



## PROJECT STATUS MEMORANDUM

**TO:** Pamela Tames, USEPA

**FROM:** Mark M. Goldberg, P.E.  
Tunde H. Komubes-Sandor, PG, CPG

**SUBJECT:** Rowe Industries Superfund Site  
NYS Site ID No. 152106  
Groundwater Recovery and Treatment System  
DRAFT July 2018 Status Report

**DATE:** December 7, 2018

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WSP USA (WSP) commenced operation of the Full-Scale Pump and Treat (FSP&T) groundwater remediation system at the above-referenced site on December 17, 2002. Starting in September 2008, the groundwater recovered by the Focus Pump and Treat (FP&T) system was routed to the FSP&T system for treatment. As of 2014, the FSP&T system only treats water extracted from RW-2 and FRW-1, 2, 3 and 4; the other FSP&T recovery wells (RW-1, 3, 4, 5, 6, 7, 8, and 9) have been shut down with USEPA approval after achieving remediation standards. This status report presents a summary of performance, operation and maintenance for both systems and monitoring activities for the site from July 1, 2018 through July 31, 2018. The report includes a summary of system performance parameters, system operation parameters, and analytical results for groundwater, system effluent samples, and air quality results.

### SUMMARY OF SYSTEM PERFORMANCE AND OPERATION

*(July 1, 2018 through July 31, 2018)*

- |  |                           |
|--|---------------------------|
| 1. Hours of operation during the reporting period:   | 39 hours (5.2%)           |
| 2. Alarm conditions during the reporting period:   | See Table 1               |
| 3. Were the SPDES VOC discharge permit criteria achieved:  | Yes, (see Table 2)        |
| 4. Total volume of water pumped during the reporting period:   | 62,208 gal.*              |
| 5. Was the system effluent flow below the SPDES limit of 1,023,000 gpd:  | Yes, (see Graph 1)        |
| 6. Mass of VOCs recovered during the reporting period:   | <0.01 pound (see Graph 2) |
| 7. Cumulative mass of VOCs recovered since startup on 12/17/02:<br>(calculations can be provided upon request) | 229.4 pounds              |

\*As previously stated in the June 2018 monthly report, a loss of signal for groundwater flow occurred from RW-2 on June 29, 2018 and this issue was not discovered until the O&M data was reviewed on July 5, 2018. Therefore, the volume of water reported above is estimated based on the average flow from RW-2 in June (27 gpm) and the estimated time RW-2 operated on July 1 and July 2, 2018 (1.6 days). The volume of water pumped from the FRWs on July 1 and 2 was already accounted for in the June monthly report because the flow from the FRWs was included up to July 2, 2018.



## PUMP AND TREAT SYSTEM STATUS SUMMARY

The following table summarizes recovery well parameters for the operating recovery wells.

Well	Volume pumped (gal)	Total VOC Concentration (ug/L)
RW-2 <sup>1/</sup>	62,208	0.5
FRW-1 <sup>2/</sup>	0	23.3
FRW-2 <sup>2/</sup>	0	3.8
FRW-3 <sup>2/</sup>	0	51.8
FRW-4 <sup>2/</sup>	0	1.7

<sup>1/</sup>The above table summarizes the parameters for RW-2 from July 1 to July 31, 2018.

<sup>2/</sup>The above table summarizes the parameters for the FRWs from July 3 to July 31, 2018.

On July 2, 2018, a crack in the EQ tank was discovered and the FSP&T system was subsequently turned off. Water was pumped from the EQ tank to a height below the crack. The small quantity of water that leaked out of the tank remained in the building and was subsequently cleaned up. Used absorbent material was placed in a labeled waste drum that is also used for spent bag filters. The system remained off for the rest of July. Additionally, UPS troubleshooting revealed that the UPS battery could not maintain sufficient charge to re-activate the flow of electricity from the street following a power interruption. Additional details about system maintenance work are included in Table 1.

## SUMMARY OF SAMPLING ACTIVITIES

July 2018 groundwater quality sampling was completed for the following wells:

- Monthly groundwater samples were collected from RW-2, FRW-1, FRW-2, FRW-3 and FRW-4 prior to shutting the system down on July 2, 2018.

Tables 3 to 7 present a summary of the quality results for water samples collected from downgradient recovery well RW-2 and FRW-1, 2, 3, and 4. Graphs 3 to 7 present PCE concentrations for samples from RW-2 and FRW-1, 2, 3, and 4 for the last 24 months. Laboratory analytical reports for the water samples collected from the RWs are included as Appendix II.

The PCE, TCE, cis-DCE, VC and TCA concentrations in the groundwater sample collected from RW-2 were below the respective ARARs; concentrations at RW-2 have been below the ARARs for over 8 years.

The COC concentrations in the groundwater samples collected at FRW-2 and 4 were below their respective ARARs this month. The PCE concentrations from the groundwater samples collected from FRW-1 and 3 were above the ARAR. The TCE, cis-DCE and TCA concentrations in FRW-1, 2, 3 and 4 were below associated ARARs for the month.

Groundwater samples from RW-2 and the FRWs will continue to be collected and analyzed monthly for quality trends.



## FUTURE O&M ACTIVITIES

O&M activities scheduled for August 2018 include:

- coordinate and repair the EQ tank;
- install a new UPS battery;
- troubleshoot the flow issue for RW-2; and
- normal bi-weekly/monthly O&M activities.

MMG:nv

Attachments

cc: Brian Shuttleworth - Kraft Heinz Foods Company (as successor to Kraft Foods Group, Inc.)-.pdf  
Kevin Kyrias-Gann, Ramboll-.pdf  
Renee (Petersen) DeBaene, Ramboll-.pdf  
Payson Long, NYSDEC-.pdf  
Chief-Operation Maintenance and Support Section, NYSDEC-.pdf  
Anthony Leung, RWM, R-1, NYSDEC-.pdf  
Sundy Schermeyer, Town of Southampton, Town Clerk-.pdf  
Mark Sergott, NYSDOH-.pdf

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## **TABLES**

**TABLE 1**

**GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK**

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**MAINTENANCE LOG  
(July 1, 2018 through July 31, 2018)**

<b>Date</b>	<b>Time</b>	<b>System Changes/Modifications</b>	<b>Personnel</b>
7/2/18	2:30 PM	Discovered crack in the EQ tank during normal O&M activities. The FSP&T and FP&T systems were shut down and the EQ tank was drained below the crack in the tank. The small quantity of water that leaked out of the tank remained in the building and was subsequently cleaned up with absorbent pads. Used absorbent material was placed in a labeled waste drum that is also used for spent bag filters. Began coordinating tank repair with contactors.	EF
		UPS troubleshooting revealed that the UPS battery cannot maintain sufficient charge to re-activate the flow of electricity from the street following a power interruption. A new UPS battery was ordered following the site visit.	EF, D&D Electric
		Changed the multi-bag filter bags (400 um) in Banks 1 and 2, seven of eight housings used. Banks 1 and 2 left open. Bank 3 closed.	EF
		Cleaned iron fouling from the FRW-1, 2, 3, 4 and FP&T system effluent flow meter paddle wheels.	EF
7/18/18	9:35 AM	Power failure alarm; system was already off	
7/26/18		Spot check of the system following the power failure alarm to make sure no additional issues occurred following the alarm.	JF

Notes:

- |    |                          |
|----|--------------------------|
| EF | Evan Foster, WSP USA     |
| JF | Jamie Forrester, WSP USA |
| MG | Mark Goldberg, WSP USA   |

TABLE 2

**GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK**

**Effluent Water Quality Results**

Date Sampled <sup>2/</sup>	pH <sup>1/</sup>	TDS (mg/l)	PCE (ug/l)	1,1,1-TCA (ug/l)	TCE (ug/l)	1,1-DCA (ug/l)	1,1-DCE (ug/l)	cis-1,2-DCE (ug/l)	trans-1,2-DCE (ug/l)	Xylene (ug/l)	Toluene (ug/l)	Ethyl-benzene (ug/l)	Methylene Chloride (ug/l)	Freon 113 (ug/l)	Naphthalene (ug/l)	Chloroform (ug/l)	Total Iron (mg/l)	Dissolved Iron (mg/l)
<b>SPDES Limits</b>	<b>6.5 to 8.5</b>	---	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	---	<b>10</b>	<b>7</b>	---	---
1-Jun-17	6.5	127	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	0.10	0.097
6-Jul-17	6.5	159	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	0.46	ND<0.02
1-Aug-17	6.8	143	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	3.00	0.193
5-Sep-17	6.8	298	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	2.12	0.051
4-Oct-17	6.5	162	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	2.24	0.036
1-Nov-17	6.8	196	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	0.66	0.043
5-Dec-17	6.9	153	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	1.04	0.053
3-Jan-18	6.9	114	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	0.02	0.025
1-Feb-18	6.8	157	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	4.43	0.032
1-Mar-18	6.8	147	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	3.15	0.057
2-Apr-18	6.8	136	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	2.99	0.034
2-May-18	6.8	151	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	8.05	0.049
5-Jun-18	6.8	138	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	0.25	ND<0.02
2-Jul-18	6.8	114	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	2.50	0.127

SPDES: State Pollutant Discharge Elimination System

mg/l: Milligrams per liter

ug/l: Micrograms per liter

----: Not established

NM: Not Measured

TDS: Total dissolved solids

PCE: Tetrachloroethylene

1,1,1-TCA: 1,1,1-Trichloroethane

TCE: Trichloroethene

1,1-DCA: 1,1-Dichloroethane

1,1-DCE: 1,1-Dichloroethene

cis-1,2-DCE: cis-1,2-Dichloroethene

trans-1,2-DCE: trans-1,2-Dichloroethene

J: Analyte detected below quantitation limits, value shown is a laboratory estimate.

B: Analyte was found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

ND: Not detected

## Notes:

- Based on the SPDES criteria from an NYSDEC letter dated on May 6, 2016, the allowable pH range for the Rowe Site is between 6.5 and 8.5. The pH of the effluent sample collected on June 20, 2018 was 6.8.
- "Effluent" samples were collected from sample port labeled NP2-10 unless otherwise noted.
- Starting in October 2016, FSP&T system samples are collected monthly instead of once every two weeks. The pH of the effluent water is measured two times per month in accordance with the SPDES requirements.

TABLE 3

**GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK**

**Recovery Well Water Quality Results**

Recovery Well <sup>1/</sup>	Date Sampled	PCE	TCE	TCA	Chloroform	MTBE	1,1-Dichloro-ethane	cis-1,2-Dichloro-ethene	1,1-Dichloro-ethene	Methylene Chloride	Toluene	Benzene	m,p-Xylene	o-Xylene	
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	
ARAR's		5	5	5	7	NE	5	5	5	5	NE	NE	5	5	
RW-2	23-Jun-16	0.26 J	0.34 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	19-Jul-16	0.23 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	2-Aug-16	0.24 J	0.37 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	16-Sep-16	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	17-Oct-16	0.45 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	1-Nov-16	0.42 J	0.44 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	1-Dec-16	0.52	0.39 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	9-Jan-17	0.30 J	0.43 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	2-Feb-17	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	1-Mar-17	0.28 J	0.47 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	7-Apr-17	0.53	0.55	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	11-May-17	0.54	0.37 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.28 J	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	ND<1	ND<0.5
	1-Jun-17	0.29	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	6-Jul-17	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	1-Aug-17	0.23 J	0.26 J	ND<0.5	0.24 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	5-Sep-17	0.23 J	0.32 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	4-Oct-17	0.24 J	0.34 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	1-Nov-17	0.31 J	0.39 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	5-Dec-17	0.27 J	0.42 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	3-Jan-18	0.28 J	0.70	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	1-Feb-18	0.33 J	0.59	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	1-Mar-18	0.41 J	0.67	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	2-Apr-18	0.28 J	0.36 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	2-May-18	0.32 J	0.22 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	5-Jun-18	0.21 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	2-Jul-18	0.22 J	ND<0.5	ND<0.5	0.28 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5

PCE: Tetrachloroethylene

MTBE: Methyl-tertiary-butyl-ether

TCE: Trichloroethylene

NS: Not sampled

TCA: 1,1,1-Trichloroethane

ND: Not detected

&lt;#: Less than method detection limit

ug/L: Micrograms per liter

:: Not analyzed

J: Analyte detected below quantitation limits, value shown is a laboratory estimate.

B: Analyte was found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

ARAR's are chemical specific aquifer restoration goals for ground water at the Former Rowe Industries Superfund Site.

NE indicates that the ARAR goal was not established for this compound by the EPA.

Bold values indicate an exceedance of the ARAR standard established for the site.

<sup>1/</sup> In September 2016, the EPA granted approval to discontinue groundwater sampling at RW-1, RW-5, RW-7, RW-8 and RW-9.

TABLE 4

**GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK**

**Recovery Well FRW-1 VOC Concentrations, micrograms per liter**

FRW-1										
Date	PCE	TCE	cis12DCE	VC	TCA	11DCA	124TCB	Toluene	Bromomet hane	Acetone
ARARs	5	5	5	2 <sup>1/</sup>	5	5	5 <sup>1/</sup>	5	5 <sup>1/</sup>	NE
2-Aug-16	22	0.75	1.4	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	1.2 J
<b>The FRWs were shut down between August 10 and August 13, 2016.</b>										
1-Sep-16	25	0.81	1.6	ND<0.5	0.20 J	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<2
<b>FRW-1 was shut down between September 15 and 16, 2016 and again between September 21 and October 4, 2016</b>										
17-Oct-16	29	2.60	8.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	0.56 J	ND<2
<b>The FRWs were off between October 17 and November 14, 2016</b>										
14-Nov-16	64	5.4	38	0.41 J	0.84	0.28 J	ND<2	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between November 16 and December 1, 2016</b>										
16-Dec-16	58	0.54	1.9	ND<0.5	0.51	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from December 28 to January 3, 2017 and January 5 to January 9, 2017</b>										
9-Jan-17	120	1.9	1.7	ND<0.5	1.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between January 23 and February 2, 2017</b>										
2-Feb-17	460	8.5	20	ND<0.5	3.5	0.59 J	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between February 20 and February 22, 2017</b>										
1-Mar-17	110	3.9	6.3	ND<0.5	0.82	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between March 24 and March 29, 2017</b>										
7-Apr-17	240	3.8	2.2	ND<0.5	2.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.3 J
<b>The FRWs were off from April 17 to April 26, 2017 and April 27 to May 1, 2017</b>										
3-May-17	200	2.0	2.3	ND<0.5	2.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.0
1-Jun-17	94	2.5	4.5	ND<0.5	0.55	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from June 7 to June 9 and from June 21 to 23, 2017</b>										
6-Jul-17	3.6	ND<0.5	1.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from July 31 to August 28, 2017</b>										
1-Aug-17 <sup>2/</sup>	16	0.41 J	0.44 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
5-Sep-17	34	0.93	2.9	ND<0.5	0.22 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from September 13 to 19 and from September 27 to October 4, 2017</b>										
4-Oct-17	56	1.7	7.8	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from October 11 to October 16, 2017 and October 29 to 31, 2017</b>										
1-Nov-17	72	1.3	1.7	ND<0.5	0.37 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from November 12 to December 5, 2017</b>										
5-Dec-17	55	1.5	3.4	ND<0.5	0.4 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>FRW-1 was off from December 6 to 12 and December 24, 2017 to February 9, 2018</b>										
1-Feb-18	63	7.4	28	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
1-Mar-18	110	2.7	1.8	ND<0.5	1.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between March 15 and 26, 2018 and March 27 and 29, 2018</b>										
2-Apr-18	83	0.31 J	ND<0.5	ND<0.5	0.25 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.2 J
<b>The FRWs were off between April 17 and 23, 2018 and April 26 and May 2, 2018</b>										
2-May-18	97	0.86	0.46 J	ND<0.5	0.75	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from May 20 to June 5, 2018 and June 18 to 20, 2018</b>										
20-Jun-18	25	0.76	0.68	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
2-Jul-18	22	0.66	0.60	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from July 2 to July 31, 2018</b>										

ARARs - Applicable Relevant and Appropriate Requirements for aquifer restoration established for the Site.

