



PROJECT STATUS MEMORANDUM

TO: Pamela Tames, USEPA

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

SUBJECT: Rowe Industries Superfund Site
NYS Site ID No. 152106
Groundwater Recovery and Treatment System
DRAFT March 2019 Status Report

DATE: July 22, 2019

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 March 1, 2019 through March 31, 2019. 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

(March 1, 2019 through March 31, 2019)

- | | |
|---|--------------------------|
| 1. Hours of operation during the reporting period: | 724 hours (97.4%) |
| 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: | 1,431,416 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: | 0.03 pound (see Graph 2) |
| 7. Cumulative mass of VOCs recovered since startup on 12/17/02: | 229.7 pounds |
- (calculations can be provided upon request)



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 ^{1/}	967,967	0.8
FRW-1 ^{2/}	120,400	14.6
FRW-2 ^{2/}	14,184	17.7
FRW-3 ^{2/}	0	44.0
FRW-4 ^{2/}	148,206	1.4

^{1/} The above table summarizes the parameters for RW-2 from March 1 to March 31, 2019.

^{2/} The above table summarizes the parameters for the FRWs from March 1, 2019 to April 2, 2019. The FRW flow meter totalizers were not advancing from March 1 to March 19; therefore, an estimate of the flow for each FRW was calculated based on the totalizer reading for the FP&T transfer pump and the percentage of water pumped from each active FRW. FRW-3 was not operational in March due to failure of its motor; replacement of the motor is scheduled during the well rehabilitation and annual maintenance activities, which will occur from April 22 to May 3.

On March 1, 2019, troubleshooting maintenance was conducted to address the EQ tank high-level alarm from February 18th. Troubleshooting consisted of checking the sensor in the EQ tank using an ohmmeter and the sensor was operating normally. The alarms were cleared. The computer and the program were rebooted and restarted. Following these actions, the transfer pump cycled successfully, and the system was monitored for two cycles and was operating normally. Additional details about system maintenance work are included in Table 1.

SUMMARY OF SAMPLING ACTIVITIES

March 2019 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 on March 19, 2019
- Semi-annual groundwater samples were collected from MW98-01A, 04, 04B, 05AR, 05BR, 45A, 45B and the results of these samples will be included in the March 2019 Semi-Annual Groundwater Quality Update Report.

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 eight years.

PCE concentrations in FRW-1, 2 and 3 remain above the ARAR in March. The PCE concentration in the groundwater sample collected at FRW-4 was below the ARAR in March. The TCE, cis-DCE, TCA



and VC concentrations in the groundwater samples collected at FRW-1, 2, 3 and 4 were below their respective ARARs in March.

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

FUTURE O&M ACTIVITIES

O&M activities scheduled for April 2019 include:

- Conduct annual recovery well rehabilitation and annual system maintenance activities including maintenance related to FRW-3; 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
Rebecca Spellissy, 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**

**MAINTENANCE LOG
 (March 1, 2019 through March 31, 2019)**

Date	Time	System Changes/Modifications	Personnel
3/1/19		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
	12:50 pm	Troubleshooting of the high-level alarm consisted of checking the sensor in the EQ tank using an ohm meter and the sensor is operating normally. The alarms were cleared. The computer and the program were rebooted and restarted. Following these actions, the transfer pump cycled successfully, and the system was monitored for two cycles and was operating normally.	EF
		Iron fouling removed from flow meter paddle wheels for FRW wells.	EF
		The pump motor in FRW-3 burned out and is not operating. A replacement pump will be ordered. The pump will be replaced during the annual maintenance/well rehabilitation work, which is scheduled to start in late April.	EF
3/4/19	2:25 am	Power failure alarm; system shuts off.	
	9:05 am	The alarm was reset, and the system was restarted.	JF
3/5/19		Potable water was discovered leaking from the RPZ valve; the potable water line was shut off. The leak was repaired for the potable water line and the potable water service was restored. Additional insulation was placed around the pipe and valve to help insulate against the cold. Jamie spot checks the system operation and it is continuing to operate without issue.	JF, GF Schiavoni
3/19/19		FRW flow meter totalizers were not advancing. Resetting and clearing each FRW flow meter display initiated the totalizers to start advancing. FRW flow meters were monitored for several cycles and the flow totalizers continued to advance.	EF
		Iron fouling removed from flow meter paddle wheels for FRW wells.	EF

Notes:

