Dermody Consulting

Geologists and Environmental Scientists

32 Chichester Avenue, Center Moriches, NY 11934

Tel 631.878.3510 Fax 631.878.3560

March 8, 2019

Mr. Shaun Bollers
New York State Department
of Environmental Conservation
Division of Environmental Remediation,
Region 2 47-40 21st Street
Long Island City, New York 11101-5407

Re: **Former Sep's Cleaners**
250 Livonia Avenue, Brooklyn. New York

Dear Mr. Bollers:

As per your request, Dermody Consulting is providing this revised report on the evaluation of the efficacy of the remedial system for the above-referenced site. The tasks completed were in accordance with our conference call and subsequent work plan that was submitted to your attention on September 26, 2018.

Dermody Consulting has been operating an Air Sparge/Soil Vapor Extraction (AS/SVE) system at the site since 2014. Based on the achievement of a significant reduction in the concentrations of tetrachloroethylene and its degradation products (the primary contaminants present at the site) in the soil and groundwater as the result of the operation of the remedial system, Dermody Consulting requested that the New York State Department of Environmental Conservation (NYSDEC) consider allowing the discontinuation of the air sparging portion of the system. The soil vapor extraction portion of the system would continue to operate since it is required to maintain depressurization beneath the site building to prevent soil vapor intrusion.

As a component of the evaluation of whether the groundwater remediation has provided an adequate reduction in groundwater contamination concentrations, the NYSDEC requested the installation of one shallow and one deep groundwater monitoring well in the area where the highest concentrations of contaminants were present in the soil and groundwater (which is the area adjacent to the northwest corner of the former concrete dumpster platform as shown in Figure 1). In addition, the NYSDEC requested that two soil samples be obtained: one at the location of previous soil boring SB-15 and the other at the location of previous boring SB-22 (see Figure 2 for the locations of these previous soil borings).

Dermody Consulting completed the installation of the paired monitoring wells which are designated as MW-7S and MW-7D, and obtained the soil samples which are designated as SB-15A and SB-22A, in October and November, 2018.

At location SB-15A, a Geoprobe drilling rig was used to perform continuous soil coring to a depth of 10 feet below grade. During the inspection of the cores, there was a clear demarcation of the clean sand backfill that was placed in this area following the previous removal of contaminated soil. The recent coring showed that the backfill extended to a depth of 7 feet below grade and native soil was present below the backfill. Therefore, a soil sample was obtained from a depth interval of 7 to 8.5 feet below grade.

A second soil sample was obtained at SB-22A. A core was obtained from 0 to 5 feet below grade and a soil sample was obtained from 2 to 4 feet below grade. The two soil samples were placed in laboratory supplied containers and then placed in a cooler with ice. The samples were then transferred to the custody of York Analytical Laboratories, Inc. for the analysis of volatile organic compounds (VOCs) by EPA Method 8260. The purpose of the analyses is to determine the concentrations of residual contamination in the native soil following approximately 4.5 years of soil vapor extraction.

For the groundwater monitoring wells, MW-7S was installed to a depth of 25.21 feet below grade and MW-7D was installed to a depth of 45.75 feet. The depth to groundwater at each well was determined to be approximately 20.5 feet below grade. The wells were installed with a Geoprobe rig and were constructed of 2-inch diameter PVC. MW-7S contains a ten-foot-long, 0.02-inch-slot PVC screen installed five feet into the water table. MW-7D contains a five-foot screen installed from 41 to 46 feet below grade. No. 2 Morie-sized gravel was placed in the borehole opposite the screened interval and bentonite was then placed on the well to grade and a flush-to-grade manhole was installed with concrete. A locking J-cap was placed on top of the well.

The wells were developed and then sampled one week later. The wells were purged prior to sampling utilizing a Geotech 2 peristaltic pump with a low-flow controller. The intake was set to draw water from the approximate mid-point of the screened interval at each well. Prior to collecting the groundwater samples, stability parameters [pH, ORP, dissolved oxygen (DO), specific conductivity, and temperature] were recorded with a Horiba U-52 with a flow-through cell. Turbidity was measured with a Hanchen SGZ-200BS turbidity meter (turbidity readings were obtained from a sampling port within the tubing set before entering the flow-through cell). A groundwater sample was collected from each well when the set of three consecutive readings show turbidity readings of less than 5 nephelometric turbidity units (NTUs) or within 10 percent of the readings that are above 5 NTUs; DO levels below 5 percent or within 10 percent if the DO readings exceed 5 NTUs; specific conductivity and temperature within 3 percent; pH within 0.1 units; and, ORP within 10 millivolts. The samples were obtained after disconnecting the flow through cell and were obtained

directly from the sampling pump tubing. The samples were placed in 40 ml. glass vials with zero headspace, sealed, placed in a cooler of ice, and transferred to the custody of York Analytical Laboratories, Inc. for analysis of volatile organic compounds (VOCs) by US Environmental Protection Agency (EPA) Method 8260. Laboratory-supplied containers were also filled for laboratory analysis of semi-volatile organic compounds (SVOCs) by Method 8270, PCBs, pesticides, 1,4-dioxane, polyfluoryl active substances (PFAS), metals, and total hardness. The purging forms are provided in Attachment A.

Since PFAS was being sampled, precautions were taken that included the use of nitrile sampling gloves, no waterproof clothing, HDPE sample tubing was used, no deodorant or shampoos or soaps were used by during the day of sampling, and no weatherproof notebooks were present. In addition, for the PFAS samples, an equipment blank was prepared using the Horiba pump, HDPE tubing and laboratory-supplied water. A field blank was also prepared by pouring laboratory-supplied water from one container to another. A matrix spike and matrix spike duplicate were also prepared from water from well MW-7S. Also, the PFAS samples were placed in a dedicated ice-filled cooler.

Soil Sampling Results

The soil sampling results are summarized in Table 1 and the laboratory reports are provided in Attachment B. The results show that the VOC concentrations at both sampling locations have decreased significantly. For sample SB-15A, the concentration of tetrachloroethylene prior to remediation was 370,000 ug/kg (micrograms per kilogram) at SB-15 in the shallow soil (SB-15A is a few feet from SB-15 due to the installation of subsurface system piping adjacent and west of the concrete platform). The tetrachloroethylene concentration at SB-15A was 170 ug/kg is significantly below the Part 375-6.8 commercial guideline concentration of 150,000 ug/kg. Other VOCs are also present at this location at trace to very low concentrations.

For sample SB-22A, the shallow soil tetrachloroethylene concentration was 4,200 ug/kg prior to the commencement of remediation. The tetrachloroethylene concentration during the recent sampling was reduced to 20 ug/kg. Other VOCs were present in the soil at trace concentrations.

Groundwater Sampling Results

For the groundwater sampling, the results are summarized in Tables 2 through 5 and the laboratory reports are provided in Attachment B. The results show that the concentrations of groundwater contaminants have decreased significantly during the period of remediation.

The concentrations of tetrachloroethylene and its degradation products before the remediation were 39,000 ug/l (micrograms per liter) in the shallow groundwater, and 2,500 ug/l in the deep groundwater. The recent sampling results (see Table 2) showed that the shallow groundwater at MW-7S showed slight exceedances of the Class GA Groundwater Standards for tetrachloroethylene (which was detected at 5.1 ug/l and is

just above the standard of 5 ug/l), and cis-1,2-dichloroethylene (which was detected at 9.2 ug/l and is above the standard of 5 ug/l). The deep well, MW-7D, contained trace concentrations of VOCs and no levels above the standards. These findings are consistent with levels detected during the quarterly groundwater monitoring at the downgradient wells closest to the primary area of concern.

Table 3 shows the results for SVOCs, pesticides, PCBs, and total hardness. The results showed no exceedances of the standards for SVOCS, no detections of pesticides or PCBs, and hardness levels of 269 mg/l (milligrams per liter) at MW-7S, and 432 mg/l at MW-7D. The results for metals are shown in Table 4 and show exceedances of the groundwater standards for manganese, sodium, and selenium.

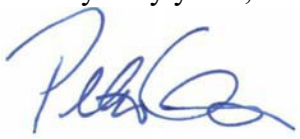
The results for PFAS and 1,4-dioxane are shown in Table 5. The results show the detection of various PFAS, including a maximum PFAS detection of PFOS at 120 parts per trillion. No 1,4-dioxane was detected in the wells.

Conclusions

Based on the findings of this investigation, the remediation system at the site has acted to significantly reduce both concentrations of soil and groundwater VOC contamination. The recent results showed soil contamination well below the SCOs. Also, the VOC groundwater concentrations in the source area have been reduced concentration below or just above the groundwater standards. The only other exceedances of groundwater standards were for the metals manganese, sodium, and selenium. Manganese can be found at naturally elevated levels in this area, and the selenium and sodium may be attributable to the fill material that was used at the site and that is ubiquitous in many developed areas of Brooklyn. Therefore, Dermody Consulting wishes to request that NYSDEC consider allowing the air sparging at the site to be considered as complete. Dermody Consulting will continue to operate the soil vapor extraction system for the primary purpose of preventing soil vapor intrusion at the site building.

Should you require additional information, please feel free to contact me.

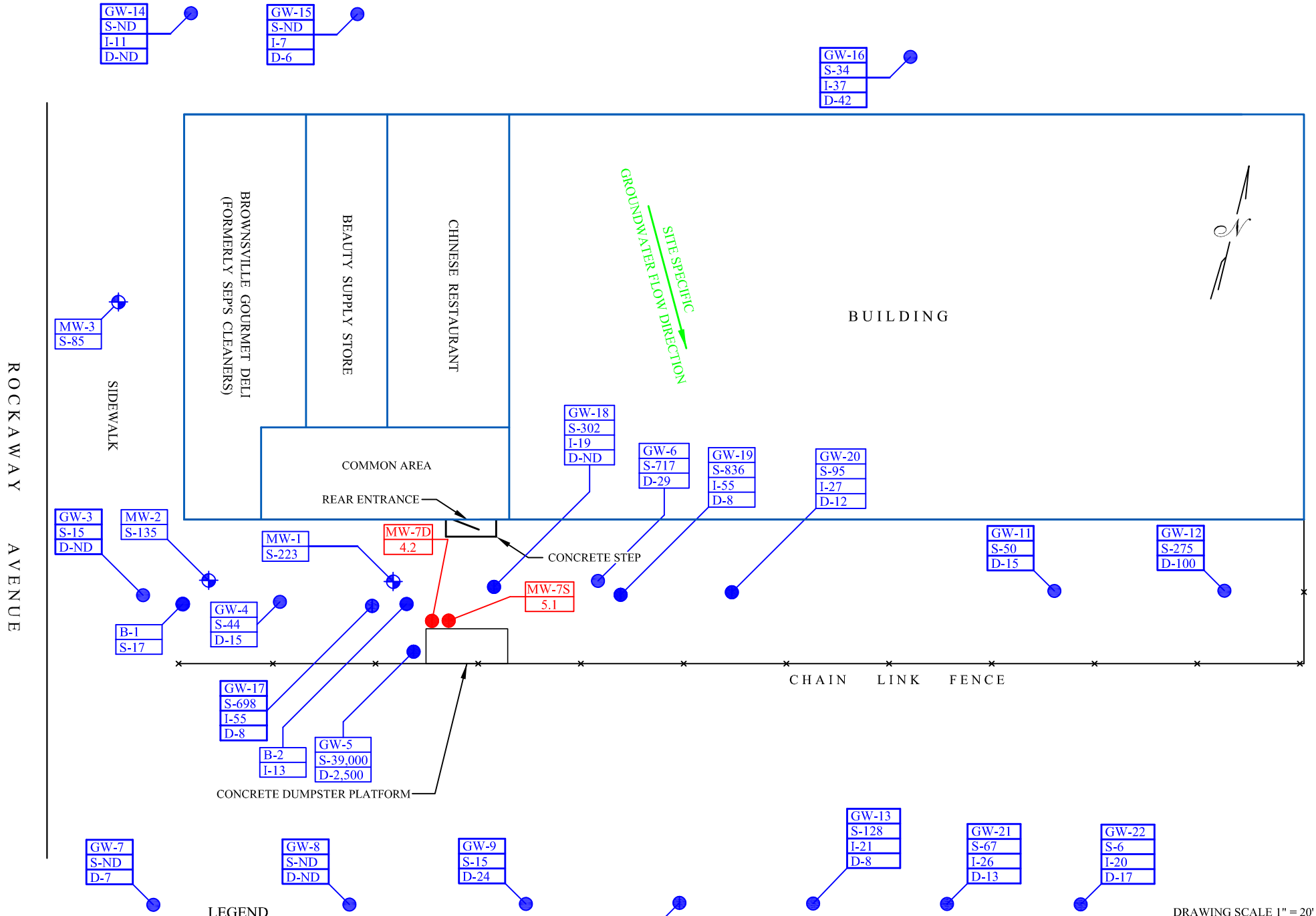
Very truly yours,



Peter Dermody, C.P.G.
Principal Hydrogeologist

enclosures

cc: Barry Cohen



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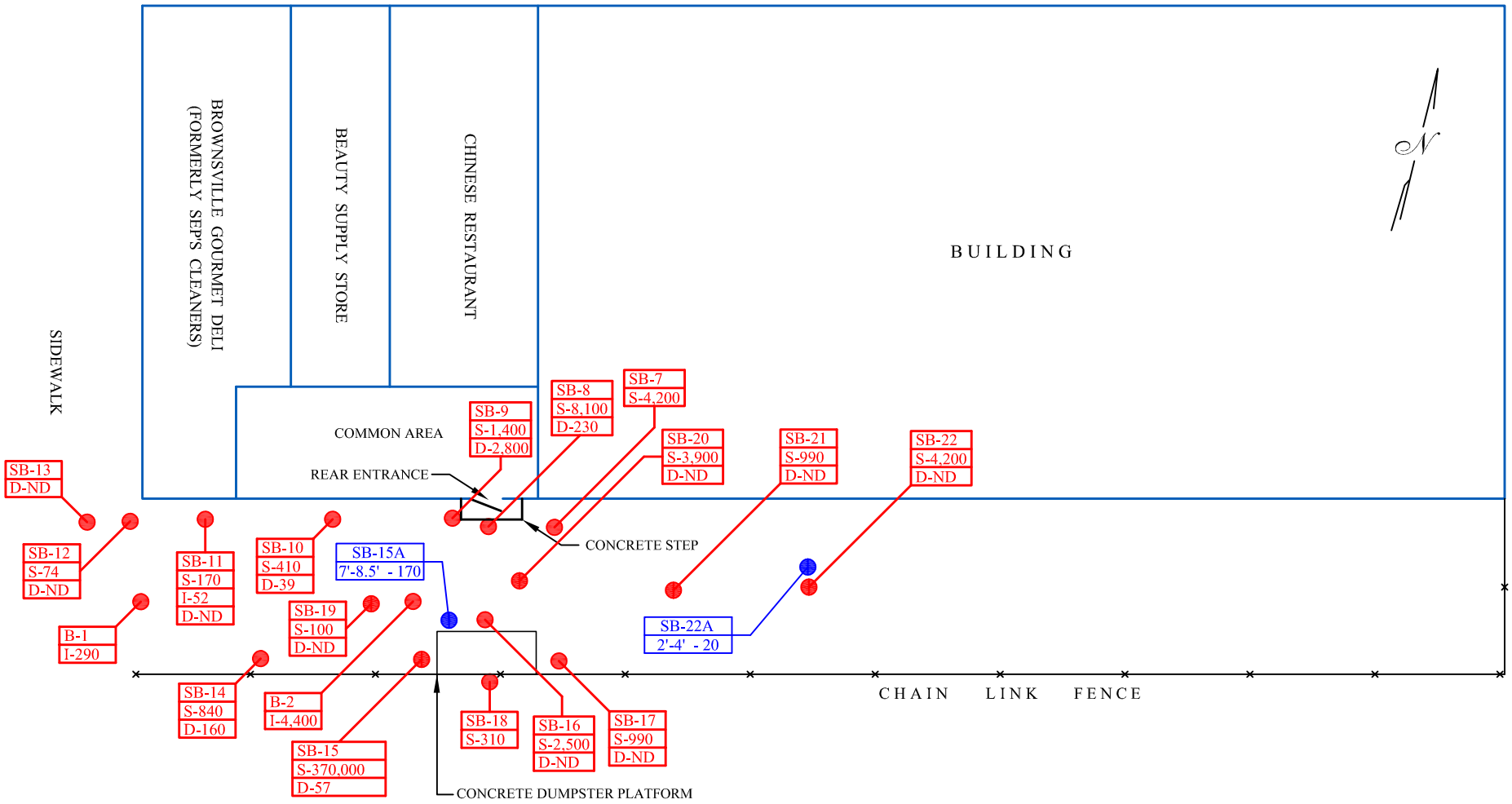
CENTER MORICHES, NEW YORK

FIGURE 1
SUMMARY OF TETRACHLOROETHYLENE IN PREVIOUS (IN BLUE) AND RECENT (IN RED) GROUNDWATER SAMPLING LOCATIONS
250 LIVONIA AVENUE BROOKLYN, NEW YORK



LEGEND

SB-15A SOIL BORING SAMPLING LOCATION

SB-7 SOIL BORING SAMPLING LOCATION

S-4,200 TETRACHLOROETHYLENE CONCENTRATIONS µg / Kg AND APPROXIMATE SAMPLING DEPTH: S- SHALLOW (0-6'), I- INTERMEDIATE (6'-16') AND D-DEEP (16'-20')
ND- NOT DETECTED

DRAWING SCALE 1" = 20'

DERMODY CONSULTING
CENTER MORICHES, NEW YORK

FIGURE 2

SUMMARY OF TETRACHLOROETHYLENE CONCENTRATIONS IN PREVIOUS (IN RED) AND RECENT (IN BLUE) SOIL SAMPLING LOCATIONS

250 LIVONIA AVENUE
BROOKLYN, NEW YORK

Table 1
Volatile Organic Compounds
Soil Sample Chemical Analytical Results
250 Livonia Ave Brooklyn, New York

Sample ID	SB-22A	SB-15A	NYSDEC Part 375 Commercial Use Soil Cleanup Objectives
Sample Depth	2-4’	7-8.5’	
Sample Date	10/24/18	10/30/18	
Naphthalene	3.2 J	ND	500,000
Tetrachloroethylene	20	170	150,000
Toluene	3.3	ND	500,000
cis-1,2-Dichloroethylene	ND	37	30,000
Methylene chloride	ND	7.0 J	500,000
Trichloroethylene	ND	45	200,000

Notes:
Results are in ug/kg.
Only detected analytes are reported.
ND = Not Detected
J = The concentration is estimated.

Table 2
Volatile Organic Compounds
Groundwater Sample Chemical Analytical Results
250 Livonia Ave., Brooklyn, New York

Sample ID	MW-7S	MW-7D	NYSDEC Class GA Ambient Water Quality Standards
Sample Date	**11/15/18**	**11/15/18**	
Chloromethane	0.46 J	ND	**5***
Tetrachloroethylene	**5.1**	4.2	**5***
Trichloroethylene	2.4	0.77	**5***
Chloroform	ND	4.1	**7**
trans-1,2-Dichloroethylene	0.21 J	ND	**5***
cis-1,2-Dichloroethylene	**9.2**	0.29 J	**5***

Notes:
Only detected analytes are reported.
ND = Not Detected
J - The concentration is estimated.
* - The Principal Organic Contaminant Standard applies.