1. NYSDEC ambient water quality standards for these compounds are presented because site-specific ARARs for these compounds were not established.

2. The FP&T system was not operating because of a malfunctioning transfer pump. The FRWs were turned on manually to collect a groundwater sample.

J : Analyte detected below quantitation limits, value shown is a laboratory estimate.

B: Method blank contamination, the associated method blank contains the target analyte at a reportable level.

ND: Not detected

Comments:

As of September 1, 2011 the water samples are analyzed by York Analytical Laboratories, Inc. The laboratory typically uses a reporting limit

PCE: Tetrachloroethylene  
cis12DCE: cis-1,2-Dichloroethene  
TCA: 1,1,1-Trichloroethane  
124TCB: 1,2,4-Trimethylbenzene

TCE: Trichloroethene  
VC: Vinyl Chloride  
11DCA: 1,1-Dichloroethane

TABLE 5

**GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK**

Recovery Well FRW-2 VOC Concentrations, micrograms per liter

<b>FRW-2</b>								
Date	PCE	TCE	cis12DCE	VC	TCA	Toluene	2-Hexanone	Acetone
ARARs	5	5	5	2 <sup>1/</sup>	5	5	NE	NE
2-Aug-16	22	1.0	0.55	ND<0.5	ND<0.5	ND<0.5	1.1	1.6 J
<b>The FRWs were shut down between August 10 and August 13, 2016.</b>								
1-Sep-16	26	1.2	0.39 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>FRW-2 was shut down between September 1 and 16, 2016 and again between September 21 and October 4, 2016.</b>								
17-Oct-16	3.1	2.7	41	4.1	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between October 17 and November 14, 2016</b>								
14-Nov-16	19	6.5	19	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.0 J
<b>The FRWs were off between November 16 and December 1, 2016</b>								
16-Dec-16	32	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<5.0	ND<20	ND<20
<b>The FRWs were off between December 28 to January 3, 2017 and January 5 to January 9, 2017</b>								
9-Jan-17	27	6.4	7.3	ND<5.0	ND<5.0	ND<5.0	ND<0.5	ND<2
<b>The FRWs were off between January 23 to February 2, 2017</b>								
2-Feb-17	100	10	39	1.4	0.63	ND<5.0	ND<0.5	2.2
<b>The FRWs were off between February 20 to February 22, 2017</b>								
1-Mar-17	40	1.0	0.52	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between March 24 and March 29, 2017</b>								
7-Apr-17	93	2.6	1.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.1
<b>The FRWs were off from April 17 to April 26, 2017 and April 27 to May 1, 2017</b>								
3-May-17	68	11	9.3	ND<0.5	0.35 J	ND<0.5	ND<0.5	2.4
1-Jun-17	16	1.0	0.92	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRW-2 was off from June 7 to June 9 and from June 21 to 29, 2017</b>								
6-Jul-17	0.57	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.8
<b>The FRWs were off from July 31 to August 28, 2017</b>								
1-Aug-17 <sup>2/</sup>	7.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.1
5-Sep-17	33	0.85	0.59	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from September 13 to 19 and from September 27 to October 4, 2017</b>								
4-Oct-17	50	2.7	0.91	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.0
<b>The FRWs were off from October 11 to October 16, 2017 and October 29 to 31, 2017</b>								
1-Nov-17	45	0.76	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from November 12 to 16, 2017 and November 26 to 27, 2017</b>								
5-Dec-17	38	3.4	1.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from December 24, 2017 to February 9, 2018</b>								
1-Feb-18	37	3.2	1.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.8
1-Mar-18	48	0.7	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between March 15 and 26, 2018 and March 27 and 29, 2018</b>								
2-Apr-18	140	1.2	0.36 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between April 17 and 23, 2018 and April 26 and May 2, 2018</b>								
2-May-18	29	0.92	0.29 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.6
<b>The FRWs were off from May 20 to June 5, 2018 and June 18 to 20, 2018</b>								
20-Jun-18	3.8	1.4	0.44 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
2-Jul-18	3.8	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from July 2 to July 31, 2018</b>								

ARARs - Applicable Relevant and Appropriate Requirements for aquifer restoration established for the Site.

1. NYSDEC ambient water quality standards for these compounds are presented because site-specific ARARs for these compounds were not established.

2. The FP&T system was not operating because of a malfunctioning transfer pump. The FRWs were turned on manually to collect a groundwater sample.

J : Analyte detected below quantitation limits, value shown is a laboratory estimate.

B: Method blank contamination, the associated method blank contains the target analyte at a reportable level.

ND: Not detected

Comments:

As of September 1, 2011 the water samples are analyzed by York Analytical Laboratories, Inc. The laboratory typically uses a reporting limit (RL) for water of 5 ug/l for VOC. York reports detections below 0.5 ug/l as an estimated value; these values are below the RL but greater than or equal to the method detection limit (MDL). A value reported below the RL but above the MDL is considered an estimated value and flagged with a "J". The calibration curve was adjusted to a reporting limit of 0.5 ug/l during October 2011.

PCE: Tetrachloroethylene  
cis12DCE: cis-1,2-Dichloroethene  
TCA: 1,1,1-Trichloroethane

TCE: Trichloroethylene  
VC: Vinyl chloride

TABLE 6

**GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK**

Recovery Well FRW-3 VOC Concentrations, micrograms per liter

FRW-3												
Date	PCE	TCE	cis12DCE	VC	11DCA	TCA	135TMB	IPB	NPB	Toluene	2-Hexanone	Acetone
ARARs	5	5	5	2 <sup>u</sup>	5	5	5 <sup>u</sup>	5 <sup>u</sup>	5 <sup>u</sup>	5	NE	NE
2-Aug-16	8.1	0.7	1.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.71	0.43 J	ND<0.5	ND<0.5	2.3
<b>The FRWs were shut down between August 10 and August 13, 2016.</b>												
1-Sep-16	17	1.4	2.2	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.83	0.58	ND<0.5	ND<0.5	ND<2
<b>FRW-3 was shut down between September 15 and 16, 2016 and again between September 21 and October 4, 2016</b>												
17-Oct-16	9.0	2.4	23	1.1	ND<0.5	ND<0.5	ND<0.5	0.36 J	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between October 17 and November 14, 2016</b>												
14-Nov-16	79	5.6	14	0.48 J	ND<0.5	0.67	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.0
<b>The FRWs were off between November 16 and December 1, 2016</b>												
16-Dec-16	24	4.1	16	0.42 J	ND<0.5	ND<0.5	ND<0.5	0.32 J	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between December 28 to January 3, 2017 and January 5 to January 9, 2017</b>												
9-Jan-17	53	5.1	17	ND<0.5	ND<0.5	0.40 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between January 23 to February 2, 2017</b>												
2-Feb-17	18	3.7	24	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.76	0.63	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between February 20 to February 22, 2017</b>												
1-Mar-17	50	5.7	20	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.99	0.64	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between March 24 and March 29, 2017</b>												
7-Apr-17	65	5.0	41	1.4	ND<0.5	ND<0.5	ND<0.5	0.71	0.49	ND<0.5	ND<0.5	ND<2
<b>FRW-3 was off from April 17 to April 26, 2017 and April 27 to May 11, 2017</b>												
11-May-17	130	5.8	8.5	0.24 J	ND<0.5	0.35 J	ND<0.5	0.35 J	0.30 J	ND<0.5	ND<0.5	ND<2
<b>FRW-3 was off from May 17 to June 1, 2017</b>												
1-Jun-17	83	5.8	12	0.37 J	ND<0.5	ND<0.5	ND<0.5	0.38 J	0.38 J	ND<0.5	ND<0.5	1.0
<b>The FRWs were off from June 7 to June 9 and from June 21 to 23, 2017</b>												
6-Jul-17	3.4	0.70	1.8	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.4
<b>The FRWs were off from July 31 to August 28, 2017</b>												
1-Aug-17 <sup>2/</sup>	35	1.9	1.9	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.6
5-Sep-17	15	1.7	6.1	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from September 13 to 19 and from September 27 to October 4, 2017</b>												
4-Oct-17	21	6.0	15	1.2	ND<0.5	ND<0.5	ND<0.5	0.48 J	0.40 J	ND<0.5	ND<0.5	2.7
<b>The FRWs were off from October 11 to October 16, 2017 and October 29 to 31, 2017</b>												
1-Nov-17	17	1.2	3.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.33 J	0.30 J	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from November 12 to 16, 2017 and November 26 to 27, 2017</b>												
5-Dec-17	37	1.8	2.3	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.37 J	0.33 J	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from December 24, 2017 to February 9, 2018</b>												
1-Feb-18	22	2.0	3.3	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.32 J	ND<0.5	ND<0.5	ND<0.5	ND<2
1-Mar-18	120	7.9	18	ND<0.5	0.26 J	0.65	ND<0.5	0.49 J	0.34 J	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between March 15 and 26, 2018 and March 27 and 29, 2018</b>												
2-Apr-18	170	4.5	0.2 J	0.25 J	ND<0.5	0.71	ND<0.5	0.20 J	ND<0.5	ND<0.5	ND<0.5	1.2 J
<b>The FRWs were off between April 17 and 23, 2018 and April 26 and May 2, 2018</b>												
2-May-18	140	9.4	11	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.2
<b>The FRWs were off from May 20 to June 5, 2018 and June 18 to 20, 2018</b>												
20-Jun-18	39	6.8	4.3	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.5 J
2-Jul-18	49	1.4	1.4	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from July 2 to July 31, 2018</b>												

ARARs - Applicable Relevant and Appropriate Requirements for aquifer restoration established for the Site.

1. NYSDEC ambient water quality standards for these compounds are presented because site-specific ARARs for these compounds were not established.

2. The FP&T system was not operating because of a malfunctioning transfer pump. The FRWs were turned on manually to collect a groundwater sample.

J : Analyte detected below quantitation limits, value shown is a laboratory estimate.

B: Method

ND: Not detected

Comments:

As of September 1, 2011 the water samples are analyzed by York Analytical Laboratories, Inc. The laboratory typically uses a reporting limit (RL) for water of 5 ug/l for VOC. York reports detections below 0.5 ug/l as an estimated value; these values are below the RL but greater than or equal to the method detection limit (MDL). A value reported below the RL but above the MDL is considered an estimated value and flagged with a "J". The calibration curve was adjusted to a reporting limit of 0.5 ug/l during October 2011.

PCE: Tetrachloroethylene  
cis12DCE: cis-1,2-Dichloroethene  
11DCA: 1,1-Dichloroethane  
135TMB: 1,3,5-Trimethylbenzene  
NPB: n-Propylbenzene

TCE: Trichloroethene  
VC: Vinyl Chloride  
TCA: 1,1,1-Trichloroethane  
IPB: Isopropylbenzene

**TABLE 7**  
**GROUNDWATER REMEDIAL ACTION**  
**ROWE INDUSTRIES SUPERFUND SITE**  
**SAG HARBOR, NEW YORK**

Recovery Well FRW-4 VOC Concentrations, micrograms per liter

FRW-4						
Date	PCE	TCE	cis12DCE	VC	TCA	Acetone
ARARs	5	5	5	2 <sup>1/</sup>	5	NE
2-Aug-16	3.5	0.50	2.6	ND<0.5	ND<0.5	ND<2
<b>The FRWs were shut down between August 10 and August 13, 2016.</b>						
1-Sep-16	2.2	0.48 J	3.8	ND<0.5	ND<0.5	ND<2
<b>FRW-3 was shut down between September 15 and 16, 2016 and again between September 21 and October 4, 2016</b>						
17-Oct-16	1.6	0.47 J	4.7	ND<0.5	ND<0.5	10
<b>The FRWs were off between October 17 and November 14, 2016</b>						
14-Nov-16	1.9	2.1	29	0.33 J	ND<0.5	ND<2
<b>The FRWs were off between November 16 and December 1, 2016</b>						
16-Dec-16	2.0	0.50	7.8	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between December 28 to January 3, 2017 and January 5 to January 9, 2017</b>						
9-Jan-17	16	1.8	6.4	ND<0.5	0.27 J	ND<2
<b>The FRWs were off between January 23 to February 2, 2017</b>						
2-Feb-17	5.1	1.4	17	ND<0.5	0.27 J	ND<2
<b>The FRWs were off between February 20 to February 22, 2017</b>						
1-Mar-17	4.0	0.60	2.2	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between March 24 and March 29, 2017</b>						
7-Apr-17	7.6	1.2	2.9	ND<0.5	ND<0.5	1.3
<b>The FRWs were off from April 17 to April 26, 2017 and April 27 to May 1, 2017</b>						
3-May-17	40	3.5	15	ND<0.5	0.42 J	2.1
1-Jun-17	8.8	0.5	2.1	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from June 7 to June 9 and from June 21 to 23, 2017</b>						
6-Jul-17	0.27 J	ND<0.5	0.28 J	ND<0.5	ND<0.5	1.1
<b>The FRWs were off from July 31 to August 28, 2017</b>						
1-Aug-17 <sup>2/</sup>	0.80	ND<0.5	0.28 J	ND<0.5	ND<0.5	1.6
5-Sep-17	2.7	0.42 J	0.51	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from September 13 to 19 and from September 27 to October 4, 2017</b>						
4-Oct-17	9.8	3.9	4.1	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from October 11 to October 16, 2017 and October 29 to 31, 2017</b>						
1-Nov-17	3.0	0.32 J	0.78	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from November 12 to 16, 2017 and November 26 to 27, 2017</b>						
5-Dec-17	5.1	ND<0.5	1.0	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from December 24, 2017 to February 9, 2018</b>						
1-Feb-18	21.0	2.5	7.0	ND<0.5	0.27 J	2.5
1-Mar-18	3.0	ND<0.5	0.47 J	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off between March 15 and 26, 2018 and March 27 and 29, 2018</b>						
2-Apr-18	3.2	ND<0.5	1.0	ND<0.5	0.32 J	ND<2
<b>The FRWs were off between April 17 and 23, 2018 and April 26 and May 2, 2018</b>						
2-May-18	19	ND<0.5	1.1	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from May 20 to June 5, 2018 and June 18 to 20, 2018</b>						
20-Jun-18	1.4	0.22 J	ND<0.5	ND<0.5	ND<0.5	1.5
2-Jul-18	1.7	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
<b>The FRWs were off from July 2 to July 31, 2018</b>						

ARARs - Applicable Relevant and Appropriate Requirements for aquifer restoration established for the Site.

1. NYSDEC ambient water quality standards for these compounds are presented because site-specific ARARs for these compounds were not established.

2. The FP&T system was not operating because of a malfunctioning transfer pump. The FRWs were turned on manually to collect a groundwater sample.

J : Analyte detected below quantitation limits, value shown is a laboratory estimate.

B: Method blank contamination, the associated method blank contains the target analyte at a reportable level.

ND: Not detected

Comments:

As of September 1, 2011 the water samples are analyzed by York Analytical Laboratories, Inc. The laboratory typically uses a reporting limit (RL) for water of 5 ug/l for VOC. York reports detections below 0.5 ug/l as an estimated value; these values are below the RL but greater than or equal to the method detection limit (MDL). A value reported below the RL but above the MDL is considered an estimated value and flagged with a "J". The calibration curve was adjusted to a reporting limit of 0.5 ug/l during October 2011.