EF Evan Foster, WSP USA
 JF Jamie Forrester, WSP USA

H:\NABIS\2019\Monthly Reports\March\Table 1 Maintenance Record.docx

TABLE 2

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

Effluent Water Quality Results

Date Sampled ^{2/}	pH ^{1/}	TDS ^{4/} (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)
SPDES Limits	6.5 to 8.5	---	5	5	5	5	5	5	5	5	5	5	5	---	10	7	---	---
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	0.0337
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	0.0492
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	0.252	ND<0.278
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
28-Aug-18	6.9	NA	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	0.124	0.125
21-Sep-18	6.8	155	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	7.48	0.0369
5-Oct-18	6.9	145	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	1.66	ND<0.278
1-Nov-18	6.8	193	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<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	0.838	ND<0.278
5-Dec-18	6.9	100	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<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	0.845	ND<0.278
3-Jan-19	6.9	85	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<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	1.32	ND<0.278
1-Feb-19	6.9	126	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<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	0.641	ND<0.278
1-Mar-19	6.9	142	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<0.5	ND<2	ND<0.5	ND<0.5	ND<0.5	6.31	ND<0.278

SPDES: State Pollutant Discharge Elimination System

mg/l: Milligrams per liter

ug/l: Micrograms per liter

----: Not established

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 NA: Not Analyzed

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

Notes:

1. 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 March 19, 2019 was 6.9.
2. "Effluent" samples were collected from sample port labeled NP2-10 unless otherwise noted.
3. 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.
4. The laboratory mistakenly forgot to analyze the system effluent sample collected on August 28, 2018 for total dissolved solids (TDS).
5. The pH was inadvertently not measured.

TABLE 3

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

Recovery Well Water Quality Results

Recovery Well ^{1/}	Date Sampled	PCE (ug/L)	TCE (ug/L)	TCA (ug/L)	Chloroform (ug/L)	MTBE (ug/L)	1,1-Dichloro-ethane (ug/L)	cis-1,2-Dichloro-ethene (ug/L)	1,1-Dichloro-ethene (ug/L)	Methylene Chloride (ug/L)	Toluene (ug/L)	Benzene (ug/L)	m,p-Xylene (ug/L)	o-Xylene (ug/L)
	ARAR's	5	5	5	7	NE	5	5	5	5	NE	NE	5	5
RW-2	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<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<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<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<1	ND<0.5
	1-Jun-17	0.29 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
	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<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<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<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<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<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<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<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<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<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<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<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<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<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	28-Aug-18	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
	21-Sep-18	0.370	0.260	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-Oct-18	0.250	ND<0.5	ND<0.5	0.370	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-18	ND<0.5	ND<0.5	ND<0.5	0.290	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-18	0.300 C,S	0.380	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-19	0.320	0.310	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-19	0.380	0.360 Q	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-19	0.320	0.200	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

PCE: Tetrachloroethylene
MTBE: Methyl-tertiary-butyl-ether

TCE: Trichloroethylene
NS: Not sampled

TCA: 1,1,1-Trichloroethane

ND: Not detected
<#: 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.

C = CCV-E: The value reported is estimated The value is estimated due to its behavior during continuing calibration verification.

S = SCAL-E: The value reported is estimated. The value is estimated due to its behavior during initial calibration.

Q = QL-02: This LCS analyte is outside Laboratory Recovery limits due to the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.

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 exceedence of the ARAR standard established for the site.

^{1/} 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	Bromomethane	Acetone
ARARs	5	5	5	2 ^{1/}	5	5	5 ^{1/}	5	5 ^{1/}	NE
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
The FRWs were off between March 24 and March 29, 2017										
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 S,J
The FRWs were off from April 17 to April 26, 2017 and April 27 to May 1, 2017										
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
The FRWs were off from June 7 to June 9 and from June 21 to 23, 2017										
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
The FRWs were off from July 31 to August 28, 2017										
1-Aug-17 ^{2/}	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
The FRWs were off from September 13 to 19 and from September 27 to October 4, 2017										
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
The FRWs were off from October 11 to October 16, 2017 and October 29 to 31, 2017										
1-Nov-17	72	1.3	1.7	ND<0.5	0.37 C,J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off from November 12 to December 5, 2017										
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
FRW-1 was off from December 6 to 12 and December 24, 2017 to February 9, 2018										
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
The FRWs were off between March 15 and 26, 2018 and March 27 and 29, 2018										
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 C,S,J
The FRWs were off between April 17 and 23, 2018 and April 26 and May 2, 2018										
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
The FRWs were off from May 20 to June 5, 2018 and June 18 to 20, 2018										
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
The FRWs were off from July 2 to September 21, 2018										
28-Aug-18 ^{3/4}	7.26	4.16	9.05 C	0.220	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	11.1 I
21-Sep-18	20.2	1.25	2.43	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
5-Oct-18	1.19	ND<0.5	0.280	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off from October 27 to October 29, 2018										
1-Nov-18	5.12	0.780	3.30	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
5-Dec-18	43.0 C,S	1.06	0.74	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
3-Jan-19	18.8	0.450	0.290	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off from January 5 to January 15, 2019										
1-Feb-19	61.2	0.550	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off from February 18 to March 1, 2019										
19-Mar-19	13.4 I	0.770	0.450	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2