Table 3
Semi-Volatile Organic Compounds, Pesticides/PCBs and Hardness
Groundwater Sample Chemical Analytical Results
250 Livonia Ave., Brooklyn, New York

Sample ID	MW-7S	MW-7D	NYSDEC Class GA Ambient Water Quality Standards
Sample Date	11/15/18	11/15/18	
Acenaphthylene	0.0700	ND	20
Naphthalene	0.0600	ND	10
Pyrene	0.0500	ND	50

Notes:
Only detected analytes are reported.
ND = Not Detected

Sample ID	MW-7S	MW-7D	NYSDEC Class GA Ambient Water Quality Standards
Sample Date	11/15/18	11/15/18	
Pesticides	ND	ND	NA
PCBs	ND	ND	NA
Total Hardness	269	432	--

Notes:
Total Hardness results in mg/l.
ND = Not Detected
NA – Not applicable
-- -No GA standard or TOGS 1.1.1 guideline

Table 4
Metals
Groundwater Sample Chemical Analytical Results
250 Livonia Ave., Brooklyn, New York

Sample ID	MW-7S	MW-7D	NYSDEC Class GA Ambient Water Quality Standards
Sample Date	**11/15/18**	**11/15/18**	
Barium	0.060	0.119	**1**
Calcium	92.0	134	**--**
Magnesium	9.65	24	**35**
Manganese	0.291	**4.41**	**0.3**
Potassium	11.9 B	12.2	**--**
Selenium	**0.030**	**0.072**	**0.01**
Sodium	**104**	**151**	**20**
Zinc	ND	0.036	**2**
Aluminum	0.065	ND	**--**

Notes:
Results in mg/l.
Only detected analytes are reported.
ND - Not Detected
-- - No standard or guideline is available

Table 5
PFASs and 1,4-Dioxane
Groundwater Sample Chemical Analytical Results
250 Livonia Ave., Brooklyn, New York

Sample ID	MW-7S	MW-7D	FB-1	EB-1
Sample Date	11/15/18	11/15/18	11/15/18	11/15/18
Perfluorobutanesulfonic acid	8.9	8.5	ND	ND
Perfluorohexanoic acid	49	28	ND	ND
Perfluoroheptanoic acid	13	14	ND	ND
Perfluoroheptanesulfonic acid	2.4	ND	ND	ND
Perfluorobutanoic acid	9.6	4.4	ND	ND
Perfluoropentanoic acid	53	27	ND	ND
Perfluorohexanesulfonic acid	7.5	6.0	ND	ND
Perfluorooctanoic acid	39	50	ND	ND
Perfluorooctanesulfonic acid	120	48	ND	ND
Perfluorononanoic acid	4.6	2.1	ND	ND
Perfluorodecanoic acid	3.7	ND	ND	ND

Sample ID	MW-7S	MW-7D	FB-1	EB-1
Sample Date	7/5/18	7/5/18	7/2/18	7/2/18
1,4-Dioxane	ND	ND	ND	ND

Notes:
Only detected analytes are reported.
PFAS results in parts per trillion. 1,4-dioxane results in ug/l.
ND - Not Detected

ATTACHMENT A

APPENDIX C

EXAMPLE (Minimum Requirements)

WELL PURGING-FIELD WATER QUALITY MEASUREMENTS FORM

Location (Site/Facility Name) Livonia Ave.
Well Number MW-7S Date 11/15/18
Field Personnel Pete Dermody
Sampling Organization Dermody Consulting
Identify MP

Depth to 15 / 25 of screen
(below MP) top bottom
Pump Intake at (ft. below MP) 22.5'
Purging Device; (pump type) Peristaltic
Total Volume Purged

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1]	Purge Rate ml/min	Cum. Volume Purged liters	Temp. "C	Spec. Cond.[2] µS/cm	pH	ORP[3] mv	DO mg/L	Tur-bidity NTU	Comments
1258	20.51		200 ml/min	~~28 lit.~~ ~~9 lits.~~	~~6.73~~ 19.39	1.05	6.73	62	23.3	72	
1307	20.51		"	9 liters	19.16	1.11	6.67	65	1.62	24.2	
1312	20.53		"	10 liters	19.25	1.12	6.67	67	1.60	22.2	

Stabilization Criteria 3% 3% ±0.1 ±10 mv 10% 10%

1. Pump dial setting (for example: hertz, cycles/min, etc).
2. µSiemens per cm(same as µmhos/cm)at 25°C.
3. Oxidation reduction potential (ORP)

APPENDIX C

EXAMPLE (Minimum Requirements)

WELL PURGING-FIELD WATER QUALITY MEASUREMENTS FORM

Location (Site/Facility Name) Livonia Ave.
Well Number MW-70 Date 11/15/18
Field Personnel Pete-Demody
Sampling Organization Demody Consulting
Identify MP

Depth to ____/____ of screen
(below MP) top bottom
Pump Intake at (ft. below MP) ____
Purging Device; (pump type) Peristaltic
Total Volume Purged ____

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1]	Purge Rate ml/min	Cum. Volume Purged liters	Temp. "C	Spec. Cond.[2] µS/cm	pH	ORP[3] mv	DO mg/L	Tur-bidity NTU	Comments
1159	20.46		200 ml/min	0	17.34	1.23	6.97	-99	16.6	56	
1205	20.47		"	1 liter	17.33	1.61	6.50	-54	18.1	66	
1211	20.46		"	2.2 liters	17.34	1.69	6.41	-19	0.8	68	
1217	20.47		"	4 liters	17.44	1.71	6.40	-4	1.9	50.	
1228	20.48		"	5 liters	17.43	1.71	6.41	-8	1.8	48.6	
Stabilization Criteria					3%	3%	±0.1	±10 mv	10%	10%	

1. Pump dial setting (for example: hertz, cycles/min, etc).
2. µSiemens per cm(same as µmhos/cm)at 25°C.
3. Oxidation reduction potential (ORP)

ATTACHMENT B

Technical Report

prepared for:

Dermody Consulting, Inc.
32 Chichester Ave., 2nd Floor
Center Moriches NY, 11934
Attention: Peter Dermody

Report Date: 10/24/2018
Client Project ID: Livonia Ave
York Project (SDG) No.: 18J0817

Report Date: 10/24/2018
Client Project ID: Livonia Ave
York Project (SDG) No.: 18J0817

Dermody Consulting, Inc.
32 Chichester Ave., 2nd Floor
Center Moriches NY, 11934
Attention: Peter Dermody

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 October 17, 2018 and listed below. The project was identified as your project: **Livonia Ave**.

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
18J0817-01	SB-22A (2-4')	Soil	10/16/2018	10/17/2018

General Notes for York Project (SDG) No.: 18J0817

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: 10/24/2018

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: SB-22A (2-4')

York Sample ID: 18J0817-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18J0817	Livonia Ave	Soil	October 16, 2018 12:00 am	10/17/2018

Volatile Organics, 8260 List

Log-in Notes: VOA-CON T

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
563-58-6	1,1-Dichloropropylene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
142-28-9	1,3-Dichloropropane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		

Sample Information

Client Sample ID: SB-22A (2-4')

York Sample ID: 18J0817-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18J0817	Livonia Ave	Soil	October 16, 2018 12:00 am	10/17/2018

Volatile Organics, 8260 List

Log-in Notes: VOA-CON T

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
123-91-1	1,4-Dioxane	ND		ug/kg dry	56	110	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
594-20-7	2,2-Dichloropropane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058		
78-93-3	2-Butanone	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
95-49-8	2-Chlorotoluene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
106-43-4	4-Chlorotoluene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
67-64-1	Acetone	ND		ug/kg dry	5.6	11	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
71-43-2	Benzene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
108-86-1	Bromobenzene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
74-97-5	Bromochloromethane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
75-27-4	Bromodichloromethane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
75-25-2	Bromoform	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
74-83-9	Bromomethane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
56-23-5	Carbon tetrachloride	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
108-90-7	Chlorobenzene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
75-00-3	Chloroethane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
67-66-3	Chloroform	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
74-87-3	Chloromethane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
124-48-1	Dibromochloromethane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		

Sample Information

Client Sample ID: SB-22A (2-4')

York Sample ID: 18J0817-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18J0817	Livonia Ave	Soil	October 16, 2018 12:00 am	10/17/2018

Volatile Organics, 8260 List

Log-in Notes: VOA-CON T

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-95-3	Dibromomethane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C Certifications:	10/19/2018 23:07 NELAC-NY10854,NJDEP,NELAC-NY12058,PAI	10/19/2018 23:07	LLJ
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C Certifications:	10/19/2018 23:07 NELAC-NY10854,NJDEP,NELAC-NY12058,PAI	10/19/2018 23:07	LLJ
100-41-4	Ethyl Benzene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C Certifications:	10/19/2018 23:07 CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	10/19/2018 23:07	LLJ
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C Certifications:	10/19/2018 23:07 NELAC-NY10854,NJDEP,NELAC-NY12058,PAI	10/19/2018 23:07	LLJ
98-82-8	Isopropylbenzene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C Certifications:	10/19/2018 23:07 CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	10/19/2018 23:07	LLJ
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	2.8	5.6	1	EPA 8260C Certifications:	10/19/2018 23:07 CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	10/19/2018 23:07	LLJ
75-09-2	Methylene chloride	ND		ug/kg dry	5.6	11	1	EPA 8260C Certifications:	10/19/2018 23:07 CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	10/19/2018 23:07	LLJ
91-20-3	**Naphthalene**	**3.2**	J	ug/kg dry	2.8	11	1	EPA 8260C Certifications:	10/19/2018 23:07 NELAC-NY10854,NJDEP,NELAC-NY12058,PAI	10/19/2018 23:07	LLJ
104-51-8	n-Butylbenzene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C Certifications:	10/19/2018 23:07 CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	10/19/2018 23:07	LLJ
103-65-1	n-Propylbenzene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C Certifications:	10/19/2018 23:07 CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	10/19/2018 23:07	LLJ
95-47-6	o-Xylene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C Certifications:	10/19/2018 23:07 CTDOH,NELAC-NY10854,NELAC-NY12058,PA	10/19/2018 23:07	LLJ
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	5.6	11	1	EPA 8260C Certifications:	10/19/2018 23:07 CTDOH,NELAC-NY10854,NELAC-NY12058,PA	10/19/2018 23:07	LLJ
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C Certifications:	10/19/2018 23:07 CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	10/19/2018 23:07	LLJ
135-98-8	sec-Butylbenzene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C Certifications:	10/19/2018 23:07 CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	10/19/2018 23:07	LLJ
100-42-5	Styrene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C Certifications:	10/19/2018 23:07 CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	10/19/2018 23:07	LLJ
98-06-6	tert-Butylbenzene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C Certifications:	10/19/2018 23:07 CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	10/19/2018 23:07	LLJ
127-18-4	**Tetrachloroethylene**	**20**		ug/kg dry	2.8	5.6	1	EPA 8260C Certifications:	10/19/2018 23:07 CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	10/19/2018 23:07	LLJ
108-88-3	**Toluene**	**3.3**	J	ug/kg dry	2.8	5.6	1	EPA 8260C Certifications:	10/19/2018 23:07 CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	10/19/2018 23:07	LLJ
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C Certifications:	10/19/2018 23:07 CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	10/19/2018 23:07	LLJ
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C Certifications:	10/19/2018 23:07 CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	10/19/2018 23:07	LLJ
79-01-6	Trichloroethylene	ND		ug/kg dry	2.8	5.6	1	EPA 8260C Certifications:	10/19/2018 23:07 CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	10/19/2018 23:07	LLJ
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	2.8	5.6	1	EPA 8260C Certifications:	10/19/2018 23:07 CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	10/19/2018 23:07	LLJ

Sample Information

Client Sample ID: SB-22A (2-4')

York Sample ID: 18J0817-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18J0817	Livonia Ave	Soil	October 16, 2018 12:00 am	10/17/2018

Volatile Organics, 8260 List

Log-in Notes: VOA-CONT

Sample Notes:

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
75-01-4	Vinyl Chloride	ND		ug/kg dry	2.8	5.6	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
1330-20-7	Xylenes, Total	ND		ug/kg dry	8.3	17	1	EPA 8260C	10/19/2018 23:07	10/19/2018 23:07	LLJ
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*94.6 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*117 %*	*85-120*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*124 %*	*76-130*

Total Solids

Log-in Notes: VOA-CONT

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**90.0**		%	0.100	1	SM 2540G	10/24/2018 10:03	10/24/2018 16:01	TAJ
							Certifications:	CTDOH		

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
18J0817-01	SB-22A (2-4')	2 oz. WM Clear Glass Cool to 4° C

Sample and Data Qualifiers Relating to This Work Order

VOA-CONT	Non-Compliant - the container(s) provided by the client for soil volatiles do not meet the requirements of EPA SW846-5035A. Results reported below 200 ug/kg may be biased low due to samples not being collected according to EPA SW846 5035A requirements.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.

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 DR.
STRATFORD, CT 06615
(203) 325-1371
FAX (203) 357-0166

Field Chain-of-Custody Record

NOTE: York's Std. Terms & Conditions are listed on the back side of this document.
This document serves as your written authorization to York to proceed with the analyses requested and your signature binds you to York's Std. Terms & Conditions.

York Project No. 18J0817

YOUR Information	**Report To:**	**Invoice To:**	**YOUR Project ID**	**Turn-Around Time**	**Report Type**
Company: DERMody CONSULTING	Company: PETER DERMody	Company: SAME	Livonia Ave	RUSH - Same Day ☐	Summary Report X
Address:	Address:	Address:	**Purchase Order No.**	RUSH - Next Day ☐	Summary w/ QA Summary
Phone No.	Phone No.	Phone No.		RUSH - Two Day ☐	CT RCP Package
Contact Person:	Attention:	Attention:		RUSH - Three Day ☐	CTRCP DQA/DUE Pkg
E-Mail Address:	E-Mail Address:	E-Mail Address:	Samples from: CT ( ) NY NJ	RUSH - Four Day ☐	NY ASP A Package
				Standard(5-7 Days) X	NY ASP B Package
					NJDEP Red. Deliv.
					Electronic Data Deliverables (EDD)
					Simple Excel
					NYSDEC EQuIS
					EQuIS (std)
					EZ-EDD (EQuIS)
					NJDEP SRP HazSite EDD
					GIS/KEY (std)
					Other
					York Regulatory Comparison
					Excel Spreadsheet
					Compare to the following Regs. (please fill in):

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.

Samples Collected/Authorized By (Signature)

Peter Dermody
Name (printed)

Matrix Codes
S - soil
Other - specify(oil, etc.)
WW - wastewater
GW - groundwater
DW - drinking water
Air-A - ambient air
Air-SV - soil vapor

Volatiles		**Semi-Vols.**	**Pest/PCB/Herb**	**Metals**	**Misc. Org.**	**Full Lists**	**Misc.**
8260 full	TICs	8270 or 625	8082PCB	RCRA8	TPH GRO	Pri.Poll.	Corrosivity
624	Site Spec.	STARS list	8081Pest	PP13 list	TPH DRO	TCL Organics	Reactivity
STARS list	Nassau Co.	BN Only	8151Herb	TAL	CT ETPH	TAL Met/CN	Ignitability
BTEX	Suffolk Co.	Acids Only	CT RCP	CT15 list	NY 310-13	Full TCLP	Flash Point
MTBE	Ketones	PAH list	App. IX	TAGM list	TPH 1664	Full App. IX	Sieve Anal.
TCL list	Oxygenates	TAGM list	Site Spec.	NJDEP list	Air TO14A	Part 360-Routine	Heterotrophs
TAGM list	TCLP list	CT RCP list	SPLP or TCLP	Total	Air TO15	Part 360-Baseline	TOX
CT RCP list	524.2	TCL list	TCLP Pest	Dissolved	Air STARS	Part 360-Expanded No Dioxins/Furans	BTU/lb.
Arom. only	502.2	NJDEP list	TCLP Herb	SPLP or TCLP	Air VPH	Part 360-Expanded Full List	Aquatic Tox.
Halog.only	NJDEP list	App. IX	Chlordane	Indiv. Metals	Air TICs	NYCDEP Sewer	TOC
App.IX list	SPLP or TCLP	TCLP BNA	608 Pest	LIST Below	Methane	NYSDEC Sewer	Asbestos
8021B list		SPLP or TCLP	608 PCB		Helium	TAGM	Silica

Sample Identification	**Date/Time Sampled**	**Sample Matrix**	**Choose Analyses Needed from the Menu Above and Enter Below**	Container Description(s)
SB-22A(2-4')	10/16/18	S	VOCs 8260	1-4oz, 1-2oz jar

Comments

Preservation Check those Applicable
Special Instructions
Field Filtered ☐
Lab to Filter ☐

4°C X Frozen ___ HCl ___ MeOH ___ HNO_3 ___ H_2SO_4 ___ NaOH ___
ZnAc ___ Ascorbic Acid ___ Other ___

Samples Relinquished By	Date/Time	Samples Received By	Date/Time
	10/17/18 1825		10/17/18 1825
Samples Relinquished By	Date/Time	Samples Received in LAB by	Date/Time
	10/17/18 1822		10/17/18 1822

Temperature on Receipt 2.1 °C

Technical Report

prepared for:

Dermody Consulting, Inc.
32 Chichester Ave., 2nd Floor
Center Moriches NY, 11934
Attention: Peter Dermody

Report Date: 12/04/2018
Client Project ID: Livonia Ave.
York Project (SDG) No.: 18K0697

Report Date: 12/04/2018
Client Project ID: Livonia Ave.
York Project (SDG) No.: 18K0697

Dermody Consulting, Inc.
32 Chichester Ave., 2nd Floor
Center Moriches NY, 11934
Attention: Peter Dermody

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 November 16, 2018 and listed below. The project was identified as your project: **Livonia Ave.**.

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
18K0697-01	EB-1	Water	11/15/2018	11/16/2018
18K0697-02	FB-1	Water	11/15/2018	11/16/2018
18K0697-03	MW-7S	Water	11/15/2018	11/16/2018
18K0697-04	MW-7D	Water	11/15/2018	11/16/2018

General Notes for York Project (SDG) No.: 18K0697

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: 12/04/2018

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: EB-1 **York Sample ID:** 18K0697-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0697	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Analyzed by: Con-Test Analytical Laboratory

PFAS in Water by EPA 537

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Perfluoropentanoic acid (PFPeA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
307-24-4	Perfluorohexanoic acid (PFHxA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
375-85-9	Perfluoroheptanoic acid (PFHpA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
335-67-1	Perfluorooctanoic acid (PFOA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
375-95-1	Perfluorononanoic acid (PFNA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
335-76-2	Perfluorodecanoic acid (PFDA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
	NMeFOSAA	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
	NEtFOSAA	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
307-55-1	Perfluorododecanoic acid (PFDoA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
376-06-7	Perfluorotetradecanoic acid (PFTA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	

Surrogate Recoveries	Result	Acceptance Range
Surrogate: 13C-PFHxA	*%*	*70-130*
Surrogate: 13C-PFDA	*%*	*70-130*
Surrogate: d5-NEtFOSAA	*%*	*70-130*

Sample Information

Client Sample ID: FB-1 **York Sample ID:** 18K0697-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0697	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Analyzed by: Con-Test Analytical Laboratory

PFAS in Water by EPA 537 **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Perfluoropentanoic acid (PFPeA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
307-24-4	Perfluorohexanoic acid (PFHxA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
375-85-9	Perfluoroheptanoic acid (PFHpA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
335-67-1	Perfluorooctanoic acid (PFOA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
375-95-1	Perfluorononanoic acid (PFNA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
335-76-2	Perfluorodecanoic acid (PFDA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
	NMeFOSAA	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
	NEtFOSAA	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
307-55-1	Perfluorododecanoic acid (PFDoA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
376-06-7	Perfluorotetradecanoic acid (PFTA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	

Surrogate Recoveries	Result	Acceptance Range
Surrogate: 13C-PFHxA	*%*	*70-130*
Surrogate: 13C-PFDA	*%*	*70-130*
Surrogate: d5-NEtFOSAA	*%*	*70-130*

Sample Information

Client Sample ID: MW-7S

York Sample ID: 18K0697-03

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0697	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Analyzed by: Con-Test Analytical Laboratory

PFAS in Water by EPA 537

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Perfluoropentanoic acid (PFPeA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
307-24-4	Perfluorohexanoic acid (PFHxA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
375-85-9	Perfluoroheptanoic acid (PFHpA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
335-67-1	Perfluorooctanoic acid (PFOA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
375-95-1	Perfluorononanoic acid (PFNA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
335-76-2	Perfluorodecanoic acid (PFDA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
	NMeFOSAA	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
	NEtFOSAA	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
307-55-1	Perfluorododecanoic acid (PFDoA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
376-06-7	Perfluorotetradecanoic acid (PFTA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	

Surrogate Recoveries	Result	Acceptance Range
Surrogate: 13C-PFHxA	*%*	*70-130*
Surrogate: 13C-PFDA	*%*	*70-130*
Surrogate: d5-NEtFOSAA	*%*	*70-130*

Sample Information

Client Sample ID: MW-7D

York Sample ID: 18K0697-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0697	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Analyzed by: Con-Test Analytical Laboratory

PFAS in Water by EPA 537

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Perfluoropentanoic acid (PFPeA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
375-73-5	Perfluorobutanesulfonic acid (PFBS)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
307-24-4	Perfluorohexanoic acid (PFHxA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
375-85-9	Perfluoroheptanoic acid (PFHpA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
335-67-1	Perfluorooctanoic acid (PFOA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
375-95-1	Perfluorononanoic acid (PFNA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
335-76-2	Perfluorodecanoic acid (PFDA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
	NMeFOSAA	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
2058-94-8	Perfluoroundecanoic acid (PFUnA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
	NEtFOSAA	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
307-55-1	Perfluorododecanoic acid (PFDoA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	
376-06-7	Perfluorotetradecanoic acid (PFTA)	See attached		ng/L	See attacl	1	See attached Certifications:	11/29/2018 00:00	12/03/2018 00:00	

Surrogate Recoveries	Result	Acceptance Range
Surrogate: 13C-PFHxA	*%*	*70-130*
Surrogate: 13C-PFDA	*%*	*70-130*
Surrogate: d5-NEtFOSAA	*%*	*70-130*

Sample and Data Qualifiers Relating to This Work Order

See attach See attached

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

YORK ANALYTICAL LABORATORIES INC

Field Chain-of-Custody Record

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. 18K0697

YOUR Information	Report To:	Invoice To:	YOUR Project Number	Turn-Around Time
Company: DERMODY	Company: PETER	Company: SAME		RUSH - Next Day
Address: CONSULTING	Address: DERMODY	Address:	YOUR Project Name: LIVONIA AVE.	RUSH - Two Day
Phone:	Phone:	Phone:		RUSH - Three Day
Contact:	Contact:	Contact:		RUSH - Four Day
E-mail:	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.

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

Matrix Codes
S - soil / solid
GW - groundwater
DW - drinking water
WW - wastewater
O - Oil ; Other

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 Deliverables; NYSDEC EQuIS
NY ASP B Package; NJDKQP; NJDEP SRP HazSite
Other:

YORK Reg. Comp.
Compared to the following Regulation Std. (please list)
TOGS/EA

Sample Identification	Sample Matrix	Date/Time Sampled	Analysis Requested	Container Description
EB-1	GW	11/15/18	PFAS	1 Pl.
FB-1	↓	↓	↓	1 Pl.
MW-7S				2 Pl.
MW-7D				2 Pl.