PCE: Tetrachloroethylene

cis12DCE: cis-1,2-Dichloroethene

TCA: 1,1,1-Trichloroethane

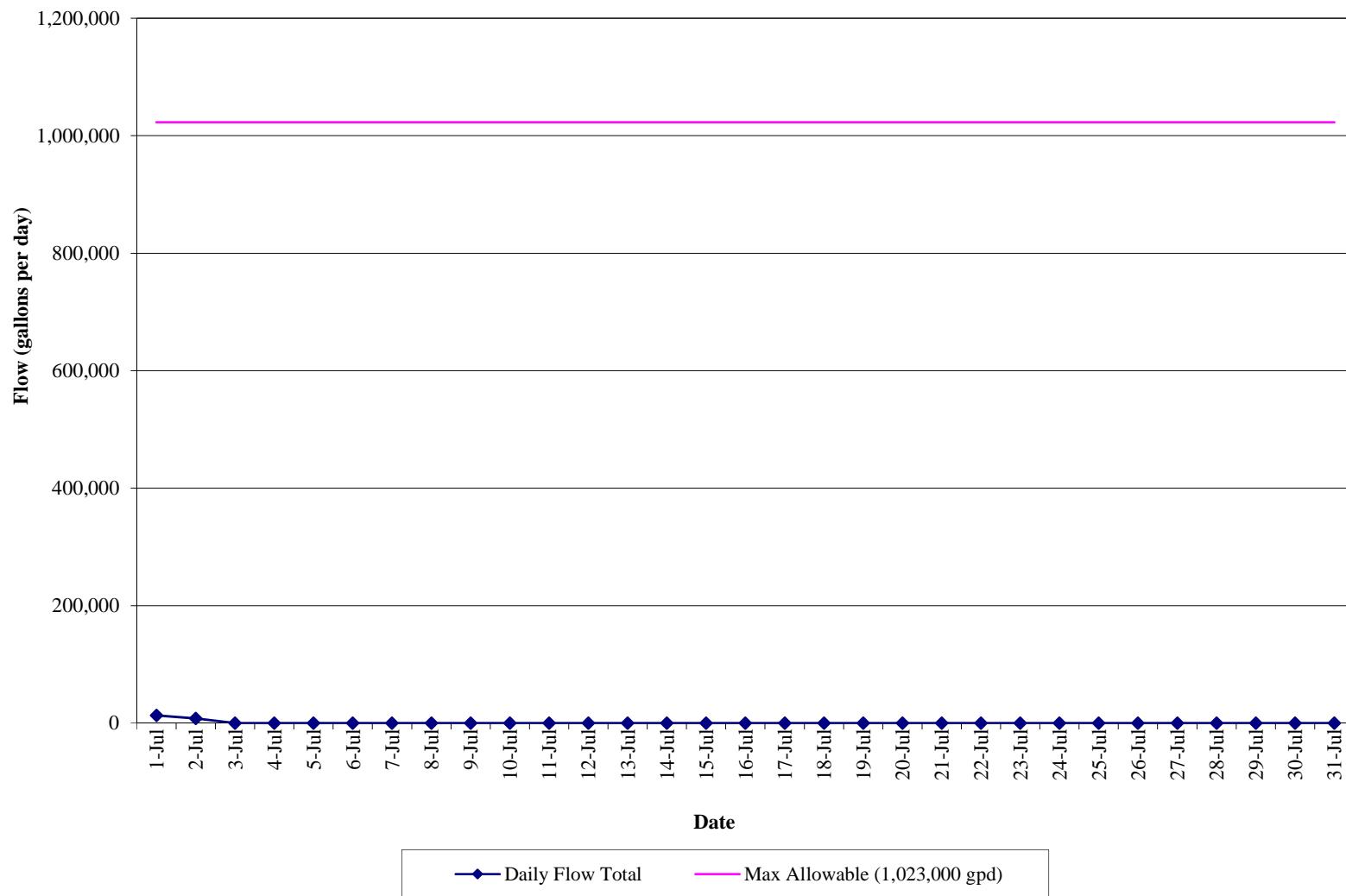
TCE: Trichloroethylene

VC: Vinyl Chloride

## **GRAPHS**

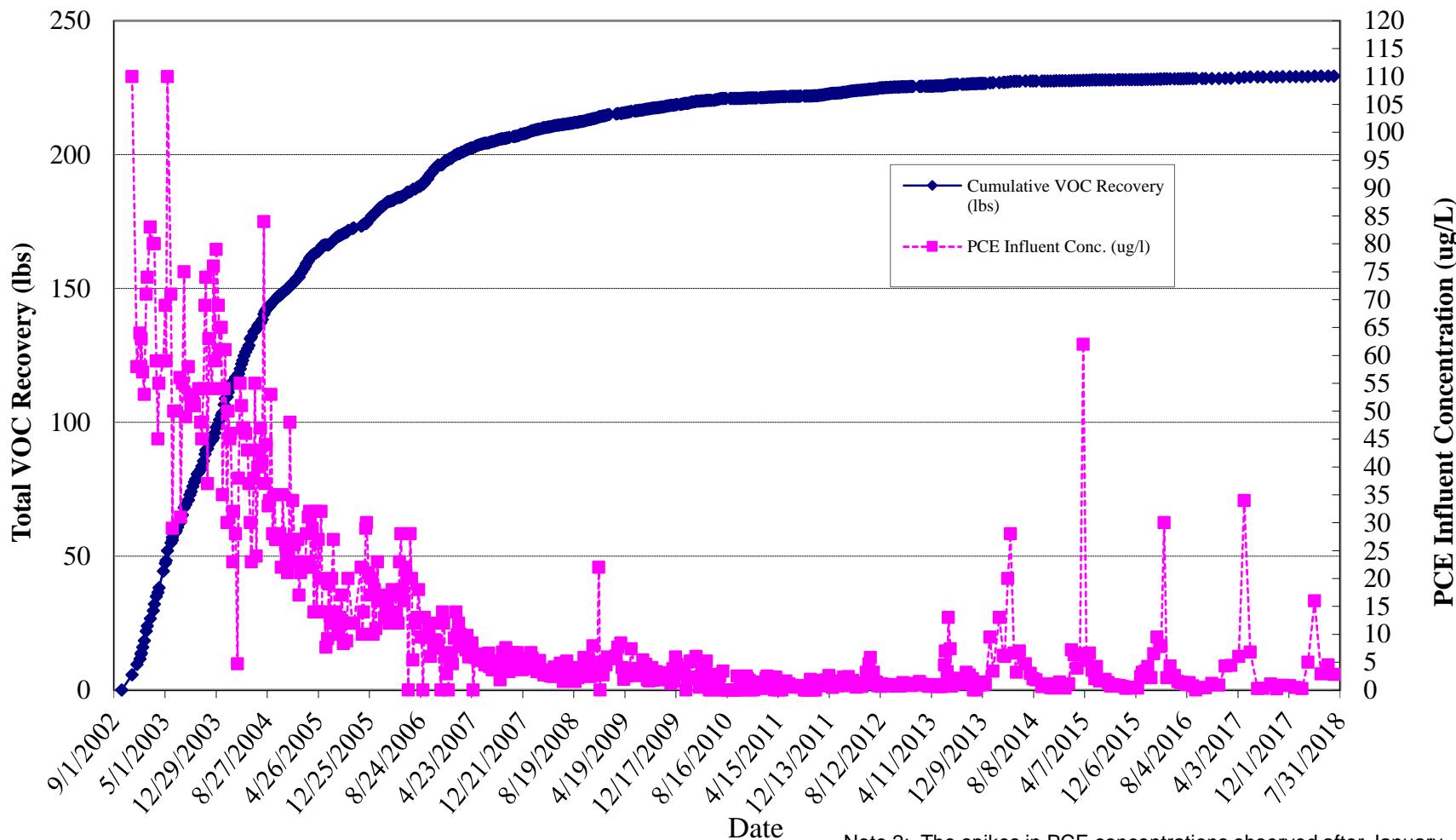
**GRAPH 1**  
**GROUNDWATER REMEDIAL ACTION**  
**ROWE INDUSTRIES SUPERFUND SITE**  
**SAG HARBOR, NEW YORK**

**Effluent Flow Data**  
**(July 1, 2018 to July 31, 2018)**



**GRAPH 2**  
**GROUNDWATER REMEDIAL ACTION**  
**ROWE INDUSTRIES SUPERFUND SITE**  
**SAG HARBOR, NEW YORK**

**FSP&T System Cumulative VOC Recovery and Influent PCE Concentraions vs. Time**

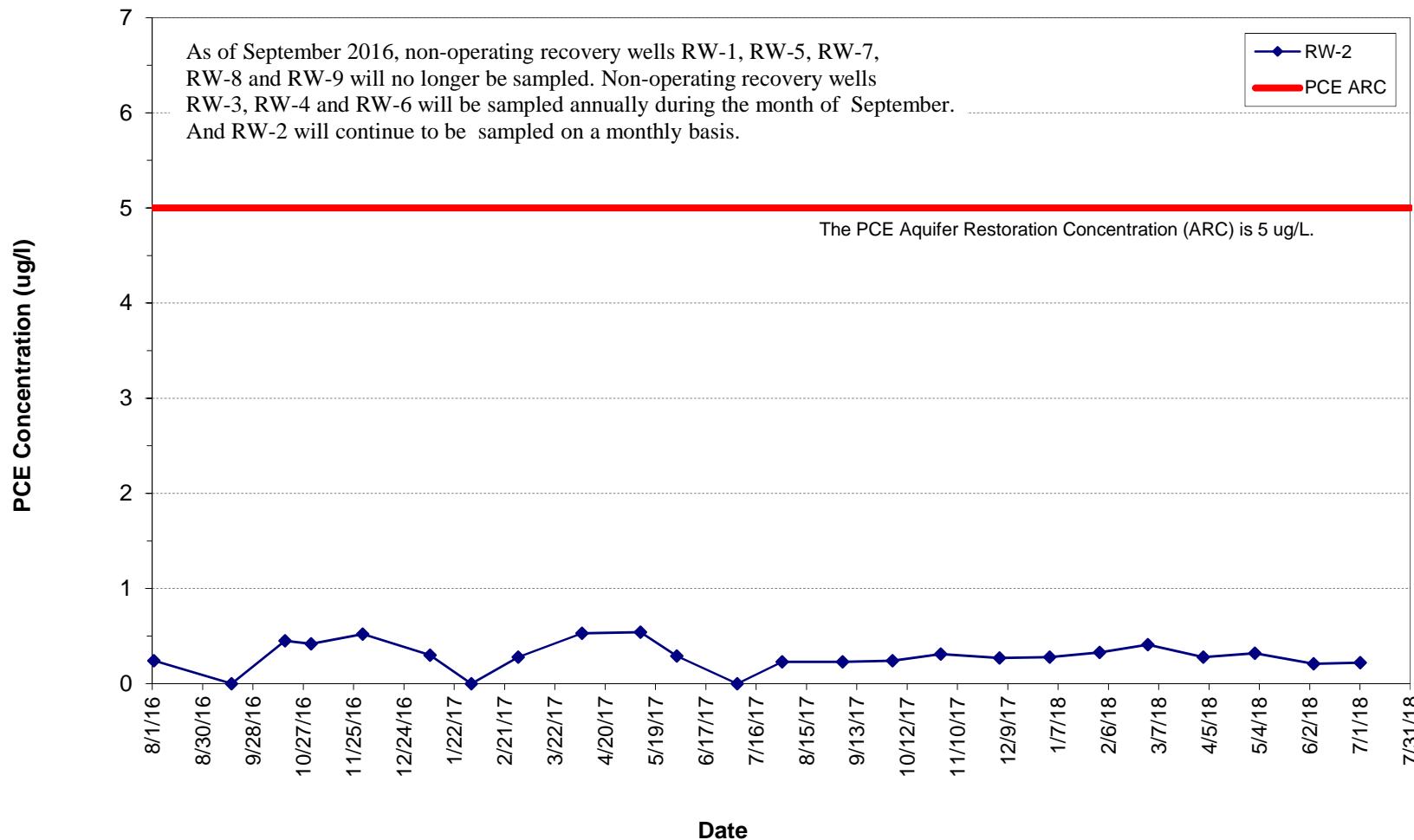


Note 1 : After September 22, 2008, the water recovered from the FP&T System is included in the results shown in this graph.

Note 2: The spikes in PCE concentrations observed after January 2014 coincide with well rehabilitation and annual maintenance events. During well rehabilitation and annual maintenance work, FSP&T system samples are collected when water from the FP&T system is not diluted with water extracted from RW-2.

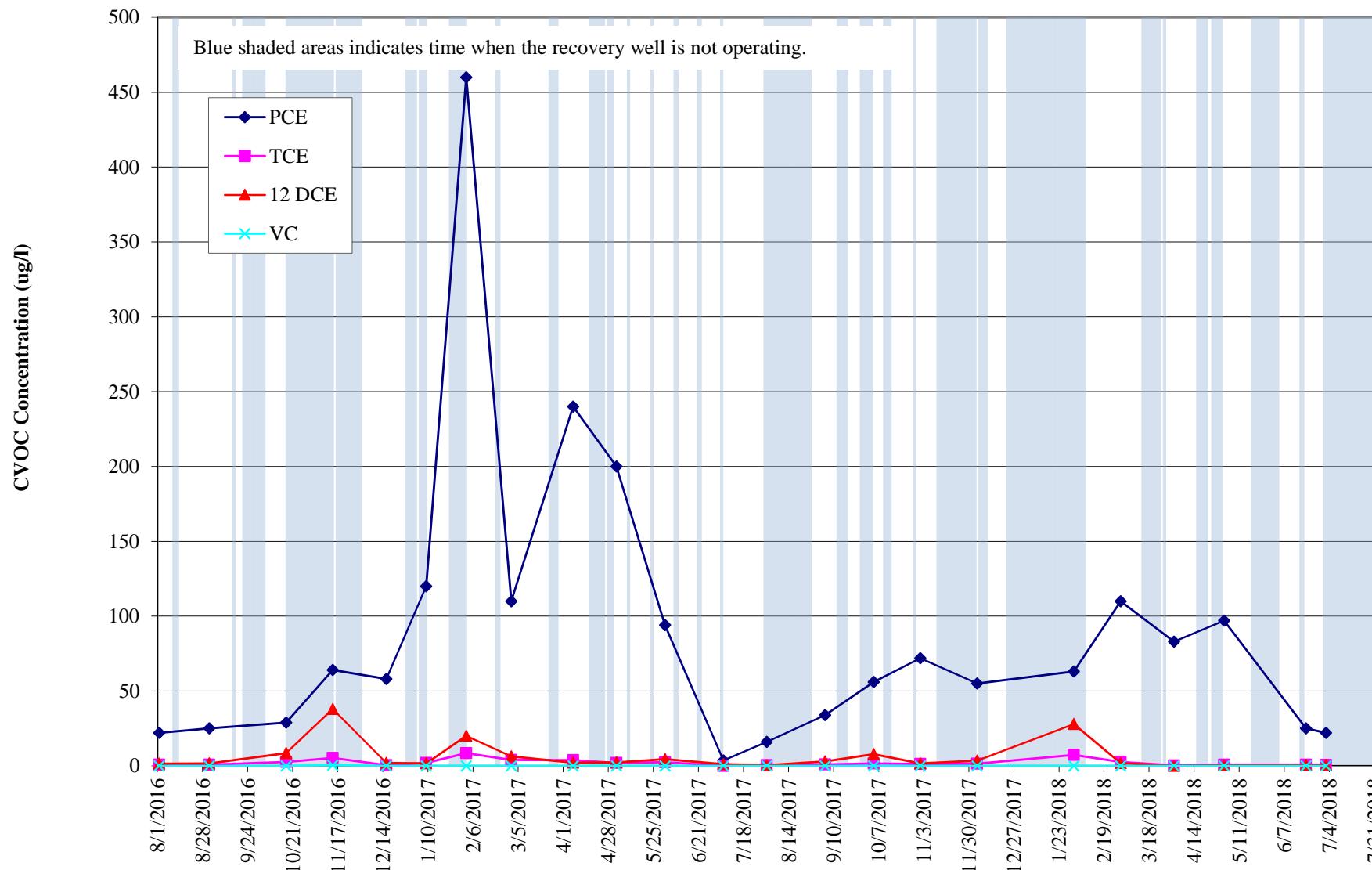
**GRAPH 3**  
GROUNDWATER REMEDIAL ACTION  
ROWE INDUSTRIES SUPERFUND SITE  
SAG HARBOR, NEW YORK