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.
 3. Tetrahydrofuran, a common industrial solvent for polyvinyl chloride (PVC) and a component in varnishes, and a popular solvent used in laboratories was detected in the groundwater sample at 278 ug/L. However it was not detected in the laboratory blank or the laboratory duplicates. This is not a compound typically detected in groundwater samples from the site. Turned wells on only long enough to collect sample.
 4. Other non-target COCs (tert-butyl alcohol, 2-butanone and/or acetone) were detected in the August 28, 2018 sample. For the case of acetone, this is a common laboratory artifact. The detections of the remaining non-target COCs is most likely attributed to collecting the sample that remained in close contact with PVC pipes for an extended time (i.e. from July 2 to August 28, 2018). Other than acetone, non-target COCs were not detected to any significant degree in the groundwater sample collected on September 21, 2018.
- J : Analyte 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.
B: Method blank contamination, the associated method blank contains the target analyte at a reportable level.
C = CCV-E: The value reported is estimated. The value is estimated due to its behavior during continuing calibration verification.
S = SCAL-E: The value reported is estimated. The value is estimated due to its behavior during initial calibration (average RF>20%).
I = ICV-E: The value reported is estimated. The value is estimated due to its behavior during initial calibration verification (recovery exceeded 30% of expected value).
ND: Not detected
ARARs - Applicable Relevant and Appropriate Requirements for aquifer restoration established for the Site.

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

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

FRW-2								
Date	PCE	TCE	cis12DCE	VC	TCA	Toluene	2-Hexanone	Acetone
ARARs	5	5	5	2 ^{1/}	5	5	NE	NE
1-Mar-17	40 C	1.0	0.52	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off between March 24 and March 29, 2017								
7-Apr-17	93	2.6	1.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.1 S
The FRWs were off from April 17 to April 26, 2017 and April 27 to May 1, 2017								
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
The FRW-2 was off from June 7 to June 9 and from June 21 to 29, 2017								
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 S,J
The FRWs were off from July 31 to August 28, 2017								
1-Aug-17 ^{2/}	7.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.1 S
5-Sep-17	33	0.85	0.59	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off from September 13 to 19 and from September 27 to October 4, 2017								
4-Oct-17	50	2.7	0.91	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.0
The FRWs were off from October 11 to October 16, 2017 and October 29 to 31, 2017								
1-Nov-17	45	0.76	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off from November 12 to 16, 2017 and November 26 to 27, 2017								
5-Dec-17	38	3.4	1.6	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off from December 24, 2017 to February 9, 2018								
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	0.68	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off between March 15 and 26, 2018 and March 27 and 29, 2018								
2-Apr-18	140	1.2	0.36 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off between April 17 and 23, 2018 and April 26 and May 2, 2018								
2-May-18	29	0.92	0.29 J	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.6
The FRWs were off from May 20 to June 5, 2018 and June 18 to 20, 2018								
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
The FRWs were off from July 2 to September 21, 2018								
28-Aug-18 ^{3/4}	ND<0.5	0.300	29.0 C	2.48	ND<0.5	0.510	ND<0.5	ND<2
21-Sep-18	11.9	1.83	14.5	0.730	ND<0.5	ND<0.5	ND<0.5	2.06
5-Oct-18	1.86	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off from October 27 to October 29, 2018								
1-Nov-18	3.20	0.610	0.950	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
5-Dec-18	19.1 C,S	0.590	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.00 C
3-Jan-19	13.8	0.670	1.69	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off from January 5 to January 15, 2019								
1-Feb-19	16.2	0.980	1.00	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off from February 18 to March 1, 2019								
19-Mar-19	15.2 I	0.950	1.54	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2

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

1. NYSDCE 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.

3. Tetrahydrofuran, a common industrial solvent for polyvinyl chloride (PVC) and a component in varnishes, and a popular solvent used in laboratories was detected in the groundwater sample at 204 ug/L. However it was not detected in the laboratory blank or the laboratory duplicates. This is not a compound typically detected in groundwater samples from the site. Turned wells on only temporarily to collect groundwater sample.