Comments:

Preservation: (check all that apply)
HCl ___ MeOH ___ HNO3 ___ H2SO4 ___ NaOH ___ ZnAc ___
Ascorbic Acid ___ Other: ICE

Special Instruction
Field Filtered ___
Lab to Filter ___

Samples Relinquished by : Company	Date/Time	Samples Received by : Company	Date/Time	Samples Relinquished by : Company	Date/Time
Peter Dermody	11/16/18 12 PM	YORK	11/16/18 12PM	YORK	
Samples Received by : Company	Date/Time	Samples Relinquished by : Company	Date/Time	Samples Received by : Company	Date/Time
Samples Relinquished by : Company	Date/Time	Samples Received by : Company	Date/Time	Samples Received in LAB by	Temp. Received at Lab
				PG 11-16-18 1629	2.1 Degrees C

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

December 4, 2018

Richard August
York Analytical Labs
120 Research Drive
Stratford, CT 06615

Project Location: 18K0697
Client Job Number:
Project Number: 18K0697
Laboratory Work Order Number: 18K0888

Enclosed are results of analyses for samples received by the laboratory on November 19, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kerry K. McGee
Project Manager

Table of Contents

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

York Analytical Labs
120 Research Drive
Stratford, CT 06615
ATTN: Richard August

REPORT DATE: 12/4/2018

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 18K0697

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 18K0888

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: 18K0697

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
EB-1	18K0888-01	Equipment Blank Water		SOP 434-PFAAS	
FB-1	18K0888-02	Field Blank		SOP 434-PFAAS	
MW-7S	18K0888-03	Water		SOP 434-PFAAS	
MW-7D	18K0888-04	Water		SOP 434-PFAAS	

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Qualifications:

MS-09

Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:

Perfluorobutanoic acid (PFBA)
B217920-MS1, B217920-MSD1

Perfluorohexanoic acid (PFHxA)
B217920-MS1, B217920-MSD1

Perfluorooctanesulfonamide (FOS
B217920-MS1, B217920-MSD1

Perfluorooctanesulfonic acid (PFO
B217920-MS1, B217920-MSD1

Perfluorooctanoic acid (PFOA)
B217920-MS1, B217920-MSD1

Perfluoropentanoic acid (PFPeA)
B217920-MS1

MS-11

Matrix spike recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:

Perfluorododecanoic acid (PFDoA)
B217920-MSD1

Perfluoroheptanesulfonic acid (PFl
B217920-MSD1

Perfluorotetradecanoic acid (PFTA
B217920-MSD1

Perfluorotridecanoic acid (PFTrD
B217920-MSD1

MS-12

Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:

6:2 Fluorotelomersulfonate (6:2 FT
B217920-MS1, B217920-MSD1

8:2 Fluorotelomersulfonate (8:2 FT
B217920-MS1, B217920-MSD1

Perfluorobutanesulfonic acid (PFB
B217920-MS1, B217920-MSD1

Perfluorodecanesulfonic acid (PFD
B217920-MS1, B217920-MSD1

Perfluoropentanoic acid (PFPeA)
B217920-MSD1

Perfluorotetradecanoic acid (PFTA
B217920-MS1

MS-23

Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is outside of the method specified criteria. Reduced precision anticipated for any reported result for this compound.

Analyte & Samples(s) Qualified:

Perfluoroheptanesulfonic acid (PFl
B217920-MSD1

Perfluorotridecanoic acid (PFTrD
B217920-MSD1

R-02

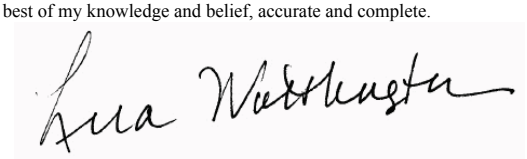
Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered during sample prep.

Analyte & Samples(s) Qualified:

NMeFOSAA
B217920-MSD1

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Project Manager

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: 18K0697 Sample Description: Work Order: 18K0888

Date Received: 11/19/2018

Field Sample #: EB-1 Sampled: 11/15/2018 15:00

Sample ID: 18K0888-01

Sample Matrix: Equipment Blank Water

Semivolatile Organic Compounds by - GC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
Perfluorobutanoic acid (PFBA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
Perfluoropentanoic acid (PFPeA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
6:2 Fluorotelomersulfonate (6:2 FTS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
8:2 Fluorotelomersulfonate (8:2 FTS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
NMeFOSAA	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
NEtFOSAA	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 15:56	KAF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	110	70-130		12/3/18 15:56
13C-PFDA	110	70-130		12/3/18 15:56
d5-NEtFOSAA	80.6	70-130		12/3/18 15:56

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Project Location: 18K0697 Sample Description: Work Order: 18K0888

Date Received: 11/19/2018

Field Sample #: FB-1 Sampled: 11/15/2018 15:00

Sample ID: 18K0888-02

Sample Matrix: Field Blank

Semivolatile Organic Compounds by - GC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
Perfluorobutanoic acid (PFBA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
Perfluoropentanoic acid (PFPeA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
6:2 Fluorotelomersulfonate (6:2 FTS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
8:2 Fluorotelomersulfonate (8:2 FTS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
NMeFOSAA	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
NEtFOSAA	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:08	KAF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	110	70-130		12/3/18 16:08
13C-PFDA	108	70-130		12/3/18 16:08
d5-NEtFOSAA	83.7	70-130		12/3/18 16:08

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Project Location: 18K0697 Sample Description: Work Order: 18K0888

Date Received: 11/19/2018

Field Sample #: MW-7S Sampled: 11/15/2018 15:00

Sample ID: 18K0888-03

Sample Matrix: Water

Semivolatile Organic Compounds by - GC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	8.9	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
Perfluorohexanoic acid (PFHxA)	49	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
Perfluoroheptanoic acid (PFHpA)	13	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
Perfluorobutanoic acid (PFBA)	9.6	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
Perfluoroheptanesulfonic acid (PFHpS)	2.4	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
Perfluoropentanoic acid (PFPeA)	53	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
6:2 Fluorotelomersulfonate (6:2 FTS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
8:2 Fluorotelomersulfonate (8:2 FTS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
Perfluorohexanesulfonic acid (PFHxS)	7.5	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
Perfluorooctanoic acid (PFOA)	39	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
Perfluorooctanesulfonic acid (PFOS)	120	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
Perfluorononanoic acid (PFNA)	4.6	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
Perfluorodecanoic acid (PFDA)	3.7	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
NMeFOSAA	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
NEtFOSAA	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:21	KAF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	107	70-130		12/3/18 16:21
13C-PFDA	108	70-130		12/3/18 16:21
d5-NEtFOSAA	96.5	70-130		12/3/18 16:21

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Project Location: 18K0697 Sample Description: Work Order: 18K0888

Date Received: 11/19/2018

Field Sample #: MW-7D Sampled: 11/15/2018 15:00

Sample ID: 18K0888-04

Sample Matrix: Water

Semivolatile Organic Compounds by - GC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanesulfonic acid (PFBS)	8.5	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
Perfluorohexanoic acid (PFHxA)	28	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
Perfluoroheptanoic acid (PFHpA)	14	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
Perfluorobutanoic acid (PFBA)	4.4	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
Perfluoropentanoic acid (PFPeA)	27	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
6:2 Fluorotelomersulfonate (6:2 FTS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
8:2 Fluorotelomersulfonate (8:2 FTS)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
Perfluorohexanesulfonic acid (PFHxS)	6.0	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
Perfluorooctanoic acid (PFOA)	50	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
Perfluorooctanesulfonic acid (PFOS)	48	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
Perfluorononanoic acid (PFNA)	2.1	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
NMeFOSAA	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
NEtFOSAA	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L	1		SOP 434-PFAAS	11/29/18	12/3/18 16:34	KAF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
13C-PFHxA	107	70-130		12/3/18 16:34
13C-PFDA	104	70-130		12/3/18 16:34
d5-NEtFOSAA	83.8	70-130		12/3/18 16:34

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Sample Extraction Data

Prep Method: EPA 537-SOP 434-PFAAS

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
18K0888-01 [EB-1]	B217920	250	1.00	11/29/18
18K0888-02 [FB-1]	B217920	250	1.00	11/29/18
18K0888-03 [MW-7S]	B217920	250	1.00	11/29/18
18K0888-04 [MW-7D]	B217920	250	1.00	11/29/18

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QUALITY CONTROL

Semivolatile Organic Compounds by - GC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B217920 - EPA 537										
Blank (B217920-BLK1)				Prepared: 11/29/18 Analyzed: 12/03/18						
Perfluorobutanesulfonic acid (PFBS)	ND	2.0	ng/L							
Perfluorohexanoic acid (PFHxA)	ND	2.0	ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	2.0	ng/L							
Perfluorobutanoic acid (PFBA)	ND	2.0	ng/L							
Perfluorodecanesulfonic acid (PFDS)	ND	2.0	ng/L							
Perfluoroheptanesulfonic acid (PFHpS)	ND	2.0	ng/L							
Perfluorooctanesulfonamide (FOSA)	ND	2.0	ng/L							
Perfluoropentanoic acid (PFPeA)	ND	2.0	ng/L							
6:2 Fluorotelomersulfonate (6:2 FTS)	ND	2.0	ng/L							
8:2 Fluorotelomersulfonate (8:2 FTS)	ND	2.0	ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	2.0	ng/L							
Perfluorooctanoic acid (PFOA)	ND	2.0	ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	2.0	ng/L							
Perfluorononanoic acid (PFNA)	ND	2.0	ng/L							
Perfluorodecanoic acid (PFDA)	ND	2.0	ng/L							
NMeFOSAA	ND	2.0	ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	2.0	ng/L							
NEtFOSAA	ND	2.0	ng/L							
Perfluorododecanoic acid (PFDoA)	ND	2.0	ng/L							
Perfluorotridecanoic acid (PFTrDA)	ND	2.0	ng/L							
Perfluorotetradecanoic acid (PFTA)	ND	2.0	ng/L							
Surrogate: 13C-PFHxA	*44.8*		ng/L	40.0		112	70-130			
Surrogate: 13C-PFDA	*39.8*		ng/L	40.0		99.5	70-130			
Surrogate: d5-NEtFOSAA	*150*		ng/L	160		93.5	70-130			
LCS (B217920-BS1)				Prepared: 11/29/18 Analyzed: 12/03/18						
Perfluorobutanesulfonic acid (PFBS)	1.94	2.0	ng/L	1.77		110	50-150			
Perfluorohexanoic acid (PFHxA)	2.82	2.0	ng/L	2.00		141	50-150			
Perfluoroheptanoic acid (PFHpA)	2.46	2.0	ng/L	2.00		123	50-150			
Perfluorobutanoic acid (PFBA)	1.09	2.0	ng/L	2.00		54.6	50-150			
Perfluorodecanesulfonic acid (PFDS)	2.17	2.0	ng/L	1.93		112	50-150			
Perfluoroheptanesulfonic acid (PFHpS)	1.84	2.0	ng/L	1.90		96.6	50-150			
Perfluorooctanesulfonamide (FOSA)	1.41	2.0	ng/L	2.00		70.4	50-150			
Perfluoropentanoic acid (PFPeA)	2.23	2.0	ng/L	2.00		111	50-150			
6:2 Fluorotelomersulfonate (6:2 FTS)	2.54	2.0	ng/L	1.90		134	50-150			
8:2 Fluorotelomersulfonate (8:2 FTS)	2.87	2.0	ng/L	1.92		149	50-150			
Perfluorohexanesulfonic acid (PFHxS)	1.55	2.0	ng/L	1.82		85.0	50-150			
Perfluorooctanoic acid (PFOA)	1.65	2.0	ng/L	2.00		82.5	50-150			
Perfluorooctanesulfonic acid (PFOS)	1.81	2.0	ng/L	1.85		97.6	50-150			
Perfluorononanoic acid (PFNA)	2.99	2.0	ng/L	2.00		149	50-150			
Perfluorodecanoic acid (PFDA)	2.66	2.0	ng/L	2.00		133	50-150			
NMeFOSAA	2.21	2.0	ng/L	2.00		110	50-150			
Perfluoroundecanoic acid (PFUnA)	2.80	2.0	ng/L	2.00		140	50-150			
NEtFOSAA	2.96	2.0	ng/L	2.00		148	50-150			
Perfluorododecanoic acid (PFDoA)	2.43	2.0	ng/L	2.00		122	50-150			
Perfluorotridecanoic acid (PFTrDA)	2.85	2.0	ng/L	2.00		143	50-150			
Perfluorotetradecanoic acid (PFTA)	2.62	2.0	ng/L	2.00		131	50-150			
Surrogate: 13C-PFHxA	*43.9*		ng/L	40.0		110	70-130			
Surrogate: 13C-PFDA	*42.1*		ng/L	40.0		105	70-130			
Surrogate: d5-NEtFOSAA	*140*		ng/L	160		87.7	70-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by - GC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD		RPD Limit	Notes
Batch B217920 - EPA 537												
Matrix Spike (B217920-MS1)	**Source: 18K0888-03**			Prepared: 11/29/18 Analyzed: 12/03/18								
Perfluorobutanesulfonic acid (PFBS)	12.1	2.0	ng/L	1.77	8.93	**180**	*	50-150				MS-12
Perfluorohexanoic acid (PFHxA)	44.7	2.0	ng/L	2.00	48.9	**-211**	*	50-150				MS-09
Perfluoroheptanoic acid (PFHpA)	15.4	2.0	ng/L	2.00	12.9	123		50-150				
Perfluorobutanoic acid (PFBA)	9.63	2.0	ng/L	2.00	9.58	**2.33**	*	50-150				MS-09
Perfluorodecanesulfonic acid (PFDS)	4.15	2.0	ng/L	1.93	ND	**215**	*	50-150				MS-12
Perfluoroheptanesulfonic acid (PFHpS)	3.75	2.0	ng/L	1.90	2.36	73.0		50-150				
Perfluorooctanesulfonamide (FOSA)	1.69	2.0	ng/L	2.00	1.04	**32.6**	*	50-150				MS-09
Perfluoropentanoic acid (PFPeA)	51.5	2.0	ng/L	2.00	53.3	**-91.0**	*	50-150				MS-09
6:2 Fluorotelomersulfonate (6:2 FTS)	3.48	2.0	ng/L	1.90	ND	**183**	*	50-150				MS-12
8:2 Fluorotelomersulfonate (8:2 FTS)	6.20	2.0	ng/L	1.92	0.844	**279**	*	50-150				MS-12
Perfluorohexanesulfonic acid (PFHxS)	8.38	2.0	ng/L	1.82	7.45	51.2		50-150				
Perfluorooctanoic acid (PFOA)	38.6	2.0	ng/L	2.00	38.9	**-15.2**	*	50-150				MS-09
Perfluorooctanesulfonic acid (PFOS)	110	2.0	ng/L	1.85	119	**-499**	*	50-150				MS-09
Perfluorononanoic acid (PFNA)	6.58	2.0	ng/L	2.00	4.57	101		50-150				
Perfluorodecanoic acid (PFDA)	6.07	2.0	ng/L	2.00	3.65	121		50-150				
NMeFOSAA	2.52	2.0	ng/L	2.00	ND	126		50-150				
Perfluoroundecanoic acid (PFUnA)	2.87	2.0	ng/L	2.00	1.18	84.6		50-150				
NEtFOSAA	2.29	2.0	ng/L	2.00	ND	115		50-150				
Perfluorododecanoic acid (PFDoA)	2.35	2.0	ng/L	2.00	ND	117		50-150				
Perfluorotridecanoic acid (PFTrDA)	2.20	2.0	ng/L	2.00	ND	110		50-150				
Perfluorotetradecanoic acid (PFTA)	4.43	2.0	ng/L	2.00	ND	**222**	*	50-150				MS-12
Surrogate: 13C-PFHxA	*39.9*		ng/L	40.0		99.8		70-130				
Surrogate: 13C-PFDA	*37.3*		ng/L	40.0		93.3		70-130				
Surrogate: d5-NEtFOSAA	*150*		ng/L	160		94.0		70-130				
Matrix Spike Dup (B217920-MSD1)	**Source: 18K0888-03**			Prepared: 11/29/18 Analyzed: 12/03/18								
Perfluorobutanesulfonic acid (PFBS)	13.0	2.0	ng/L	1.77	8.93	**229**	*	50-150	6.96		30	MS-12
Perfluorohexanoic acid (PFHxA)	43.4	2.0	ng/L	2.00	48.9	**-277**	*	50-150	3.00		30	MS-09
Perfluoroheptanoic acid (PFHpA)	15.3	2.0	ng/L	2.00	12.9	118		50-150	0.656		30	
Perfluorobutanoic acid (PFBA)	9.04	2.0	ng/L	2.00	9.58	**-26.8**	*	50-150	6.25		30	MS-09
Perfluorodecanesulfonic acid (PFDS)	3.12	2.0	ng/L	1.93	ND	**162**	*	50-150	28.2		30	MS-12
Perfluoroheptanesulfonic acid (PFHpS)	5.27	2.0	ng/L	1.90	2.36	**153**	*	50-150	**33.8**	*	30	MS-11, MS-23
Perfluorooctanesulfonamide (FOSA)	1.12	2.0	ng/L	2.00	1.04	**4.21**	*	50-150			30	MS-09
Perfluoropentanoic acid (PFPeA)	60.2	2.0	ng/L	2.00	53.3	**344**	*	50-150	15.6		30	MS-12
6:2 Fluorotelomersulfonate (6:2 FTS)	4.63	2.0	ng/L	1.90	ND	**244**	*	50-150	28.5		30	MS-12
8:2 Fluorotelomersulfonate (8:2 FTS)	6.98	2.0	ng/L	1.92	0.844	**320**	*	50-150	11.8		30	MS-12
Perfluorohexanesulfonic acid (PFHxS)	8.68	2.0	ng/L	1.82	7.45	67.5		50-150	3.48		30	
Perfluorooctanoic acid (PFOA)	37.9	2.0	ng/L	2.00	38.9	**-52.0**	*	50-150	1.92		30	MS-09
Perfluorooctanesulfonic acid (PFOS)	106	2.0	ng/L	1.85	119	**-699**	*	50-150	3.43		30	MS-09
Perfluorononanoic acid (PFNA)	6.31	2.0	ng/L	2.00	4.57	87.0		50-150	4.28		30	
Perfluorodecanoic acid (PFDA)	5.59	2.0	ng/L	2.00	3.65	97.1		50-150	8.28		30	
NMeFOSAA	1.79	2.0	ng/L	2.00	ND	89.4		50-150	**34.0**	*	30	R-02
Perfluoroundecanoic acid (PFUnA)	3.07	2.0	ng/L	2.00	1.18	94.6		50-150	6.74		30	
NEtFOSAA	2.37	2.0	ng/L	2.00	ND	118		50-150	3.23		30	
Perfluorododecanoic acid (PFDoA)	3.09	2.0	ng/L	2.00	ND	**154**	*	50-150	27.1		30	MS-11
Perfluorotridecanoic acid (PFTrDA)	4.08	2.0	ng/L	2.00	ND	**204**	*	50-150	**60.0**	*	30	MS-11, MS-23
Perfluorotetradecanoic acid (PFTA)	4.64	2.0	ng/L	2.00	ND	**232**	*	50-150	4.54		30	MS-11
Surrogate: 13C-PFHxA	*39.7*		ng/L	40.0		99.3		70-130				
Surrogate: 13C-PFDA	*38.7*		ng/L	40.0		96.8		70-130				
Surrogate: d5-NEtFOSAA	*145*		ng/L	160		90.4		70-130				

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
MS-09	Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
MS-11	Matrix spike recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
MS-12	Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
MS-23	Either matrix spike or MS duplicate is outside of control limits, but the other is within limits. RPD between the two MS/MSD results is outside of the method specified criteria. Reduced precision anticipated for any reported result for this compound.
R-02	Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered during sample prep.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SOP 434-PFAAS in Water	
Perfluorobutanesulfonic acid (PFBS)	NH-P
Perfluorohexanoic acid (PFHxA)	NH-P
Perfluoroheptanoic acid (PFHpA)	NH-P
Perfluorobutanoic acid (PFBA)	NH-P
Perfluoropentanoic acid (PFPeA)	NH-P
6:2 Fluorotelomersulfonate (6:2 FTS)	NH-P
8:2 Fluorotelomersulfonate (8:2 FTS)	NH-P
Perfluorohexanesulfonic acid (PFHxS)	NH-P
Perfluorooctanoic acid (PFOA)	NH-P
Perfluorooctanesulfonic acid (PFOS)	NH-P
Perfluorononanoic acid (PFNA)	NH-P
Perfluorodecanoic acid (PFDA)	NH-P
NMeFOSAA	NH-P
Perfluoroundecanoic acid (PFUnA)	NH-P
NEtFOSAA	NH-P
Perfluorododecanoic acid (PFDoA)	NH-P
Perfluorotridecanoic acid (PFTrDA)	NH-P
Perfluorotetradecanoic acid (PFTA)	NH-P

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	03/1/2020
MA	Massachusetts DEP	M-MA100	06/30/2019
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2019
NY	New York State Department of Health	10899 NELAP	04/1/2019
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2019
RI	Rhode Island Department of Health	LAO00112	12/30/2018
NC	North Carolina Div. of Water Quality	652	12/31/2018
NJ	New Jersey DEP	MA007 NELAP	06/30/2019
FL	Florida Department of Health	E871027 NELAP	06/30/2019
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2019
ME	State of Maine	2011028	06/9/2019
VA	Commonwealth of Virginia	460217	12/14/2018
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2019
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2019
NC-DW	North Carolina Department of Health	25703	07/31/2019

KKM

YORK

Analytical Laboratories, Inc.

18K0868

11/19/2018

SUBCONTRACT Notification, Purchase Order and Chain-of-Custody

York Project No.: 18K0697

This information is being sent to inform you that York intends to subcontract certain samples to another licensed laboratory for specific parameters that we cannot perform in-house. The specific paramters that will be subcontracted are detailed below. Do not contact the subcontract laboratory directly. Please contact the YORK project manager for further information.