**FSP&T Recovery Well PCE Concentration**



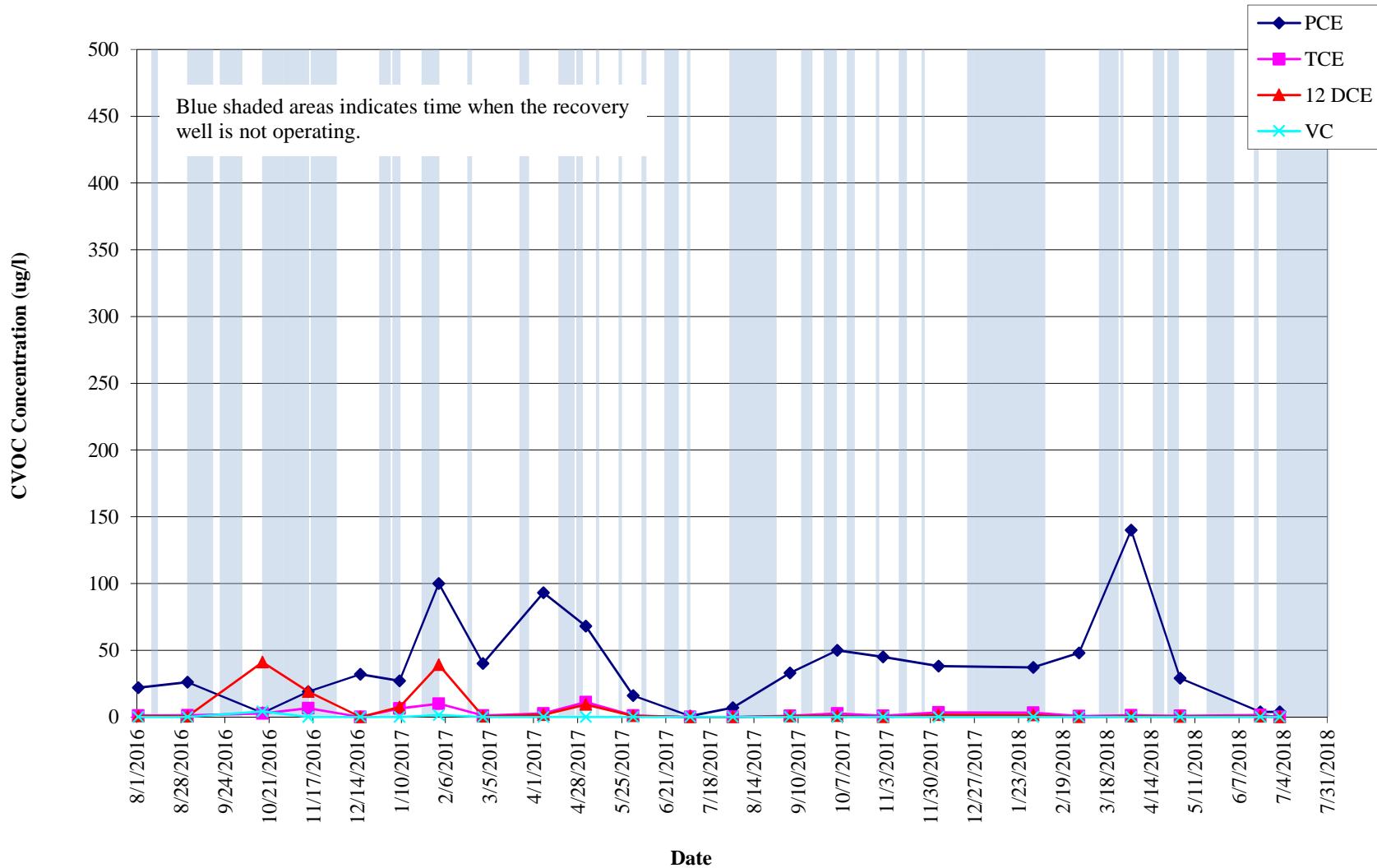
**GRAPH 4**  
**GROUNDWATER REMEDIAL ACTION**  
**ROWE INDUSTRIES SUPERFUND SITE**  
**SAG HARBOR, NEW YORK**

**FP&T Recovery Well VOC Concentrations for FRW-1**

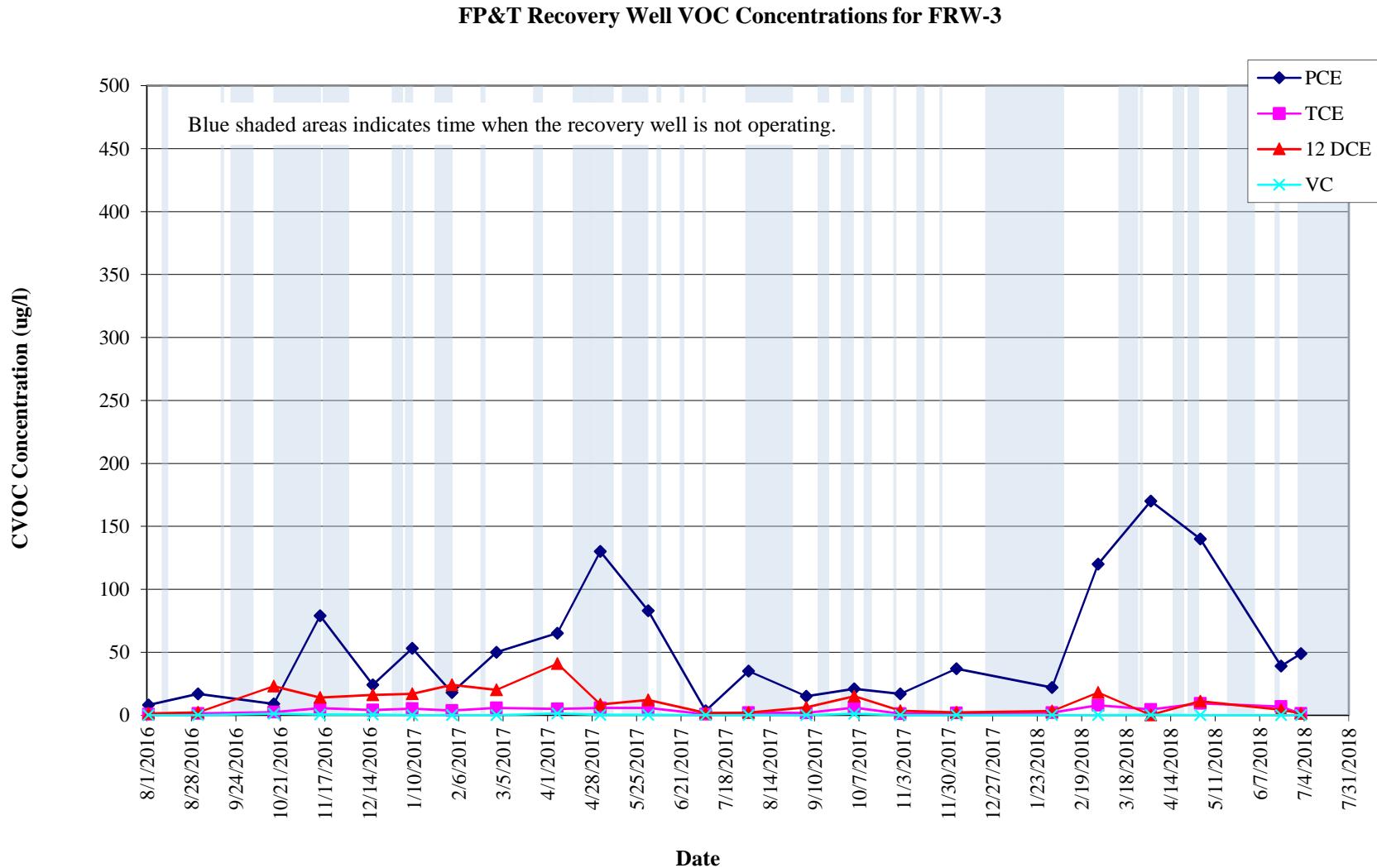


**GRAPH 5**  
**GROUNDWATER REMEDIAL ACTION**  
**ROWE INDUSTRIES SUPERFUND SITE**  
**SAG HARBOR, NEW YORK**

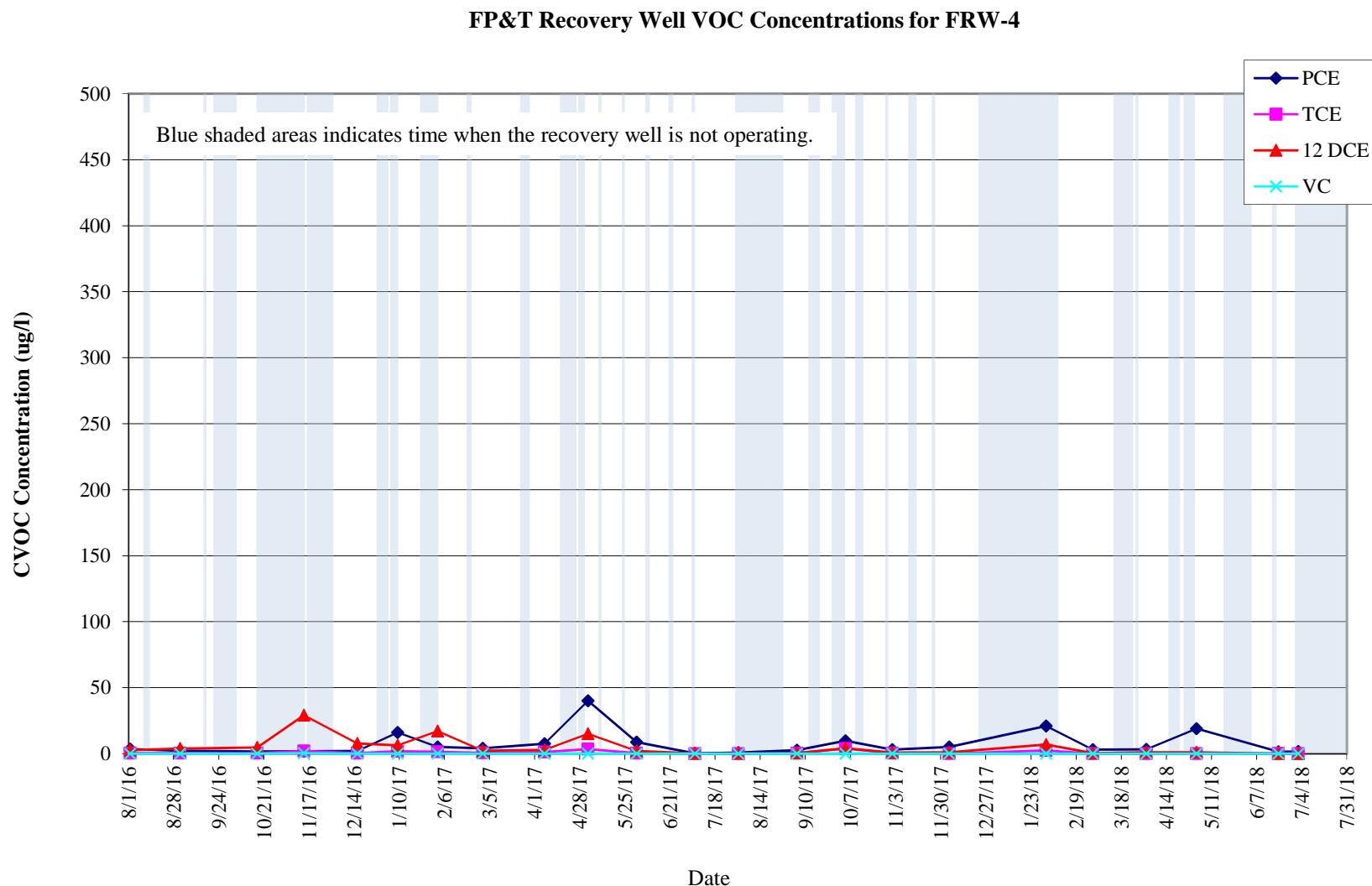
**FP&T Recovery Well VOC Concentrations for FRW-2**



**GRAPH 6**  
**GROUNDWATER REMEDIAL ACTION**  
**ROWE INDUSTRIES SUPERFUND SITE**  
**SAG HARBOR, NEW YORK**



**GRAPH 7**  
**GROUNDWATER REMEDIAL ACTION**  
**ROWE INDUSTRIES SUPERFUND SITE**  
**SAG HARBOR, NEW YORK**



**APPENDIX I**  
**JULY 2018 LABORATORY ANALYTICAL REPORTS**  
**FOR FSP&T SYSTEM**



# Technical Report

prepared for:

**WSP USA, Inc. (Shelton)**  
4 Research Drive, Suite 204  
Shelton CT, 06484  
**Attention: Tunde Komuves-Sandor**

Report Date: 07/11/2018

**Client Project ID: 31401451.000 task 01.00**  
York Project (SDG) No.: 18G0079

CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037



New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

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RICHMOND HILL, NY 11418  
[ClientServices@yorklab.com](mailto:ClientServices@yorklab.com)

Report Date: 07/11/2018  
Client Project ID: 31401451.000 task 01.00  
York Project (SDG) No.: 18G0079

**WSP USA, Inc. (Shelton)**  
4 Research Drive, Suite 204  
Shelton CT, 06484  
Attention: Tunde Komuves-Sandor

---

## 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 July 03, 2018 and listed below. The project was identified as your project: **31401451.000 task 01.00**.

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.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
18G0079-01	WQ070218:1425 NP2-6	Water	07/02/2018	07/03/2018
18G0080-01	WQ070218:1430 NP2-10	Water	07/02/2018	07/03/2018

## **General Notes for York Project (SDG) No.: 18G0079**

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:**



Benjamin Gulizia  
Laboratory Director

**Date:** 07/11/2018





## Sample Information

**Client Sample ID:** WQ070218:1425 NP2-6

**York Sample ID:** 18G0079-01

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
18G0079	31401451.000 task 01.00	Water	July 2, 2018 2:25 pm	07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

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: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	07/06/2018 07:30	07/06/2018 18:09	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS



## Sample Information

Client Sample ID: WQ070218:1425 NP2-6

York Sample ID: 18G0079-01

York Project (SDG) No.

18G0079

Client Project ID

31401451.000 task 01.00

Matrix

Water

Collection Date/Time

July 2, 2018 2:25 pm

Date Received

07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS



## Sample Information

Client Sample ID: WQ070218:1425 NP2-6

York Sample ID: 18G0079-01

York Project (SDG) No.

18G0079

Client Project ID

31401451.000 task 01.00

Matrix

Water

Collection Date/Time

July 2, 2018 2:25 pm

Date Received

07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
127-18-4	Tetrachloroethylene	2.8		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:09	SS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	07/06/2018 07:30	07/06/2018 18:09	SS

#### Surrogate Recoveries

	Result	Acceptance Range
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	99.9 %
2037-26-5	Surrogate: Toluene-d8	92.5 %
460-00-4	Surrogate: p-Bromofluorobenzene	96.8 %



## Sample Information

**Client Sample ID:** WQ070218:1430 NP2-10

**York Sample ID:** 18G0080-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18G0080	31401451.000 task 01.00	Water	July 2, 2018 2:30 pm	07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

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: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	07/06/2018 07:30	07/06/2018 18:41	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS



## Sample Information

Client Sample ID: WQ070218:1430 NP2-10

York Sample ID: 18G0080-01

York Project (SDG) No.