4. Other non-target COCs (tert-butyl alcohol, 2-butanone and/or acetone) were detected in the August 28, 2018 sample. For the case of acetone, this is a common laboratory artifact. The detections of the remaining non-target COCs is most likely attributed to collecting the sample that remained in close contact with PVC pipes for an extended time (i.e. from July 2 to August 28, 2018). Other than acetone, non-target COCs were not detected to any significant degree in the groundwater sample collected on September 21, 2018.

J : Analyte 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.

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

C = CCV-E: The value reported is estimated. The value is estimated due to its behavior during continuing calibration verification.

S = SCAL-E: The value reported is estimated. The value is estimated due to its behavior during initial calibration (average RF>20%).

I = ICV-E: The value reported is estimated. The value is estimated due to its behavior during initial calibration verification (recovery exceeded 30% of expected value).

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: Trichloroethene
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 ^{1/}	5	5	5 ^{1/}	5 ^{1/}	5 ^{1/}	5	NE	NE
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
The FRWs were off between March 24 and March 29, 2017												
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
FRW-3 was off from April 17 to April 26, 2017 and April 27 to May 11, 2017												
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
FRW-3 was off from May 17 to June 1, 2017												
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 C,J,B
The FRWs were off from June 7 to June 9 and from June 21 to 23, 2017												
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 S
The FRWs were off from July 31 to August 28, 2017												
1-Aug-17 ^{2/}	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 S,J
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
The FRWs were off from September 13 to 19 and from September 27 to October 4, 2017												
4-Oct-17	21	6.0	15	1.2 C	ND<0.5	ND<0.5	ND<0.5	0.48 C,J	0.40 C,J	ND<0.5	ND<0.5	2.7
The FRWs were off from October 11 to October 16, 2017 and October 29 to 31, 2017												
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
The FRWs were off from November 12 to 16, 2017 and November 26 to 27, 2017												
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
The FRWs were off from December 24, 2017 to February 9, 2018												
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
The FRWs were off between March 15 and 26, 2018 and March 27 and 29, 2018												
2-Apr-18	170	4.5	7.9	0.25 C,J	ND<0.5	0.71	ND<0.5	0.20 J	ND<0.5	ND<0.5	ND<0.5	1.2 C,S,J
The FRWs were off between April 17 and 23, 2018 and April 26 and May 2, 2018												
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
The FRWs were off from May 20 to June 5, 2018 and June 18 to 20, 2018												
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
The FRWs were off from July 2 to September 21, 2018												
28-Aug-18 ^{3/}	6.16	0.990	20.3 C	0.840	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.77 I
21-Sep-18	19.6	2.99	19.8	2.04	ND<0.5	ND<0.5	ND<0.5	0.220 J	0.300 J	ND<0.5	ND<0.5	1.53
5-Oct-18	0.730	0.530	4.31	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
The FRWs were off from October 27 to October 29, 2018												
1-Nov-18	2.89	0.810	3.37	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
5-Dec-18	109 C,S	6.83	6.98	ND<0.5	ND<0.5	0.570	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.97 C
3-Jan-19	89.4	2.41	7.30	ND<0.5	ND<0.5	0.420	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off from January 5 to January 15, 2019												
1-Feb-19	76.4	1.41	3.69	ND<0.5	ND<0.5	0.330	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
FRW-3 was off from February 18 to March 31, 2019												
3/19/2019 ^{4/}	38.8 I	1.03	3.93	ND<0.5	ND<0.5	0.240	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2

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

1. NYSDCE 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.
3. Other non-target COCs (tert-butyl alcohol, 2-butanone and/or acetone) were detected in the August 28, 2018 sample. For the case of acetone, this is a common laboratory artifact. The detections of the remaining non-target COCs is most likely attributed to collecting the sample that remained in close contact with PVC pipes for an extended time (i.e. from July 2 to August 28, 2018). Other than acetone, non-target COCs were not detected to any significant degree in the groundwater sample collected on September 21, 2018.
4. The FRW-3 pump is inoperable; therefore, the groundwater sample was collected using low-flow sampling techniques during the March 2019 semi-annual groundwater sampling event.