Note: E-mail lab reports to: York_Lab_Report@yorklab.com **Mail/Fax Hard Copies to: York Analytical at the address below**

SENDING LABORATORY:

York Analytical Laboratories, Inc.
120 Research Drive
Stratford, CT 06615
Phone: 203.325.1371
Fax: 203.357.0166
Contact: **York Analytical**

RECEIVING LABORATORY:

Con-Test Analytical Laboratory
39 Spruce Street
East Long Meadow, MA 01028
Phone :(413) 525-2332
Fax: (413) 525-6405

York Ref: 18K0697-01

01 **Sample ID: EB-1** **Matrix: Water** **Date Sampled : 11/15/2018 15:00**

Analysis Needed	Date Due	Holding Time Expires	Comments
PFAS in Water by EPA 537	**12/04/2018 16:30**	**11/29/2018 15:00**	

Containers Supplied:
10_250mL Square Plastic Cool to 4° C (A)

York Ref: 18K0697-02

02 **Sample ID: FB-1** **Matrix: Water** **Date Sampled : 11/15/2018 15:00**

Analysis Needed	Date Due	Holding Time Expires	Comments
PFAS in Water by EPA 537	**12/04/2018 16:30**	**11/29/2018 15:00**	

Containers Supplied:
10_250mL Square Plastic Cool to 4° C (A)

York Purchase Order No.: 18K0697 Samples from State of: NY

Deliverables required: New Jersey Reduced Deliverable **Data Pkg DUE: 12/26/2018**

EDDs required: NYSDEC EQuIS/TOGS/6A **Special Info:**

Chain-of-Custody Information

Paul Grace	11/19/2018	[signature]	11/19/18 9:50
Released By/York Sample Control	Date	Received By	Date 2.1
[signature]	11/19/18	[signature]	11.19.18 9:50
Received By	Date	Received in Subcontract Lab By	Date

YORK 18K0888 11/19/2018
Analytical Laboratories, Inc.

SUBCONTRACT Notification, Purchase Order and Chain-of-Custody

York Project No.: 18K0697

This information is being sent to inform you that York intends to subcontract certain samples to another licensed laboratory for specific parameters that we cannot perform in-house. The specific paramters that will be subcontracted are detailed below. Do not contact the subcontract laboratory directly. Please contact the YORK project manager for further information.

Note: E-mail lab reports to: York_Lab_Report@yorklab.com **Mail/Fax Hard Copies to: York Analytical at the address below**

York Ref: 18K0697-03

03 **Sample ID: MW-7S** **Matrix: Water** **Date Sampled : 11/15/2018 15:00**

Analysis Needed	Date Due	Holding Time Expires	Comments
PFAS in Water by EPA 537	12/04/2018 16:30	11/29/2018 15:00	* MS/MSD

Containers Supplied:

10_250mL Square Plastic Cool to 4° C (A) 10_250mL Square Plastic Cool to 4° C (B) 10_250mL Square Plastic Cool to 4° C (C)
10_250mL Square Plastic Cool to 4° C (D)

York Ref: 18K0697-04

04 **Sample ID: MW-7D** **Matrix: Water** **Date Sampled : 11/15/2018 15:00**

Analysis Needed	Date Due	Holding Time Expires	Comments
PFAS in Water by EPA 537	12/04/2018 16:30	11/29/2018 15:00	

Containers Supplied:

10_250mL Square Plastic Cool to 4° C (A) 10_250mL Square Plastic Cool to 4° C (B)

York Purchase Order No.: 18K0697 Samples from State of: **NY**

Deliverables required: New Jersey Reduced Deliverable **Data Pkg DUE: 12/26/2018**

EDDs required: NYSDEC EQuIS/TOGS/6A **Special Info:**

Chain-of-Custody Information

Paul Grace	11/19/2018		11/19/18	9:50
Released By York Sample Control	Date	Received By	Date	
	11/19/18		11.19.18	9:50
Received By	Date	Received in Subcontract Lab By	Date	

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False

Client York Analytical Lab

Received By LR Date 11-19-18 Time 950

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____
Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 2 Actual Temp - 2.1
By Blank # _____ Actual Temp - _____

Was Custody Seal Intact? NA Were Samples Tampered with? NA
Was COC Relinquished ? T Does Chain Agree With Samples? T
Are there broken/leaking/loose caps on any samples? F
Is COC in ink/ Legible? T Were samples received within holding time? T
Did COC include all pertinent Information? Client T Analysis T Sampler Name F
Project T & LR 11-19 ID's T Collection Dates/Times T
Are Sample labels filled out and legible? T
Are there Lab to Filters? F Who was notified? _____
Are there Rushes? F Who was notified? _____
Are there Short Holds? F Who was notified? _____
Is there enough Volume? T
Is there Headspace where applicable? NA MS/MSD? T
Proper Media/Containers Used? T Is splitting samples required? F
Were trip blanks received? F On COC? F
Do all samples have the proper pH? NA Acid _____ Base _____

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	8	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic		16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic		4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Comments:

Technical Report

prepared for:

Dermody Consulting, Inc.
32 Chichester Ave., 2nd Floor
Center Moriches NY, 11934
Attention: Peter Dermody

Report Date: 11/28/2018
Client Project ID: Livonia Ave.
York Project (SDG) No.: 18K0686

CT Cert. No. PH-0723 New Jersey Cert. No. CT005 and NY037 New York Cert. Nos. 10854 and 12058 PA Cert. No. 68-04440

120 RESEARCH DRIVE STRATFORD, CT 06615 ■ 132-02 89th AVENUE RICHMOND HILL, NY 11418
www.YORKLAB.com (203) 325-1371 FAX (203) 357-0166 ClientServices@yorklab.com

Report Date: 11/28/2018
Client Project ID: Livonia Ave.
York Project (SDG) No.: 18K0686

Dermody Consulting, Inc.
32 Chichester Ave., 2nd Floor
Center Moriches NY, 11934
Attention: Peter Dermody

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 November 16, 2018 and listed below. The project was identified as your project: **Livonia Ave.**.

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
18K0686-01	MW-7S	Water	11/15/2018	11/16/2018
18K0686-02	MW-7D	Water	11/15/2018	11/16/2018

General Notes for York Project (SDG) No.: 18K0686

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: 11/28/2018

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: MW-7S

York Sample ID: 18K0686-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 NELAC-NY10854,NELAC-NY12058,NJDEP	PP
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
95-93-2	* 1,2,4,5-Tetramethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01	PP
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP

Sample Information

Client Sample ID: MW-7S

York Sample ID: 18K0686-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
74-87-3	**Chloromethane**	**0.46**	J	ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
156-59-2	**cis-1,2-Dichloroethylene**	**9.2**		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP

Sample Information

Client Sample ID: MW-7S

York Sample ID: 18K0686-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	PP
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	PP
105-05-5	* p-Diethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01	PP
622-96-8	* p-Ethyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01	PP
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
127-18-4	**Tetrachloroethylene**	**5.1**		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
156-60-5	**trans-1,2-Dichloroethylene**	**0.21**	J	ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
79-01-6	**Trichloroethylene**	**2.4**		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:01 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP

Sample Information

Client Sample ID: MW-7S

York Sample ID: 18K0686-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:01	PP
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/24/2018 16:01	PP

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*93.9 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*98.9 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*105 %*	*79-122*

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes: EXT-EM

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1-Biphenyl	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
95-50-1	1,2-Dichlorobenzene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,PADEP	11/25/2018 21:44	SR
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
541-73-1	1,3-Dichlorobenzene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,PADEP	11/25/2018 21:44	SR
106-46-7	1,4-Dichlorobenzene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,PADEP	11/25/2018 21:44	SR
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
95-95-4	2,4,5-Trichlorophenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
88-06-2	2,4,6-Trichlorophenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
120-83-2	2,4-Dichlorophenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
105-67-9	2,4-Dimethylphenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
51-28-5	2,4-Dinitrophenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
121-14-2	2,4-Dinitrotoluene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
606-20-2	2,6-Dinitrotoluene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
91-58-7	2-Chloronaphthalene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR

Sample Information

Client Sample ID: MW-7S

York Sample ID: 18K0686-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes: EXT-EM

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-57-8	2-Chlorophenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
91-57-6	2-Methylnaphthalene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
95-48-7	2-Methylphenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
88-74-4	2-Nitroaniline	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
88-75-5	2-Nitrophenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
65794-96-9	3- & 4-Methylphenols	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
91-94-1	3,3-Dichlorobenzidine	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
99-09-2	3-Nitroaniline	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
101-55-3	4-Bromophenyl phenyl ether	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
59-50-7	4-Chloro-3-methylphenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
106-47-8	4-Chloroaniline	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
100-01-6	4-Nitroaniline	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
100-02-7	4-Nitrophenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
83-32-9	Acenaphthene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
208-96-8	**Acenaphthylene**	**0.0700**		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
98-86-2	Acetophenone	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
62-53-3	Aniline	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
120-12-7	Anthracene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
1912-24-9	Atrazine	ND		ug/L	0.500	0.500	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
100-52-7	Benzaldehyde	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
92-87-5	Benzidine	ND		ug/L	10.0	20.0	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR

Sample Information

Client Sample ID: MW-7S

York Sample ID: 18K0686-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes: EXT-EM

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
56-55-3	Benzo(a)anthracene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
50-32-8	Benzo(a)pyrene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
205-99-2	Benzo(b)fluoranthene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
207-08-9	Benzo(k)fluoranthene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
65-85-0	Benzoic acid	ND		ug/L	25.0	50.0	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
100-51-6	Benzyl alcohol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
85-68-7	Benzyl butyl phthalate	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
111-44-4	Bis(2-chloroethyl)ether	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
117-81-7	Bis(2-ethylhexyl)phthalate	ND		ug/L	0.500	0.500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
105-60-2	Caprolactam	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
86-74-8	Carbazole	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
218-01-9	Chrysene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
132-64-9	Dibenzofuran	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
84-66-2	Diethyl phthalate	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
131-11-3	Dimethyl phthalate	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
84-74-2	Di-n-butyl phthalate	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
117-84-0	Di-n-octyl phthalate	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
206-44-0	Fluoranthene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
86-73-7	Fluorene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW

Sample Information

Client Sample ID: MW-7S

York Sample ID: 18K0686-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes: EXT-EM

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
118-74-1	Hexachlorobenzene	ND		ug/L	0.0200	0.0200	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
87-68-3	Hexachlorobutadiene	ND		ug/L	0.500	0.500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
77-47-4	Hexachlorocyclopentadiene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
67-72-1	Hexachloroethane	ND		ug/L	0.500	0.500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
78-59-1	Isophorone	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
91-20-3	**Naphthalene**	**0.0600**		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
98-95-3	Nitrobenzene	ND		ug/L	0.250	0.250	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
62-75-9	N-Nitrosodimethylamine	ND		ug/L	0.500	0.500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
621-64-7	N-nitroso-di-n-propylamine	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
86-30-6	N-Nitrosodiphenylamine	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
87-86-5	Pentachlorophenol	ND		ug/L	0.250	0.250	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
85-01-8	Phenanthrene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW
108-95-2	Phenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 21:44	SR
129-00-0	**Pyrene**	**0.0500**		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 12:31	OW

	Surrogate Recoveries	Result		Acceptance Range
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*26.9 %*		*19.7-63.1*
4165-62-2	*Surrogate: SURR: Phenol-d5*	*15.0 %*		*10.1-41.7*
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*48.3 %*	S-08	*50.2-113*
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*61.6 %*		*39.9-105*
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*104 %*		*39.3-151*
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*89.7 %*		*30.7-106*

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		ug/L	0.00471	1	EPA 8081B Certifications:	11/21/2018 07:55 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/28/2018 01:47	TJD

Sample Information

Client Sample ID: MW-7S

York Sample ID: 18K0686-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-55-9	4,4'-DDE	ND		ug/L	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
50-29-3	4,4'-DDT	ND		ug/L	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
309-00-2	Aldrin	ND		ug/L	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
319-84-6	alpha-BHC	ND		ug/L	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
5103-71-9	alpha-Chlordane	ND		ug/L	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
319-85-7	beta-BHC	ND		ug/L	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
57-74-9	Chlordane, total	ND		ug/L	0.0235	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
319-86-8	delta-BHC	ND		ug/L	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
60-57-1	Dieldrin	ND		ug/L	0.00235	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
959-98-8	Endosulfan I	ND		ug/L	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
33213-65-9	Endosulfan II	ND		ug/L	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
1031-07-8	Endosulfan sulfate	ND		ug/L	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
72-20-8	Endrin	ND		ug/L	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
7421-93-4	Endrin aldehyde	ND		ug/L	0.0118	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
53494-70-5	Endrin ketone	ND		ug/L	0.0118	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
58-89-9	gamma-BHC (Lindane)	ND		ug/L	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
5566-34-7	gamma-Chlordane	ND		ug/L	0.0118	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
76-44-8	Heptachlor	ND		ug/L	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
1024-57-3	Heptachlor epoxide	ND		ug/L	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
72-43-5	Methoxychlor	ND		ug/L	0.00471	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD
8001-35-2	Toxaphene	ND		ug/L	0.118	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 01:47	TJD

	Surrogate Recoveries	Result	Acceptance Range
2051-24-3	*Surrogate: Decachlorobiphenyl*	*62.5 %*	*30-150*
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*65.9 %*	*30-150*

Sample Information

Client Sample ID: MW-7S

York Sample ID: 18K0686-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0588	1	EPA 8082A	11/21/2018 07:55	11/28/2018 12:43	TJD
							Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP			
11104-28-2	Aroclor 1221	ND		ug/L	0.0588	1	EPA 8082A	11/21/2018 07:55	11/28/2018 12:43	TJD
							Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP			
11141-16-5	Aroclor 1232	ND		ug/L	0.0588	1	EPA 8082A	11/21/2018 07:55	11/28/2018 12:43	TJD
							Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP			
53469-21-9	Aroclor 1242	ND		ug/L	0.0588	1	EPA 8082A	11/21/2018 07:55	11/28/2018 12:43	TJD
							Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP			
12672-29-6	Aroclor 1248	ND		ug/L	0.0588	1	EPA 8082A	11/21/2018 07:55	11/28/2018 12:43	TJD
							Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP			
11097-69-1	Aroclor 1254	ND		ug/L	0.0588	1	EPA 8082A	11/21/2018 07:55	11/28/2018 12:43	TJD
							Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP			
11096-82-5	Aroclor 1260	ND		ug/L	0.0588	1	EPA 8082A	11/21/2018 07:55	11/28/2018 12:43	TJD
							Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP			
1336-36-3	* Total PCBs	ND		ug/L	0.0588	1	EPA 8082A	11/21/2018 07:55	11/28/2018 12:43	TJD
							Certifications:			

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*83.7 %*	*30-120*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*70.1 %*	*30-120*

Hardness, total (as CaCO3)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.7

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Hardness, Total	**269**		mg/L	1.11	1	EPA 200.7	11/19/2018 11:28	11/19/2018 15:39	KML
							Certifications: NELAC-NY10854,CTDOH,NJDEP			

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	**Aluminum**	**0.065**		mg/L	0.056	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-36-0	Antimony	ND		mg/L	0.028	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-38-2	Arsenic	ND		mg/L	0.017	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-39-3	**Barium**	**0.060**		mg/L	0.028	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-41-7	Beryllium	ND		mg/L	0.0006	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-43-9	Cadmium	ND		mg/L	0.003	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			

Sample Information

Client Sample ID: **MW-7S** **York Sample ID:** **18K0686-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Metals, Target Analyte

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-70-2	**Calcium**	**92.0**		mg/L	0.056	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-47-3	Chromium	ND		mg/L	0.006	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-48-4	Cobalt	ND		mg/L	0.004	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-50-8	Copper	ND		mg/L	0.022	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-89-6	Iron	ND		mg/L	0.278	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-92-1	Lead	ND		mg/L	0.006	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-95-4	**Magnesium**	**9.65**		mg/L	0.056	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7439-96-5	**Manganese**	**0.291**		mg/L	0.006	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-02-0	Nickel	ND		mg/L	0.011	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-09-7	**Potassium**	**11.9**	B	mg/L	0.056	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7782-49-2	**Selenium**	**0.030**		mg/L	0.028	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-22-4	Silver	ND		mg/L	0.006	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-23-5	**Sodium**	**104**		mg/L	0.556	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-28-0	Thallium	ND		mg/L	0.028	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-62-2	Vanadium	ND		mg/L	0.011	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		
7440-66-6	Zinc	ND		mg/L	0.028	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:26	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

Mercury by 7473

Log-in Notes: **Sample Notes:**

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.00020	1	EPA 7473	11/19/2018 13:28	11/19/2018 14:31	SY
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

Analyzed by: Con-Test Analytical Laboratory

Semi-Volatiles, 1,4-Dioxane by 8270-SIM (SUB)

Log-in Notes: **Sample Notes:**

Sample Information

Client Sample ID: **MW-7S** **York Sample ID:** **18K0686-01**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Analyzed by: Con-Test Analytical Laboratory

Sample Prepared by Method: EPA 3535A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
123-91-1	1,4-Dioxane	ND		ug/L	0.2	1	SW-846 8270D Certifications:	11/20/2018 00:00	11/28/2018 00:00	

Sample Information

Client Sample ID: **MW-7D** **York Sample ID:** **18K0686-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Volatile Organics, 8260 List - Low Level **Log-in Notes:** **Sample Notes:**

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 NELAC-NY10854,NELAC-NY12058,NJDEP	11/24/2018 16:28	PP
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
95-93-2	* 1,2,4,5-Tetramethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28	PP
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP

Sample Information

Client Sample ID: MW-7D

York Sample ID: 18K0686-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
78-93-3	2-Butanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
108-10-1	4-Methyl-2-pentanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
75-15-0	Carbon disulfide	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	PP

Sample Information

Client Sample ID: **MW-7D** **York Sample ID:** **18K0686-02**

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
67-66-3	**Chloroform**	**4.1**		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
156-59-2	**cis-1,2-Dichloroethylene**	**0.29**	J	ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications:	11/24/2018 12:56 NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/24/2018 16:28	PP
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/24/2018 16:28	PP
105-05-5	* p-Diethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28	PP
622-96-8	* p-Ethyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56	11/24/2018 16:28	PP
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP

Sample Information

Client Sample ID: MW-7D

York Sample ID: 18K0686-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
127-18-4	**Tetrachloroethylene**	**4.2**		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
79-01-6	**Trichloroethylene**	**0.77**		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/24/2018 16:28	PP
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications:	11/24/2018 12:56 CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/24/2018 16:28	PP

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*96.6 %*	*69-130*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*99.7 %*	*81-117*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*106 %*	*79-122*

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1-Biphenyl	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
95-50-1	1,2-Dichlorobenzene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,PADEP	11/25/2018 22:17	SR
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
541-73-1	1,3-Dichlorobenzene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,PADEP	11/25/2018 22:17	SR
106-46-7	1,4-Dichlorobenzene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,PADEP	11/25/2018 22:17	SR
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR

Sample Information

Client Sample ID: MW-7D

York Sample ID: 18K0686-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-95-4	2,4,5-Trichlorophenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
88-06-2	2,4,6-Trichlorophenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
120-83-2	2,4-Dichlorophenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
105-67-9	2,4-Dimethylphenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
51-28-5	2,4-Dinitrophenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
121-14-2	2,4-Dinitrotoluene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
606-20-2	2,6-Dinitrotoluene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
91-58-7	2-Chloronaphthalene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
95-57-8	2-Chlorophenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
91-57-6	2-Methylnaphthalene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
95-48-7	2-Methylphenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
88-74-4	2-Nitroaniline	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
88-75-5	2-Nitrophenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
65794-96-9	3- & 4-Methylphenols	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
91-94-1	3,3-Dichlorobenzidine	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
99-09-2	3-Nitroaniline	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
101-55-3	4-Bromophenyl phenyl ether	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
59-50-7	4-Chloro-3-methylphenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
106-47-8	4-Chloroaniline	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
100-01-6	4-Nitroaniline	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR
100-02-7	4-Nitrophenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56	11/25/2018 22:17 CTDOH,NELAC-NY10854,NJDEP,PADEP	SR

Sample Information

Client Sample ID: MW-7D

York Sample ID: 18K0686-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
83-32-9	Acenaphthene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
208-96-8	Acenaphthylene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
98-86-2	Acetophenone	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
62-53-3	Aniline	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
120-12-7	Anthracene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
1912-24-9	Atrazine	ND		ug/L	0.500	0.500	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
100-52-7	Benzaldehyde	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
92-87-5	Benzidine	ND		ug/L	10.0	20.0	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
56-55-3	Benzo(a)anthracene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
50-32-8	Benzo(a)pyrene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
205-99-2	Benzo(b)fluoranthene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
191-24-2	Benzo(g,h,i)perylene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
207-08-9	Benzo(k)fluoranthene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
65-85-0	Benzoic acid	ND		ug/L	25.0	50.0	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
100-51-6	Benzyl alcohol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
85-68-7	Benzyl butyl phthalate	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
111-44-4	Bis(2-chloroethyl)ether	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
117-81-7	Bis(2-ethylhexyl)phthalate	ND		ug/L	0.500	0.500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
105-60-2	Caprolactam	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
86-74-8	Carbazole	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
218-01-9	Chrysene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW

Sample Information

Client Sample ID: MW-7D

York Sample ID: 18K0686-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
53-70-3	Dibenzo(a,h)anthracene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
132-64-9	Dibenzofuran	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
84-66-2	Diethyl phthalate	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
131-11-3	Dimethyl phthalate	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
84-74-2	Di-n-butyl phthalate	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
117-84-0	Di-n-octyl phthalate	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
206-44-0	Fluoranthene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
86-73-7	Fluorene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
118-74-1	Hexachlorobenzene	ND		ug/L	0.0200	0.0200	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
87-68-3	Hexachlorobutadiene	ND		ug/L	0.500	0.500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
77-47-4	Hexachlorocyclopentadiene	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
67-72-1	Hexachloroethane	ND		ug/L	0.500	0.500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
78-59-1	Isophorone	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
91-20-3	Naphthalene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
98-95-3	Nitrobenzene	ND		ug/L	0.250	0.250	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
62-75-9	N-Nitrosodimethylamine	ND		ug/L	0.500	0.500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
621-64-7	N-nitroso-di-n-propylamine	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
86-30-6	N-Nitrosodiphenylamine	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
87-86-5	Pentachlorophenol	ND		ug/L	0.250	0.250	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
85-01-8	Phenanthrene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW
108-95-2	Phenol	ND		ug/L	2.50	5.00	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/25/2018 22:17	SR
129-00-0	Pyrene	ND		ug/L	0.0500	0.0500	1	EPA 8270D Certifications:	11/20/2018 07:56 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 13:02	OW