18G0080

Client Project ID

31401451.000 task 01.00

Matrix

Water

Collection Date/Time

July 2, 2018 2:30 pm

Date Received

07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
67-64-1	Acetone	1.0	J	ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS



## Sample Information

Client Sample ID: WQ070218:1430 NP2-10

York Sample ID: 18G0080-01

York Project (SDG) No.  
18G0080

Client Project ID  
31401451.000 task 01.00

Matrix  
Water

Collection Date/Time  
July 2, 2018 2:30 pm

Date Received  
07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
127-18-4	Tetrachloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 18:41	SS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	07/06/2018 07:30	07/06/2018 18:41	SS

#### Surrogate Recoveries

	Result	Acceptance Range
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	99.8 %
2037-26-5	Surrogate: Toluene-d8	93.7 %
460-00-4	Surrogate: p-Bromofluorobenzene	96.8 %

### Iron by EPA 200.7

Sample Prepared by Method: EPA 200.7

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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@	Page 9 of 23	



## Sample Information

Client Sample ID: WQ070218:1430 NP2-10

York Sample ID: 18G0080-01

York Project (SDG) No.

18G0080

Client Project ID

31401451.000 task 01.00

Matrix

Water

Collection Date/Time

July 2, 2018 2:30 pm

Date Received

07/03/2018

### Iron by EPA 200.7

Sample Prepared by Method: EPA 200.7

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	2.50		mg/L	0.0222	1	EPA 200.7	07/10/2018 09:18	07/10/2018 16:00	KML

Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP

### Iron, Dissolved by EPA 6010

Sample Prepared by Method: EPA 3015A

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	0.127		mg/L	0.0222	1	EPA 6010C	07/05/2018 10:47	07/05/2018 12:41	BML

Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP

### Total Dissolved Solids

Sample Prepared by Method: % Solids Prep

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Dissolved Solids	114		mg/L	10.0	1	SM 2540C	07/09/2018 20:18	07/09/2018 20:18	TJM

Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP



## Analytical Batch Summary

**Batch ID:** BG80196

**Preparation Method:** EPA 3015A

**Prepared By:** SY

YORK Sample ID

Client Sample ID

Preparation Date

18G0080-01	WQ070218:1430 NP2-10	07/05/18
BG80196-BLK1	Blank	07/05/18
BG80196-BS1	LCS	07/05/18

**Batch ID:** BG80246

**Preparation Method:** EPA 5030B

**Prepared By:** TAB

YORK Sample ID

Client Sample ID

Preparation Date

18G0079-01	WQ070218:1425 NP2-6	07/06/18
18G0080-01	WQ070218:1430 NP2-10	07/06/18
BG80246-BLK1	Blank	07/06/18
BG80246-BS1	LCS	07/06/18
BG80246-BSD1	LCS Dup	07/06/18

**Batch ID:** BG80329

**Preparation Method:** EPA 200.7

**Prepared By:** SY

YORK Sample ID

Client Sample ID

Preparation Date

18G0080-01	WQ070218:1430 NP2-10	07/10/18
BG80329-BLK1	Blank	07/10/18
BG80329-BS1	LCS	07/10/18

**Batch ID:** BG80396

**Preparation Method:** % Solids Prep

**Prepared By:** AA

YORK Sample ID

Client Sample ID

Preparation Date

18G0080-01	WQ070218:1430 NP2-10	07/09/18
BG80396-BLK1	Blank	07/09/18



## 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	RPD Limit	Flag
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### Batch BG80246 - EPA 5030B

#### Blank (BG80246-BLK1)

Prepared & Analyzed: 07/06/2018

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-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-Chlorotoluene	ND	0.50	"
2-Hexanone	ND	0.50	"
4-Chlorotoluene	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 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	"
Methylene chloride	ND	2.0	"
Naphthalene	ND	2.0	"
n-Butylbenzene	ND	0.50	"
n-Propylbenzene	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
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### Batch BG80246 - EPA 5030B

#### Blank (BG80246-BLK1)

											Prepared & Analyzed: 07/06/2018
o-Xylene	ND	0.50	ug/L								
p- & m- Xylenes	ND	1.0	"								
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	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	10.5		"	10.0		105	69-130				
<i>Surrogate: Toluene-d8</i>	9.64		"	10.0		96.4	81-117				
<i>Surrogate: p-Bromofluorobenzene</i>	9.87		"	10.0		98.7	79-122				

#### LCS (BG80246-BS1)

											Prepared & Analyzed: 07/06/2018
1,1,1,2-Tetrachloroethane	10.4		ug/L	10.0		104	82-126				
1,1,1-Trichloroethane	11.1		"	10.0		111	78-136				
1,1,2,2-Tetrachloroethane	10.1		"	10.0		101	76-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.6		"	10.0		116	54-165				
1,1,2-Trichloroethane	10.8		"	10.0		108	82-123				
1,1-Dichloroethane	10.9		"	10.0		109	82-129				
1,1-Dichloroethylene	10.4		"	10.0		104	68-138				
1,1-Dichloropropylene	10.8		"	10.0		108	83-133				
1,2,3-Trichlorobenzene	10.2		"	10.0		102	76-136				
1,2,3-Trichloropropane	10.3		"	10.0		103	77-128				
1,2,4-Trichlorobenzene	9.45		"	10.0		94.5	76-137				
1,2,4-Trimethylbenzene	9.51		"	10.0		95.1	82-132				
1,2-Dibromo-3-chloropropane	10.1		"	10.0		101	45-147				
1,2-Dibromoethane	10.8		"	10.0		108	83-124				
1,2-Dichlorobenzene	9.57		"	10.0		95.7	79-123				
1,2-Dichloroethane	11.5		"	10.0		115	73-132				
1,2-Dichloropropane	9.92		"	10.0		99.2	78-126				
1,3,5-Trimethylbenzene	9.42		"	10.0		94.2	80-131				
1,3-Dichlorobenzene	9.65		"	10.0		96.5	86-122				
1,3-Dichloropropane	10.6		"	10.0		106	81-125				
1,4-Dichlorobenzene	9.43		"	10.0		94.3	85-124				
2,2-Dichloropropane	10.8		"	10.0		108	56-150				
2-Chlorotoluene	9.54		"	10.0		95.4	79-130				
2-Hexanone	11.2		"	10.0		112	51-146				
4-Chlorotoluene	9.53		"	10.0		95.3	79-128				
Acetone	13.7		"	10.0		137	14-150				
Benzene	11.0		"	10.0		110	85-126				
Bromobenzene	9.43		"	10.0		94.3	78-129				
Bromochloromethane	11.3		"	10.0		113	77-128				
Bromodichloromethane	10.2		"	10.0		102	79-128				
Bromoform	10.5		"	10.0		105	78-133				
Bromomethane	4.27		"	10.0		42.7	43-168	Low Bias			



## 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	RPD Limit	Flag
<b>Batch BG80246 - EPA 5030B</b>											
<b>LCS (BG80246-BS1)</b>											
Prepared & Analyzed: 07/06/2018											
Carbon tetrachloride	11.0		ug/L	10.0	110		77-141				
Chlorobenzene	10.2		"	10.0	102		88-120				
Chloroethane	10.4		"	10.0	104		65-136				
Chloroform	11.2		"	10.0	112		82-128				
Chloromethane	7.87		"	10.0	78.7		43-155				
cis-1,2-Dichloroethylene	11.0		"	10.0	110		83-129				
cis-1,3-Dichloropropylene	10.0		"	10.0	100		80-131				
Dibromochloromethane	10.6		"	10.0	106		80-130				
Dibromomethane	10.6		"	10.0	106		72-134				
Dichlorodifluoromethane	9.21		"	10.0	92.1		44-144				
Ethyl Benzene	10.2		"	10.0	102		80-131				
Hexachlorobutadiene	8.13		"	10.0	81.3		67-146				
Isopropylbenzene	9.38		"	10.0	93.8		76-140				
Methyl tert-butyl ether (MTBE)	11.6		"	10.0	116		76-135				
Methylene chloride	8.50		"	10.0	85.0		55-137				
Naphthalene	10.6		"	10.0	106		70-147				
n-Butylbenzene	9.15		"	10.0	91.5		79-132				
n-Propylbenzene	9.48		"	10.0	94.8		78-133				
o-Xylene	10.3		"	10.0	103		78-130				
p- & m- Xylenes	19.0		"	20.0	94.8		77-133				
p-Isopropyltoluene	9.34		"	10.0	93.4		81-136				
sec-Butylbenzene	9.38		"	10.0	93.8		79-137				
Styrene	10.4		"	10.0	104		67-132				
tert-Butylbenzene	9.37		"	10.0	93.7		77-138				
Tetrachloroethylene	10.5		"	10.0	105		82-131				
Toluene	10.0		"	10.0	100		80-127				
trans-1,2-Dichloroethylene	10.6		"	10.0	106		80-132				
trans-1,3-Dichloropropylene	9.92		"	10.0	99.2		78-131				
Trichloroethylene	9.69		"	10.0	96.9		82-128				
Trichlorofluoromethane	10.9		"	10.0	109		67-139				
Vinyl Chloride	10.1		"	10.0	101		58-145				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	10.4		"	10.0	104		69-130				
<i>Surrogate: Toluene-d8</i>	9.61		"	10.0	96.1		81-117				
<i>Surrogate: p-Bromofluorobenzene</i>	9.44		"	10.0	94.4		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
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### Batch BG80246 - EPA 5030B

LCS Dup (BG80246-BSD1)	Prepared & Analyzed: 07/06/2018									
1,1,1,2-Tetrachloroethane	10.4		ug/L	10.0	104	82-126			0.673	30
1,1,1-Trichloroethane	10.5		"	10.0	105	78-136			4.91	30
1,1,2,2-Tetrachloroethane	9.79		"	10.0	97.9	76-129			3.02	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.0		"	10.0	110	54-165			5.59	30
1,1,2-Trichloroethane	10.5		"	10.0	105	82-123			3.19	30
1,1-Dichloroethane	10.5		"	10.0	105	82-129			3.65	30
1,1-Dichloroethylene	9.93		"	10.0	99.3	68-138			4.33	30
1,1-Dichloropropylene	10.4		"	10.0	104	83-133			4.14	30
1,2,3-Trichlorobenzene	9.60		"	10.0	96.0	76-136			6.06	30
1,2,3-Trichloropropane	9.75		"	10.0	97.5	77-128			5.78	30
1,2,4-Trichlorobenzene	9.13		"	10.0	91.3	76-137			3.44	30
1,2,4-Trimethylbenzene	9.20		"	10.0	92.0	82-132			3.31	30
1,2-Dibromo-3-chloropropane	9.59		"	10.0	95.9	45-147			5.38	30
1,2-Dibromoethane	10.4		"	10.0	104	83-124			3.87	30
1,2-Dichlorobenzene	9.28		"	10.0	92.8	79-123			3.08	30
1,2-Dichloroethane	11.0		"	10.0	110	73-132			4.10	30
1,2-Dichloropropane	9.70		"	10.0	97.0	78-126			2.24	30
1,3,5-Trimethylbenzene	9.12		"	10.0	91.2	80-131			3.24	30
1,3-Dichlorobenzene	9.31		"	10.0	93.1	86-122			3.59	30
1,3-Dichloropropane	10.2		"	10.0	102	81-125			3.77	30
1,4-Dichlorobenzene	9.20		"	10.0	92.0	85-124			2.47	30
2,2-Dichloropropane	10.3		"	10.0	103	56-150			4.75	30
2-Chlorotoluene	9.20		"	10.0	92.0	79-130			3.63	30
2-Hexanone	11.0		"	10.0	110	51-146			1.89	30
4-Chlorotoluene	9.32		"	10.0	93.2	79-128			2.23	30
Acetone	16.2		"	10.0	162	14-150	High Bias		16.9	30
Benzene	10.6		"	10.0	106	85-126			2.87	30
Bromobenzene	9.07		"	10.0	90.7	78-129			3.89	30
Bromochloromethane	11.1		"	10.0	111	77-128			2.41	30
Bromodichloromethane	10.1		"	10.0	101	79-128			1.18	30
Bromoform	10.4		"	10.0	104	78-133			1.53	30
Bromomethane	4.72		"	10.0	47.2	43-168			10.0	30
Carbon tetrachloride	10.4		"	10.0	104	77-141			5.22	30
Chlorobenzene	10.2		"	10.0	102	88-120			0.293	30
Chloroethane	10.0		"	10.0	100	65-136			3.82	30
Chloroform	10.9		"	10.0	109	82-128			2.71	30
Chloromethane	7.91		"	10.0	79.1	43-155			0.507	30
cis-1,2-Dichloroethylene	10.7		"	10.0	107	83-129			2.75	30
cis-1,3-Dichloropropylene	9.72		"	10.0	97.2	80-131			2.94	30
Dibromochloromethane	10.3		"	10.0	103	80-130			2.68	30
Dibromomethane	10.3		"	10.0	103	72-134			3.26	30
Dichlorodifluoromethane	8.85		"	10.0	88.5	44-144			3.99	30
Ethyl Benzene	9.94		"	10.0	99.4	80-131			2.68	30
Hexachlorobutadiene	7.77		"	10.0	77.7	67-146			4.53	30
Isopropylbenzene	9.19		"	10.0	91.9	76-140			2.05	30
Methyl tert-butyl ether (MTBE)	11.2		"	10.0	112	76-135			3.08	30
Methylene chloride	8.28		"	10.0	82.8	55-137			2.62	30
Naphthalene	9.93		"	10.0	99.3	70-147			6.81	30
n-Butylbenzene	8.72		"	10.0	87.2	79-132			4.81	30
n-Propylbenzene	9.17		"	10.0	91.7	78-133			3.32	30
o-Xylene	10.1		"	10.0	101	78-130			1.76	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
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### Batch BG80246 - EPA 5030B

LCS Dup (BG80246-BSD1)	Prepared & Analyzed: 07/06/2018										
p- & m- Xylenes	18.5		ug/L	20.0	92.4	77-133			2.51	30	
p-Isopropyltoluene	8.91		"	10.0	89.1	81-136			4.71	30	
sec-Butylbenzene	8.93		"	10.0	89.3	79-137			4.92	30	
Styrene	10.3		"	10.0	103	67-132			1.45	30	
tert-Butylbenzene	9.04		"	10.0	90.4	77-138			3.59	30	
Tetrachloroethylene	10.5		"	10.0	105	82-131			0.0954	30	
Toluene	9.77		"	10.0	97.7	80-127			2.53	30	
trans-1,2-Dichloroethylene	10.3		"	10.0	103	80-132			2.97	30	
trans-1,3-Dichloropropylene	9.74		"	10.0	97.4	78-131			1.83	30	
Trichloroethylene	9.75		"	10.0	97.5	82-128			0.617	30	
Trichlorofluoromethane	10.6		"	10.0	106	67-139			3.17	30	
Vinyl Chloride	9.80		"	10.0	98.0	58-145			3.21	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	10.2		"	10.0	102	69-130					
<i>Surrogate: Toluene-d8</i>	9.62		"	10.0	96.2	81-117					
<i>Surrogate: p-Bromofluorobenzene</i>	9.31		"	10.0	93.1	79-122					



**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	RPD Limit	RPD Flag
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**Batch BG80196 - EPA 3015A**

**Blank (BG80196-BLK1)**

Prepared & Analyzed: 07/05/2018

Iron - Dissolved	ND	0.0222	mg/L
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**LCS (BG80196-BS1)**

Prepared & Analyzed: 07/05/2018

Iron - Dissolved	1.20	ug/mL	1.00	120	80-120
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**Batch BG80329 - EPA 200.7**

**Blank (BG80329-BLK1)**

Prepared & Analyzed: 07/10/2018

Iron	ND	0.0222	mg/L
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**LCS (BG80329-BS1)**

Prepared & Analyzed: 07/10/2018

Iron	1.12	ug/mL	1.00	112	85-115
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### Miscellaneous Physical Parameters - Quality Control Data

#### York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD RPD	RPD Limit	RPD Flag
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#### Batch BG80396 - % Solids Prep

##### Blank (BG80396-BLK1)

Total Dissolved Solids ND 10.0 mg/L

Prepared & Analyzed: 07/09/2018



### Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
18G0079-01	WQ070218:1425 NP2-6	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
18G0080-01	WQ070218:1430 NP2-10	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



## Sample and Data Qualifiers Relating to This Work Order

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.