J: Analyte 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.

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

C = CCV-E: The value reported is estimated. The value is estimated due to its behavior during continuing calibration verification.

S = SCAL-E: The value reported is estimated. The value is estimated due to its behavior during initial calibration (average RF>20%).

I = ICV-E: The value reported is estimated. The value is estimated due to its behavior during initial calibration verification (recovery exceeded 30% of expected value).

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 ^{1/}	5	NE
1-Mar-17	4.0 C	0.60	2.2	ND<0.5	ND<0.5	ND<2
The FRWs were off between March 24 and March 29, 2017						
7-Apr-17	7.6	1.2	2.9	ND<0.5	ND<0.5	1.3 S,J
The FRWs were off from April 17 to April 26, 2017 and April 27 to May 1, 2017						
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
The FRWs were off from June 7 to June 9 and from June 21 to 23, 2017						
6-Jul-17	0.27 J	ND<0.5	0.28 J	ND<0.5	ND<0.5	1.1 S,J
The FRWs were off from July 31 to August 28, 2017						
1-Aug-17 ^{2/}	0.80	ND<0.5	0.28 J	ND<0.5	ND<0.5	1.6 S,J
5-Sep-17	2.7	0.42 J	0.51	ND<0.5	ND<0.5	ND<2
The FRWs were off from September 13 to 19 and from September 27 to October 4, 2017						
4-Oct-17	9.8	3.9	4.1	ND<0.5	ND<0.5	ND<2
The FRWs were off from October 11 to October 16, 2017 and October 29 to 31, 2017						
1-Nov-17	3.0	0.32 J	0.78	ND<0.5	ND<0.5	ND<2
The FRWs were off from November 12 to 16, 2017 and November 26 to 27, 2017						
5-Dec-17	5.1	ND<0.5	1.0	ND<0.5	ND<0.5	ND<2
The FRWs were off from December 24, 2017 to February 9, 2018						
1-Feb-18	21	2.5	7.0	ND<0.5	0.27 J	2.5 S
1-Mar-18	3.0	ND<0.5	0.47 J	ND<0.5	ND<0.5	ND<2
The FRWs were off between March 15 and 26, 2018 and March 27 and 29, 2018						
2-Apr-18	3.2	ND<0.5	1.0	ND<0.5	0.32 J	ND<2
The FRWs were off between April 17 and 23, 2018 and April 26 and May 2, 2018						
2-May-18	19	ND<0.5	1.1	ND<0.5	ND<0.5	ND<2
The FRWs were off from May 20 to June 5, 2018 and June 18 to 20, 2018						
20-Jun-18	1.4	0.22 J	ND<0.5	ND<0.5	ND<0.5	1.5 J
2-Jul-18	1.7	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2
The FRWs were off from July 2 to September 21, 2018						
28-Aug-18 ^{3/4}	ND<0.5	0.450	4.95 C	ND<0.5	ND<0.5	10.3 I
21-Sep-18	4.21	1.02	1.38	ND<0.5	ND<0.5	ND<2
5-Oct-18	0.260	ND<0.5	0.630	ND<0.5	ND<0.5	1.23 C,S
The FRWs were off from October 27 to October 29, 2018						
1-Nov-18	0.870	0.280	1.49	ND<0.5	ND<0.5	ND<2
5-Dec-18	2.36 C,S	0.45	0.650	ND<0.5	ND<0.5	ND<2
3-Jan-19	1.28	ND<0.5	0.960	ND<0.5	ND<0.5	ND<2
The FRWs were off from January 5 to January 15, 2019						
1-Feb-19	1.22	ND<0.5	0.200	ND<0.5	ND<0.5	ND<2
The FRWs were off from February 18 to March 1, 2019						
19-Mar-19	1.02 I	ND<0.5	0.490	ND<0.5	ND<0.5	ND<2

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.
3. Tetrahydrofuran, a common industrial solvent for polyvinyl chloride (PVC) and a component in varnishes, and a popular solvent used in laboratories was detected in the groundwater sample at 308 ug/L. However it was not detected in the laboratory blank or the laboratory duplicates. This is not a compound typically detected in groundwater samples from the site.
4. Other non-target COCs (tert-butyl alcohol, 2-butanone and/or acetone) were detected in the August 28, 2018 sample. For the case of acetone, this is a common laboratory artifact. The detections of the remaining non-target COCs is most likely attributed to collecting the sample that remained in close contact with PVC pipes for an extended time (i.e. from July 2 to August 28, 2018). Other than acetone, non-target COCs were not detected to any significant degree in the groundwater sample collected on September 21, 2018.

