LO	ug/m³	0.11	1.648	EPA TO-15	06/29/2018 01:25	06/29/2018 01:25	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: p-Bromofluorobenzene*	*102 %*	*70-130*

Sample Information

Client Sample ID: **SV-03** **York Sample ID:** **18F1218-11**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 4:58 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.1	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:			
71-55-6	**1,1,1-Trichloroethane**	**1.4**		ug/m³	0.91	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.1	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.3	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.91	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.68	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.17	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.2	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-63-6	**1,2,4-Trimethylbenzene**	**1.7**		ug/m³	0.82	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.3	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	1.0	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.68	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.77	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	1.2	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.82	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-99-0	1,3-Butadiene	ND		ug/m³	1.1	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
541-73-1	**1,3-Dichlorobenzene**	**3.4**		ug/m³	1.0	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.77	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:			
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	1.0	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
123-91-1	1,4-Dioxane	ND		ug/m³	1.2	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-93-3	**2-Butanone**	**170**		ug/m³	0.49	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV-03** **York Sample ID:** **18F1218-11**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 4:58 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	1.4	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:			
107-05-1	3-Chloropropene	ND		ug/m³	2.6	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.69	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**150**		ug/m³	16	33.5	EPA TO-15	06/29/2018 13:40	06/29/2018 13:40	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	Acrylonitrile	ND		ug/m³	0.36	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	Benzene	ND		ug/m³	0.54	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.87	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	1.1	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	1.7	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND		ug/m³	0.65	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	**Carbon disulfide**	**13**		ug/m³	0.52	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	**Carbon tetrachloride**	**0.42**		ug/m³	0.26	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.77	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND		ug/m³	0.44	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	Chloroform	ND		ug/m³	0.82	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	**Chloromethane**	**3.2**		ug/m³	0.35	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.17	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.76	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	Cyclohexane	ND		ug/m³	0.58	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	1.4	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**2.4**		ug/m³	0.83	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV-03** **York Sample ID:** **18F1218-11**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 4:58 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
141-78-6	*** Ethyl acetate**	**3.3**		ug/m³	1.2	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:			
100-41-4	**Ethyl Benzene**	**0.73**		ug/m³	0.73	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.8	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	**Isopropanol**	**7.2**		ug/m³	0.82	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
80-62-6	Methyl Methacrylate	ND		ug/m³	0.69	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.60	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	**Methylene chloride**	**1.6**		ug/m³	1.2	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	**n-Heptane**	**1.6**		ug/m³	0.69	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	**n-Hexane**	**0.77**		ug/m³	0.59	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	**o-Xylene**	**0.73**		ug/m³	0.73	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**2.5**		ug/m³	1.5	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	*** p-Ethyltoluene**	**1.5**		ug/m³	0.82	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:			
115-07-1	*** Propylene**	**0.43**		ug/m³	0.29	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:			
100-42-5	Styrene	ND		ug/m³	0.71	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**2.6**		ug/m³	0.28	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	*** Tetrahydrofuran**	**1900**		ug/m³	20	33.5	EPA TO-15	06/29/2018 13:40	06/29/2018 13:40	LDS
							Certifications:			
108-88-3	**Toluene**	**3.5**		ug/m³	0.63	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.66	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.76	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	**Trichloroethylene**	**0.27**		ug/m³	0.23	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	**Trichlorofluoromethane (Freon 11)**	**8.4**		ug/m³	0.94	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: SV-03 **York Sample ID:** 18F1218-11

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 4:58 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		ug/m³	0.59	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND		ug/m³	0.73	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	Vinyl Chloride	ND		ug/m³	0.11	1.675	EPA TO-15	06/29/2018 02:17	06/29/2018 02:17	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: p-Bromofluorobenzene*	*102 %*	*70-130*

Sample Information

Client Sample ID: **SV-01** **York Sample ID:** **18F1218-12**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 5:11 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.1	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:			
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.90	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.1	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	1.3	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.90	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.66	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.16	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.2	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-63-6	**1,2,4-Trimethylbenzene**	**1.3**		ug/m³	0.81	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.3	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.99	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.66	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.76	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	1.1	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.81	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-99-0	1,3-Butadiene	ND		ug/m³	1.1	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
541-73-1	**1,3-Dichlorobenzene**	**1.7**		ug/m³	0.99	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.76	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:			
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.99	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
123-91-1	1,4-Dioxane	ND		ug/m³	1.2	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-93-3	**2-Butanone**	**250**		ug/m³	9.7	32.82	EPA TO-15	06/29/2018 14:26	06/29/2018 14:26	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV-01** **York Sample ID:** **18F1218-12**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 5:11 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	1.3	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:			
107-05-1	3-Chloropropene	ND		ug/m³	2.6	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-10-1	**4-Methyl-2-pentanone**	**0.67**		ug/m³	0.67	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**290**		ug/m³	16	32.82	EPA TO-15	06/29/2018 14:26	06/29/2018 14:26	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	**Acrylonitrile**	**5.1**		ug/m³	0.36	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	Benzene	ND		ug/m³	0.52	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.85	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	1.1	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	1.7	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND		ug/m³	0.64	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	**Carbon disulfide**	**3.7**		ug/m³	0.51	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	**Carbon tetrachloride**	**0.41**		ug/m³	0.26	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.76	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND		ug/m³	0.43	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	Chloroform	ND		ug/m³	0.80	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	**Chloromethane**	**3.2**		ug/m³	0.34	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.16	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.74	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	Cyclohexane	ND		ug/m³	0.56	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	1.4	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**2.2**		ug/m³	0.81	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV-01** **York Sample ID:** **18F1218-12**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 5:11 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
141-78-6	*** Ethyl acetate**	**1.7**		ug/m³	1.2	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:			
100-41-4	**Ethyl Benzene**	**0.86**		ug/m³	0.71	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.8	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	**Isopropanol**	**9.2**		ug/m³	0.81	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
80-62-6	Methyl Methacrylate	ND		ug/m³	0.67	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.59	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	Methylene chloride	ND		ug/m³	1.1	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	n-Heptane	ND		ug/m³	0.67	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	**n-Hexane**	**0.81**		ug/m³	0.58	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	**o-Xylene**	**0.78**		ug/m³	0.71	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**2.5**		ug/m³	1.4	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	*** p-Ethyltoluene**	**1.1**		ug/m³	0.81	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:			
115-07-1	*** Propylene**	**0.48**		ug/m³	0.28	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:			
100-42-5	**Styrene**	**2.4**		ug/m³	0.70	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**3.5**		ug/m³	0.28	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	*** Tetrahydrofuran**	**1400**		ug/m³	19	32.82	EPA TO-15	06/29/2018 14:26	06/29/2018 14:26	LDS
							Certifications:			
108-88-3	**Toluene**	**3.8**		ug/m³	0.62	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.65	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.74	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	**Trichloroethylene**	**0.44**		ug/m³	0.22	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	**Trichlorofluoromethane (Freon 11)**	**1.4**		ug/m³	0.92	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: **SV-01** **York Sample ID:** **18F1218-12**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 5:11 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		ug/m³	0.58	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND		ug/m³	0.72	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	Vinyl Chloride	ND		ug/m³	0.10	1.641	EPA TO-15	06/29/2018 03:10	06/29/2018 03:10	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: p-Bromofluorobenzene*	*104 %*	*70-130*

Sample Information

Client Sample ID: 2018.06.26-SVDUP01 **York Sample ID:** 18F1218-13

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 3:00 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	1.1	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:			
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.87	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	1.1	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-13-1	**1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)**	**1.4**		ug/m³	1.2	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.87	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.65	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-35-4	**1,1-Dichloroethylene**	**0.44**		ug/m³	0.16	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	1.2	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-63-6	**1,2,4-Trimethylbenzene**	**1.4**		ug/m³	0.79	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-93-4	1,2-Dibromoethane	ND		ug/m³	1.2	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.96	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.65	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.74	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-14-2	**1,2-Dichlorotetrafluoroethane**	**1.2**		ug/m³	1.1	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-67-8	**1,3,5-Trimethylbenzene**	**0.87**		ug/m³	0.79	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-99-0	1,3-Butadiene	ND		ug/m³	1.1	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
541-73-1	**1,3-Dichlorobenzene**	**1.2**		ug/m³	0.96	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.74	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:			
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.96	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
123-91-1	1,4-Dioxane	ND		ug/m³	1.2	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-93-3	**2-Butanone**	**120**		ug/m³	0.47	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: 2018.06.26-SVDUP01 **York Sample ID:** 18F1218-13