Surrogate Recoveries	Result	Acceptance Range

Sample Information

Client Sample ID: MW-7D

York Sample ID: 18K0686-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Semi-Volatiles, 8270 - Comprehensive

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3510C

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
367-12-4	*Surrogate: SURR: 2-Fluorophenol*	*27.0 %*			*19.7-63.1*						
4165-62-2	*Surrogate: SURR: Phenol-d5*	*14.3 %*			*10.1-41.7*						
4165-60-0	*Surrogate: SURR: Nitrobenzene-d5*	*47.8 %*	S-08		*50.2-113*						
321-60-8	*Surrogate: SURR: 2-Fluorobiphenyl*	*61.5 %*			*39.9-105*						
118-79-6	*Surrogate: SURR: 2,4,6-Tribromophenol*	*104 %*			*39.3-151*						
1718-51-0	*Surrogate: SURR: Terphenyl-d14*	*86.0 %*			*30.7-106*						

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
72-54-8	4,4'-DDD	ND		ug/L	0.00457	1	EPA 8081B Certifications:	11/21/2018 07:55 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/28/2018 02:02	TJD
72-55-9	4,4'-DDE	ND		ug/L	0.00457	1	EPA 8081B Certifications:	11/21/2018 07:55 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/28/2018 02:02	TJD
50-29-3	4,4'-DDT	ND		ug/L	0.00457	1	EPA 8081B Certifications:	11/21/2018 07:55 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/28/2018 02:02	TJD
309-00-2	Aldrin	ND		ug/L	0.00457	1	EPA 8081B Certifications:	11/21/2018 07:55 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/28/2018 02:02	TJD
319-84-6	alpha-BHC	ND		ug/L	0.00457	1	EPA 8081B Certifications:	11/21/2018 07:55 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/28/2018 02:02	TJD
5103-71-9	alpha-Chlordane	ND		ug/L	0.00457	1	EPA 8081B Certifications:	11/21/2018 07:55 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/28/2018 02:02	TJD
319-85-7	beta-BHC	ND		ug/L	0.00457	1	EPA 8081B Certifications:	11/21/2018 07:55 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/28/2018 02:02	TJD
57-74-9	Chlordane, total	ND		ug/L	0.0229	1	EPA 8081B Certifications:	11/21/2018 07:55 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/28/2018 02:02	TJD
319-86-8	delta-BHC	ND		ug/L	0.00457	1	EPA 8081B Certifications:	11/21/2018 07:55 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/28/2018 02:02	TJD
60-57-1	Dieldrin	ND		ug/L	0.00229	1	EPA 8081B Certifications:	11/21/2018 07:55 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/28/2018 02:02	TJD
959-98-8	Endosulfan I	ND		ug/L	0.00457	1	EPA 8081B Certifications:	11/21/2018 07:55 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/28/2018 02:02	TJD
33213-65-9	Endosulfan II	ND		ug/L	0.00457	1	EPA 8081B Certifications:	11/21/2018 07:55 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/28/2018 02:02	TJD
1031-07-8	Endosulfan sulfate	ND		ug/L	0.00457	1	EPA 8081B Certifications:	11/21/2018 07:55 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/28/2018 02:02	TJD
72-20-8	Endrin	ND		ug/L	0.00457	1	EPA 8081B Certifications:	11/21/2018 07:55 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/28/2018 02:02	TJD
7421-93-4	Endrin aldehyde	ND		ug/L	0.0114	1	EPA 8081B Certifications:	11/21/2018 07:55 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/28/2018 02:02	TJD
53494-70-5	Endrin ketone	ND		ug/L	0.0114	1	EPA 8081B Certifications:	11/21/2018 07:55 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/28/2018 02:02	TJD
58-89-9	gamma-BHC (Lindane)	ND		ug/L	0.00457	1	EPA 8081B Certifications:	11/21/2018 07:55 CTDOH,NELAC-NY10854,NJDEP,PADEP	11/28/2018 02:02	TJD

Sample Information

Client Sample ID: MW-7D **York Sample ID:** 18K0686-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Pesticides, 8081 target list

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
5566-34-7	gamma-Chlordane	ND		ug/L	0.0114	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 02:02	TJD
76-44-8	Heptachlor	ND		ug/L	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 02:02	TJD
1024-57-3	Heptachlor epoxide	ND		ug/L	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 02:02	TJD
72-43-5	Methoxychlor	ND		ug/L	0.00457	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 02:02	TJD
8001-35-2	Toxaphene	ND		ug/L	0.114	1	EPA 8081B Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 02:02	TJD

	Surrogate Recoveries	Result	Acceptance Range
2051-24-3	*Surrogate: Decachlorobiphenyl*	*83.3 %*	*30-150*
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*74.6 %*	*30-150*

Polychlorinated Biphenyls (PCB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW846-3510C Low Level

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		ug/L	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 12:56	TJD
11104-28-2	Aroclor 1221	ND		ug/L	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 12:56	TJD
11141-16-5	Aroclor 1232	ND		ug/L	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 12:56	TJD
53469-21-9	Aroclor 1242	ND		ug/L	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 12:56	TJD
12672-29-6	Aroclor 1248	ND		ug/L	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 12:56	TJD
11097-69-1	Aroclor 1254	ND		ug/L	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 12:56	TJD
11096-82-5	Aroclor 1260	ND		ug/L	0.0571	1	EPA 8082A Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	11/21/2018 07:55	11/28/2018 12:56	TJD
1336-36-3	* Total PCBs	ND		ug/L	0.0571	1	EPA 8082A Certifications:	11/21/2018 07:55	11/28/2018 12:56	TJD

	Surrogate Recoveries	Result	Acceptance Range
877-09-8	*Surrogate: Tetrachloro-m-xylene*	*82.2 %*	*30-120*
2051-24-3	*Surrogate: Decachlorobiphenyl*	*68.2 %*	*30-120*

Hardness, total (as CaCO3)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.7

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst

Sample Information

Client Sample ID: MW-7D

York Sample ID: 18K0686-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Hardness, total (as CaCO3)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.7

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Hardness, Total	**432**		mg/L	1.11	1	EPA 200.7	11/19/2018 11:28	11/19/2018 15:47	KML
							Certifications: NELAC-NY10854,CTDOH,NJDEP			

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7429-90-5	Aluminum	ND		mg/L	0.056	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:28	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-36-0	Antimony	ND		mg/L	0.028	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:28	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-38-2	Arsenic	ND		mg/L	0.017	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:28	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-39-3	**Barium**	**0.119**		mg/L	0.028	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:28	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-41-7	Beryllium	ND		mg/L	0.0006	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:28	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-43-9	Cadmium	ND		mg/L	0.003	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:28	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-70-2	**Calcium**	**134**		mg/L	0.056	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:28	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-47-3	Chromium	ND		mg/L	0.006	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:28	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-48-4	Cobalt	ND		mg/L	0.004	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:28	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-50-8	Copper	ND		mg/L	0.022	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:28	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7439-89-6	Iron	ND		mg/L	0.278	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:28	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7439-92-1	Lead	ND		mg/L	0.006	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:28	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7439-95-4	**Magnesium**	**24.0**		mg/L	0.056	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:28	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7439-96-5	**Manganese**	**4.41**		mg/L	0.006	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:28	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-02-0	Nickel	ND		mg/L	0.011	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:28	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-09-7	**Potassium**	**12.2**	B	mg/L	0.056	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:28	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7782-49-2	**Selenium**	**0.072**		mg/L	0.028	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:28	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-22-4	Silver	ND		mg/L	0.006	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:28	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			
7440-23-5	**Sodium**	**151**		mg/L	0.556	1	EPA 6010D	11/19/2018 12:33	11/26/2018 12:28	KML
							Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP			

Sample Information

Client Sample ID: MW-7D **York Sample ID:** 18K0686-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18K0686	Livonia Ave.	Water	November 15, 2018 3:00 pm	11/16/2018

Metals, Target Analyte

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-28-0	Thallium	ND		mg/L	0.028	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2018 12:33	11/26/2018 12:28	KML
7440-62-2	Vanadium	ND		mg/L	0.011	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2018 12:33	11/26/2018 12:28	KML
7440-66-6	**Zinc**	**0.036**		mg/L	0.028	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2018 12:33	11/26/2018 12:28	KML

Mercury by 7473

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-97-6	Mercury	ND		mg/L	0.00020	1	EPA 7473 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	11/19/2018 13:28	11/19/2018 14:41	SY

Analyzed by: Con-Test Analytical Laboratory

Semi-Volatiles, 1,4-Dioxane by 8270-SIM (SUB)

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3535A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
123-91-1	1,4-Dioxane	ND		ug/L	0.2	1	SW-846 8270D Certifications:	11/20/2018 00:00	11/28/2018 00:00	

Analytical Batch Summary

Batch ID: 11/28/2018 **Preparation Method:** EPA 3535A **Prepared By:**

YORK Sample ID	Client Sample ID	Preparation Date
18K0686-01	MW-7S	11/20/18
18K0686-02	MW-7D	11/20/18

Batch ID: BK81009 **Preparation Method:** EPA 200.7 **Prepared By:** SY

YORK Sample ID	Client Sample ID	Preparation Date
18K0686-01	MW-7S	11/19/18
18K0686-02	MW-7D	11/19/18
BK81009-BLK1	Blank	11/19/18

Batch ID: BK81018 **Preparation Method:** EPA 3015A **Prepared By:** SY

YORK Sample ID	Client Sample ID	Preparation Date
18K0686-01	MW-7S	11/19/18
18K0686-02	MW-7D	11/19/18
BK81018-BLK1	Blank	11/19/18
BK81018-BS1	LCS	11/19/18

Batch ID: BK81027 **Preparation Method:** EPA 7473 water **Prepared By:** SY

YORK Sample ID	Client Sample ID	Preparation Date
18K0686-01	MW-7S	11/19/18
18K0686-02	MW-7D	11/19/18
BK81027-BLK1	Blank	11/19/18
BK81027-DUP1	Duplicate	11/19/18
BK81027-MS1	Matrix Spike	11/19/18
BK81027-SRM1	Reference	11/19/18

Batch ID: BK81062 **Preparation Method:** EPA 3510C **Prepared By:** SGM

YORK Sample ID	Client Sample ID	Preparation Date
18K0686-01	MW-7S	11/20/18
18K0686-02	MW-7D	11/20/18
BK81062-BLK1	Blank	11/20/18
BK81062-BLK2	Blank	11/20/18
BK81062-BS1	LCS	11/20/18
BK81062-BS2	LCS	11/20/18
BK81062-BSD1	LCS Dup	11/20/18

Batch ID: BK81140 **Preparation Method:** EPA SW846-3510C Low Level **Prepared By:** SGM

YORK Sample ID	Client Sample ID	Preparation Date

18K0686-01	MW-7S	11/21/18
18K0686-01	MW-7S	11/21/18
18K0686-02	MW-7D	11/21/18
18K0686-02	MW-7D	11/21/18
BK81140-BLK1	Blank	11/21/18
BK81140-BLK2	Blank	11/21/18
BK81140-BS1	LCS	11/21/18
BK81140-BS2	LCS	11/21/18
BK81140-BSD1	LCS Dup	11/21/18
BK81140-BSD2	LCS Dup	11/21/18

Batch ID: BK81151 **Preparation Method:** EPA 5030B **Prepared By:** LDS

YORK Sample ID	Client Sample ID	Preparation Date
18K0686-01	MW-7S	11/24/18
18K0686-02	MW-7D	11/24/18
BK81151-BLK1	Blank	11/24/18
BK81151-BS1	LCS	11/24/18
BK81151-BSD1	LCS Dup	11/24/18

Volatile Organic Compounds 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 BK81151 - EPA 5030B											
Blank (BK81151-BLK1)											
Prepared & Analyzed: 11/24/2018											
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L								
1,1,1-Trichloroethane	ND	0.50	"								
1,1,2,2-Tetrachloroethane	ND	0.50	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.50	"								
1,1,2-Trichloroethane	ND	0.50	"								
1,1-Dichloroethane	ND	0.50	"								
1,1-Dichloroethylene	ND	0.50	"								
1,1-Dichloropropylene	ND	0.50	"								
1,2,3-Trichlorobenzene	ND	0.50	"								
1,2,3-Trichloropropane	ND	0.50	"								
1,2,4,5-Tetramethylbenzene	ND	0.50	"								
1,2,4-Trichlorobenzene	ND	0.50	"								
1,2,4-Trimethylbenzene	ND	0.50	"								
1,2-Dibromo-3-chloropropane	ND	0.50	"								
1,2-Dibromoethane	ND	0.50	"								
1,2-Dichlorobenzene	ND	0.50	"								
1,2-Dichloroethane	ND	0.50	"								
1,2-Dichloropropane	ND	0.50	"								
1,3,5-Trimethylbenzene	ND	0.50	"								
1,3-Dichlorobenzene	ND	0.50	"								
1,3-Dichloropropane	ND	0.50	"								
1,4-Dichlorobenzene	ND	0.50	"								
2,2-Dichloropropane	ND	0.50	"								
2-Butanone	ND	0.50	"								
2-Chlorotoluene	ND	0.50	"								
2-Hexanone	ND	0.50	"								
4-Chlorotoluene	ND	0.50	"								
4-Methyl-2-pentanone	ND	0.50	"								
Acetone	ND	2.0	"								
Benzene	ND	0.50	"								
Bromobenzene	ND	0.50	"								
Bromochloromethane	ND	0.50	"								
Bromodichloromethane	ND	0.50	"								
Bromoform	ND	0.50	"								
Bromomethane	ND	0.50	"								
Carbon disulfide	ND	0.50	"								
Carbon tetrachloride	ND	0.50	"								
Chlorobenzene	ND	0.50	"								
Chloroethane	ND	0.50	"								
Chloroform	ND	0.50	"								
Chloromethane	ND	0.50	"								
cis-1,2-Dichloroethylene	ND	0.50	"								
cis-1,3-Dichloropropylene	ND	0.50	"								
Dibromochloromethane	ND	0.50	"								
Dibromomethane	ND	0.50	"								
Dichlorodifluoromethane	ND	0.50	"								
Ethyl Benzene	ND	0.50	"								
Hexachlorobutadiene	ND	0.50	"								
Isopropylbenzene	ND	0.50	"								
Methyl tert-butyl ether (MTBE)	ND	0.50	"								

Volatile Organic Compounds 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 BK81151 - EPA 5030B											
Blank (BK81151-BLK1)								Prepared & Analyzed: 11/24/2018			
Methylene chloride	ND	2.0	ug/L								
Naphthalene	ND	2.0	"								
n-Butylbenzene	ND	0.50	"								
n-Propylbenzene	ND	0.50	"								
o-Xylene	ND	0.50	"								
p- & m- Xylenes	ND	1.0	"								
p-Diethylbenzene	ND	0.50	"								
p-Ethyltoluene	ND	0.50	"								
p-Isopropyltoluene	ND	0.50	"								
sec-Butylbenzene	ND	0.50	"								
Styrene	ND	0.50	"								
tert-Butylbenzene	ND	0.50	"								
Tetrachloroethylene	ND	0.50	"								
Toluene	ND	0.50	"								
trans-1,2-Dichloroethylene	ND	0.50	"								
trans-1,3-Dichloropropylene	ND	0.50	"								
Trichloroethylene	ND	0.50	"								
Trichlorofluoromethane	ND	0.50	"								
Vinyl Chloride	ND	0.50	"								
Xylenes, Total	ND	1.5	"								
Surrogate: SURR: 1,2-Dichloroethane-d4	*9.69*		*"*	*10.0*		*96.9*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.95*		*"*	*10.0*		*99.5*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*10.6*		*"*	*10.0*		*106*	*79-122*				
LCS (BK81151-BS1)								Prepared & Analyzed: 11/24/2018			
1,1,1,2-Tetrachloroethane	7.75		ug/L	10.0		77.5	82-126	Low Bias			
1,1,1-Trichloroethane	8.22		"	10.0		82.2	78-136				
1,1,2,2-Tetrachloroethane	9.14		"	10.0		91.4	76-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	8.75		"	10.0		87.5	54-165				
1,1,2-Trichloroethane	8.41		"	10.0		84.1	82-123				
1,1-Dichloroethane	9.00		"	10.0		90.0	82-129				
1,1-Dichloroethylene	8.56		"	10.0		85.6	68-138				
1,1-Dichloropropylene	8.66		"	10.0		86.6	83-133				
1,2,3-Trichlorobenzene	8.34		"	10.0		83.4	76-136				
1,2,3-Trichloropropane	8.93		"	10.0		89.3	77-128				
1,2,4,5-Tetramethylbenzene	0.00		"	10.0			85-140	Low Bias			
1,2,4-Trichlorobenzene	8.29		"	10.0		82.9	76-137				
1,2,4-Trimethylbenzene	9.69		"	10.0		96.9	82-132				
1,2-Dibromo-3-chloropropane	8.80		"	10.0		88.0	45-147				
1,2-Dibromoethane	8.39		"	10.0		83.9	83-124				
1,2-Dichlorobenzene	8.76		"	10.0		87.6	79-123				
1,2-Dichloroethane	8.75		"	10.0		87.5	73-132				
1,2-Dichloropropane	8.70		"	10.0		87.0	78-126				
1,3,5-Trimethylbenzene	9.86		"	10.0		98.6	80-131				
1,3-Dichlorobenzene	8.50		"	10.0		85.0	86-122	Low Bias			
1,3-Dichloropropane	8.83		"	10.0		88.3	81-125				
1,4-Dichlorobenzene	8.42		"	10.0		84.2	85-124	Low Bias			
2,2-Dichloropropane	9.55		"	10.0		95.5	56-150				
2-Butanone	8.35		"	10.0		83.5	49-152				
2-Chlorotoluene	8.11		"	10.0		81.1	79-130				
2-Hexanone	8.34		"	10.0		83.4	51-146				

Volatile Organic Compounds 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 BK81151 - EPA 5030B											
LCS (BK81151-BS1)								Prepared & Analyzed: 11/24/2018			
4-Chlorotoluene	9.43		ug/L	10.0		94.3	79-128				
4-Methyl-2-pentanone	8.73		"	10.0		87.3	57-145				
Acetone	7.64		"	10.0		76.4	14-150				
Benzene	9.47		"	10.0		94.7	85-126				
Bromobenzene	8.78		"	10.0		87.8	78-129				
Bromochloromethane	9.21		"	10.0		92.1	77-128				
Bromodichloromethane	8.75		"	10.0		87.5	79-128				
Bromoform	8.42		"	10.0		84.2	78-133				
Bromomethane	2.97		"	10.0		29.7	43-168	Low Bias			
Carbon disulfide	9.39		"	10.0		93.9	68-146				
Carbon tetrachloride	8.34		"	10.0		83.4	77-141				
Chlorobenzene	8.72		"	10.0		87.2	88-120	Low Bias			
Chloroethane	8.94		"	10.0		89.4	65-136				
Chloroform	9.02		"	10.0		90.2	82-128				
Chloromethane	5.06		"	10.0		50.6	43-155				
cis-1,2-Dichloroethylene	9.08		"	10.0		90.8	83-129				
cis-1,3-Dichloropropylene	8.68		"	10.0		86.8	80-131				
Dibromochloromethane	8.54		"	10.0		85.4	80-130				
Dibromomethane	8.50		"	10.0		85.0	72-134				
Dichlorodifluoromethane	8.68		"	10.0		86.8	44-144				
Ethyl Benzene	9.72		"	10.0		97.2	80-131				
Hexachlorobutadiene	9.04		"	10.0		90.4	67-146				
Isopropylbenzene	10.1		"	10.0		101	76-140				
Methyl tert-butyl ether (MTBE)	8.83		"	10.0		88.3	76-135				
Methylene chloride	9.10		"	10.0		91.0	55-137				
Naphthalene	8.57		"	10.0		85.7	70-147				
n-Butylbenzene	8.14		"	10.0		81.4	79-132				
n-Propylbenzene	10.5		"	10.0		105	78-133				
o-Xylene	9.00		"	10.0		90.0	78-130				
p- & m- Xylenes	20.8		"	20.0		104	77-133				
p-Diethylbenzene	1.36		"	10.0		13.6	84-134	Low Bias			
p-Ethyltoluene	9.86		"	10.0		98.6	88-129				
p-Isopropyltoluene	10.0		"	10.0		100	81-136				
sec-Butylbenzene	10.7		"	10.0		107	79-137				
Styrene	8.55		"	10.0		85.5	67-132				
tert-Butylbenzene	9.62		"	10.0		96.2	77-138				
Tetrachloroethylene	8.01		"	10.0		80.1	82-131	Low Bias			
Toluene	9.40		"	10.0		94.0	80-127				
trans-1,2-Dichloroethylene	8.79		"	10.0		87.9	80-132				
trans-1,3-Dichloropropylene	8.49		"	10.0		84.9	78-131				
Trichloroethylene	8.58		"	10.0		85.8	82-128				
Trichlorofluoromethane	8.49		"	10.0		84.9	67-139				
Vinyl Chloride	7.43		"	10.0		74.3	58-145				
Surrogate: SURR: 1,2-Dichloroethane-d4	*9.33*		*"*	*10.0*		*93.3*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.90*		*"*	*10.0*		*99.0*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*10.5*		*"*	*10.0*		*105*	*79-122*				