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).

### 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.

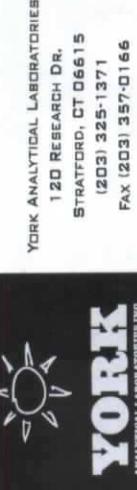
Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.



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 Std. Terms & Conditions are listed on the back side of this document.

York Project No. 18G0080

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 ANALYTICAL LABORATORIES INC.

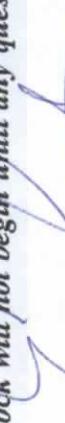


120 RESEARCH DR.  
STRATFORD, CT 06615  
(203) 325-1371  
FAX (203) 357-0166

NOTE: York's Std. Terms & Conditions are listed on the back side of this document.

York Project No. 18G0080

## YOUR Information

	Report to:	Invoice To:	Your Project ID	Turn-Around Time	Report/Deliverable Type																																																
Company: <b>WSP USA</b>	<input checked="" type="checkbox"/> SAME	<input checked="" type="checkbox"/> SAME	<b>31401451.000 task</b>	RUSH-Same Day	Summary Report																																																
Name: _____		01.00		RUSH-Next Day	QA Report																																																
Address: <b>4 Research Drive</b>					CT RCP																																																
Company: _____					CT RCP DQA/DUE Pkg																																																
Phone.: <b>Suite 301, Shelton CT 06484</b>					NY ASP A Package																																																
Address: _____					NY ASP B Package																																																
Contact: <b>Tunde Sandor</b>					X, PDF																																																
E-mail: <a href="mailto:tunde.sandor@wsp.com">tunde.sandor@wsp.com</a>																																																					
<b>Print Clearly and Legibly. All Information must be complete.</b> <b>Samples will NOT be logged in and the turn-around time clock will not begin until any questions by York are resolved.</b>																																																					
<b>Matrix Codes</b> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>S - soil</td> <td>TCL list</td> <td>Oxygenates</td> <td>TAGM list</td> <td>NIDEP list</td> <td>Air TO14A</td> </tr> <tr> <td>Other - specify(oil, etc.)</td> <td>TAGM list</td> <td>TCLP list</td> <td>SELP or TCLP list</td> <td>SELP or TCLP Total</td> <td>Part360-Basline</td> </tr> <tr> <td>WW - wastewater</td> <td>CTRCP list</td> <td>524.2</td> <td>TCLP list</td> <td>TCLP Pest</td> <td>Part360-Partial</td> </tr> <tr> <td>GW - groundwater</td> <td>DW - drinking water</td> <td>Arom. only</td> <td>NIDEP list</td> <td>TCLP Herb</td> <td>Part360-Exempted</td> </tr> <tr> <td>DW - drinking water</td> <td>Air - A - ambient air</td> <td>Halog. only</td> <td>SELP or TCLP</td> <td>Air VPH</td> <td>NYCDEP Sewer</td> </tr> <tr> <td>Air - A - ambient air</td> <td>Air - SV - soil vapor</td> <td>App.IX</td> <td>App.IX</td> <td>Indic. Meas.</td> <td>NYSDCC Sewer</td> </tr> <tr> <td>Air - SV - soil vapor</td> <td></td> <td>8021B list</td> <td>SELP or TCLP</td> <td>LIST Below</td> <td>Methane</td> </tr> <tr> <td></td> <td></td> <td></td> <td>SELP or TCLP</td> <td>Helium</td> <td>TAGM</td> </tr> </table>						S - soil	TCL list	Oxygenates	TAGM list	NIDEP list	Air TO14A	Other - specify(oil, etc.)	TAGM list	TCLP list	SELP or TCLP list	SELP or TCLP Total	Part360-Basline	WW - wastewater	CTRCP list	524.2	TCLP list	TCLP Pest	Part360-Partial	GW - groundwater	DW - drinking water	Arom. only	NIDEP list	TCLP Herb	Part360-Exempted	DW - drinking water	Air - A - ambient air	Halog. only	SELP or TCLP	Air VPH	NYCDEP Sewer	Air - A - ambient air	Air - SV - soil vapor	App.IX	App.IX	Indic. Meas.	NYSDCC Sewer	Air - SV - soil vapor		8021B list	SELP or TCLP	LIST Below	Methane				SELP or TCLP	Helium	TAGM
S - soil	TCL list	Oxygenates	TAGM list	NIDEP list	Air TO14A																																																
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			SELP or TCLP	Helium	TAGM																																																
<b>Samples Collected/Authorized By (Signature)</b>  <b>Tunde Sandor</b> Name (printed)																																																					

## Container Description

Sample Identification	Date+Time Sampled	Matrix	Analysis Requested (List above includes common analysis)
18070218.1425 N/P3-6	7-2-18; 1425	GW	VOCs 8260 full plus freon 113
1430 N/P3-10	7-2-18; 1430	GW	Fe by EPA 200.7; Fe dissolved by EPA 6010; VOCs 8260 full plus freon 113; TDS

## Comments:

Preservation (check all applicable)	<input checked="" type="checkbox"/> 4°C	<input checked="" type="checkbox"/> Frozen	<input checked="" type="checkbox"/> HCl	<input checked="" type="checkbox"/> MeOH	<input checked="" type="checkbox"/> HNO <sub>3</sub>	<input checked="" type="checkbox"/> H <sub>2</sub> SO <sub>4</sub>	<input checked="" type="checkbox"/> Other	NaOH	Temperature on Receipt
Special Instructions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Date/Time
Samples Relinquished By	<b>LSP Endyc</b>							<b>7-3-18 8:00</b>	
Samples Relinquished By	<b>JULY 13 2018</b>							<b>7-3-18 13:30</b>	
Samples Received in LAB								<b>13:34</b>	
								<b>2:33</b>	

**APPENDIX II**  
**JULY 2018 LABORATORY ANALYTICAL REPORTS**  
**FOR FSP&T AND FP&T RECOVERY WELLS**



# Technical Report

prepared for:

**WSP USA, Inc. (Shelton)**  
4 Research Drive, Suite 204  
Shelton CT, 06484  
**Attention: Tunde Komuves-Sandor**

Report Date: 07/10/2018

**Client Project ID: 31401451.000 task 01.00**  
York Project (SDG) No.: 18G0081

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  
[www.YORKLAB.com](http://www.YORKLAB.com)

STRATFORD, CT 06615  
(203) 325-1371



■  
132-02 89th AVENUE  
FAX (203) 357-0166

RICHMOND HILL, NY 11418  
[ClientServices@yorklab.com](mailto:ClientServices@yorklab.com)

Report Date: 07/10/2018  
Client Project ID: 31401451.000 task 01.00  
York Project (SDG) No.: 18G0081

**WSP USA, Inc. (Shelton)**  
4 Research Drive, Suite 204  
Shelton CT, 06484  
Attention: Tunde Komuves-Sandor

## 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 July 03, 2018 and listed below. The project was identified as your project: **31401451.000 task 01.00**.

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.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
18G0081-01	WQ070218:1420 NP1-1-2	Water	07/02/2018	07/03/2018

## General Notes for York Project (SDG) No.: 18G0081

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:



Benjamin Gulizia  
Laboratory Director

Date: 07/10/2018





## Sample Information

**Client Sample ID:** WQ070218:1420 NP1-1-2

**York Sample ID:** 18G0081-01

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
18G0081	31401451.000 task 01.00	Water	July 2, 2018 2:20 pm	07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

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: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	07/06/2018 07:30	07/06/2018 19:13	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS



## Sample Information

Client Sample ID: WQ070218:1420 NP1-1-2

York Sample ID: 18G0081-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18G0081	31401451.000 task 01.00	Water	July 2, 2018 2:20 pm	07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
67-66-3	<b>Chloroform</b>	<b>0.28</b>	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS



## Sample Information

Client Sample ID: WQ070218:1420 NP1-1-2

York Sample ID: 18G0081-01

York Project (SDG) No.

18G0081

Client Project ID

31401451.000 task 01.00

Matrix

Water

Collection Date/Time

July 2, 2018 2:20 pm

Date Received

07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
127-18-4	<b>Tetrachloroethylene</b>	<b>0.22</b>	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:13	SS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	07/06/2018 07:30	07/06/2018 19:13	SS

#### Surrogate Recoveries

	Result	Acceptance Range
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	99.8 %
2037-26-5	Surrogate: Toluene-d8	92.5 %
460-00-4	Surrogate: p-Bromofluorobenzene	96.0 %



## Analytical Batch Summary

**Batch ID:** BG80246

**Preparation Method:** EPA 5030B

**Prepared By:** TAB

YORK Sample ID	Client Sample ID	Preparation Date
18G0081-01	WQ070218:1420 NP1-1-2	07/06/18
BG80246-BLK1	Blank	07/06/18
BG80246-BS1	LCS	07/06/18
BG80246-BSD1	LCS Dup	07/06/18



## 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	RPD Limit	Flag
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### Batch BG80246 - EPA 5030B

#### Blank (BG80246-BLK1)

Prepared & Analyzed: 07/06/2018

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-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-Chlorotoluene	ND	0.50	"
2-Hexanone	ND	0.50	"
4-Chlorotoluene	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 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	"
Methylene chloride	ND	2.0	"
Naphthalene	ND	2.0	"
n-Butylbenzene	ND	0.50	"
n-Propylbenzene	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
<b>Batch BG80246 - EPA 5030B</b>											
<b>Blank (BG80246-BLK1)</b>											
Prepared & Analyzed: 07/06/2018											
o-Xylene	ND	0.50	ug/L								
p- & m- Xylenes	ND	1.0	"								
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	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	10.5		"	10.0		105	69-130				
<i>Surrogate: Toluene-d8</i>	9.64		"	10.0		96.4	81-117				
<i>Surrogate: p-Bromofluorobenzene</i>	9.87		"	10.0		98.7	79-122				
<b>LCS (BG80246-BS1)</b>											
Prepared & Analyzed: 07/06/2018											
1,1,1,2-Tetrachloroethane	10.4		ug/L	10.0		104	82-126				
1,1,1-Trichloroethane	11.1		"	10.0		111	78-136				
1,1,2,2-Tetrachloroethane	10.1		"	10.0		101	76-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.6		"	10.0		116	54-165				
1,1,2-Trichloroethane	10.8		"	10.0		108	82-123				
1,1-Dichloroethane	10.9		"	10.0		109	82-129				
1,1-Dichloroethylene	10.4		"	10.0		104	68-138				
1,1-Dichloropropylene	10.8		"	10.0		108	83-133				
1,2,3-Trichlorobenzene	10.2		"	10.0		102	76-136				
1,2,3-Trichloropropane	10.3		"	10.0		103	77-128				
1,2,4-Trichlorobenzene	9.45		"	10.0		94.5	76-137				
1,2,4-Trimethylbenzene	9.51		"	10.0		95.1	82-132				
1,2-Dibromo-3-chloropropane	10.1		"	10.0		101	45-147				
1,2-Dibromoethane	10.8		"	10.0		108	83-124				
1,2-Dichlorobenzene	9.57		"	10.0		95.7	79-123				
1,2-Dichloroethane	11.5		"	10.0		115	73-132				
1,2-Dichloropropane	9.92		"	10.0		99.2	78-126				
1,3,5-Trimethylbenzene	9.42		"	10.0		94.2	80-131				
1,3-Dichlorobenzene	9.65		"	10.0		96.5	86-122				
1,3-Dichloropropane	10.6		"	10.0		106	81-125				
1,4-Dichlorobenzene	9.43		"	10.0		94.3	85-124				
2,2-Dichloropropane	10.8		"	10.0		108	56-150				
2-Chlorotoluene	9.54		"	10.0		95.4	79-130				
2-Hexanone	11.2		"	10.0		112	51-146				
4-Chlorotoluene	9.53		"	10.0		95.3	79-128				
Acetone	13.7		"	10.0		137	14-150				
Benzene	11.0		"	10.0		110	85-126				
Bromobenzene	9.43		"	10.0		94.3	78-129				
Bromochloromethane	11.3		"	10.0		113	77-128				
Bromodichloromethane	10.2		"	10.0		102	79-128				
Bromoform	10.5		"	10.0		105	78-133				
Bromomethane	4.27		"	10.0		42.7	43-168	Low Bias			



## 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	RPD Limit	Flag
<b>Batch BG80246 - EPA 5030B</b>											
<b>LCS (BG80246-BS1)</b>											
Carbon tetrachloride	11.0		ug/L	10.0		110	77-141				
Chlorobenzene	10.2		"	10.0		102	88-120				
Chloroethane	10.4		"	10.0		104	65-136				
Chloroform	11.2		"	10.0		112	82-128				
Chloromethane	7.87		"	10.0		78.7	43-155				
cis-1,2-Dichloroethylene	11.0		"	10.0		110	83-129				
cis-1,3-Dichloropropylene	10.0		"	10.0		100	80-131				
Dibromochloromethane	10.6		"	10.0		106	80-130				
Dibromomethane	10.6		"	10.0		106	72-134				
Dichlorodifluoromethane	9.21		"	10.0		92.1	44-144				
Ethyl Benzene	10.2		"	10.0		102	80-131				
Hexachlorobutadiene	8.13		"	10.0		81.3	67-146				
Isopropylbenzene	9.38		"	10.0		93.8	76-140				
Methyl tert-butyl ether (MTBE)	11.6		"	10.0		116	76-135				
Methylene chloride	8.50		"	10.0		85.0	55-137				
Naphthalene	10.6		"	10.0		106	70-147				
n-Butylbenzene	9.15		"	10.0		91.5	79-132				
n-Propylbenzene	9.48		"	10.0		94.8	78-133				
o-Xylene	10.3		"	10.0		103	78-130				
p- & m- Xylenes	19.0		"	20.0		94.8	77-133				
p-Isopropyltoluene	9.34		"	10.0		93.4	81-136				
sec-Butylbenzene	9.38		"	10.0		93.8	79-137				
Styrene	10.4		"	10.0		104	67-132				
tert-Butylbenzene	9.37		"	10.0		93.7	77-138				
Tetrachloroethylene	10.5		"	10.0		105	82-131				
Toluene	10.0		"	10.0		100	80-127				
trans-1,2-Dichloroethylene	10.6		"	10.0		106	80-132				
trans-1,3-Dichloropropylene	9.92		"	10.0		99.2	78-131				
Trichloroethylene	9.69		"	10.0		96.9	82-128				
Trichlorofluoromethane	10.9		"	10.0		109	67-139				
Vinyl Chloride	10.1		"	10.0		101	58-145				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	10.4		"	10.0		104	69-130				
<i>Surrogate: Toluene-d8</i>	9.61		"	10.0		96.1	81-117				
<i>Surrogate: p-Bromofluorobenzene</i>	9.44		"	10.0		94.4	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
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### Batch BG80246 - EPA 5030B