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 3:00 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	1.3	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:			
107-05-1	3-Chloropropene	ND		ug/m³	2.5	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-10-1	4-Methyl-2-pentanone	ND		ug/m³	0.66	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**41**		ug/m³	0.76	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	Acrylonitrile	ND		ug/m³	0.35	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	**Benzene**	**0.61**		ug/m³	0.51	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.83	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	1.1	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	1.7	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND		ug/m³	0.62	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	**Carbon disulfide**	**3.6**		ug/m³	0.50	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	**Carbon tetrachloride**	**1.0**		ug/m³	0.25	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.74	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND		ug/m³	0.42	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	**Chloroform**	**1.6**		ug/m³	0.78	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	**Chloromethane**	**1.9**		ug/m³	0.33	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	**cis-1,2-Dichloroethylene**	**0.44**		ug/m³	0.16	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.73	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	**Cyclohexane**	**0.77**		ug/m³	0.55	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	1.4	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**2.3**		ug/m³	0.79	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: 2018.06.26-SVDUP01 **York Sample ID:** 18F1218-13

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 3:00 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
141-78-6	* Ethyl acetate	ND		ug/m³	1.2	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:			
100-41-4	**Ethyl Benzene**	**0.90**		ug/m³	0.70	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
87-68-3	Hexachlorobutadiene	ND		ug/m³	1.7	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	**Isopropanol**	**0.91**		ug/m³	0.79	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
80-62-6	Methyl Methacrylate	ND		ug/m³	0.66	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.58	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	**Methylene chloride**	**1.9**		ug/m³	1.1	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	n-Heptane	ND		ug/m³	0.66	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	**n-Hexane**	**1.4**		ug/m³	0.56	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	**o-Xylene**	**0.83**		ug/m³	0.70	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**2.1**		ug/m³	1.4	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	*** p-Ethyltoluene**	**1.1**		ug/m³	0.79	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:			
115-07-1	* Propylene	ND		ug/m³	0.28	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:			
100-42-5	Styrene	ND		ug/m³	0.68	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**2.9**		ug/m³	0.27	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	*** Tetrahydrofuran**	**120**		ug/m³	0.94	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:			
108-88-3	**Toluene**	**1.6**		ug/m³	0.60	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.64	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.73	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	**Trichloroethylene**	**0.86**		ug/m³	0.22	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	**Trichlorofluoromethane (Freon 11)**	**1.8**		ug/m³	0.90	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: 2018.06.26-SVDUP01 **York Sample ID:** 18F1218-13

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Soil Vapor	June 26, 2018 3:00 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		ug/m³	0.56	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND		ug/m³	0.70	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	Vinyl Chloride	ND		ug/m³	0.10	1.602	EPA TO-15	06/29/2018 04:02	06/29/2018 04:02	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: p-Bromofluorobenzene*	*97.9 %*	*70-130*

Sample Information

Client Sample ID: 2018.06.26-OA01 **York Sample ID:** 18F1218-14

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Outdoor Ambient Air	June 26, 2018 4:16 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	* 1,1,1,2-Tetrachloroethane	ND		ug/m³	0.37	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:			
71-55-6	1,1,1-Trichloroethane	ND		ug/m³	0.29	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/m³	0.37	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/m³	0.41	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-00-5	1,1,2-Trichloroethane	ND		ug/m³	0.29	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-34-3	1,1-Dichloroethane	ND		ug/m³	0.22	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-35-4	1,1-Dichloroethylene	ND		ug/m³	0.053	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/m³	0.40	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-63-6	**1,2,4-Trimethylbenzene**	**0.29**		ug/m³	0.26	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-93-4	1,2-Dibromoethane	ND		ug/m³	0.41	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-50-1	1,2-Dichlorobenzene	ND		ug/m³	0.32	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-06-2	1,2-Dichloroethane	ND		ug/m³	0.22	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-87-5	1,2-Dichloropropane	ND		ug/m³	0.25	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
76-14-2	1,2-Dichlorotetrafluoroethane	ND		ug/m³	0.37	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-67-8	1,3,5-Trimethylbenzene	ND		ug/m³	0.26	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
106-99-0	1,3-Butadiene	ND		ug/m³	0.35	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
541-73-1	1,3-Dichlorobenzene	ND		ug/m³	0.32	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-28-9	* 1,3-Dichloropropane	ND		ug/m³	0.25	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:			
106-46-7	1,4-Dichlorobenzene	ND		ug/m³	0.32	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
123-91-1	1,4-Dioxane	ND		ug/m³	0.38	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
78-93-3	**2-Butanone**	**2.0**		ug/m³	0.16	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: 2018.06.26-OA01 **York Sample ID:** 18F1218-14

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Outdoor Ambient Air	June 26, 2018 4:16 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	* 2-Hexanone	ND		ug/m³	0.44	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:			
107-05-1	3-Chloropropene	ND		ug/m³	0.83	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-10-1	**4-Methyl-2-pentanone**	**0.24**		ug/m³	0.22	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-64-1	**Acetone**	**29**		ug/m³	0.25	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
107-13-1	Acrylonitrile	ND		ug/m³	0.12	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
71-43-2	**Benzene**	**0.20**		ug/m³	0.17	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
100-44-7	Benzyl chloride	ND		ug/m³	0.28	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-27-4	Bromodichloromethane	ND		ug/m³	0.36	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-25-2	Bromoform	ND		ug/m³	0.55	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-83-9	Bromomethane	ND		ug/m³	0.21	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-15-0	**Carbon disulfide**	**0.25**		ug/m³	0.17	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
56-23-5	**Carbon tetrachloride**	**0.30**		ug/m³	0.084	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
108-90-7	Chlorobenzene	ND		ug/m³	0.25	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-00-3	Chloroethane	ND		ug/m³	0.14	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-66-3	**Chloroform**	**0.94**		ug/m³	0.26	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
74-87-3	**Chloromethane**	**0.90**		ug/m³	0.11	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/m³	0.053	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/m³	0.24	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-82-7	**Cyclohexane**	**0.24**		ug/m³	0.18	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
124-48-1	Dibromochloromethane	ND		ug/m³	0.45	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-71-8	**Dichlorodifluoromethane**	**1.1**		ug/m³	0.26	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: 2018.06.26-OA01 **York Sample ID:** 18F1218-14

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Outdoor Ambient Air	June 26, 2018 4:16 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
141-78-6	*** Ethyl acetate**	**1.8**		ug/m³	0.38	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:			
100-41-4	**Ethyl Benzene**	**0.49**		ug/m³	0.23	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
87-68-3	Hexachlorobutadiene	ND		ug/m³	0.57	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
67-63-0	**Isopropanol**	**9.8**		ug/m³	0.26	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
80-62-6	Methyl Methacrylate	ND		ug/m³	0.22	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/m³	0.19	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-09-2	**Methylene chloride**	**2.0**		ug/m³	0.37	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
142-82-5	**n-Heptane**	**0.44**		ug/m³	0.22	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
110-54-3	**n-Hexane**	**2.3**		ug/m³	0.19	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
95-47-6	**o-Xylene**	**0.51**		ug/m³	0.23	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
179601-23-1	**p- & m- Xylenes**	**1.2**		ug/m³	0.46	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
622-96-8	*** p-Ethyltoluene**	**0.31**		ug/m³	0.26	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:			
115-07-1	*** Propylene**	**1.1**		ug/m³	0.092	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:			
100-42-5	**Styrene**	**0.73**		ug/m³	0.23	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
127-18-4	**Tetrachloroethylene**	**0.98**		ug/m³	0.090	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
109-99-9	* Tetrahydrofuran	ND		ug/m³	0.31	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:			
108-88-3	**Toluene**	**4.9**		ug/m³	0.20	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/m³	0.21	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/m³	0.24	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
79-01-6	**Trichloroethylene**	**0.17**		ug/m³	0.072	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-69-4	**Trichlorofluoromethane (Freon 11)**	**0.78**		ug/m³	0.30	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

Sample Information

Client Sample ID: 2018.06.26-OA01 **York Sample ID:** 18F1218-14

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18F1218	140091417	Outdoor Ambient Air	June 26, 2018 4:16 pm	06/27/2018

Volatile Organics, EPA TO15 Full List

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA TO15 PREP

CAS No.	Parameter	Result	Flag	Units	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		ug/m³	0.19	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
593-60-2	Vinyl bromide	ND		ug/m³	0.23	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		
75-01-4	Vinyl Chloride	ND		ug/m³	0.034	0.533	EPA TO-15	06/28/2018 15:45	06/28/2018 15:45	LDS
							Certifications:	NELAC-NY12058,NJDEP-Queens		

	Surrogate Recoveries	Result	Acceptance Range
460-00-4	*Surrogate: p-Bromofluorobenzene*	*101 %*	*70-130*