Volatile Organic Compounds 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 BK81151 - EPA 5030B

LCS Dup (BK81151-BSD1) Prepared & Analyzed: 11/24/2018

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
1,1,1,2-Tetrachloroethane	7.95		ug/L	10.0		79.5	82-126	Low Bias	2.55	30	
1,1,1-Trichloroethane	8.20		"	10.0		82.0	78-136		0.244	30	
1,1,2,2-Tetrachloroethane	8.94		"	10.0		89.4	76-129		2.21	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	8.66		"	10.0		86.6	54-165		1.03	30	
1,1,2-Trichloroethane	8.67		"	10.0		86.7	82-123		3.04	30	
1,1-Dichloroethane	8.68		"	10.0		86.8	82-129		3.62	30	
1,1-Dichloroethylene	8.62		"	10.0		86.2	68-138		0.698	30	
1,1-Dichloropropylene	8.34		"	10.0		83.4	83-133		3.76	30	
1,2,3-Trichlorobenzene	8.05		"	10.0		80.5	76-136		3.54	30	
1,2,3-Trichloropropane	8.75		"	10.0		87.5	77-128		2.04	30	
1,2,4,5-Tetramethylbenzene	0.00		"	10.0			85-140	Low Bias		30	
1,2,4-Trichlorobenzene	8.50		"	10.0		85.0	76-137		2.50	30	
1,2,4-Trimethylbenzene	9.08		"	10.0		90.8	82-132		6.50	30	
1,2-Dibromo-3-chloropropane	7.87		"	10.0		78.7	45-147		11.2	30	
1,2-Dibromoethane	8.99		"	10.0		89.9	83-124		6.90	30	
1,2-Dichlorobenzene	8.41		"	10.0		84.1	79-123		4.08	30	
1,2-Dichloroethane	8.69		"	10.0		86.9	73-132		0.688	30	
1,2-Dichloropropane	8.44		"	10.0		84.4	78-126		3.03	30	
1,3,5-Trimethylbenzene	9.08		"	10.0		90.8	80-131		8.24	30	
1,3-Dichlorobenzene	8.16		"	10.0		81.6	86-122	Low Bias	4.08	30	
1,3-Dichloropropane	9.02		"	10.0		90.2	81-125		2.13	30	
1,4-Dichlorobenzene	8.03		"	10.0		80.3	85-124	Low Bias	4.74	30	
2,2-Dichloropropane	9.13		"	10.0		91.3	56-150		4.50	30	
2-Butanone	7.97		"	10.0		79.7	49-152		4.66	30	
2-Chlorotoluene	7.47		"	10.0		74.7	79-130	Low Bias	8.22	30	
2-Hexanone	9.08		"	10.0		90.8	51-146		8.50	30	
4-Chlorotoluene	8.83		"	10.0		88.3	79-128		6.57	30	
4-Methyl-2-pentanone	9.25		"	10.0		92.5	57-145		5.78	30	
Acetone	9.31		"	10.0		93.1	14-150		19.7	30	
Benzene	9.38		"	10.0		93.8	85-126		0.955	30	
Bromobenzene	8.47		"	10.0		84.7	78-129		3.59	30	
Bromochloromethane	9.31		"	10.0		93.1	77-128		1.08	30	
Bromodichloromethane	8.60		"	10.0		86.0	79-128		1.73	30	
Bromoform	8.75		"	10.0		87.5	78-133		3.84	30	
Bromomethane	3.17		"	10.0		31.7	43-168	Low Bias	6.51	30	
Carbon disulfide	9.29		"	10.0		92.9	68-146		1.07	30	
Carbon tetrachloride	8.31		"	10.0		83.1	77-141		0.360	30	
Chlorobenzene	8.61		"	10.0		86.1	88-120	Low Bias	1.27	30	
Chloroethane	8.98		"	10.0		89.8	65-136		0.446	30	
Chloroform	8.88		"	10.0		88.8	82-128		1.56	30	
Chloromethane	5.52		"	10.0		55.2	43-155		8.70	30	
cis-1,2-Dichloroethylene	8.98		"	10.0		89.8	83-129		1.11	30	
cis-1,3-Dichloropropylene	8.71		"	10.0		87.1	80-131		0.345	30	
Dibromochloromethane	8.65		"	10.0		86.5	80-130		1.28	30	
Dibromomethane	8.54		"	10.0		85.4	72-134		0.469	30	
Dichlorodifluoromethane	8.65		"	10.0		86.5	44-144		0.346	30	
Ethyl Benzene	9.44		"	10.0		94.4	80-131		2.92	30	
Hexachlorobutadiene	8.89		"	10.0		88.9	67-146		1.67	30	
Isopropylbenzene	9.56		"	10.0		95.6	76-140		5.39	30	
Methyl tert-butyl ether (MTBE)	8.86		"	10.0		88.6	76-135		0.339	30	
Methylene chloride	8.93		"	10.0		89.3	55-137		1.89	30	

Volatile Organic Compounds 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 BK81151 - EPA 5030B											
LCS Dup (BK81151-BSD1)								Prepared & Analyzed: 11/24/2018			
Naphthalene	8.93		ug/L	10.0		89.3	70-147		4.11	30	
n-Butylbenzene	7.62		"	10.0		76.2	79-132	Low Bias	6.60	30	
n-Propylbenzene	9.83		"	10.0		98.3	78-133		6.59	30	
o-Xylene	8.94		"	10.0		89.4	78-130		0.669	30	
p- & m- Xylenes	20.3		"	20.0		102	77-133		2.53	30	
p-Diethylbenzene	1.21		"	10.0		12.1	84-134	Low Bias	11.7	30	
p-Ethyltoluene	9.08		"	10.0		90.8	88-129		8.24	30	
p-Isopropyltoluene	9.42		"	10.0		94.2	81-136		6.17	30	
sec-Butylbenzene	10.1		"	10.0		101	79-137		5.86	30	
Styrene	8.50		"	10.0		85.0	67-132		0.587	30	
tert-Butylbenzene	9.01		"	10.0		90.1	77-138		6.55	30	
Tetrachloroethylene	7.77		"	10.0		77.7	82-131	Low Bias	3.04	30	
Toluene	9.12		"	10.0		91.2	80-127		3.02	30	
trans-1,2-Dichloroethylene	8.48		"	10.0		84.8	80-132		3.59	30	
trans-1,3-Dichloropropylene	8.54		"	10.0		85.4	78-131		0.587	30	
Trichloroethylene	8.35		"	10.0		83.5	82-128		2.72	30	
Trichlorofluoromethane	8.08		"	10.0		80.8	67-139		4.95	30	
Vinyl Chloride	7.63		"	10.0		76.3	58-145		2.66	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	*9.87*		*"*	*10.0*		*98.7*	*69-130*				
Surrogate: SURR: Toluene-d8	*9.73*		*"*	*10.0*		*97.3*	*81-117*				
Surrogate: SURR: p-Bromofluorobenzene	*10.3*		*"*	*10.0*		*103*	*79-122*				

Semivolatile Organic Compounds 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 BK81062 - EPA 3510C											
Blank (BK81062-BLK1)											
Prepared: 11/20/2018 Analyzed: 11/21/2018											
1,1-Biphenyl	ND	5.00	ug/L								
1,2,4,5-Tetrachlorobenzene	ND	5.00	"								
1,2,4-Trichlorobenzene	ND	5.00	"								
1,2-Dichlorobenzene	ND	5.00	"								
1,2-Diphenylhydrazine (as Azobenzene)	ND	5.00	"								
1,3-Dichlorobenzene	ND	5.00	"								
1,4-Dichlorobenzene	ND	5.00	"								
2,3,4,6-Tetrachlorophenol	ND	5.00	"								
2,4,5-Trichlorophenol	ND	5.00	"								
2,4,6-Trichlorophenol	ND	5.00	"								
2,4-Dichlorophenol	ND	5.00	"								
2,4-Dimethylphenol	ND	5.00	"								
2,4-Dinitrophenol	ND	5.00	"								
2,4-Dinitrotoluene	ND	5.00	"								
2,6-Dinitrotoluene	ND	5.00	"								
2-Chloronaphthalene	ND	5.00	"								
2-Chlorophenol	ND	5.00	"								
2-Methylnaphthalene	ND	5.00	"								
2-Methylphenol	ND	5.00	"								
2-Nitroaniline	ND	5.00	"								
2-Nitrophenol	ND	5.00	"								
3- & 4-Methylphenols	ND	5.00	"								
3,3-Dichlorobenzidine	ND	5.00	"								
3-Nitroaniline	ND	5.00	"								
4,6-Dinitro-2-methylphenol	ND	5.00	"								
4-Bromophenyl phenyl ether	ND	5.00	"								
4-Chloro-3-methylphenol	ND	5.00	"								
4-Chloroaniline	ND	5.00	"								
4-Chlorophenyl phenyl ether	ND	5.00	"								
4-Nitroaniline	ND	5.00	"								
4-Nitrophenol	ND	5.00	"								
Acenaphthene	ND	0.0500	"								
Acenaphthylene	ND	0.0500	"								
Acetophenone	ND	5.00	"								
Aniline	ND	5.00	"								
Anthracene	ND	0.0500	"								
Atrazine	ND	0.500	"								
Benzaldehyde	ND	5.00	"								
Benzidine	ND	20.0	"								
Benzo(a)anthracene	ND	0.0500	"								
Benzo(a)pyrene	ND	0.0500	"								
Benzo(b)fluoranthene	ND	0.0500	"								
Benzo(g,h,i)perylene	ND	0.0500	"								
Benzo(k)fluoranthene	ND	0.0500	"								
Benzoic acid	ND	50.0	"								
Benzyl alcohol	ND	5.00	"								
Benzyl butyl phthalate	ND	5.00	"								
Bis(2-chloroethoxy)methane	ND	5.00	"								
Bis(2-chloroethyl)ether	ND	5.00	"								
Bis(2-chloroisopropyl)ether	ND	5.00	"								
Bis(2-ethylhexyl)phthalate	ND	0.500	"								

Semivolatile Organic Compounds 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 BK81062 - EPA 3510C											
Blank (BK81062-BLK1)											
Prepared: 11/20/2018 Analyzed: 11/21/2018											
Caprolactam	ND	5.00	ug/L								
Carbazole	ND	5.00	"								
Chrysene	ND	0.0500	"								
Dibenzo(a,h)anthracene	ND	0.0500	"								
Dibenzofuran	ND	5.00	"								
Diethyl phthalate	ND	5.00	"								
Dimethyl phthalate	ND	5.00	"								
Di-n-butyl phthalate	ND	5.00	"								
Di-n-octyl phthalate	ND	5.00	"								
Fluoranthene	ND	0.0500	"								
Fluorene	ND	0.0500	"								
Hexachlorobenzene	ND	0.0200	"								
Hexachlorobutadiene	ND	0.500	"								
Hexachlorocyclopentadiene	ND	5.00	"								
Hexachloroethane	ND	0.500	"								
Indeno(1,2,3-cd)pyrene	ND	0.0500	"								
Isophorone	ND	5.00	"								
Naphthalene	ND	0.0500	"								
Nitrobenzene	ND	0.250	"								
N-Nitrosodimethylamine	ND	0.500	"								
N-nitroso-di-n-propylamine	ND	5.00	"								
N-Nitrosodiphenylamine	ND	5.00	"								
Pentachlorophenol	ND	0.250	"								
Phenanthrene	ND	0.0500	"								
Phenol	ND	5.00	"								
Pyrene	ND	0.0500	"								
Surrogate: SURR: 2-Fluorophenol	*13.6*		"	*50.0*		*27.1*	*19.7-63.1*				
Surrogate: SURR: Phenol-d5	*7.55*		"	*50.0*		*15.1*	*10.1-41.7*				
Surrogate: SURR: Nitrobenzene-d5	*11.4*		"	*25.0*		*45.6*	*50.2-113*				
Surrogate: SURR: 2-Fluorobiphenyl	*15.4*		"	*25.0*		*61.8*	*39.9-105*				
Surrogate: SURR: 2,4,6-Tribromophenol	*50.1*		"	*50.0*		*100*	*39.3-151*				
Surrogate: SURR: Terphenyl-d14	*21.9*		"	*25.0*		*87.6*	*30.7-106*				

Semivolatile Organic Compounds 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 BK81062 - EPA 3510C											
Blank (BK81062-BLK2)											Prepared: 11/20/2018 Analyzed: 11/21/2018
Acenaphthene	ND	0.0500	ug/L								
Acenaphthylene	ND	0.0500	"								
Anthracene	ND	0.0500	"								
Atrazine	ND	0.500	"								
Benzo(a)anthracene	ND	0.0500	"								
Benzo(a)pyrene	ND	0.0500	"								
Benzo(b)fluoranthene	ND	0.0500	"								
Benzo(g,h,i)perylene	ND	0.0500	"								
Benzo(k)fluoranthene	ND	0.0500	"								
Bis(2-ethylhexyl)phthalate	ND	0.500	"								
Chrysene	ND	0.0500	"								
Dibenzo(a,h)anthracene	ND	0.0500	"								
Fluoranthene	ND	0.0500	"								
Fluorene	ND	0.0500	"								
Hexachlorobenzene	ND	0.0200	"								
Hexachlorobutadiene	ND	0.500	"								
Hexachloroethane	ND	0.500	"								
Indeno(1,2,3-cd)pyrene	ND	0.0500	"								
Naphthalene	ND	0.0500	"								
Nitrobenzene	ND	0.250	"								
N-Nitrosodimethylamine	ND	0.500	"								
Pentachlorophenol	ND	0.250	"								
Phenanthrene	ND	0.0500	"								
Pyrene	ND	0.0500	"								
LCS (BK81062-BS1)											Prepared: 11/20/2018 Analyzed: 11/21/2018
1,1-Biphenyl	14.6	5.00	ug/L	50.0		29.1	21-102				
1,2,4,5-Tetrachlorobenzene	15.8	5.00	"	25.0		63.0	28-105				
1,2,4-Trichlorobenzene	17.2	5.00	"	25.0		68.6	35-91				
1,2-Dichlorobenzene	15.4	5.00	"	25.0		61.4	42-85				
1,2-Diphenylhydrazine (as Azobenzene)	10.3	5.00	"	25.0		41.2	16-137				
1,3-Dichlorobenzene	15.0	5.00	"	25.0		60.2	45-80				
1,4-Dichlorobenzene	14.9	5.00	"	25.0		59.7	42-82				
2,3,4,6-Tetrachlorophenol	27.9	5.00	"	25.0		111	30-130				
2,4,5-Trichlorophenol	17.1	5.00	"	25.0		68.3	36-112				
2,4,6-Trichlorophenol	18.1	5.00	"	25.0		72.4	41-107				
2,4-Dichlorophenol	19.4	5.00	"	25.0		77.6	43-92				
2,4-Dimethylphenol	16.4	5.00	"	25.0		65.7	25-92				
2,4-Dinitrophenol	17.3	5.00	"	25.0		69.2	10-149				
2,4-Dinitrotoluene	20.8	5.00	"	25.0		83.3	41-114				
2,6-Dinitrotoluene	20.5	5.00	"	25.0		82.0	49-106				
2-Chloronaphthalene	16.2	5.00	"	25.0		64.8	40-96				
2-Chlorophenol	15.6	5.00	"	25.0		62.2	35-84				
2-Methylnaphthalene	17.6	5.00	"	25.0		70.3	33-101				
2-Methylphenol	11.2	5.00	"	25.0		44.7	10-90				
2-Nitroaniline	17.6	5.00	"	25.0		70.4	31-122				
2-Nitrophenol	20.9	5.00	"	25.0		83.5	37-97				
3- & 4-Methylphenols	9.42	5.00	"	25.0		37.7	10-101				
3,3-Dichlorobenzidine	13.0	5.00	"	25.0		51.9	25-155				
3-Nitroaniline	15.0	5.00	"	25.0		60.1	29-128				
4,6-Dinitro-2-methylphenol	21.6	5.00	"	25.0		86.2	10-135				

Semivolatile Organic Compounds 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 BK81062 - EPA 3510C											
LCS (BK81062-BS1)								Prepared: 11/20/2018 Analyzed: 11/21/2018			
4-Bromophenyl phenyl ether	19.1	5.00	ug/L	25.0		76.5	38-116				
4-Chloro-3-methylphenol	16.3	5.00	"	25.0		65.2	28-101				
4-Chloroaniline	12.2	5.00	"	25.0		48.8	10-154				
4-Chlorophenyl phenyl ether	18.1	5.00	"	25.0		72.6	34-112				
4-Nitroaniline	15.4	5.00	"	25.0		61.4	15-143				
4-Nitrophenol	4.78	5.00	"	25.0		19.1	10-112				
Acenaphthene	16.0	0.0500	"	25.0		64.2	24-114				
Acenaphthylene	16.4	0.0500	"	25.0		65.7	26-112				
Acetophenone	12.3	5.00	"	50.0		24.7	47-92	Low Bias			
Aniline	5.78	5.00	"	25.0		23.1	10-107				
Anthracene	17.9	0.0500	"	25.0		71.8	35-114				
Atrazine	15.5	0.500	"	50.0		31.1	43-101	Low Bias			
Benzaldehyde	14.0	5.00	"	50.0		28.1	17-117				
Benzo(a)anthracene	19.3	0.0500	"	25.0		77.2	38-127				
Benzo(a)pyrene	21.4	0.0500	"	25.0		85.6	30-146				
Benzo(b)fluoranthene	21.4	0.0500	"	25.0		85.8	36-145				
Benzo(g,h,i)perylene	18.6	0.0500	"	25.0		74.3	10-163				
Benzo(k)fluoranthene	18.8	0.0500	"	25.0		75.0	16-149				
Benzoic acid	ND	50.0	"	31.0			30-130	Low Bias			
Benzyl alcohol	11.4	5.00	"	25.0		45.5	18-75				
Benzyl butyl phthalate	18.1	5.00	"	25.0		72.4	28-129				
Bis(2-chloroethoxy)methane	13.6	5.00	"	25.0		54.5	27-112				
Bis(2-chloroethyl)ether	13.1	5.00	"	25.0		52.3	24-114				
Bis(2-chloroisopropyl)ether	10.8	5.00	"	25.0		43.0	21-124				
Bis(2-ethylhexyl)phthalate	18.8	0.500	"	25.0		75.2	10-171				
Caprolactam	3.71	5.00	"	50.0		7.42	10-29	Low Bias			
Carbazole	16.8	5.00	"	25.0		67.2	49-116				
Chrysene	18.2	0.0500	"	25.0		72.8	33-120				
Dibenzo(a,h)anthracene	19.4	0.0500	"	25.0		77.6	10-149				
Dibenzofuran	16.2	5.00	"	25.0		64.9	42-105				
Diethyl phthalate	16.9	5.00	"	25.0		67.6	38-112				
Dimethyl phthalate	17.4	5.00	"	25.0		69.8	49-106				
Di-n-butyl phthalate	16.9	5.00	"	25.0		67.5	36-110				
Di-n-octyl phthalate	20.4	5.00	"	25.0		81.6	12-149				
Fluoranthene	18.7	0.0500	"	25.0		74.7	33-126				
Fluorene	17.8	0.0500	"	25.0		71.2	28-117				
Hexachlorobenzene	13.2	0.0200	"	25.0		52.8	27-120				
Hexachlorobutadiene	16.4	0.500	"	25.0		65.6	25-106				
Hexachlorocyclopentadiene	4.34	5.00	"	25.0		17.4	10-99				
Hexachloroethane	13.0	0.500	"	25.0		52.0	33-84				
Indeno(1,2,3-cd)pyrene	18.6	0.0500	"	25.0		74.2	10-150				
Isophorone	12.3	5.00	"	25.0		49.3	29-115				
Naphthalene	16.4	0.0500	"	25.0		65.7	30-99				
Nitrobenzene	10.9	0.250	"	25.0		43.5	32-113				
N-Nitrosodimethylamine	3.09	0.500	"	25.0		12.4	10-63				
N-nitroso-di-n-propylamine	10.5	5.00	"	25.0		41.9	36-118				
N-Nitrosodiphenylamine	20.4	5.00	"	25.0		81.7	27-145				
Pentachlorophenol	9.16	0.250	"	25.0		36.6	19-127				
Phenanthrene	18.0	0.0500	"	25.0		72.2	31-112				
Phenol	5.47	5.00	"	25.0		21.9	10-37				
Pyrene	18.1	0.0500	"	25.0		72.3	42-125				