LCS Dup (BG80246-BSD1)	Prepared & Analyzed: 07/06/2018									
1,1,1,2-Tetrachloroethane	10.4		ug/L	10.0	104	82-126			0.673	30
1,1,1-Trichloroethane	10.5		"	10.0	105	78-136			4.91	30
1,1,2,2-Tetrachloroethane	9.79		"	10.0	97.9	76-129			3.02	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.0		"	10.0	110	54-165			5.59	30
1,1,2-Trichloroethane	10.5		"	10.0	105	82-123			3.19	30
1,1-Dichloroethane	10.5		"	10.0	105	82-129			3.65	30
1,1-Dichloroethylene	9.93		"	10.0	99.3	68-138			4.33	30
1,1-Dichloropropylene	10.4		"	10.0	104	83-133			4.14	30
1,2,3-Trichlorobenzene	9.60		"	10.0	96.0	76-136			6.06	30
1,2,3-Trichloropropane	9.75		"	10.0	97.5	77-128			5.78	30
1,2,4-Trichlorobenzene	9.13		"	10.0	91.3	76-137			3.44	30
1,2,4-Trimethylbenzene	9.20		"	10.0	92.0	82-132			3.31	30
1,2-Dibromo-3-chloropropane	9.59		"	10.0	95.9	45-147			5.38	30
1,2-Dibromoethane	10.4		"	10.0	104	83-124			3.87	30
1,2-Dichlorobenzene	9.28		"	10.0	92.8	79-123			3.08	30
1,2-Dichloroethane	11.0		"	10.0	110	73-132			4.10	30
1,2-Dichloropropane	9.70		"	10.0	97.0	78-126			2.24	30
1,3,5-Trimethylbenzene	9.12		"	10.0	91.2	80-131			3.24	30
1,3-Dichlorobenzene	9.31		"	10.0	93.1	86-122			3.59	30
1,3-Dichloropropane	10.2		"	10.0	102	81-125			3.77	30
1,4-Dichlorobenzene	9.20		"	10.0	92.0	85-124			2.47	30
2,2-Dichloropropane	10.3		"	10.0	103	56-150			4.75	30
2-Chlorotoluene	9.20		"	10.0	92.0	79-130			3.63	30
2-Hexanone	11.0		"	10.0	110	51-146			1.89	30
4-Chlorotoluene	9.32		"	10.0	93.2	79-128			2.23	30
Acetone	16.2		"	10.0	162	14-150	High Bias		16.9	30
Benzene	10.6		"	10.0	106	85-126			2.87	30
Bromobenzene	9.07		"	10.0	90.7	78-129			3.89	30
Bromochloromethane	11.1		"	10.0	111	77-128			2.41	30
Bromodichloromethane	10.1		"	10.0	101	79-128			1.18	30
Bromoform	10.4		"	10.0	104	78-133			1.53	30
Bromomethane	4.72		"	10.0	47.2	43-168			10.0	30
Carbon tetrachloride	10.4		"	10.0	104	77-141			5.22	30
Chlorobenzene	10.2		"	10.0	102	88-120			0.293	30
Chloroethane	10.0		"	10.0	100	65-136			3.82	30
Chloroform	10.9		"	10.0	109	82-128			2.71	30
Chloromethane	7.91		"	10.0	79.1	43-155			0.507	30
cis-1,2-Dichloroethylene	10.7		"	10.0	107	83-129			2.75	30
cis-1,3-Dichloropropylene	9.72		"	10.0	97.2	80-131			2.94	30
Dibromochloromethane	10.3		"	10.0	103	80-130			2.68	30
Dibromomethane	10.3		"	10.0	103	72-134			3.26	30
Dichlorodifluoromethane	8.85		"	10.0	88.5	44-144			3.99	30
Ethyl Benzene	9.94		"	10.0	99.4	80-131			2.68	30
Hexachlorobutadiene	7.77		"	10.0	77.7	67-146			4.53	30
Isopropylbenzene	9.19		"	10.0	91.9	76-140			2.05	30
Methyl tert-butyl ether (MTBE)	11.2		"	10.0	112	76-135			3.08	30
Methylene chloride	8.28		"	10.0	82.8	55-137			2.62	30
Naphthalene	9.93		"	10.0	99.3	70-147			6.81	30
n-Butylbenzene	8.72		"	10.0	87.2	79-132			4.81	30
n-Propylbenzene	9.17		"	10.0	91.7	78-133			3.32	30
o-Xylene	10.1		"	10.0	101	78-130			1.76	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
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### Batch BG80246 - EPA 5030B

LCS Dup (BG80246-BSD1)	Prepared & Analyzed: 07/06/2018										
p- & m- Xylenes	18.5		ug/L	20.0	92.4	77-133		2.51	30		
p-Isopropyltoluene	8.91		"	10.0	89.1	81-136		4.71	30		
sec-Butylbenzene	8.93		"	10.0	89.3	79-137		4.92	30		
Styrene	10.3		"	10.0	103	67-132		1.45	30		
tert-Butylbenzene	9.04		"	10.0	90.4	77-138		3.59	30		
Tetrachloroethylene	10.5		"	10.0	105	82-131		0.0954	30		
Toluene	9.77		"	10.0	97.7	80-127		2.53	30		
trans-1,2-Dichloroethylene	10.3		"	10.0	103	80-132		2.97	30		
trans-1,3-Dichloropropylene	9.74		"	10.0	97.4	78-131		1.83	30		
Trichloroethylene	9.75		"	10.0	97.5	82-128		0.617	30		
Trichlorofluoromethane	10.6		"	10.0	106	67-139		3.17	30		
Vinyl Chloride	9.80		"	10.0	98.0	58-145		3.21	30		
<i>Surrogate: 1,2-Dichloroethane-d4</i>	10.2		"	10.0	102	69-130					
<i>Surrogate: Toluene-d8</i>	9.62		"	10.0	96.2	81-117					
<i>Surrogate: p-Bromofluorobenzene</i>	9.31		"	10.0	93.1	79-122					



### Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
18G0081-01	WQ070218:1420 NP1-1-2	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



## Sample and Data Qualifiers Relating to This Work Order

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.

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).

### 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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**YORK**  
ANALYTICAL LABORATORIES LTD

## *Field Chain-of-Custody Record*

LABORATORIES

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# Technical Report

prepared for:

**WSP USA, Inc. (Shelton)**  
4 Research Drive, Suite 204  
Shelton CT, 06484  
**Attention: Tunde Komuves-Sandor**

Report Date: 07/10/2018

**Client Project ID: 31401451.00 task 01.00**  
York Project (SDG) No.: 18G0083

CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037



New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

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Report Date: 07/10/2018  
Client Project ID: 31401451.00 task 01.00  
York Project (SDG) No.: 18G0083

**WSP USA, Inc. (Shelton)**  
4 Research Drive, Suite 204  
Shelton CT, 06484  
Attention: Tunde Komuves-Sandor

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## 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 July 03, 2018 and listed below. The project was identified as your project: **31401451.00 task 01.00**.

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.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
18G0083-01	WQ070218:1350 FRW-1	Water	07/02/2018	07/03/2018
18G0083-02	WQ070218:1355 FRW-2	Water	07/02/2018	07/03/2018
18G0083-03	WQ070218:1400 FRW-3	Water	07/02/2018	07/03/2018
18G0083-04	WQ070218:1405 FRW-4	Water	07/02/2018	07/03/2018

## **General Notes for York Project (SDG) No.: 18G0083**

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:**



Benjamin Gulizia  
Laboratory Director

**Date:** 07/10/2018





## Sample Information

Client Sample ID: WQ070218:1350 FRW-1

York Sample ID: 18G0083-01

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
18G0083	31401451.00 task 01.00	Water	July 2, 2018 1:50 pm	07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

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: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	07/06/2018 07:30	07/06/2018 19:45	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS



## Sample Information

Client Sample ID: WQ070218:1350 FRW-1

York Sample ID: 18G0083-01

York Project (SDG) No.  
18G0083

Client Project ID  
31401451.00 task 01.00

Matrix  
Water

Collection Date/Time  
July 2, 2018 1:50 pm

Date Received  
07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
156-59-2	cis-1,2-Dichloroethylene	0.60		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS



## Sample Information

Client Sample ID: WQ070218:1350 FRW-1

York Sample ID: 18G0083-01

York Project (SDG) No.

18G0083

Client Project ID

31401451.00 task 01.00

Matrix

Water

Collection Date/Time

July 2, 2018 1:50 pm

Date Received

07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
127-18-4	<b>Tetrachloroethylene</b>	<b>22</b>		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
79-01-6	<b>Trichloroethylene</b>	<b>0.66</b>		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 19:45	SS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	07/06/2018 07:30	07/06/2018 19:45	SS

#### Surrogate Recoveries

#### Result

#### Acceptance Range

17060-07-0	Surrogate: 1,2-Dichloroethane-d4	97.6 %	69-130
2037-26-5	Surrogate: Toluene-d8	92.7 %	81-117
460-00-4	Surrogate: p-Bromofluorobenzene	99.6 %	79-122

### Nitrate as N

#### Log-in Notes:

#### Sample Notes:



## Sample Information

Client Sample ID: WQ070218:1350 FRW-1

York Sample ID: 18G0083-01

York Project (SDG) No.

18G0083

Client Project ID

31401451.00 task 01.00

Matrix

Water

Collection Date/Time

July 2, 2018 1:50 pm

Date Received

07/03/2018

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-55-8	Nitrate as N	0.870		mg/L	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/03/2018 20:16	07/03/2018 20:16	AD

### Nitrite as N

### Log-in Notes:

### Sample Notes:

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-65-0	Nitrite as N	ND		mg/L	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,PADEP	07/03/2018 20:16	07/03/2018 20:16	AD

## Sample Information

Client Sample ID: WQ070218:1355 FRW-2

York Sample ID: 18G0083-02

York Project (SDG) No.

18G0083

Client Project ID

31401451.00 task 01.00

Matrix

Water

Collection Date/Time

July 2, 2018 1:55 pm

Date Received

07/03/2018

### 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: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	07/06/2018 07:30	07/06/2018 20:17	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS



## Sample Information

Client Sample ID: WQ070218:1355 FRW-2

York Sample ID: 18G0083-02

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18G0083	31401451.00 task 01.00	Water	July 2, 2018 1:55 pm	07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS



## Sample Information

Client Sample ID: WQ070218:1355 FRW-2

York Sample ID: 18G0083-02

York Project (SDG) No.

18G0083

Client Project ID

31401451.00 task 01.00

Matrix

Water

Collection Date/Time

July 2, 2018 1:55 pm

Date Received

07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
127-18-4	Tetrachloroethylene	3.8		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS



## Sample Information

<u>Client Sample ID:</u> WQ070218:1355 FRW-2		<u>York Sample ID:</u> 18G0083-02
<u>York Project (SDG) No.</u> 18G0083	<u>Client Project ID</u> 31401451.00 task 01.00	<u>Matrix</u> Water <u>Collection Date/Time</u> July 2, 2018 1:55 pm <u>Date Received</u> 07/03/2018

### Volatile Organics, 8260 List - Low Level

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		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS		
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS		
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS		
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS		
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:17	SS		
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>										
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	98.0 %			69-130								
2037-26-5	Surrogate: Toluene-d8	92.5 %			81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	98.2 %			79-122								

### Nitrate as N

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-55-8	Nitrate as N	0.0820		mg/L	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/03/2018 20:34	07/03/2018 20:34	AD

### Nitrite as N

Sample Prepared by Method: EPA 300

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-65-0	Nitrite as N	ND		mg/L	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,PADEP	07/03/2018 20:34	07/03/2018 20:34	AD

## Sample Information

<u>Client Sample ID:</u> WQ070218:1400 FRW-3		<u>York Sample ID:</u> 18G0083-03
<u>York Project (SDG) No.</u> 18G0083	<u>Client Project ID</u> 31401451.00 task 01.00	<u>Matrix</u> Water <u>Collection Date/Time</u> July 2, 2018 2:00 pm <u>Date Received</u> 07/03/2018

### Volatile Organics, 8260 List - Low Level

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
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@	Page 10 of 28	



## Sample Information

Client Sample ID: WQ070218:1400 FRW-3

York Sample ID: 18G0083-03

York Project (SDG) No.

18G0083

Client Project ID

31401451.00 task 01.00

Matrix

Water

Collection Date/Time

July 2, 2018 2:00 pm

Date Received

07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

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: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	07/06/2018 07:30	07/06/2018 20:48	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS



## Sample Information

Client Sample ID: WQ070218:1400 FRW-3

York Sample ID: 18G0083-03

York Project (SDG) No.

18G0083

Client Project ID

31401451.00 task 01.00

Matrix

Water

Collection Date/Time

July 2, 2018 2:00 pm

Date Received

07/03/2018

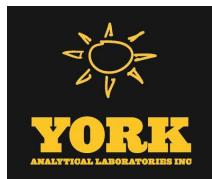
### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
108-90-7	Chlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
156-59-2	cis-1,2-Dichloroethylene	1.4		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS



## Sample Information

Client Sample ID: WQ070218:1400 FRW-3

York Sample ID: 18G0083-03

York Project (SDG) No.  
18G0083

Client Project ID  
31401451.00 task 01.00

Matrix  
Water

Collection Date/Time  
July 2, 2018 2:00 pm

Date Received  
07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
127-18-4	Tetrachloroethylene	49		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
79-01-6	Trichloroethylene	1.4		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 20:48	SS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	07/06/2018 07:30	07/06/2018 20:48	SS

Surrogate Recoveries	Result	Acceptance Range
17060-07-0 Surrogate: 1,2-Dichloroethane-d4	98.2 %	69-130
2037-26-5 Surrogate: Toluene-d8	92.9 %	81-117
460-00-4 Surrogate: p-Bromofluorobenzene	104 %	79-122

### Nitrate as N

Sample Prepared by Method: EPA 300

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
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@	Page 13 of 28	



## Sample Information

Client Sample ID: WQ070218:1400 FRW-3

York Sample ID: 18G0083-03

York Project (SDG) No.

18G0083

Client Project ID

31401451.00 task 01.00

Matrix

Water

Collection Date/Time

July 2, 2018 2:00 pm

Date Received

07/03/2018

### Nitrate as N

Sample Prepared by Method: EPA 300

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-55-8	Nitrate as N	1.02		mg/L	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/03/2018 20:52	07/03/2018 20:52	AD

### Nitrite as N

Sample Prepared by Method: EPA 300

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
14797-65-0	Nitrite as N	ND		mg/L	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,PADEP	07/03/2018 20:52	07/03/2018 20:52	AD

## Sample Information

Client Sample ID: WQ070218:1405 FRW-4

York Sample ID: 18G0083-04

York Project (SDG) No.

18G0083

Client Project ID

31401451.00 task 01.00

Matrix

Water

Collection Date/Time

July 2, 2018 2:05 pm

Date Received

07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

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: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	07/06/2018 07:30	07/06/2018 21:20	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS



## Sample Information

Client Sample ID: WQ070218:1405 FRW-4

York Sample ID:

18G0083-04

York Project (SDG) No.