Analytical Batch Summary

Batch ID: BF81654 **Preparation Method:** EPA TO15 PREP **Prepared By:** LDS

YORK Sample ID	Client Sample ID	Preparation Date
18F1218-01	SV-05	06/28/18
18F1218-02	SV-12	06/28/18
18F1218-03	SV-11	06/28/18
18F1218-04	SV-09	06/28/18
18F1218-05	SV-04	06/28/18
18F1218-05RE1	SV-04	06/29/18
18F1218-06	SV-07	06/28/18
18F1218-07	SV-02	06/28/18
18F1218-07RE1	SV-02	06/29/18
18F1218-08	SV-14	06/28/18
18F1218-09	SV-13	06/29/18
18F1218-10	SV-10	06/29/18
18F1218-10RE1	SV-10	06/29/18
18F1218-11	SV-03	06/29/18
18F1218-12	SV-01	06/29/18
18F1218-13	2018.06.26-SVDUP01	06/29/18
18F1218-14	2018.06.26-OA01	06/28/18
BF81654-BLK1	Blank	06/28/18
BF81654-BS1	LCS	06/28/18
BF81654-DUP1	Duplicate	06/28/18

Batch ID: BG80056 **Preparation Method:** EPA TO15 PREP **Prepared By:** LDS

YORK Sample ID	Client Sample ID	Preparation Date
18F1218-05RE2	SV-04	06/29/18
18F1218-07RE2	SV-02	06/29/18
18F1218-11RE1	SV-03	06/29/18
18F1218-12RE1	SV-01	06/29/18
BG80056-BLK1	Blank	06/29/18
BG80056-BS1	LCS	06/29/18

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BF81654 - EPA TO15 PREP											
Blank (BF81654-BLK1)											Prepared & Analyzed: 06/28/2018
1,1,1,2-Tetrachloroethane	ND	0.69	ug/m³								
1,1,1-Trichloroethane	ND	0.55	"								
1,1,2,2-Tetrachloroethane	ND	0.69	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"								
1,1,2-Trichloroethane	ND	0.55	"								
1,1-Dichloroethane	ND	0.40	"								
1,1-Dichloroethylene	ND	0.099	"								
1,2,4-Trichlorobenzene	ND	0.74	"								
1,2,4-Trimethylbenzene	ND	0.49	"								
1,2-Dibromoethane	ND	0.77	"								
1,2-Dichlorobenzene	ND	0.60	"								
1,2-Dichloroethane	ND	0.40	"								
1,2-Dichloropropane	ND	0.46	"								
1,2-Dichlorotetrafluoroethane	ND	0.70	"								
1,3,5-Trimethylbenzene	ND	0.49	"								
1,3-Butadiene	ND	0.66	"								
1,3-Dichlorobenzene	ND	0.60	"								
1,3-Dichloropropane	ND	0.46	"								
1,4-Dichlorobenzene	ND	0.60	"								
1,4-Dioxane	ND	0.72	"								
2-Butanone	ND	0.29	"								
2-Hexanone	ND	0.82	"								
3-Chloropropene	ND	1.6	"								
4-Methyl-2-pentanone	ND	0.41	"								
Acetone	ND	0.48	"								
Acrylonitrile	ND	0.22	"								
Benzene	ND	0.32	"								
Benzyl chloride	ND	0.52	"								
Bromodichloromethane	ND	0.67	"								
Bromoform	ND	1.0	"								
Bromomethane	ND	0.39	"								
Carbon disulfide	ND	0.31	"								
Carbon tetrachloride	ND	0.16	"								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloroform	ND	0.49	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethylene	ND	0.099	"								
cis-1,3-Dichloropropylene	ND	0.45	"								
Cyclohexane	ND	0.34	"								
Dibromochloromethane	ND	0.85	"								
Dichlorodifluoromethane	ND	0.49	"								
Ethyl acetate	ND	0.72	"								
Ethyl Benzene	ND	0.43	"								
Hexachlorobutadiene	ND	1.1	"								
Isopropanol	ND	0.49	"								
Methyl Methacrylate	ND	0.41	"								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	0.69	"								
n-Heptane	ND	0.41	"								

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BF81654 - EPA TO15 PREP											
Blank (BF81654-BLK1)								Prepared & Analyzed: 06/28/2018			
n-Hexane	ND	0.35	ug/m³								
o-Xylene	ND	0.43	"								
p- & m- Xylenes	ND	0.87	"								
p-Ethyltoluene	ND	0.49	"								
Propylene	ND	0.17	"								
Styrene	ND	0.43	"								
Tetrachloroethylene	ND	0.17	"								
Tetrahydrofuran	ND	0.59	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethylene	ND	0.40	"								
trans-1,3-Dichloropropylene	ND	0.45	"								
Trichloroethylene	ND	0.13	"								
Trichlorofluoromethane (Freon 11)	ND	0.56	"								
Vinyl acetate	ND	0.35	"								
Vinyl bromide	ND	0.44	"								
Vinyl Chloride	ND	0.064	"								
Surrogate: p-Bromofluorobenzene	*9.04*		*ppbv*	*10.0*		*90.4*	*70-130*				
LCS (BF81654-BS1)								Prepared & Analyzed: 06/28/2018			
1,1,1,2-Tetrachloroethane	9.71		ppbv	10.0		97.1	70-130				
1,1,1-Trichloroethane	9.36		"	10.0		93.6	70-130				
1,1,2,2-Tetrachloroethane	10.0		"	10.0		100	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.63		"	10.0		96.3	70-130				
1,1,2-Trichloroethane	9.86		"	10.0		98.6	70-130				
1,1-Dichloroethane	9.63		"	10.0		96.3	70-130				
1,1-Dichloroethylene	8.82		"	10.0		88.2	70-130				
1,2,4-Trichlorobenzene	8.99		"	10.0		89.9	70-130				
1,2,4-Trimethylbenzene	9.95		"	10.0		99.5	70-130				
1,2-Dibromoethane	10.0		"	10.0		100	70-130				
1,2-Dichlorobenzene	10.7		"	10.0		107	70-130				
1,2-Dichloroethane	9.44		"	10.0		94.4	70-130				
1,2-Dichloropropane	9.76		"	10.0		97.6	70-130				
1,2-Dichlorotetrafluoroethane	10.6		"	10.0		106	70-130				
1,3,5-Trimethylbenzene	9.96		"	10.0		99.6	70-130				
1,3-Butadiene	11.2		"	10.0		112	70-130				
1,3-Dichlorobenzene	11.0		"	10.0		110	70-130				
1,3-Dichloropropane	9.59		"	10.0		95.9	70-130				
1,4-Dichlorobenzene	11.3		"	10.0		113	70-130				
1,4-Dioxane	8.72		"	10.0		87.2	70-130				
2-Butanone	9.44		"	10.0		94.4	70-130				
2-Hexanone	10.5		"	10.0		105	70-130				
3-Chloropropene	9.36		"	10.0		93.6	70-130				
4-Methyl-2-pentanone	10.1		"	10.0		101	70-130				
Acetone	8.97		"	10.0		89.7	70-130				
Acrylonitrile	10.2		"	10.0		102	70-130				
Benzene	8.95		"	10.0		89.5	70-130				
Benzyl chloride	10.4		"	10.0		104	70-130				
Bromodichloromethane	9.98		"	10.0		99.8	70-130				
Bromoform	10.0		"	10.0		100	70-130				
Bromomethane	9.27		"	10.0		92.7	70-130				
Carbon disulfide	10.3		"	10.0		103	70-130				

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BF81654 - EPA TO15 PREP											
LCS (BF81654-BS1)								Prepared & Analyzed: 06/28/2018			
Carbon tetrachloride	8.48		ppbv	10.0		84.8	70-130				
Chlorobenzene	10.0		"	10.0		100	70-130				
Chloroethane	10.9		"	10.0		109	70-130				
Chloroform	9.36		"	10.0		93.6	70-130				
Chloromethane	11.2		"	10.0		112	70-130				
cis-1,2-Dichloroethylene	9.06		"	10.0		90.6	70-130				
cis-1,3-Dichloropropylene	9.97		"	10.0		99.7	70-130				
Cyclohexane	9.63		"	10.0		96.3	70-130				
Dibromochloromethane	9.75		"	10.0		97.5	70-130				
Dichlorodifluoromethane	9.93		"	10.0		99.3	70-130				
Ethyl acetate	9.59		"	10.0		95.9	70-130				
Ethyl Benzene	9.47		"	10.0		94.7	70-130				
Hexachlorobutadiene	9.67		"	10.0		96.7	70-130				
Isopropanol	10.8		"	10.0		108	70-130				
Methyl Methacrylate	9.89		"	10.0		98.9	70-130				
Methyl tert-butyl ether (MTBE)	16.6		"	10.0		166	70-130	High Bias			
Methylene chloride	9.87		"	10.0		98.7	70-130				
n-Heptane	9.21		"	10.0		92.1	70-130				
n-Hexane	9.77		"	10.0		97.7	70-130				
o-Xylene	9.10		"	10.0		91.0	70-130				
p- & m- Xylenes	19.1		"	20.0		95.6	70-130				
p-Ethyltoluene	10.5		"	10.0		105	70-130				
Propylene	9.42		"	10.0		94.2	70-130				
Styrene	10.2		"	10.0		102	70-130				
Tetrachloroethylene	10.8		"	10.0		108	70-130				
Tetrahydrofuran	9.50		"	10.0		95.0	70-130				
Toluene	9.47		"	10.0		94.7	70-130				
trans-1,2-Dichloroethylene	10.1		"	10.0		101	70-130				
trans-1,3-Dichloropropylene	9.66		"	10.0		96.6	70-130				
Trichloroethylene	8.92		"	10.0		89.2	70-130				
Trichlorofluoromethane (Freon 11)	9.39		"	10.0		93.9	70-130				
Vinyl acetate	14.4		"	10.0		144	70-130	High Bias			
Vinyl bromide	10.0		"	10.0		100	70-130				
Vinyl Chloride	11.0		"	10.0		110	70-130				
Surrogate: p-Bromofluorobenzene	*10.6*		*"*	*10.0*		*106*	*70-130*				