Semivolatile Organic Compounds 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 BK81062 - EPA 3510C											
LCS (BK81062-BS1)								Prepared: 11/20/2018 Analyzed: 11/21/2018			
Surrogate: SURR: 2-Fluorophenol	*15.2*		*ug/L*	*50.0*		*30.4*	*19.7-63.1*				
Surrogate: SURR: Phenol-d5	*8.53*		*"*	*50.0*		*17.1*	*10.1-41.7*				
Surrogate: SURR: Nitrobenzene-d5	*11.8*		*"*	*25.0*		*47.4*	*50.2-113*				
Surrogate: SURR: 2-Fluorobiphenyl	*16.0*		*"*	*25.0*		*64.0*	*39.9-105*				
Surrogate: SURR: 2,4,6-Tribromophenol	*50.1*		*"*	*50.0*		*100*	*39.3-151*				
Surrogate: SURR: Terphenyl-d14	*21.3*		*"*	*25.0*		*85.1*	*30.7-106*				
LCS (BK81062-BS2)								Prepared: 11/20/2018 Analyzed: 11/21/2018			
Acenaphthene	0.670	0.0500	ug/L	1.00		67.0	24-114				
Acenaphthylene	0.750	0.0500	"	1.00		75.0	26-112				
Anthracene	0.760	0.0500	"	1.00		76.0	35-114				
Atrazine	ND	0.500	"				43-101				
Benzo(a)anthracene	0.770	0.0500	"	1.00		77.0	38-127				
Benzo(a)pyrene	0.780	0.0500	"	1.00		78.0	30-146				
Benzo(b)fluoranthene	0.780	0.0500	"	1.00		78.0	36-145				
Benzo(g,h,i)perylene	0.800	0.0500	"	1.00		80.0	10-163				
Benzo(k)fluoranthene	0.850	0.0500	"	1.00		85.0	16-149				
Bis(2-ethylhexyl)phthalate	0.530	0.500	"	1.00		53.0	10-171				
Chrysene	0.840	0.0500	"	1.00		84.0	33-120				
Dibenzo(a,h)anthracene	0.830	0.0500	"	1.00		83.0	10-149				
Fluoranthene	0.790	0.0500	"	1.00		79.0	33-126				
Fluorene	0.790	0.0500	"	1.00		79.0	28-117				
Hexachlorobenzene	0.580	0.0200	"	1.00		58.0	27-120				
Hexachlorobutadiene	0.580	0.500	"	1.00		58.0	25-106				
Hexachloroethane	0.510	0.500	"	1.00		51.0	33-84				
Indeno(1,2,3-cd)pyrene	0.820	0.0500	"	1.00		82.0	10-150				
Naphthalene	0.700	0.0500	"	1.00		70.0	30-99				
Nitrobenzene	0.470	0.250	"	1.00		47.0	32-113				
N-Nitrosodimethylamine	ND	0.500	"	1.00			10-63	Low Bias			
Pentachlorophenol	0.540	0.250	"	1.00		54.0	19-127				
Phenanthrene	0.770	0.0500	"	1.00		77.0	31-112				
Pyrene	0.800	0.0500	"	1.00		80.0	42-125				

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BK81062 - EPA 3510C											
LCS Dup (BK81062-BSD1)								Prepared: 11/20/2018 Analyzed: 11/21/2018			
1,1-Biphenyl	14.6	5.00	ug/L	50.0		29.1	21-102		0.137	20	
1,2,4,5-Tetrachlorobenzene	15.5	5.00	"	25.0		62.1	28-105		1.53	20	
1,2,4-Trichlorobenzene	16.9	5.00	"	25.0		67.7	35-91		1.35	20	
1,2-Dichlorobenzene	15.0	5.00	"	25.0		60.1	42-85		2.17	20	
1,2-Diphenylhydrazine (as Azobenzene)	10.8	5.00	"	25.0		43.2	16-137		4.73	20	
1,3-Dichlorobenzene	14.6	5.00	"	25.0		58.5	45-80		2.83	20	
1,4-Dichlorobenzene	15.0	5.00	"	25.0		59.8	42-82		0.134	20	
2,3,4,6-Tetrachlorophenol	29.8	5.00	"	25.0		119	30-130		6.66	20	
2,4,5-Trichlorophenol	17.2	5.00	"	25.0		68.9	36-112		0.874	20	
2,4,6-Trichlorophenol	18.6	5.00	"	25.0		74.6	41-107		2.99	20	
2,4-Dichlorophenol	19.9	5.00	"	25.0		79.7	43-92		2.70	20	
2,4-Dimethylphenol	17.2	5.00	"	25.0		68.9	25-92		4.75	20	
2,4-Dinitrophenol	18.9	5.00	"	25.0		75.6	10-149		8.78	20	
2,4-Dinitrotoluene	21.6	5.00	"	25.0		86.4	41-114		3.63	20	
2,6-Dinitrotoluene	21.2	5.00	"	25.0		84.6	49-106		3.07	20	
2-Chloronaphthalene	16.2	5.00	"	25.0		64.6	40-96		0.309	20	
2-Chlorophenol	15.2	5.00	"	25.0		60.9	35-84		2.14	20	
2-Methylnaphthalene	17.7	5.00	"	25.0		71.0	33-101		0.963	20	
2-Methylphenol	11.7	5.00	"	25.0		46.8	10-90		4.63	20	
2-Nitroaniline	17.6	5.00	"	25.0		70.3	31-122		0.227	20	
2-Nitrophenol	21.0	5.00	"	25.0		84.0	37-97		0.573	20	
3- & 4-Methylphenols	9.63	5.00	"	25.0		38.5	10-101		2.20	20	
3,3-Dichlorobenzidine	15.1	5.00	"	25.0		60.5	25-155		15.3	20	
3-Nitroaniline	15.2	5.00	"	25.0		60.8	29-128		1.13	20	
4,6-Dinitro-2-methylphenol	23.2	5.00	"	25.0		92.7	10-135		7.29	20	
4-Bromophenyl phenyl ether	20.4	5.00	"	25.0		81.4	38-116		6.18	20	
4-Chloro-3-methylphenol	17.3	5.00	"	25.0		69.1	28-101		5.78	20	
4-Chloroaniline	12.1	5.00	"	25.0		48.4	10-154		0.740	20	
4-Chlorophenyl phenyl ether	18.7	5.00	"	25.0		74.6	34-112		2.83	20	
4-Nitroaniline	16.5	5.00	"	25.0		65.9	15-143		6.97	20	
4-Nitrophenol	5.16	5.00	"	25.0		20.6	10-112		7.65	20	
Acenaphthene	16.4	0.0500	"	25.0		65.6	24-114		2.16	20	
Acenaphthylene	16.5	0.0500	"	25.0		66.0	26-112		0.547	20	
Acetophenone	13.1	5.00	"	50.0		26.2	47-92	Low Bias	6.13	20	
Aniline	5.48	5.00	"	25.0		21.9	10-107		5.33	20	
Anthracene	19.1	0.0500	"	25.0		76.4	35-114		6.32	20	
Atrazine	16.8	0.500	"	50.0		33.6	43-101	Low Bias	7.86	20	
Benzaldehyde	14.2	5.00	"	50.0		28.4	17-117		1.27	20	
Benzo(a)anthracene	20.8	0.0500	"	25.0		83.2	38-127		7.58	20	
Benzo(a)pyrene	22.9	0.0500	"	25.0		91.7	30-146		6.95	20	
Benzo(b)fluoranthene	23.2	0.0500	"	25.0		93.0	36-145		8.01	20	
Benzo(g,h,i)perylene	19.9	0.0500	"	25.0		79.7	10-163		6.96	20	
Benzo(k)fluoranthene	20.5	0.0500	"	25.0		82.0	16-149		8.97	20	
Benzoic acid	ND	50.0	"	31.0			30-130	Low Bias		20	
Benzyl alcohol	10.5	5.00	"	25.0		42.2	18-75		7.58	20	
Benzyl butyl phthalate	19.2	5.00	"	25.0		76.8	28-129		5.85	20	
Bis(2-chloroethoxy)methane	13.9	5.00	"	25.0		55.6	27-112		2.11	20	
Bis(2-chloroethyl)ether	13.4	5.00	"	25.0		53.7	24-114		2.57	20	
Bis(2-chloroisopropyl)ether	10.7	5.00	"	25.0		43.0	21-124		0.186	20	
Bis(2-ethylhexyl)phthalate	19.4	0.500	"	25.0		77.8	10-171		3.40	20	
Caprolactam	3.81	5.00	"	50.0		7.62	10-29	Low Bias	2.66	20	

Semivolatile Organic Compounds 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 BK81062 - EPA 3510C											
LCS Dup (BK81062-BSD1)									Prepared: 11/20/2018 Analyzed: 11/21/2018		
Carbazole	17.9	5.00	ug/L	25.0		71.8	49-116		6.50	20	
Chrysene	19.7	0.0500	"	25.0		78.8	33-120		7.91	20	
Dibenzo(a,h)anthracene	20.7	0.0500	"	25.0		82.7	10-149		6.29	20	
Dibenzofuran	16.9	5.00	"	25.0		67.7	42-105		4.28	20	
Diethyl phthalate	17.6	5.00	"	25.0		70.4	38-112		4.17	20	
Dimethyl phthalate	17.9	5.00	"	25.0		71.5	49-106		2.38	20	
Di-n-butyl phthalate	18.1	5.00	"	25.0		72.4	36-110		6.92	20	
Di-n-octyl phthalate	21.6	5.00	"	25.0		86.4	12-149		5.76	20	
Fluoranthene	20.0	0.0500	"	25.0		80.0	33-126		6.83	20	
Fluorene	18.3	0.0500	"	25.0		73.3	28-117		2.93	20	
Hexachlorobenzene	13.7	0.0200	"	25.0		55.0	27-120		3.93	20	
Hexachlorobutadiene	16.1	0.500	"	25.0		64.4	25-106		1.91	20	
Hexachlorocyclopentadiene	4.11	5.00	"	25.0		16.4	10-99		5.44	20	
Hexachloroethane	12.5	0.500	"	25.0		50.2	33-84		3.60	20	
Indeno(1,2,3-cd)pyrene	20.1	0.0500	"	25.0		80.3	10-150		7.82	20	
Isophorone	12.7	5.00	"	25.0		50.9	29-115		3.19	20	
Naphthalene	16.8	0.0500	"	25.0		67.2	30-99		2.29	20	
Nitrobenzene	10.8	0.250	"	25.0		43.4	32-113		0.276	20	
N-Nitrosodimethylamine	3.20	0.500	"	25.0		12.8	10-63		3.50	20	
N-nitroso-di-n-propylamine	10.9	5.00	"	25.0		43.7	36-118		4.20	20	
N-Nitrosodiphenylamine	20.5	5.00	"	25.0		82.2	27-145		0.586	20	
Pentachlorophenol	11.1	0.250	"	25.0		44.4	19-127		19.2	20	
Phenanthrene	18.8	0.0500	"	25.0		75.1	31-112		3.97	20	
Phenol	5.21	5.00	"	25.0		20.8	10-37		4.87	20	
Pyrene	19.0	0.0500	"	25.0		76.0	42-125		5.07	20	
Surrogate: SURR: 2-Fluorophenol	*14.5*		"	*50.0*		*29.0*	*19.7-63.1*				
Surrogate: SURR: Phenol-d5	*8.08*		"	*50.0*		*16.2*	*10.1-41.7*				
Surrogate: SURR: Nitrobenzene-d5	*11.9*		"	*25.0*		*47.5*	*50.2-113*				
Surrogate: SURR: 2-Fluorobiphenyl	*15.6*		"	*25.0*		*62.5*	*39.9-105*				
Surrogate: SURR: 2,4,6-Tribromophenol	*52.3*		"	*50.0*		*105*	*39.3-151*				
Surrogate: SURR: Terphenyl-d14	*20.6*		"	*25.0*		*82.4*	*30.7-106*				

Organochlorine Pesticides by GC/ECD - 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 BK81140 - EPA SW846-3510C Low Level											
Blank (BK81140-BLK1)									Prepared: 11/21/2018 Analyzed: 11/28/2018		
4,4'-DDD	ND	0.00400	ug/L								
4,4'-DDE	ND	0.00400	"								
4,4'-DDT	ND	0.00400	"								
Aldrin	ND	0.00400	"								
alpha-BHC	ND	0.00400	"								
alpha-Chlordane	ND	0.00400	"								
beta-BHC	ND	0.00400	"								
Chlordane, total	ND	0.0200	"								
delta-BHC	ND	0.00400	"								
Dieldrin	ND	0.00200	"								
Endosulfan I	ND	0.00400	"								
Endosulfan II	ND	0.00400	"								
Endosulfan sulfate	ND	0.00400	"								
Endrin	ND	0.00400	"								
Endrin aldehyde	ND	0.0100	"								
Endrin ketone	ND	0.0100	"								
gamma-BHC (Lindane)	ND	0.00400	"								
gamma-Chlordane	ND	0.0100	"								
Heptachlor	ND	0.00400	"								
Heptachlor epoxide	ND	0.00400	"								
Methoxychlor	ND	0.00400	"								
Toxaphene	ND	0.100	"								
Surrogate: Decachlorobiphenyl	*0.191*		*"*	*0.201*		*95.0*	*30-150*				
Surrogate: Tetrachloro-m-xylene	*0.228*		*"*	*0.202*		*113*	*30-150*				
LCS (BK81140-BS1)									Prepared: 11/21/2018 Analyzed: 11/28/2018		
4,4'-DDD	0.127	0.00400	ug/L	0.100		127	40-140				
4,4'-DDE	0.111	0.00400	"	0.100		111	40-140				
4,4'-DDT	0.131	0.00400	"	0.100		131	40-140				
Aldrin	0.114	0.00400	"	0.100		114	40-140				
alpha-BHC	0.121	0.00400	"	0.100		121	40-140				
alpha-Chlordane	0.100	0.00400	"	0.100		100	40-140				
beta-BHC	0.113	0.00400	"	0.100		113	40-140				
delta-BHC	0.119	0.00400	"	0.100		119	40-140				
Dieldrin	0.108	0.00200	"	0.100		108	40-140				
Endosulfan I	0.105	0.00400	"	0.100		105	40-140				
Endosulfan II	0.107	0.00400	"	0.100		107	40-140				
Endosulfan sulfate	0.112	0.00400	"	0.100		112	40-140				
Endrin	0.105	0.00400	"	0.100		105	40-140				
Endrin aldehyde	0.104	0.0100	"	0.100		104	40-140				
Endrin ketone	0.105	0.0100	"	0.100		105	40-140				
gamma-BHC (Lindane)	0.116	0.00400	"	0.100		116	40-140				
gamma-Chlordane	0.108	0.0100	"	0.100		108	40-140				
Heptachlor	0.107	0.00400	"	0.100		107	40-140				
Heptachlor epoxide	0.105	0.00400	"	0.100		105	40-140				
Methoxychlor	0.107	0.00400	"	0.100		107	40-140				
Surrogate: Decachlorobiphenyl	*0.177*		*"*	*0.201*		*88.2*	*30-150*				
Surrogate: Tetrachloro-m-xylene	*0.212*		*"*	*0.202*		*105*	*30-150*				

Organochlorine Pesticides by GC/ECD - 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 BK81140 - EPA SW846-3510C Low Level											
LCS Dup (BK81140-BSD1)									Prepared: 11/21/2018 Analyzed: 11/28/2018		
4,4'-DDD	0.127	0.00400	ug/L	0.100		127	40-140		0.387	20	
4,4'-DDE	0.111	0.00400	"	0.100		111	40-140		0.284	20	
4,4'-DDT	0.132	0.00400	"	0.100		132	40-140		0.781	20	
Aldrin	0.114	0.00400	"	0.100		114	40-140		0.170	20	
alpha-BHC	0.120	0.00400	"	0.100		120	40-140		0.295	20	
alpha-Chlordane	0.101	0.00400	"	0.100		101	40-140		0.388	20	
beta-BHC	0.114	0.00400	"	0.100		114	40-140		0.513	20	
delta-BHC	0.120	0.00400	"	0.100		120	40-140		0.362	20	
Dieldrin	0.109	0.00200	"	0.100		109	40-140		0.136	20	
Endosulfan I	0.106	0.00400	"	0.100		106	40-140		1.05	20	
Endosulfan II	0.107	0.00400	"	0.100		107	40-140		0.0712	20	
Endosulfan sulfate	0.112	0.00400	"	0.100		112	40-140		0.118	20	
Endrin	0.106	0.00400	"	0.100		106	40-140		0.881	20	
Endrin aldehyde	0.104	0.0100	"	0.100		104	40-140		0.0598	20	
Endrin ketone	0.105	0.0100	"	0.100		105	40-140		0.149	20	
gamma-BHC (Lindane)	0.116	0.00400	"	0.100		116	40-140		0.0509	20	
gamma-Chlordane	0.109	0.0100	"	0.100		109	40-140		0.546	20	
Heptachlor	0.108	0.00400	"	0.100		108	40-140		0.529	20	
Heptachlor epoxide	0.106	0.00400	"	0.100		106	40-140		0.533	20	
Methoxychlor	0.108	0.00400	"	0.100		108	40-140		0.971	20	
Surrogate: Decachlorobiphenyl	*0.179*		*"*	*0.201*		*88.9*	*30-150*				
Surrogate: Tetrachloro-m-xylene	*0.208*		*"*	*0.202*		*103*	*30-150*				

Polychlorinated Biphenyls by GC/ECD - 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 BK81140 - EPA SW846-3510C Low Level											
Blank (BK81140-BLK2)								Prepared: 11/21/2018 Analyzed: 11/23/2018			
Aroclor 1016	ND	0.0500	ug/L								
Aroclor 1221	ND	0.0500	"								
Aroclor 1232	ND	0.0500	"								
Aroclor 1242	ND	0.0500	"								
Aroclor 1248	ND	0.0500	"								
Aroclor 1254	ND	0.0500	"								
Aroclor 1260	ND	0.0500	"								
Total PCBs	ND	0.0500	"								
Surrogate: Tetrachloro-m-xylene	*0.198*		*"*	*0.202*		*98.0*	*30-120*				
Surrogate: Decachlorobiphenyl	*0.139*		*"*	*0.201*		*69.2*	*30-120*				
LCS (BK81140-BS2)								Prepared: 11/21/2018 Analyzed: 11/23/2018			
Aroclor 1016	0.875	0.0500	ug/L	1.00		87.5	40-120				
Aroclor 1260	0.942	0.0500	"	1.00		94.2	40-120				
Surrogate: Tetrachloro-m-xylene	*0.192*		*"*	*0.202*		*95.0*	*30-120*				
Surrogate: Decachlorobiphenyl	*0.144*		*"*	*0.201*		*71.6*	*30-120*				
LCS Dup (BK81140-BSD2)								Prepared: 11/21/2018 Analyzed: 11/23/2018			
Aroclor 1016	0.892	0.0500	ug/L	1.00		89.2	40-120		1.92	30	
Aroclor 1260	0.953	0.0500	"	1.00		95.3	40-120		1.12	30	
Surrogate: Tetrachloro-m-xylene	*0.194*		*"*	*0.202*		*96.0*	*30-120*				
Surrogate: Decachlorobiphenyl	*0.146*		*"*	*0.201*		*72.6*	*30-120*				

Metals by ICP - 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 BK81009 - EPA 200.7											
Blank (BK81009-BLK1)											Prepared & Analyzed: 11/19/2018
Hardness, Total	ND	1.11	mg/L								
Batch BK81018 - EPA 3015A											
Blank (BK81018-BLK1)											Prepared & Analyzed: 11/19/2018
Aluminum	ND	0.056	mg/L								
Antimony	ND	0.028	"								
Arsenic	ND	0.017	"								
Barium	ND	0.028	"								
Beryllium	ND	0.0006	"								
Cadmium	ND	0.003	"								
Calcium	ND	0.056	"								
Chromium	ND	0.006	"								
Cobalt	ND	0.004	"								
Copper	ND	0.022	"								
Iron	ND	0.278	"								
Lead	ND	0.006	"								
Magnesium	ND	0.056	"								
Manganese	ND	0.006	"								
Nickel	ND	0.011	"								
Potassium	0.135	0.056	"								
Selenium	ND	0.028	"								
Silver	ND	0.006	"								
Sodium	ND	0.556	"								
Thallium	ND	0.028	"								
Vanadium	ND	0.011	"								
Zinc	ND	0.028	"								

Metals by ICP - 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 BK81018 - EPA 3015A											
LCS (BK81018-BS1)								Prepared & Analyzed: 11/19/2018			
Aluminum	2.17		ug/mL	2.00		109	80-120				
Antimony	0.253		"	0.250		101	80-120				
Arsenic	1.84		"	2.00		91.8	80-120				
Barium	2.02		"	2.00		101	80-120				
Beryllium	0.049		"	0.0500		97.7	80-120				
Cadmium	0.047		"	0.0500		93.2	80-120				
Calcium	1.04		"	1.00		104	80-120				
Chromium	0.200		"	0.200		100	80-120				
Cobalt	0.514		"	0.500		103	80-120				
Copper	0.260		"	0.250		104	80-120				
Iron	1.05		"	1.00		105	80-120				
Lead	0.478		"	0.500		95.6	80-120				
Magnesium	1.03		"	1.00		103	80-120				
Manganese	0.513		"	0.500		103	80-120				
Nickel	0.507		"	0.500		101	80-120				
Potassium	1.12		"	0.500		224	80-120	High Bias			
Selenium	1.71		"	2.00		85.6	80-120				
Silver	0.049		"	0.0500		97.6	80-120				
Sodium	1.40		"	1.00		140	80-120	High Bias			
Thallium	2.03		"	2.00		102	80-120				
Vanadium	0.493		"	0.500		98.6	80-120				
Zinc	0.470		"	0.500		93.9	80-120				

Mercury by EPA 7000/200 Series Methods - 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 BK81027 - EPA 7473 water											
Blank (BK81027-BLK1)								Prepared & Analyzed: 11/19/2018			
Mercury	ND	0.00020	mg/L								
Duplicate (BK81027-DUP1)	*Source sample: 18K0686-02 (MW-7D)							Prepared & Analyzed: 11/19/2018			
Mercury	ND	0.00020	mg/L		ND					20	
Matrix Spike (BK81027-MS1)	*Source sample: 18K0686-02 (MW-7D)							Prepared & Analyzed: 11/19/2018			
Mercury	0.0102		mg/L	0.0100	0.00	102	75-125				
Reference (BK81027-SRM1)								Prepared & Analyzed: 11/19/2018			
Mercury	0.0100		mg/L	0.0100		100	70-130				

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
18K0686-01	MW-7S	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
18K0686-02	MW-7D	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C

Sample and Data Qualifiers Relating to This Work Order

S-08	The recovery of this surrogate was outside of QC limits.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
M-ICV2	The recovery for this element in the ICV was outside the 90-110% recovery criteria.
M-CRL	The RL check for this element recovered outside of control limits.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
EXT-EM	The sample exhibited emulsion formation during the extraction process. This may affect surrogate recoveries.
CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

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.