18G0083

Client Project ID

31401451.00 task 01.00

Matrix

Water

Collection Date/Time

July 2, 2018 2:05 pm

Date Received

07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
95-49-8	2-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
591-78-6	2-Hexanone	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
106-43-4	4-Chlorotoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
67-64-1	Acetone	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
108-86-1	Bromobenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
74-97-5	Bromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
75-25-2	Bromoform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
74-83-9	Bromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS



## Sample Information

Client Sample ID: WQ070218:1405 FRW-4

York Sample ID: 18G0083-04

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
18G0083	31401451.00 task 01.00	Water	July 2, 2018 2:05 pm	07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

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: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
75-00-3	Chloroethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
67-66-3	Chloroform	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
74-87-3	Chloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
74-95-3	Dibromomethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
75-09-2	Methylene chloride	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
100-42-5	Styrene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	07/06/2018 07:30	07/06/2018 21:20	SS



## Sample Information

Client Sample ID: WQ070218:1405 FRW-4

York Sample ID: 18G0083-04

York Project (SDG) No.  
18G0083

Client Project ID  
31401451.00 task 01.00

Matrix  
Water

Collection Date/Time  
July 2, 2018 2:05 pm

Date Received  
07/03/2018

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
127-18-4	Tetrachloroethylene	1.7		ug/L	0.20	0.50	1	EPA 8260C	07/06/2018 07:30	07/06/2018 21:20	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C	07/06/2018 07:30	07/06/2018 21:20	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	07/06/2018 07:30	07/06/2018 21:20	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.20	0.50	1	EPA 8260C	07/06/2018 07:30	07/06/2018 21:20	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
79-01-6	Trichloroethylene	ND		ug/L	0.20	0.50	1	EPA 8260C	07/06/2018 07:30	07/06/2018 21:20	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-69-4	Trichlorofluoromethane	ND		ug/L	0.20	0.50	1	EPA 8260C	07/06/2018 07:30	07/06/2018 21:20	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
75-01-4	Vinyl Chloride	ND		ug/L	0.20	0.50	1	EPA 8260C	07/06/2018 07:30	07/06/2018 21:20	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP		
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C	07/06/2018 07:30	07/06/2018 21:20	SS
								Certifications:	CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP		
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	99.4 %	69-130								
2037-26-5	Surrogate: Toluene-d8	92.7 %	81-117								
460-00-4	Surrogate: p-Bromofluorobenzene	101 %	79-122								



## Analytical Batch Summary

**Batch ID:** BG80217

**Preparation Method:** EPA 300

**Prepared By:** AD

YORK Sample ID	Client Sample ID	Preparation Date
18G0083-01	WQ070218:1350 FRW-1	07/03/18
18G0083-02	WQ070218:1355 FRW-2	07/03/18
18G0083-03	WQ070218:1400 FRW-3	07/03/18
BG80217-BLK1	Blank	07/03/18
BG80217-BS1	LCS	07/03/18

**Batch ID:** BG80246

**Preparation Method:** EPA 5030B

**Prepared By:** TAB

YORK Sample ID	Client Sample ID	Preparation Date
18G0083-01	WQ070218:1350 FRW-1	07/06/18
18G0083-02	WQ070218:1355 FRW-2	07/06/18
18G0083-03	WQ070218:1400 FRW-3	07/06/18
18G0083-04	WQ070218:1405 FRW-4	07/06/18
BG80246-BLK1	Blank	07/06/18
BG80246-BS1	LCS	07/06/18
BG80246-BSD1	LCS Dup	07/06/18



## 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	RPD Limit	Flag
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### Batch BG80246 - EPA 5030B

#### Blank (BG80246-BLK1)

Prepared & Analyzed: 07/06/2018

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-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-Chlorotoluene	ND	0.50	"
2-Hexanone	ND	0.50	"
4-Chlorotoluene	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 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	"
Methylene chloride	ND	2.0	"
Naphthalene	ND	2.0	"
n-Butylbenzene	ND	0.50	"
n-Propylbenzene	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
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### Batch BG80246 - EPA 5030B

#### Blank (BG80246-BLK1)

											Prepared & Analyzed: 07/06/2018
o-Xylene	ND	0.50	ug/L								
p- & m- Xylenes	ND	1.0	"								
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	"								
<i>Surrogate: 1,2-Dichloroethane-d4</i>	10.5		"	10.0		105	69-130				
<i>Surrogate: Toluene-d8</i>	9.64		"	10.0		96.4	81-117				
<i>Surrogate: p-Bromofluorobenzene</i>	9.87		"	10.0		98.7	79-122				

#### LCS (BG80246-BS1)

											Prepared & Analyzed: 07/06/2018
1,1,1,2-Tetrachloroethane	10.4		ug/L	10.0		104	82-126				
1,1,1-Trichloroethane	11.1		"	10.0		111	78-136				
1,1,2,2-Tetrachloroethane	10.1		"	10.0		101	76-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.6		"	10.0		116	54-165				
1,1,2-Trichloroethane	10.8		"	10.0		108	82-123				
1,1-Dichloroethane	10.9		"	10.0		109	82-129				
1,1-Dichloroethylene	10.4		"	10.0		104	68-138				
1,1-Dichloropropylene	10.8		"	10.0		108	83-133				
1,2,3-Trichlorobenzene	10.2		"	10.0		102	76-136				
1,2,3-Trichloropropane	10.3		"	10.0		103	77-128				
1,2,4-Trichlorobenzene	9.45		"	10.0		94.5	76-137				
1,2,4-Trimethylbenzene	9.51		"	10.0		95.1	82-132				
1,2-Dibromo-3-chloropropane	10.1		"	10.0		101	45-147				
1,2-Dibromoethane	10.8		"	10.0		108	83-124				
1,2-Dichlorobenzene	9.57		"	10.0		95.7	79-123				
1,2-Dichloroethane	11.5		"	10.0		115	73-132				
1,2-Dichloropropane	9.92		"	10.0		99.2	78-126				
1,3,5-Trimethylbenzene	9.42		"	10.0		94.2	80-131				
1,3-Dichlorobenzene	9.65		"	10.0		96.5	86-122				
1,3-Dichloropropane	10.6		"	10.0		106	81-125				
1,4-Dichlorobenzene	9.43		"	10.0		94.3	85-124				
2,2-Dichloropropane	10.8		"	10.0		108	56-150				
2-Chlorotoluene	9.54		"	10.0		95.4	79-130				
2-Hexanone	11.2		"	10.0		112	51-146				
4-Chlorotoluene	9.53		"	10.0		95.3	79-128				
Acetone	13.7		"	10.0		137	14-150				
Benzene	11.0		"	10.0		110	85-126				
Bromobenzene	9.43		"	10.0		94.3	78-129				
Bromochloromethane	11.3		"	10.0		113	77-128				
Bromodichloromethane	10.2		"	10.0		102	79-128				
Bromoform	10.5		"	10.0		105	78-133				
Bromomethane	4.27		"	10.0		42.7	43-168	Low Bias			



## 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	RPD Limit	RPD Flag
<b>Batch BG80246 - EPA 5030B</b>											
<b>LCS (BG80246-BS1)</b>											
Prepared & Analyzed: 07/06/2018											
Carbon tetrachloride	11.0		ug/L	10.0	110		77-141				
Chlorobenzene	10.2		"	10.0	102		88-120				
Chloroethane	10.4		"	10.0	104		65-136				
Chloroform	11.2		"	10.0	112		82-128				
Chloromethane	7.87		"	10.0	78.7		43-155				
cis-1,2-Dichloroethylene	11.0		"	10.0	110		83-129				
cis-1,3-Dichloropropylene	10.0		"	10.0	100		80-131				
Dibromochloromethane	10.6		"	10.0	106		80-130				
Dibromomethane	10.6		"	10.0	106		72-134				
Dichlorodifluoromethane	9.21		"	10.0	92.1		44-144				
Ethyl Benzene	10.2		"	10.0	102		80-131				
Hexachlorobutadiene	8.13		"	10.0	81.3		67-146				
Isopropylbenzene	9.38		"	10.0	93.8		76-140				
Methyl tert-butyl ether (MTBE)	11.6		"	10.0	116		76-135				
Methylene chloride	8.50		"	10.0	85.0		55-137				
Naphthalene	10.6		"	10.0	106		70-147				
n-Butylbenzene	9.15		"	10.0	91.5		79-132				
n-Propylbenzene	9.48		"	10.0	94.8		78-133				
o-Xylene	10.3		"	10.0	103		78-130				
p- & m- Xylenes	19.0		"	20.0	94.8		77-133				
p-Isopropyltoluene	9.34		"	10.0	93.4		81-136				
sec-Butylbenzene	9.38		"	10.0	93.8		79-137				
Styrene	10.4		"	10.0	104		67-132				
tert-Butylbenzene	9.37		"	10.0	93.7		77-138				
Tetrachloroethylene	10.5		"	10.0	105		82-131				
Toluene	10.0		"	10.0	100		80-127				
trans-1,2-Dichloroethylene	10.6		"	10.0	106		80-132				
trans-1,3-Dichloropropylene	9.92		"	10.0	99.2		78-131				
Trichloroethylene	9.69		"	10.0	96.9		82-128				
Trichlorofluoromethane	10.9		"	10.0	109		67-139				
Vinyl Chloride	10.1		"	10.0	101		58-145				
<i>Surrogate: 1,2-Dichloroethane-d4</i>	10.4		"	10.0	104		69-130				
<i>Surrogate: Toluene-d8</i>	9.61		"	10.0	96.1		81-117				
<i>Surrogate: p-Bromofluorobenzene</i>	9.44		"	10.0	94.4		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
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### Batch BG80246 - EPA 5030B

LCS Dup (BG80246-BSD1)	Prepared & Analyzed: 07/06/2018									
1,1,1,2-Tetrachloroethane	10.4		ug/L	10.0	104	82-126			0.673	30
1,1,1-Trichloroethane	10.5		"	10.0	105	78-136			4.91	30
1,1,2,2-Tetrachloroethane	9.79		"	10.0	97.9	76-129			3.02	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.0		"	10.0	110	54-165			5.59	30
1,1,2-Trichloroethane	10.5		"	10.0	105	82-123			3.19	30
1,1-Dichloroethane	10.5		"	10.0	105	82-129			3.65	30
1,1-Dichloroethylene	9.93		"	10.0	99.3	68-138			4.33	30
1,1-Dichloropropylene	10.4		"	10.0	104	83-133			4.14	30
1,2,3-Trichlorobenzene	9.60		"	10.0	96.0	76-136			6.06	30
1,2,3-Trichloropropane	9.75		"	10.0	97.5	77-128			5.78	30
1,2,4-Trichlorobenzene	9.13		"	10.0	91.3	76-137			3.44	30
1,2,4-Trimethylbenzene	9.20		"	10.0	92.0	82-132			3.31	30
1,2-Dibromo-3-chloropropane	9.59		"	10.0	95.9	45-147			5.38	30
1,2-Dibromoethane	10.4		"	10.0	104	83-124			3.87	30
1,2-Dichlorobenzene	9.28		"	10.0	92.8	79-123			3.08	30
1,2-Dichloroethane	11.0		"	10.0	110	73-132			4.10	30
1,2-Dichloropropane	9.70		"	10.0	97.0	78-126			2.24	30
1,3,5-Trimethylbenzene	9.12		"	10.0	91.2	80-131			3.24	30
1,3-Dichlorobenzene	9.31		"	10.0	93.1	86-122			3.59	30
1,3-Dichloropropane	10.2		"	10.0	102	81-125			3.77	30
1,4-Dichlorobenzene	9.20		"	10.0	92.0	85-124			2.47	30
2,2-Dichloropropane	10.3		"	10.0	103	56-150			4.75	30
2-Chlorotoluene	9.20		"	10.0	92.0	79-130			3.63	30
2-Hexanone	11.0		"	10.0	110	51-146			1.89	30
4-Chlorotoluene	9.32		"	10.0	93.2	79-128			2.23	30
Acetone	16.2		"	10.0	162	14-150	High Bias		16.9	30
Benzene	10.6		"	10.0	106	85-126			2.87	30
Bromobenzene	9.07		"	10.0	90.7	78-129			3.89	30
Bromochloromethane	11.1		"	10.0	111	77-128			2.41	30
Bromodichloromethane	10.1		"	10.0	101	79-128			1.18	30
Bromoform	10.4		"	10.0	104	78-133			1.53	30
Bromomethane	4.72		"	10.0	47.2	43-168			10.0	30
Carbon tetrachloride	10.4		"	10.0	104	77-141			5.22	30
Chlorobenzene	10.2		"	10.0	102	88-120			0.293	30
Chloroethane	10.0		"	10.0	100	65-136			3.82	30
Chloroform	10.9		"	10.0	109	82-128			2.71	30
Chloromethane	7.91		"	10.0	79.1	43-155			0.507	30
cis-1,2-Dichloroethylene	10.7		"	10.0	107	83-129			2.75	30
cis-1,3-Dichloropropylene	9.72		"	10.0	97.2	80-131			2.94	30
Dibromochloromethane	10.3		"	10.0	103	80-130			2.68	30
Dibromomethane	10.3		"	10.0	103	72-134			3.26	30
Dichlorodifluoromethane	8.85		"	10.0	88.5	44-144			3.99	30
Ethyl Benzene	9.94		"	10.0	99.4	80-131			2.68	30
Hexachlorobutadiene	7.77		"	10.0	77.7	67-146			4.53	30
Isopropylbenzene	9.19		"	10.0	91.9	76-140			2.05	30
Methyl tert-butyl ether (MTBE)	11.2		"	10.0	112	76-135			3.08	30
Methylene chloride	8.28		"	10.0	82.8	55-137			2.62	30
Naphthalene	9.93		"	10.0	99.3	70-147			6.81	30
n-Butylbenzene	8.72		"	10.0	87.2	79-132			4.81	30
n-Propylbenzene	9.17		"	10.0	91.7	78-133			3.32	30
o-Xylene	10.1		"	10.0	101	78-130			1.76	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
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### Batch BG80246 - EPA 5030B

LCS Dup (BG80246-BSD1)	Prepared & Analyzed: 07/06/2018										
p- & m- Xylenes	18.5		ug/L	20.0	92.4	77-133			2.51	30	
p-Isopropyltoluene	8.91		"	10.0	89.1	81-136			4.71	30	
sec-Butylbenzene	8.93		"	10.0	89.3	79-137			4.92	30	
Styrene	10.3		"	10.0	103	67-132			1.45	30	
tert-Butylbenzene	9.04		"	10.0	90.4	77-138			3.59	30	
Tetrachloroethylene	10.5		"	10.0	105	82-131			0.0954	30	
Toluene	9.77		"	10.0	97.7	80-127			2.53	30	
trans-1,2-Dichloroethylene	10.3		"	10.0	103	80-132			2.97	30	
trans-1,3-Dichloropropylene	9.74		"	10.0	97.4	78-131			1.83	30	
Trichloroethylene	9.75		"	10.0	97.5	82-128			0.617	30	
Trichlorofluoromethane	10.6		"	10.0	106	67-139			3.17	30	
Vinyl Chloride	9.80		"	10.0	98.0	58-145			3.21	30	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	10.2		"	10.0	102	69-130					
<i>Surrogate: Toluene-d8</i>	9.62		"	10.0	96.2	81-117					
<i>Surrogate: p-Bromofluorobenzene</i>	9.31		"	10.0	93.1	79-122					



## Anions by Ion Chromatography - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD RPD	RPD Limit	RPD Flag
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### Batch BG80217 - EPA 300

#### Blank (BG80217-BLK1)

Nitrate as N	ND	0.0500	mg/L
Nitrite as N	ND	0.0500	"

Prepared & Analyzed: 07/03/2018

#### LCS (BG80217-BS1)

Nitrate as N	9.90	0.0500	mg/L	10.0	99.0	90-110
Nitrite as N	10.2	0.0500	"	10.0	102	90-110

Prepared & Analyzed: 07/03/2018



### Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
18G0083-01	WQ070218:1350 FRW-1	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
18G0083-02	WQ070218:1355 FRW-2	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
18G0083-03	WQ070218:1400 FRW-3	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
18G0083-04	WQ070218:1405 FRW-4	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



## Sample and Data Qualifiers Relating to This Work Order

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.

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).

### 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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