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BF81654 - EPA TO15 PREP											
Duplicate (BF81654-DUP1)	*Source sample: 18F1218-14 (2018.06.26-OA01)								Prepared & Analyzed: 06/28/2018		
1,1,1,2-Tetrachloroethane	ND	0.37	ug/m³		ND					25	
1,1,1-Trichloroethane	ND	0.29	"		ND					25	
1,1,2,2-Tetrachloroethane	ND	0.37	"		ND					25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	0.49	0.41	"		ND					25	
1,1,2-Trichloroethane	ND	0.29	"		ND					25	
1,1-Dichloroethane	ND	0.22	"		ND					25	
1,1-Dichloroethylene	0.11	0.053	"		ND					25	
1,2,4-Trichlorobenzene	ND	0.40	"		ND					25	
1,2,4-Trimethylbenzene	0.37	0.26	"		0.29				24.0	25	
1,2-Dibromoethane	ND	0.41	"		ND					25	
1,2-Dichlorobenzene	ND	0.32	"		ND					25	
1,2-Dichloroethane	0.24	0.22	"		ND					25	
1,2-Dichloropropane	ND	0.25	"		ND					25	
1,2-Dichlorotetrafluoroethane	ND	0.37	"		ND					25	
1,3,5-Trimethylbenzene	ND	0.26	"		ND					25	
1,3-Butadiene	ND	0.35	"		ND					25	
1,3-Dichlorobenzene	ND	0.32	"		ND					25	
1,3-Dichloropropane	ND	0.25	"		ND					25	
1,4-Dichlorobenzene	ND	0.32	"		ND					25	
1,4-Dioxane	ND	0.38	"		ND					25	
2-Butanone	2.0	0.16	"		2.0				2.35	25	
2-Hexanone	ND	0.44	"		ND					25	
3-Chloropropene	ND	0.83	"		ND					25	
4-Methyl-2-pentanone	0.31	0.22	"		0.24				24.0	25	
Acetone	30	0.25	"		29				1.72	25	
Acrylonitrile	ND	0.12	"		ND					25	
Benzene	0.26	0.17	"		0.20				22.2	25	
Benzyl chloride	ND	0.28	"		ND					25	
Bromodichloromethane	ND	0.36	"		ND					25	
Bromoform	ND	0.55	"		ND					25	
Bromomethane	ND	0.21	"		ND					25	
Carbon disulfide	0.30	0.17	"		0.25				18.2	25	
Carbon tetrachloride	0.37	0.084	"		0.30				20.0	25	
Chlorobenzene	ND	0.25	"		ND					25	
Chloroethane	ND	0.14	"		ND					25	
Chloroform	1.0	0.26	"		0.94				10.5	25	
Chloromethane	0.99	0.11	"		0.90				9.30	25	
cis-1,2-Dichloroethylene	ND	0.053	"		ND					25	
cis-1,3-Dichloropropylene	ND	0.24	"		ND					25	
Cyclohexane	0.29	0.18	"		0.24				20.7	25	
Dibromochloromethane	ND	0.45	"		ND					25	
Dichlorodifluoromethane	1.1	0.26	"		1.1				4.76	25	
Ethyl acetate	1.9	0.38	"		1.8				4.17	25	
Ethyl Benzene	0.56	0.23	"		0.49				13.3	25	
Hexachlorobutadiene	ND	0.57	"		ND					25	
Isopropanol	10	0.26	"		9.8				1.85	25	
Methyl Methacrylate	ND	0.22	"		ND					25	
Methyl tert-butyl ether (MTBE)	ND	0.19	"		ND					25	
Methylene chloride	2.0	0.37	"		2.0				2.79	25	
n-Heptane	0.57	0.22	"		0.44				26.1	25	Non-dir.
n-Hexane	2.4	0.19	"		2.3				2.37	25	

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BF81654 - EPA TO15 PREP											
Duplicate (BF81654-DUP1)	*Source sample: 18F1218-14 (2018.06.26-OA01)								Prepared & Analyzed: 06/28/2018		
o-Xylene	0.58	0.23	ug/m³		0.51				12.8	25	
p- & m- Xylenes	1.4	0.46	"		1.2				12.2	25	
p-Ethyltoluene	0.34	0.26	"		0.31				8.00	25	
Propylene	1.1	0.092	"		1.1				3.25	25	
Styrene	0.82	0.23	"		0.73				11.8	25	
Tetrachloroethylene	1.1	0.090	"		0.98				10.5	25	
Tetrahydrofuran	0.53	0.31	"		ND					25	
Toluene	5.1	0.20	"		4.9				4.00	25	
trans-1,2-Dichloroethylene	ND	0.21	"		ND					25	
trans-1,3-Dichloropropylene	ND	0.24	"		ND					25	
Trichloroethylene	0.23	0.072	"		0.17				28.6	25	Non-dir.
Trichlorofluoromethane (Freon 11)	0.87	0.30	"		0.78				10.9	25	
Vinyl acetate	ND	0.19	"		ND					25	
Vinyl bromide	ND	0.23	"		ND					25	
Vinyl Chloride	ND	0.034	"		ND					25	
Surrogate: p-Bromofluorobenzene	*10.1*		*ppbv*	*10.0*		*101*	*70-130*				
Batch BG80056 - EPA TO15 PREP											
Blank (BG80056-BLK1)									Prepared & Analyzed: 06/29/2018		
1,1,1,2-Tetrachloroethane	ND	0.69	ug/m³								
1,1,1-Trichloroethane	ND	0.55	"								
1,1,2,2-Tetrachloroethane	ND	0.69	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.77	"								
1,1,2-Trichloroethane	ND	0.55	"								
1,1-Dichloroethane	ND	0.40	"								
1,1-Dichloroethylene	ND	0.099	"								
1,2,4-Trichlorobenzene	ND	0.74	"								
1,2,4-Trimethylbenzene	ND	0.49	"								
1,2-Dibromoethane	ND	0.77	"								
1,2-Dichlorobenzene	ND	0.60	"								
1,2-Dichloroethane	ND	0.40	"								
1,2-Dichloropropane	ND	0.46	"								
1,2-Dichlorotetrafluoroethane	ND	0.70	"								
1,3,5-Trimethylbenzene	ND	0.49	"								
1,3-Butadiene	ND	0.66	"								
1,3-Dichlorobenzene	ND	0.60	"								
1,3-Dichloropropane	ND	0.46	"								
1,4-Dichlorobenzene	ND	0.60	"								
1,4-Dioxane	ND	0.72	"								
2-Butanone	ND	0.29	"								
2-Hexanone	ND	0.82	"								
3-Chloropropene	ND	1.6	"								
4-Methyl-2-pentanone	ND	0.41	"								
Acetone	ND	0.48	"								
Acrylonitrile	ND	0.22	"								
Benzene	ND	0.32	"								
Benzyl chloride	ND	0.52	"								
Bromodichloromethane	ND	0.67	"								
Bromoform	ND	1.0	"								
Bromomethane	ND	0.39	"								