J : Analyte 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.

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

C = CCV-E: The value reported is estimated. The value is estimated due to its behavior during continuing calibration verification.

S = SCAL-E: The value reported is estimated. The value is estimated due to its behavior during initial calibration (average RF>20%).

I = ICV-E: The value reported is estimated. The value is estimated due to its behavior during initial calibration verification (recovery exceeded 30% of expected value).

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.

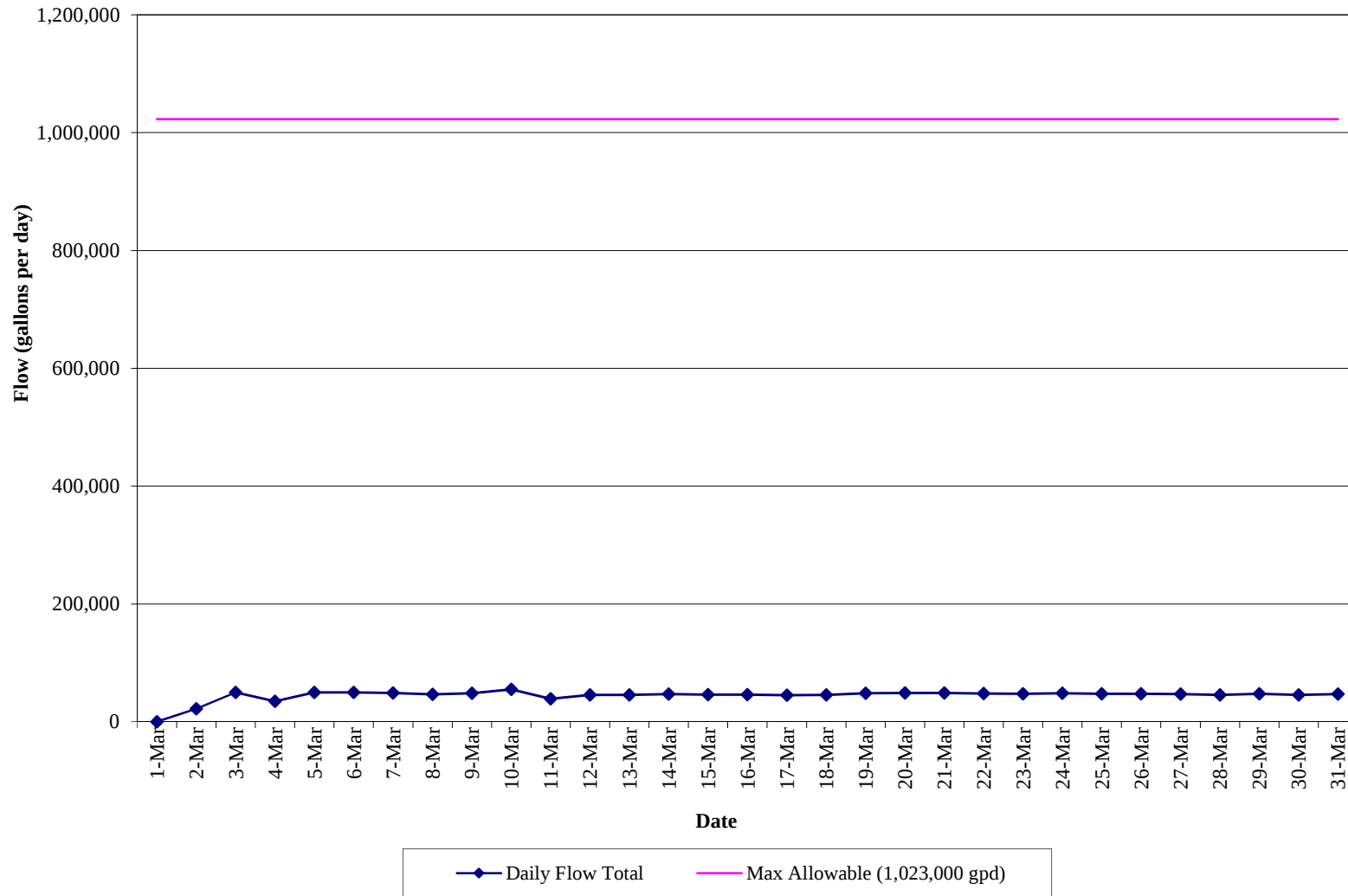
PCE: Tetrachloroethylene
cis12DCE: cis-1,2-Dichloroethene
TCA: 1,1,1-Trichloroethane