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Field Chain-of-Custody Record

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. 18K0686

YOUR Information	Report To:	Invoice To:	YOUR Project Number	Turn-Around Time
Company: DERMODY CONSULTING	Company: PETER DERMODY	Company: SAME		RUSH - Next Day
Address:	Address:	Address:		RUSH - Two Day
Phone.:	Phone.:	Phone.:	YOUR Project Name: Livonia Ave.	RUSH - Three Day
Contact:	Contact:	Contact:		RUSH - Four Day
E-mail:	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.

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

Matrix Codes
S - soil / solid
GW - groundwater
DW - drinking water
WW - wastewater
O - Oil | Other

Samples From
New York
New Jersey
Connecticut
Pennsylvania
Other

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

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

Sample Identification	Sample Matrix	Date/Time Sampled	Analysis Requested	Container Description
MW-7S	GW	11/15/18	(VOCs, SVOCs, Pesticides/PCBs, 1,4-dioxane, metals, hardness	2 VOC vials 2 plus HNO3 5 ambers for MW-7S, 4 ambers for MW-70
MW-7D	"	"		
			⊗ see attached for parameter lists.	

Comments: ⊗ Lab to filter for metals samples only

Preservation: (check all that apply)
HCl ___ MeOH ___ HNO3 X H2SO4 ___ NaOH ___ ZnAc ___
Ascorbic Acid ___ Other: ice

Special Instruction
Field Filtered ___
Lab to Filter X

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
Peter Dermody	11/16/18 12pm	YORK	11/16/18 12pm	YORK	11/16/18
Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time / Temp. Received at Lab
				RGrace	11-16-18 1629 @ 2.1 Degrees C

Inorganic Chemicals	
Analyte Name	**CAS Number**
Aluminum	7429-90-5
Antimony	7440-36-0
Arsenic	7440-38-2
Barium	7440-39-3
Beryllium	7440-41-7
Cadmium	7440-43-9
Calcium	7440-70-2
Chromium	7440-47-3
Cobalt	7440-48-4
Copper	7440-50-8
Iron	7439-89-6
Lead	7439-92-1
Magnesium	7439-95-4
Manganese	7439-96-5
Nickel	7440-02-0
Potassium	7440-09-7
Selenium	7782-49-2
Silver	7440-22-4
Sodium	7440-23-5
Thallium	7440-28-0
Vanadium	7440-62-2
Zinc	7440-66-6
Hardness (total)	Hardness

Organic Chemicals		
Class	**Analyte Name**	**CASN**
PCBs	Aroclor-1016	12674-11-2
PCBs	Aroclor-1221	11104-28-2
PCBs	Aroclor-1232	11141-16-5
PCBs	Aroclor-1242	53469-21-9
PCBs	Aroclor-1248	12672-29-6
PCBs	Aroclor-1254	11097-69-1
PCBs	Aroclor-1260	11096-82-5
PCBs	Aroclor-1262	37324-23-5
PCBs	Aroclor-1268	11100-14-4
Pesticides	4,4'-DDD	72-54-8
Pesticides	4,4'-DDE	72-55-9
Pesticides	4,4'-DDT	50-29-3
Pesticides	Aldrin	309-00-2
Pesticides	alpha-BHC	319-84-6
Pesticides	Atrazine	1912-24-9
Pesticides	beta-BHC	319-85-7
Pesticides	cis-Chlordane	5103-71-9
Pesticides	delta-BHC	319-86-8
Pesticides	Dieldrin	60-57-1
Pesticides	Endosulfan I	959-98-8
Pesticides	Endosulfan II	33213-65-9
Pesticides	Endosulfan Sulfate	1031-07-8
Pesticides	Endrin	72-20-8
Pesticides	Endrin aldehyde	7421-93-4
Pesticides	Endrin ketone	53494-70-5
Pesticides	gamma-BHC (Lindane)	58-89-9
Pesticides	Heptachlor	76-44-8
Pesticides	Heptachlor epoxide	1024-57-3
Pesticides	Methoxychlor	72-43-5
Pesticides	Toxaphene	8001-35-2
Pesticides	trans-Chlordane	5103-74-2
PFAS	6:2 Fluorotelomer sulfonate (6:2 FTS)	27619-97-2
PFAS	8:2 Fluorotelomer sulfonate (8:2 FTS)	39108-34-4
PFAS	Perfluorobutanoic acid (PFBA)	375-22-4
PFAS	Perfluorodecanoic acid (PFDA)	335-76-2
PFAS	Perfluorododecanoic acid (PFDoA)	307-55-1
PFAS	Perfluoroheptanoic acid (PFHpA)	375-85-9
PFAS	Perfluorohexanoic acid (PFHxA)	307-24-4
PFAS	Perfluorononanoic acid (PFNA)	375-95-1
PFAS	Perfluorooctanoic acid (PFOA)	335-67-1
PFAS	Perfluoropentanoic acid (PFPeA)	2706-90-3
PFAS	Perfluorotetradecanoic acid (PFTA/PFTeDA)	376-06-7
PFAS	Perfluorotridecanoic acid (PFTriA/PFTrDA)	72629-94-8
PFAS	Perfluoroundecanoic acid (PFUA/PFUdA)	2058-94-8
PFAS	Perfluorobutanesulfonic acid (PFBS)	375-73-5
PFAS	Perfluorodecanesulfonic acid (PFDS)	335-77-3

Organic Chemicals		
Class	**Analyte Name**	**CASN**
PFAS	Perfluoroheptanesulfonic acid (PFHpS)	375-92-8
PFAS	Perfluorohexanesulfonic acid (PFHxS)	355-46-4
PFAS	Perfluorooctanessulfonic acid (PFOS)	1763-23-1
PFAS	Perfluroroctanesulfonamide (FOSA)	754-91-6
PFAS	N-ethyl perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	2991-50-6
PFAS	N-methyl perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	2355-31-9
SVOC	1,1'-Biphenyl	92-52-4
SVOC	1,2,4,5-Tetrachlorobenzene	95-94-3
SVOC	1,4-Dioxane	123-91-1
SVOC	2,2'-Oxybis(1-chloropropane)	108-60-1
SVOC	2,3,4,6-Tetrachlorophenol	58-90-2
SVOC	2,4,5-Trichlorophenol	95-95-4
SVOC	2,4,6-Trichlorophenol	88-06-2
SVOC	2,4-Dichlorophenol	120-83-2
SVOC	2,4-Dimethylphenol	105-67-9
SVOC	2,4-Dinitrophenol	51-28-5
SVOC	2,4-Dinitrotoluene	121-14-2
SVOC	2,6-Dinitrotoluene	606-20-2
SVOC	2-Chloronaphthalene	91-58-7
SVOC	2-Chlorophenol	95-57-8
SVOC	2-Methylnaphthalene	91-57-6
SVOC	2-Methylphenol	95-48-7
SVOC	2-Nitroaniline	88-74-4
SVOC	2-Nitrophenol	88-75-5
SVOC	3,3'-Dichlorobenzidine	91-94-1
SVOC	3-Methylphenol	108-39-4
SVOC	3-Nitroaniline	99-09-2
SVOC	4,6-Dinitro-2-methylphenol	534-52-1
SVOC	4-Bromophenyl-phenylether	101-55-3
SVOC	4-Chloro-3-methylphenol	59-50-7
SVOC	4-Chloroaniline	106-47-8
SVOC	4-Chlorophenyl-phenyl ether	7005-72-3
SVOC	4-Methylphenol	106-44-5
SVOC	4-Nitroaniline	100-01-6
SVOC	4-Nitrophenol	100-02-7
SVOC	Acenaphthene	83-32-9
SVOC	Acenaphthylene	208-96-8
SVOC	Acetophenone	98-86-2
SVOC	Anthracene	120-12-7
SVOC	Benzaldehyde	100-52-7
SVOC	Benzo(a)anthracene	56-55-3
SVOC	Benzo(a)pyrene	50-32-8
SVOC	Benzo(b)fluoranthene	205-99-2
SVOC	Benzo(g,h,i)perylene	191-24-2
SVOC	Benzo(k)fluoranthene	207-08-9
SVOC	Bis(2-chloroethoxy)methane	111-91-1

Organic Chemicals		
Class	**Analyte Name**	**CASN**
SVOC	Bis(2-chloroethyl) ether	111-44-4
SVOC	Bis(2-ethylhexyl)phthalate	117-81-7
SVOC	Butylbenzylphthalate	85-68-7
SVOC	Caprolactam	105-60-2
SVOC	Carbazole	86-74-8
SVOC	Chrysene	218-01-9
SVOC	Dibenzo(a,h)anthracene	53-70-3
SVOC	Dibenzofuran	132-64-9
SVOC	Diethylphthalate	84-66-2
SVOC	Dimethylphthalate	131-11-3
SVOC	Di-n-butylphthalate	84-74-2
SVOC	Di-n-octylphthalate	117-84-0
SVOC	Fluoranthene	206-44-0
SVOC	Fluorene	86-73-7
SVOC	Hexachlorobenzene	118-74-1
SVOC	Hexachlorobutadiene	87-68-3
SVOC	Hexachlorocyclo-pentadiene	77-47-4
SVOC	Hexachloroethane	67-72-1
SVOC	Indeno(1,2,3-cd)pyrene	193-39-5
SVOC	Isophorone	78-59-1
SVOC	Naphthalene	91-20-3
SVOC	Nitrobenzene	98-95-3
SVOC	N-Nitroso-di-n propylamine	621-64-7
SVOC	N-Nitrosodiphenylamine	86-30-6
SVOC	Pentachlorophenol	87-86-5
SVOC	Phenanthrene	85-01-8
SVOC	Phenol	108-95-2
SVOC	Pyrene	129-00-0
VOC	1,1,1-Trichloroethane	71-55-6
VOC	1,1,2,2-Tetrachloroethane	79-34-5
VOC	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1
VOC	1,1,2-Trichloroethane	79-00-5
VOC	1,1-Dichloroethane	75-34-3
VOC	1,1-Dichloroethene	75-35-4
VOC	1,2,3-Trichlorobenzene	87-61-6
VOC	1,2,4-Trichlorobenzene	120-82-1
VOC	1,2-Dibromo-3-chloropropane	96-12-8
VOC	1,2-Dibromoethane	106-93-4
VOC	1,2-Dichlorobenzene	95-50-1
VOC	1,2-Dichloroethane	107-06-2
VOC	1,2-Dichloropropane	78-87-5
VOC	1,3-Dichlorobenzene	541-73-1
VOC	1,4-Dichlorobenzene	106-46-7
VOC	2-Butanone	78-93-3
VOC	2-Hexanone	591-78-6
VOC	4-Methyl-2-pentanone	108-10-1

Organic Chemicals		
Class	**Analyte Name**	**CASN**
VOC	Acetone	67-64-1
VOC	Benzene	71-43-2
VOC	Bromochloromethane	74-97-5
VOC	Bromodichloromethane	75-27-4
VOC	Bromoform	75-25-2
VOC	Bromomethane	74-83-9
VOC	Carbon disulfide	75-15-0
VOC	Carbon tetrachloride	56-23-5
VOC	Chlorobenzene	108-90-7
VOC	Chloroethane	75-00-3
VOC	Chloroform	67-66-3
VOC	Chloromethane	74-87-3
VOC	cis-1,2-Dichloroethene	156-59-2
VOC	cis-1,3-Dichloropropene	10061-01-5
VOC	Cyclohexane	110-82-7
VOC	Dibromochloromethane	124-48-1
VOC	Dichlorodifluoromethane	75-71-8
VOC	Ethylbenzene	100-41-4
VOC	Isopropylbenzene	98-82-8
VOC	m,p-Xylene	179601-23-1
VOC	Methyl acetate	79-20-9
VOC	Methyl tert-butyl ether	1634-04-4
VOC	Methylcyclohexane	108-87-2
VOC	Methylene chloride	75-09-2
VOC	o-Xylene	95-47-6
VOC	Styrene	100-42-5
VOC	Tetrachloroethene	127-18-4
VOC	Toluene	108-88-3
VOC	trans-1,2-Dichloroethene	156-60-5
VOC	trans-1,3-Dichloropropene	10061-02-6
VOC	Trichloroethene	79-01-6
VOC	Trichlorofluoromethane	75-69-4
VOC	Vinyl chloride	75-01-4

Technical Report

prepared for:

Dermody Consulting, Inc.
32 Chichester Ave., 2nd Floor
Center Moriches NY, 11934
Attention: Peter Dermody

Report Date: 11/07/2018
Client Project ID: Livonia Ave.
York Project (SDG) No.: 18J1536

Report Date: 11/07/2018
Client Project ID: Livonia Ave.
York Project (SDG) No.: 18J1536

Dermody Consulting, Inc.
32 Chichester Ave., 2nd Floor
Center Moriches NY, 11934
Attention: Peter Dermody

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 October 31, 2018 and listed below. The project was identified as your project: **Livonia Ave.**.

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
18J1536-01	SB-15A (7-8.5')	Soil	10/30/2018	10/31/2018

General Notes for York Project (SDG) No.: 18J1536

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: 11/07/2018

Benjamin Gulizia
Laboratory Director

Sample Information

Client Sample ID: SB-15A (7-8.5')

York Sample ID: 18J1536-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18J1536	Livonia Ave.	Soil	October 30, 2018 12:00 am	10/31/2018

Volatile Organics, 8260 List

Log-in Notes: VOA-CONT

Sample Notes: VOA-CONT

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
563-58-6	1,1-Dichloropropylene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058		
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
142-28-9	1,3-Dichloropropane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		

Sample Information

Client Sample ID: SB-15A (7-8.5')

York Sample ID: 18J1536-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18J1536	Livonia Ave.	Soil	October 30, 2018 12:00 am	10/31/2018

Volatile Organics, 8260 List

Log-in Notes: VOA-CONT

Sample Notes: VOA-CONT

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
123-91-1	1,4-Dioxane	ND		ug/kg dry	60	120	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
594-20-7	2,2-Dichloropropane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058		
78-93-3	2-Butanone	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
95-49-8	2-Chlorotoluene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
106-43-4	4-Chlorotoluene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
67-64-1	Acetone	ND		ug/kg dry	6.0	12	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
71-43-2	Benzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
108-86-1	Bromobenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
74-97-5	Bromochloromethane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		
75-27-4	Bromodichloromethane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
75-25-2	Bromoform	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
74-83-9	Bromomethane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
56-23-5	Carbon tetrachloride	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
108-90-7	Chlorobenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
75-00-3	Chloroethane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
67-66-3	Chloroform	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
74-87-3	Chloromethane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
156-59-2	**cis-1,2-Dichloroethylene**	**37**		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
124-48-1	Dibromochloromethane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAI		

Sample Information

Client Sample ID: SB-15A (7-8.5')

York Sample ID: 18J1536-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18J1536	Livonia Ave.	Soil	October 30, 2018 12:00 am	10/31/2018

Volatile Organics, 8260 List

Log-in Notes: VOA-CONT

Sample Notes: VOA-CONT

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-95-3	Dibromomethane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAL		
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAL		
100-41-4	Ethyl Benzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAL		
98-82-8	Isopropylbenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
75-09-2	**Methylene chloride**	**7.0**	J	ug/kg dry	6.0	12	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
91-20-3	Naphthalene	ND		ug/kg dry	3.0	12	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAL		
104-51-8	n-Butylbenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
103-65-1	n-Propylbenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
95-47-6	o-Xylene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,PA		
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	6.0	12	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,PA		
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
135-98-8	sec-Butylbenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
100-42-5	Styrene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
98-06-6	tert-Butylbenzene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
127-18-4	**Tetrachloroethylene**	**170**		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
108-88-3	Toluene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
79-01-6	**Trichloroethylene**	**45**		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1		

Sample Information

Client Sample ID: SB-15A (7-8.5')

York Sample ID: 18J1536-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18J1536	Livonia Ave.	Soil	October 30, 2018 12:00 am	10/31/2018

Volatile Organics, 8260 List

Log-in Notes: VOA-CONT

Sample Notes: VOA-CONT

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
108-05-4	Vinyl acetate	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications: NELAC-NY10854,NJDEP,NELAC-NY12058,PAI			
75-01-4	Vinyl Chloride	ND		ug/kg dry	3.0	6.0	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1			
1330-20-7	Xylenes, Total	ND		ug/kg dry	9.0	18	1	EPA 8260C	11/06/2018 07:30	11/06/2018 17:28	RDS
								Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1			

	Surrogate Recoveries	Result	Acceptance Range
17060-07-0	*Surrogate: SURR: 1,2-Dichloroethane-d4*	*104 %*	*77-125*
2037-26-5	*Surrogate: SURR: Toluene-d8*	*104 %*	*85-120*
460-00-4	*Surrogate: SURR: p-Bromofluorobenzene*	*117 %*	*76-130*

Total Solids

Log-in Notes: VOA-CONT

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	*** % Solids**	**83.8**		%	0.100	1	SM 2540G	11/07/2018 12:57	11/07/2018 16:38	TAJ
							Certifications: CTDOH			

Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
18J1536-01	SB-15A (7-8.5')	2 oz. WM Clear Glass Cool to 4° C

Sample and Data Qualifiers Relating to This Work Order

VOA-CONT	Non-Compliant - the container(s) provided by the client for soil volatiles do not meet the requirements of EPA SW846-5035A. Results reported below 200 ug/kg may be biased low due to samples not being collected according to EPA SW846 5035A requirements.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
ICV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration verification (recovery exceeded 30% of expected value).

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
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120 RESEARCH DR.
STRATFORD, CT 06615
(203) 325-1371
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Field Chain-of-Custody Record

NOTE: York's Std. Terms & Conditions are listed on the back side of this document. This document serves as your written authorization to York to proceed with the analyses requested and your signature binds you to York's Std. Terms & Conditions.

York Project No. 18J1536

YOUR Information

Company: DERMODY CONSULTING
Address:
Phone No.
Contact Person:
E-Mail Address:

Report To:

Company: PETER DERMODY
Address:
Phone No.
Attention:
E-Mail Address:

Invoice To:

Company: SAME
Address:
Phone No.
Attention:
E-Mail Address:

YOUR Project ID

Livonia Ave.

Purchase Order No.

Samples from: CT___ NY___ NJ___

Turn-Around Time

- RUSH - Same Day ☐
- RUSH - Next Day ☐
- RUSH - Two Day ☐
- RUSH - Three Day ☐
- RUSH - Four Day ☐
- Standard(5-7 Days) ☐

Report Type

- Summary Report X
- Summary w/ QA Summary
- CT RCP Package
- CTRCP DQA/DUE Pkg
- NY ASP A Package
- NY ASP B Package
- NJDEP Red. Deliv.

Electronic Data Deliverables (EDD)

- Simple Excel
- NYSDEC EQuIS X
- EQuIS (std)
- EZ-EDD (EQuIS)
- NJDEP SRP HazSite EDD
- GIS/KEY (std)
- Other
- **York Regulatory Comparison Excel Spreadsheet** X

Compare to the following Regs. (please fill in):

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.

Samples Collected/Authorized By (Signature)

PETER DERMODY
Name (printed)

Matrix Codes
S - soil
Other - specify(oil, etc.)
WW - wastewater
GW - groundwater
DW - drinking water
Air-A - ambient air
Air-SV - soil vapor

Volatiles		Semi-Vols.	Pest/PCB/Herb	Metals	Misc. Org.	Full Lists	Misc.
8260 full	TICs	8270 or 625	8082PCB	RCRA8	TPH GRO	Pri.Poll.	Corrosivity
624	Site Spec.	STARS list	8081Pest	PP13 list	TPH DRO	TCL Organics	Reactivity
STARS list	Nassau Co.	BN Only	8151Herb	TAL	CT ETPH	TAL Met/CN	Ignitability
BTEX	Suffolk Co.	Acids Only	CT RCP	CT15 list	NY 310-13	Full TCLP	Flash Point
MTBE	Ketones	PAH list	App. IX	TAGM list	TPH 1664	Full App. IX	Sieve Anal.
TCL list	Oxygenates	TAGM list	Site Spec.	NJDEP list	Air TO14A	Part 360-Routine	Heterotrophs
TAGM list	TCLP list	CT RCP list	SPLP or TCLP	Total	Air TO15	Part 360-Baseline	TOX
CT RCP list	524.2	TCL list	TCLP Pest	Dissolved	Air STARS	Part 360-Expanded No Dioxins/Furans	BTU/lb.
Arom. only	502.2	NJDEP list	TCLP Herb	SPLP or TCLP	Air VPH	Part 360-Expanded Full List	Aquatic Tox.
Halog.only	NJDEP list	App. IX	Chlordane	Indiv. Metals	Air TICs	NYCDEP Sewer	TOC
App.IX list	SPLP or TCLP	TCLP BNA	608 Pest	LIST Below	Methane	NYSDEC Sewer	Asbestos
8021B list		SPLP or TCLP	608 PCB		Helium	TAGM	Silica

Sample Identification	Date/Time Sampled	Sample Matrix	Choose Analyses Needed from the Menu Above and Enter Below	Container Description(s)
SB-15A (7-8.5')	10/30/18	S	VOCs 8260 full	1 4oz, 1 2oz Glass

Comments

Preservation Check those Applicable
Special Instructions
Field Filtered ☐
Lab to Filter ☐

4°C X Frozen ___ HCl ___ MeOH ___ HNO_3 ___ H_2SO_4 ___ NaOH ___
ZnAc ___ Ascorbic Acid ___ Other ___

Samples Relinquished By — Date/Time: 12:20pm 10/31/18
Samples Relinquished By — Date/Time: 10/31/18 1832

Samples Received By — Date/Time: 10/31/18 1:25pm
Samples Received in LAB by — Date/Time: 10/31/18 1832

Temperature on Receipt 0.8 °C