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG80056 - EPA TO15 PREP											
Blank (BG80056-BLK1)									Prepared & Analyzed: 06/29/2018		
Carbon disulfide	ND	0.31	ug/m³								
Carbon tetrachloride	ND	0.16	"								
Chlorobenzene	ND	0.46	"								
Chloroethane	ND	0.26	"								
Chloroform	ND	0.49	"								
Chloromethane	ND	0.21	"								
cis-1,2-Dichloroethylene	ND	0.099	"								
cis-1,3-Dichloropropylene	ND	0.45	"								
Cyclohexane	ND	0.34	"								
Dibromochloromethane	ND	0.85	"								
Dichlorodifluoromethane	ND	0.49	"								
Ethyl acetate	ND	0.72	"								
Ethyl Benzene	ND	0.43	"								
Hexachlorobutadiene	ND	1.1	"								
Isopropanol	ND	0.49	"								
Methyl Methacrylate	ND	0.41	"								
Methyl tert-butyl ether (MTBE)	ND	0.36	"								
Methylene chloride	ND	0.69	"								
n-Heptane	ND	0.41	"								
n-Hexane	ND	0.35	"								
o-Xylene	ND	0.43	"								
p- & m- Xylenes	ND	0.87	"								
p-Ethyltoluene	ND	0.49	"								
Propylene	ND	0.17	"								
Styrene	ND	0.43	"								
Tetrachloroethylene	ND	0.17	"								
Tetrahydrofuran	ND	0.59	"								
Toluene	ND	0.38	"								
trans-1,2-Dichloroethylene	ND	0.40	"								
trans-1,3-Dichloropropylene	ND	0.45	"								
Trichloroethylene	ND	0.13	"								
Trichlorofluoromethane (Freon 11)	ND	0.56	"								
Vinyl acetate	ND	0.35	"								
Vinyl bromide	ND	0.44	"								
Vinyl Chloride	ND	0.064	"								
Surrogate: p-Bromofluorobenzene	*8.99*		*ppbv*	*10.0*		*89.9*	*70-130*				

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG80056 - EPA TO15 PREP											
LCS (BG80056-BS1)							Prepared & Analyzed: 06/29/2018				
1,1,1,2-Tetrachloroethane	9.62		ppbv	10.0		96.2	70-130				
1,1,1-Trichloroethane	9.31		"	10.0		93.1	70-130				
1,1,2,2-Tetrachloroethane	9.95		"	10.0		99.5	70-130				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.53		"	10.0		95.3	70-130				
1,1,2-Trichloroethane	9.79		"	10.0		97.9	70-130				
1,1-Dichloroethane	9.58		"	10.0		95.8	70-130				
1,1-Dichloroethylene	8.76		"	10.0		87.6	70-130				
1,2,4-Trichlorobenzene	9.33		"	10.0		93.3	70-130				
1,2,4-Trimethylbenzene	9.82		"	10.0		98.2	70-130				
1,2-Dibromoethane	9.99		"	10.0		99.9	70-130				
1,2-Dichlorobenzene	10.7		"	10.0		107	70-130				
1,2-Dichloroethane	9.32		"	10.0		93.2	70-130				
1,2-Dichloropropane	9.77		"	10.0		97.7	70-130				
1,2-Dichlorotetrafluoroethane	10.8		"	10.0		108	70-130				
1,3,5-Trimethylbenzene	8.79		"	10.0		87.9	70-130				
1,3-Butadiene	11.2		"	10.0		112	70-130				
1,3-Dichlorobenzene	11.0		"	10.0		110	70-130				
1,3-Dichloropropane	9.65		"	10.0		96.5	70-130				
1,4-Dichlorobenzene	11.3		"	10.0		113	70-130				
1,4-Dioxane	8.74		"	10.0		87.4	70-130				
2-Butanone	9.42		"	10.0		94.2	70-130				
2-Hexanone	10.7		"	10.0		107	70-130				
3-Chloropropene	9.28		"	10.0		92.8	70-130				
4-Methyl-2-pentanone	10.2		"	10.0		102	70-130				
Acetone	8.99		"	10.0		89.9	70-130				
Acrylonitrile	10.2		"	10.0		102	70-130				
Benzene	8.82		"	10.0		88.2	70-130				
Benzyl chloride	10.5		"	10.0		105	70-130				
Bromodichloromethane	9.92		"	10.0		99.2	70-130				
Bromoform	10.0		"	10.0		100	70-130				
Bromomethane	9.19		"	10.0		91.9	70-130				
Carbon disulfide	10.2		"	10.0		102	70-130				
Carbon tetrachloride	8.37		"	10.0		83.7	70-130				
Chlorobenzene	9.90		"	10.0		99.0	70-130				
Chloroethane	10.9		"	10.0		109	70-130				
Chloroform	9.27		"	10.0		92.7	70-130				
Chloromethane	11.4		"	10.0		114	70-130				
cis-1,2-Dichloroethylene	9.03		"	10.0		90.3	70-130				
cis-1,3-Dichloropropylene	10.0		"	10.0		100	70-130				
Cyclohexane	9.59		"	10.0		95.9	70-130				
Dibromochloromethane	9.78		"	10.0		97.8	70-130				
Dichlorodifluoromethane	9.90		"	10.0		99.0	70-130				
Ethyl acetate	9.54		"	10.0		95.4	70-130				
Ethyl Benzene	9.42		"	10.0		94.2	70-130				
Hexachlorobutadiene	9.70		"	10.0		97.0	70-130				
Isopropanol	10.9		"	10.0		109	70-130				
Methyl Methacrylate	9.86		"	10.0		98.6	70-130				
Methyl tert-butyl ether (MTBE)	16.5		"	10.0		165	70-130	High Bias			
Methylene chloride	9.85		"	10.0		98.5	70-130				
n-Heptane	9.11		"	10.0		91.1	70-130				
n-Hexane	9.71		"	10.0		97.1	70-130				

Volatile Organic Compounds in Air by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BG80056 - EPA TO15 PREP											
LCS (BG80056-BS1)								Prepared & Analyzed: 06/29/2018			
o-Xylene	9.00		ppbv	10.0		90.0	70-130				
p- & m- Xylenes	18.9		"	20.0		94.7	70-130				
p-Ethyltoluene	10.5		"	10.0		105	70-130				
Propylene	9.61		"	10.0		96.1	70-130				
Styrene	10.1		"	10.0		101	70-130				
Tetrachloroethylene	10.5		"	10.0		105	70-130				
Tetrahydrofuran	9.47		"	10.0		94.7	70-130				
Toluene	9.42		"	10.0		94.2	70-130				
trans-1,2-Dichloroethylene	10.0		"	10.0		100	70-130				
trans-1,3-Dichloropropylene	9.66		"	10.0		96.6	70-130				
Trichloroethylene	8.85		"	10.0		88.5	70-130				
Trichlorofluoromethane (Freon 11)	9.36		"	10.0		93.6	70-130				
Vinyl acetate	14.5		"	10.0		145	70-130	High Bias			
Vinyl bromide	9.90		"	10.0		99.0	70-130				
Vinyl Chloride	11.1		"	10.0		111	70-130				
Surrogate: p-Bromofluorobenzene	*10.6*		*"*	*10.0*		*106*	*70-130*				


YORK
ANALYTICAL LABORATORIES INC

Sample and Data Qualifiers Relating to This Work Order

QR-01	Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit. QC batch accepted based on LCS and/or LCSD QC results.
QL-03	This LCS analyte recovered outside of acceptance limits. The LCS contains approximately 70 compounds, a limited number of which may be outside acceptance windows.
IS-LO	The internal std associated with this target compound did not meet acceptance criteria (area <50% CCV) at the stated dilution due to matrix effects. Sample was rerun to confirm matrix effects.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.

Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence. This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

York Analytical Laboratories, Inc.
120 Research Drive, Stratford, CT 06615
132-02 89th Ave Queens, NY 11418
clientservices@yorklab.com
www.yorklab.com

Field Chain-of-Custody Record - AIR

YORK Project No. 18F1218

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document. This document serves as your written authorization for YORK to proceed with the analyses requested below. Your signature binds you to YORK's Standard Terms & Conditions.

YOUR Information	Report To:	Invoice To:	YOUR Project Number	Turn-Around Time
Company: LANCAN	Company:	Company:	140091417	RUSH - Next Day
Address: 555 Long Wharf Dr New Haven CT	Address: SAME	Address: SAME	YOUR Project Name	RUSH - Two Day
Phone: 203-562-5771	Phone:	Phone:		RUSH - Three Day
Contact: JHALL	Contact:	Contact:		RUSH - Four Day
E-mail: JHALL@LANCAN	E-mail:	E-mail:	YOUR PO#:	Standard (5-7 Day) X

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

JUSTIN HALL

Samples Collected By: (print your name above and sign below)

Air Matrix Codes
AI - Indoor Ambient Air
AO - Outdoor Amb. Air
AE - Vapor Extraction Well/ Process Gas/Effluent
AS - Soil Vapor/Sub-Slab

Samples From
New York X
New Jersey
Connecticut
Pennsylvania
Other

Report / EDD Type (circle selections)
Summary Report | CT RCP | Standard Excel EDD
QA Report | CT RCP DQA/DUE | EQuIS (Standard)
NY ASP A Package | NJDEP Reduced Deliv. | NYSDEC EQuIS
NY ASP B Package | NJDKQP | NJDEP SRP HazSite
Other:

YORK Reg. Comp.
Compared to the following Regulation(s): (please fill in)
NYSDOH SV Guidance