TCE: Trichloroethene
VC: Vinyl Chloride

GRAPHS

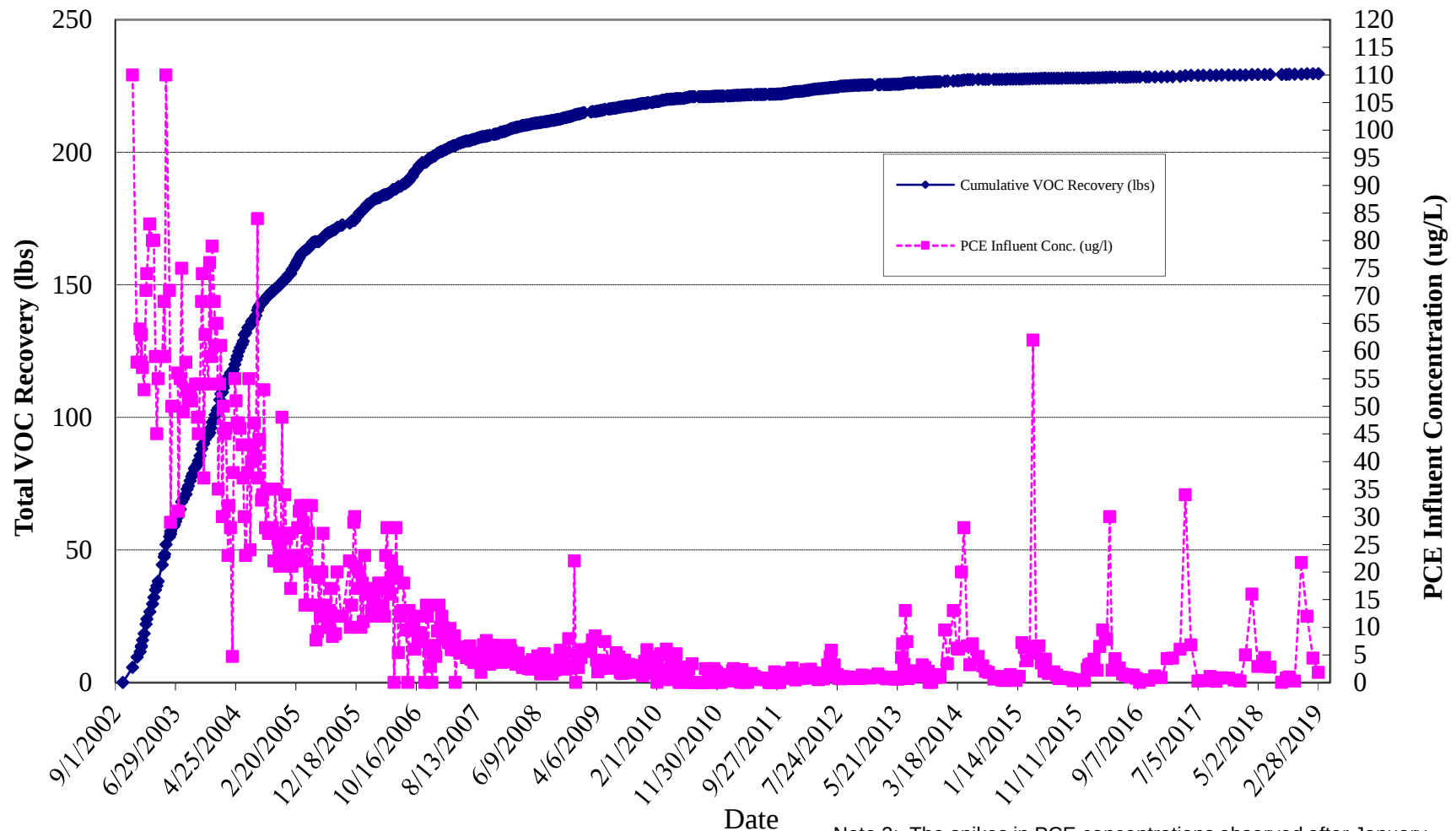
GRAPH 1
GROUNDWATER REMEDIAL ACTION
ROWE INDUSTRIES SUPERFUND SITE
SAG HARBOR, NEW YORK