Certified Canisters: Batch ___ Individual ___

Please enter the following REQUIRED Field Data

Reporting Units: ug/m³ X ppbv ___ ppmv ___

Sample Identification	Date/Time Sampled	Air Matrix	Canister Vacuum Before Sampling (in Hg)	Canister Vacuum After Sampling (in Hg)	Canister ID	Flow Cont. ID	Analysis Requested
SV-05	6/26/18 - 10:21	AS	28.74	3.65	23802	3542	EPA TO-15
SV-12	10:33		29.12	4.30	28316	Y1	
SV-11	10:42		29.11	3.47	28846	7360	
SV-09	10:52		28.73	4.35	18304	Y22	
SV-04	11:17		28.77	4.62	28854	Y48	
SV-07	11:46		28.94	4.08	7268	Y63	
SV-02	12:11		28.58	4.26	18294	7416	
SV-14	15:38		28.84	3.94	28304	Y39	
SV-13	16:06		28.50	4.77	15529	Y47	
SV-10	16:30		29.01	4.06	28842	7270	

Comments: Please have RLs meet NYSDOH Soil Vapor Guidance
Please CC results to RWohlstrom@LANCAN

Detection Limits Required
≤ 1 ug/m³ ___ NYSDEC V1 Limits ___
Routine Survey ___ Other ___

Sampling Media
6 Liter Canister X
Tedlar Bag

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
[signature]	6/27/18 13:25			TC Hall 6/27/18 1652	
Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
KBach	6/27/18 1652	KBach	6/28/18 730AM	TC Hall 6/27/18 1525	
Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time
				[signature] 6/28/18 730	

York Analytical Laboratories, Inc.
120 Research Drive, Stratford, CT 06615
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www.yorklab.com

Field Chain-of-Custody Record - AIR

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document. This document serves as your written authorization for YORK to proceed with the analyses requested below. Your signature binds you to YORK's Standard Terms & Conditions.

YORK Project No. 18F1218

YOUR Information	Report To:	Invoice To:
Company: LANCAN	Company:	Company:
Address: 555 Long Wharf New Haven CT	Address: SAME	Address: SAME
Phone: 203-562-5771	Phone:	Phone:
Contact: JHALL	Contact:	Contact:
E-mail: JHALL@LANCAN	E-mail:	E-mail:

YOUR Project Number: 1400914I7

YOUR Project Name:

YOUR PO#:

Turn-Around Time

- RUSH - Next Day
- RUSH - Two Day
- RUSH - Three Day
- RUSH - Four Day
- Standard (5-7 Day) [X]

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

JUSTIN HALL

Samples Collected by: (print your name above and sign below)

Justin Hall

Air Matrix Codes

- AI - Indoor Ambient Air
- AO - Outdoor Amb. Air
- AE - Vapor Extraction Well/ Process Gas/Effluent
- AS - Soil Vapor/Sub-Slab

Samples From

- New York [X]
- New Jersey
- Connecticut
- Pennsylvania
- Other

Report / EDD Type (circle selections)

Summary Report	CT RCP	Standard Excel EDD
QA Report	CT RCP DQA/DUE	EQuIS (Standard)
NY ASP A Package	NJDEP Reduced Deliv.	NYSDEC EQuIS
NY ASP B Package	NJDKQP	NJDEP SRP HazSite
Other:		

YORK Reg. Comp.

Compared to the following Regulation(s): (please fill in)
NYSDOH SV Guidance

Certified Canisters: Batch ___ Individual ___

Please enter the following REQUIRED Field Data

Reporting Units: ug/m³ [X] ppbv ___ ppmv ___

Sample Identification	Date/Time Sampled	Air Matrix	Canister Vacuum Before Sampling (in Hg)	Canister Vacuum After Sampling (in Hg)	Canister ID	Flow Cont. ID	Analysis Requested
SV-03	6/26/18 - 16:58	AS	28.81	4.80	18310	Y41	EPA TO-15
SV-01	17:11	↓	28.66	4.31	23799	3540	↓
2018.06.26-SVDUP01	N/A	↓	29.01	4.60	23196	3350	↓
2018.06.26-OA01	16:16	AO	28.90	4.49	15524	Y17	↓

Comments: See Page #1

Detection Limits Required

≤ 1 ug/m³ ___ NYSDEC V1 Limits ___
Routine Survey ___ Other ___

Sampling Media

- 6 Liter Canister [X]
- Tedlar Bag

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
[illegible]	6/27/18 13:25			TC Yorklab 6/27/18 1652	
Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
KBahr	6/27/18 1652	KBahr	6/28/18 730AM	TC Yorklab 6/27/18 1325	
Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time
				ZD 6/28/18 730	

York Analytical Laboratories, Inc.
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Field Chain-of-Custody Record - AIR

YORK Project No. 18F1218

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document. This document serves as your written authorization for YORK to proceed with the analyses requested below. Your signature binds you to YORK's Standard Terms & Conditions.

YOUR Information	Report To:	Invoice To:	YOUR Project Number	Turn-Around Time
Company: LANCAN	Company:	Company:	140091417	RUSH - Next Day
Address: 555 Long Wharf Dr New Haven CT	Address: SAME	Address: SAME	YOUR Project Name	RUSH - Two Day
Phone: 203-562-5771	Phone:	Phone:		RUSH - Three Day
Contact: JHALL	Contact:	Contact:		RUSH - Four Day
E-mail: JHALL@LANCAN	E-mail:	E-mail:	YOUR PO#:	Standard (5-7 Day) X

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

JUSTIN HALL

Samples Collected By: (print your name above and sign below)

Air Matrix Codes
AI - Indoor Ambient Air
AO - Outdoor Amb. Air
AE - Vapor Extraction Well/ Process Gas/Effluent
AS - Soil Vapor/Sub-Slab

Samples From
New York X
New Jersey
Connecticut
Pennsylvania
Other

Report / EDD Type (circle selections)
Summary Report | CT RCP | Standard Excel EDD
QA Report | CT RCP DQA/DUE | EQuIS (Standard)
NY ASP A Package | NJDEP Reduced Deliv. | NYSDEC EQuIS
NY ASP B Package | NJDKQP | NJDEP SRP HazSite
Other:

YORK Reg. Comp.
Compared to the following Regulation(s): (please fill in)
NYSDOH SV Guidance

Certified Canisters: Batch ___ Individual ___

Please enter the following REQUIRED Field Data

Reporting Units: ug/m³ X ppbv ___ ppmv ___

Sample Identification	Date/Time Sampled	Air Matrix	Canister Vacuum Before Sampling (in Hg)	Canister Vacuum After Sampling (in Hg)	Canister ID	Flow Cont. ID	Analysis Requested
SV-05	6/26/18 - 10:21	AS	28.74	3.65	23802	3542	EPA TO-15
SV-12	10:33		29.12	4.30	28316	Y1	
SV-11	10:42		29.11	3.47	28846	7360	
SV-09	10:52		28.73	4.35	18304	Y22	
SV-04	11:17		28.77	4.62	28854	Y48	
SV-07	11:46		28.94	4.08	7268	Y63	
SV-02	12:11		28.58	4.26	18294	7416	
SV-14	15:38		28.84	3.94	28304	Y39	
SV-13	16:06		28.50	4.77	15529	Y47	
SV-10	16:30		29.01	4.06	28842	7270	

Comments: Please have RLs meet NYSDOH Soil Vapor Guidance
Please CC results to RWohlstrom@LANCAN

Detection Limits Required
≤ 1 ug/m³ ___ NYSDEC V1 Limits ___
Routine Survey ___ Other ___

Sampling Media
6 Liter Canister X
Tedlar Bag

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
[signature]	6/27/18 13:25			TC Hall 6/27/18 1652	
Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
KBach	6/27/18 1652	KBach	6/28/18 730AM	TC Hall 6/27/18 1525	
Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time
				[signature] 6/28/18 730	

York Analytical Laboratories, Inc.
120 Research Drive, Stratford, CT 06615
132-02 89th Ave Queens, NY 11418
clientservices@yorklab.com
www.yorklab.com

Field Chain-of-Custody Record - AIR

NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document. This document serves as your written authorization for YORK to proceed with the analyses requested below. Your signature binds you to YORK's Standard Terms & Conditions.

YORK Project No. 18F1218

YOUR Information	Report To:	Invoice To:	YOUR Project Number	Turn-Around Time
Company: LANCAN	Company:	Company:	1400914I7	RUSH - Next Day
Address: 555 Long Wharf, New Haven CT	Address: SAME	Address: SAME	YOUR Project Name	RUSH - Two Day
Phone: 203-562-5771	Phone:	Phone:		RUSH - Three Day
Contact: JHALL	Contact:	Contact:		RUSH - Four Day
E-mail: JHALL@LANCAN	E-mail:	E-mail:	YOUR PO#:	Standard (5-7 Day) X

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.

JUSTIN HALL

Samples Collected by: (print your name above and sign below)

Justin Hall

Air Matrix Codes
- AI - Indoor Ambient Air
- AO - Outdoor Amb. Air
- AE - Vapor Extraction Well/ Process Gas/Effluent
- AS - Soil Vapor/Sub-Slab

Samples From
- New York X
- New Jersey
- Connecticut
- Pennsylvania
- Other

Report / EDD Type (circle selections)

Summary Report	CT RCP	Standard Excel EDD
QA Report	CT RCP DQA/DUE	EQuIS (Standard)
NY ASP A Package	NJDEP Reduced Deliv.	NYSDEC EQuIS
NY ASP B Package	NJDKQP	NJDEP SRP HazSite
Other:		

YORK Reg. Comp.
Compared to the following Regulation(s): (please fill in)
NYSDOH SV Guidance

Certified Canisters: Batch ___ Individual ___

Please enter the following REQUIRED Field Data

Reporting Units: ug/m³ X ppbv ___ ppmv ___

Sample Identification	Date/Time Sampled	Air Matrix	Canister Vacuum Before Sampling (in Hg)	Canister Vacuum After Sampling (in Hg)	Canister ID	Flow Cont. ID	Analysis Requested
SV-03	6/26/18 - 16:58	AS	28.81	4.80	18310	Y41	EPA TO-15
SV-01	17:11	↓	28.66	4.31	23799	3540	↓
2018.06.26-SVDUP01	N/A	↓	29.01	4.60	23196	3350	↓
2018.06.26-OA01	16:16	AO	28.90	4.49	15524	Y17	↓

Comments: See Page #1

Detection Limits Required
≤ 1 ug/m³ ___ NYSDEC V1 Limits ___
Routine Survey ___ Other ___

Sampling Media
6 Liter Canister X
Tedlar Bag

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
JHall	6/27/18 13:25			TC Yorklab	6/27/18 1652
Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
KBahr	6/27/18 1652	KBahr	6/28/18 730am	TC Yorklab	6/27/18 1325
Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time
				ZD	6/28/18 730

ATTACHMENT 3

Data Usability Summary Report

LANGAN
ENGINEERING & ENVIRONMENTAL SERVICES

Technical Memorandum

2700 Kelly Road, Suite 200 Warrington, PA 18976 T: 215.491.6500 F: 215.491.6501
Mailing Address: P.O. Box 1569 Doylestown, PA 18901

To: Ryan Wohlstrom, Langan Senior Project Manager

From: Emily Strake, Langan Senior Project Chemist/Risk Assessor

Date: August 15, 2018

Re: Data Usability Summary Report
For Fashion Outlets of Niagara Falls
Niagara, New York
Sub-Slab Soil Vapor Samples Collected June 2018
Langan Project No.: 140091417

This memorandum presents the findings of an analytical data validation of the data generated from the analysis of ambient air and soil gas samples collected in June 2018 by Langan Engineering, Environmental, Surveying, Landscape Architecture, and Geology, D.P.C. ("Langan") at the Fashion Outlets of Niagara Falls site located in Niagara Falls, New York. The samples were analyzed by York Analytical located in Stratford, CT (NYSDOH ELAP registration number 10854) for volatile organic compounds (VOCs) using the analytical method specified below.

- Full List VOCs by EPA Compendium Method TO-15

Table 1, below, summarizes the laboratory and client sample identification numbers, sample collection dates, and analytical parameters subject to review.

TABLE 1: SAMPLE SUMMARY

SDG	*Lab Sample ID*	*Client Sample ID*	*Sample Date*	*Analytical Parameters*
18F1218	18F1218-01	SV-05	06/26/2018	VOCs
18F1218	18F1218-02	SV-12	06/26/2018	VOCs
18F1218	18F1218-03	SV-11	06/26/2018	VOCs
18F1218	18F1218-04	SV-09	06/26/2018	VOCs
18F1218	18F1218-05	SV-04	06/26/2018	VOCs
18F1218	18F1218-06	SV-07	06/26/2018	VOCs
18F1218	18F1218-07	SV-02	06/26/2018	VOCs
18F1218	18F1218-08	SV-14	06/26/2018	VOCs
18F1218	18F1218-09	SV-13	06/26/2018	VOCs
18F1218	18F1218-10	SV-10	06/26/2018	VOCs
18F1218	18F1218-11	SV-03	06/26/2018	VOCs
18F1218	18F1218-12	SV-01	06/26/2018	VOCs
18F1218	18F1218-13	2018.06.26-SVDUP01	06/26/2018	VOCs

SDG	*Lab Sample ID*	*Client Sample ID*	*Sample Date*	*Analytical Parameters*
18F1218	18F1218-14	2018.06.26-OA01	06/26/2018	VOCs

VALIDATION OVERVIEW

This data validation was performed in accordance with USEPA Region II Standard Operating Procedure (SOP) #HW-31, "Validating Volatile Organic Analysis of Ambient Air in Canister by Method TO-15" (September 2016, Revision 6) and the specifics of the method.

Validation includes reconstruction of the analytical data to verify that data are easily traceable and sufficiently complete to permit logical reconstruction by a qualified individual other than the originator. Items subject to review in this memorandum include holding times, canister certification, canister pressure, instrument tuning, instrument calibration, laboratory blanks, laboratory control samples, internal standard area counts, target compound identification and quantification, and overall system performance.

As a result of the review process, the following qualifiers may be assigned to the data in accordance with the USEPA's guidelines and best professional judgment:

- **R –** The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
- **J –** The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- **UJ –** The analyte was not detected at a level greater than or equal to the reporting limit (RL); however, the reported RL is approximate and may be inaccurate or imprecise.
- **U –** The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.
- **NJ –** The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.

If any validation qualifiers are assigned these qualifiers should supersede any laboratory-applied qualifiers. Data that is not qualified as a result of this data validation is considered acceptable on the basis of the items specified for review. Data that is qualified as "R" are not sufficiently valid and technically supportable to be used for data interpretation. Data that is otherwise qualified due to minor data quality anomalies are usable, as qualified.

TABLE 2: VALIDATOR-APPLIED QUALIFICATION

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
2018.06.26-OA01	TO15	142-82-5	N-HEPTANE	J
2018.06.26-OA01	TO15	79-01-6	TRICHLOROETHYLENE (TCE)	J
2018.06.26-SVDUP01	TO15	100-41-4	ETHYLBENZENE	J
2018.06.26-SVDUP01	TO15	100-42-5	STYRENE	UJ
2018.06.26-SVDUP01	TO15	108-10-1	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	UJ
2018.06.26-SVDUP01	TO15	108-67-8	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	J
2018.06.26-SVDUP01	TO15	108-88-3	TOLUENE	J
2018.06.26-SVDUP01	TO15	109-99-9	TETRAHYDROFURAN	J
2018.06.26-SVDUP01	TO15	110-54-3	N-HEXANE	J
2018.06.26-SVDUP01	TO15	115-07-1	PROPYLENE	UJ
2018.06.26-SVDUP01	TO15	141-78-6	ETHYL ACETATE	UJ
2018.06.26-SVDUP01	TO15	142-82-5	N-HEPTANE	UJ
2018.06.26-SVDUP01	TO15	179601-23-1	M,P-XYLENES	J
2018.06.26-SVDUP01	TO15	622-96-8	4-ETHYLTOLUENE	J
2018.06.26-SVDUP01	TO15	67-63-0	ISOPROPANOL	J
2018.06.26-SVDUP01	TO15	67-66-3	CHLOROFORM	J
2018.06.26-SVDUP01	TO15	71-43-2	BENZENE	J
2018.06.26-SVDUP01	TO15	75-09-2	METHYLENE CHLORIDE	J
2018.06.26-SVDUP01	TO15	75-15-0	CARBON DISULFIDE	J
2018.06.26-SVDUP01	TO15	75-71-8	DICHLORODIFLUOROMETHANE	J
2018.06.26-SVDUP01	TO15	78-93-3	METHYL ETHYL KETONE (2-BUTANONE)	J
2018.06.26-SVDUP01	TO15	79-01-6	TRICHLOROETHYLENE (TCE)	J
2018.06.26-SVDUP01	TO15	95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	J
2018.06.26-SVDUP01	TO15	95-63-6	1,2,4-TRIMETHYLBENZENE	J
SV-02	TO15	106-99-0	1,3-BUTADIENE	UJ
SV-02	TO15	107-05-1	ALLYL CHLORIDE (3-CHLOROPROPENE)	UJ
SV-02	TO15	107-06-2	1,2-DICHLOROETHANE	UJ
SV-02	TO15	107-13-1	ACRYLONITRILE	UJ
SV-02	TO15	108-05-4	VINYL ACETATE	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
SV-02	TO15	110-54-3	N-HEXANE	J
SV-02	TO15	110-82-7	CYCLOHEXANE	UJ
SV-02	TO15	115-07-1	PROPYLENE	J
SV-02	TO15	141-78-6	ETHYL ACETATE	UJ
SV-02	TO15	142-82-5	N-HEPTANE	UJ
SV-02	TO15	156-59-2	CIS-1,2-DICHLOROETHYLENE	UJ
SV-02	TO15	156-60-5	TRANS-1,2-DICHLOROETHENE	UJ
SV-02	TO15	1634-04-4	TERT-BUTYL METHYL ETHER	UJ
SV-02	TO15	56-23-5	CARBON TETRACHLORIDE	J
SV-02	TO15	593-60-2	BROMOETHENE	UJ
SV-02	TO15	67-63-0	ISOPROPANOL	J
SV-02	TO15	67-66-3	CHLOROFORM	UJ
SV-02	TO15	71-43-2	BENZENE	J
SV-02	TO15	71-55-6	1,1,1-TRICHLOROETHANE	UJ
SV-02	TO15	74-83-9	BROMOMETHANE	UJ
SV-02	TO15	74-87-3	CHLOROMETHANE	UJ
SV-02	TO15	75-00-3	CHLOROETHANE	UJ
SV-02	TO15	75-01-4	VINYL CHLORIDE	UJ
SV-02	TO15	75-09-2	METHYLENE CHLORIDE	J
SV-02	TO15	75-15-0	CARBON DISULFIDE	J
SV-02	TO15	75-34-3	1,1-DICHLOROETHANE	UJ
SV-02	TO15	75-35-4	1,1-DICHLOROETHENE	UJ
SV-02	TO15	75-69-4	TRICHLOROFLUOROMETHANE	J
SV-02	TO15	75-71-8	DICHLORODIFLUOROMETHANE	J
SV-02	TO15	76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	UJ
SV-02	TO15	76-14-2	1,2-DICHLOROTETRAFLUOROETHANE	UJ
SV-10	TO15	106-99-0	1,3-BUTADIENE	UJ
SV-10	TO15	107-05-1	ALLYL CHLORIDE (3-CHLOROPROPENE)	UJ
SV-10	TO15	107-06-2	1,2-DICHLOROETHANE	UJ
SV-10	TO15	107-13-1	ACRYLONITRILE	J
SV-10	TO15	108-05-4	VINYL ACETATE	UJ

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
SV-10	TO15	110-54-3	N-HEXANE	J
SV-10	TO15	110-82-7	CYCLOHEXANE	UJ
SV-10	TO15	115-07-1	PROPYLENE	J
SV-10	TO15	141-78-6	ETHYL ACETATE	J
SV-10	TO15	142-82-5	N-HEPTANE	J
SV-10	TO15	156-59-2	CIS-1,2-DICHLOROETHYLENE	UJ
SV-10	TO15	156-60-5	TRANS-1,2-DICHLOROETHENE	UJ
SV-10	TO15	1634-04-4	TERT-BUTYL METHYL ETHER	UJ
SV-10	TO15	56-23-5	CARBON TETRACHLORIDE	J
SV-10	TO15	593-60-2	BROMOETHENE	UJ
SV-10	TO15	67-63-0	ISOPROPANOL	J
SV-10	TO15	67-66-3	CHLOROFORM	UJ
SV-10	TO15	71-43-2	BENZENE	J
SV-10	TO15	71-55-6	1,1,1-TRICHLOROETHANE	UJ
SV-10	TO15	74-83-9	BROMOMETHANE	UJ
SV-10	TO15	74-87-3	CHLOROMETHANE	J
SV-10	TO15	75-00-3	CHLOROETHANE	UJ
SV-10	TO15	75-01-4	VINYL CHLORIDE	UJ
SV-10	TO15	75-09-2	METHYLENE CHLORIDE	J
SV-10	TO15	75-15-0	CARBON DISULFIDE	J
SV-10	TO15	75-34-3	1,1-DICHLOROETHANE	UJ
SV-10	TO15	75-35-4	1,1-DICHLOROETHENE	UJ
SV-10	TO15	75-69-4	TRICHLOROFLUOROMETHANE	J
SV-10	TO15	75-71-8	DICHLORODIFLUOROMETHANE	J
SV-10	TO15	76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	UJ
SV-10	TO15	76-14-2	1,2-DICHLOROTETRAFLUOROETHANE	UJ
SV-14	TO15	100-41-4	ETHYLBENZENE	J
SV-14	TO15	100-42-5	STYRENE	J
SV-14	TO15	108-10-1	METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	J
SV-14	TO15	108-67-8	1,3,5-TRIMETHYLBENZENE (MESITYLENE)	J

Client Sample ID	*Analysis*	*CAS #*	*Analyte*	*Validator Qualifier*
SV-14	TO15	108-88-3	TOLUENE	J
SV-14	TO15	109-99-9	TETRAHYDROFURAN	J
SV-14	TO15	110-54-3	N-HEXANE	J
SV-14	TO15	115-07-1	PROPYLENE	J
SV-14	TO15	141-78-6	ETHYL ACETATE	J
SV-14	TO15	142-82-5	N-HEPTANE	J
SV-14	TO15	179601-23-1	M,P-XYLENES	J
SV-14	TO15	622-96-8	4-ETHYLTOLUENE	J
SV-14	TO15	67-63-0	ISOPROPANOL	J
SV-14	TO15	67-66-3	CHLOROFORM	UJ
SV-14	TO15	71-43-2	BENZENE	J
SV-14	TO15	75-09-2	METHYLENE CHLORIDE	J
SV-14	TO15	75-15-0	CARBON DISULFIDE	J
SV-14	TO15	75-71-8	DICHLORODIFLUOROMETHANE	J
SV-14	TO15	78-93-3	METHYL ETHYL KETONE (2-BUTANONE)	J
SV-14	TO15	79-01-6	TRICHLOROETHYLENE (TCE)	UJ
SV-14	TO15	95-47-6	O-XYLENE (1,2-DIMETHYLBENZENE)	J
SV-14	TO15	95-63-6	1,2,4-TRIMETHYLBENZENE	J

MAJOR DEFICIENCIES:

Major deficiencies include those that grossly impact data quality and necessitate the rejection of results. No major deficiencies were identified.

MINOR DEFICIENCIES:

Minor deficiencies include anomalies that directly impact data quality and necessitate qualification, but do not result in unusable data. The section below describes the minor deficiencies that were identified.

VOCs by USEPA TO-15:

Laboratory duplicate sample 2018.06.26-OA01 displayed relative percent differences (RPDs) greater than the control limit for n-heptane at 26.1% and trichloroethene at 28.6%. The associated positive sample results are qualified as "J".

Samples SV-02 and SV-10 displayed internal standard area counts less than the lower control limit for bromochloromethane at 35% and 53%, respectively. The associated results for analytes quantitated by bromochloromethane are qualified as estimated.

OTHER DEFICIENCIES:

Other deficiencies include anomalies that do not directly impact data quality and do not necessitate qualification. The section below describes the other deficiencies that were identified.

VOCs by USEPA TO-15:

Laboratory control sample (LCS) BF81654-BS1 displayed recoveries greater than the upper control limit for MTBE at 166% and vinyl acetate at 144%. The associated sample results were non-detect; qualification is not necessary.

LCS BG80056-BS1 displayed recoveries greater than the upper control limit for MTBE at 165% and vinyl acetate at 145%. The associated sample results were non-detect; qualification is not necessary.

The second-source calibration verification (Y8F2018-SCV1) exhibited percent differences greater than the control limit with positive biases for MTBE and vinyl acetate at 70.5% and 44.8%, respectively. The associated sample results were non-detect; qualification is not necessary.

COMMENTS:

One field duplicate and parent sample pair (2018.06.26-SVDUP01 and SV-14) was collected and analyzed for VOCs. For results less than 5X the RL, analytes meet the precision criteria if the absolute difference is less than ±1X the RL. For results greater than 5X the RL, analytes meet the precision criteria if the RPD is less than or equal to 35%. The following analytes did not meet the precision criteria: benzene, carbon disulfide, chloroform, dichlorodifluoromethane, ethyl acetate, ethylbenzene, isopropanol, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 2-butanone, 4-methyl-2-pentanone, methylene chloride, n-heptane, o-xylene, m,p-xylenes, p-ethyltoluene, propylene, styrene, tetrahydrofuran, toluene, and trichloroethene.

On the basis of this evaluation, the laboratory appears to have followed the specified analytical methods with the exception of errors discussed above. If a given fraction is not mentioned above, that means that all specified criteria were met for that parameter. All sample hold times were met and the data packages met ASP Category B requirements.

All data are considered usable, as qualified. In addition, completeness, defined as the percentage of analytical results that are judged to be valid, is 100%.

Signed:

Emily Strake, CEP
Senior Project Chemist/Risk Assessor