Effluent Flow Data
(March 1, 2019 to March 31, 2019)



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

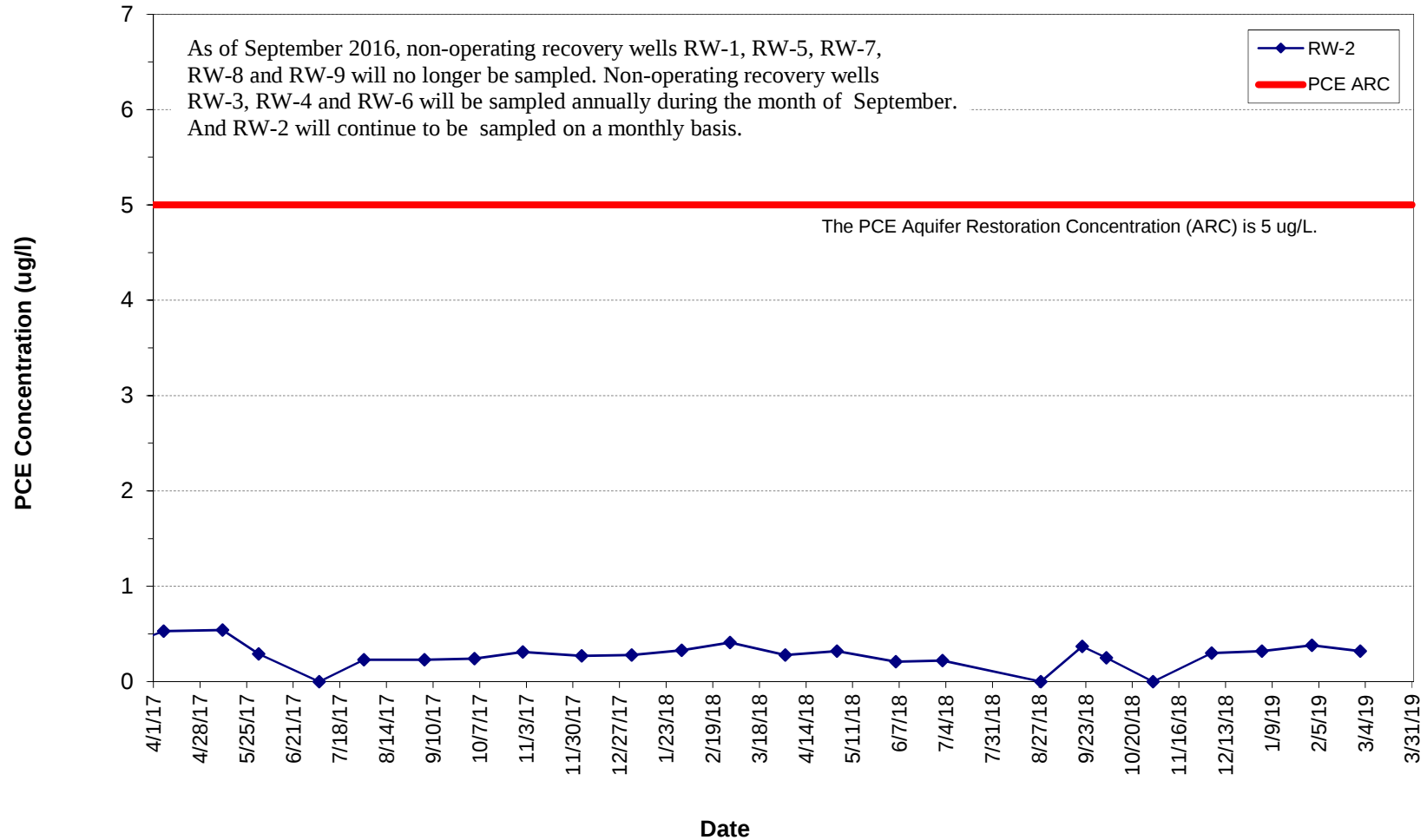


Note 1 : After September 22, 2008, the water recovered from the FP&T System is included in the results shown in this graph.

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.

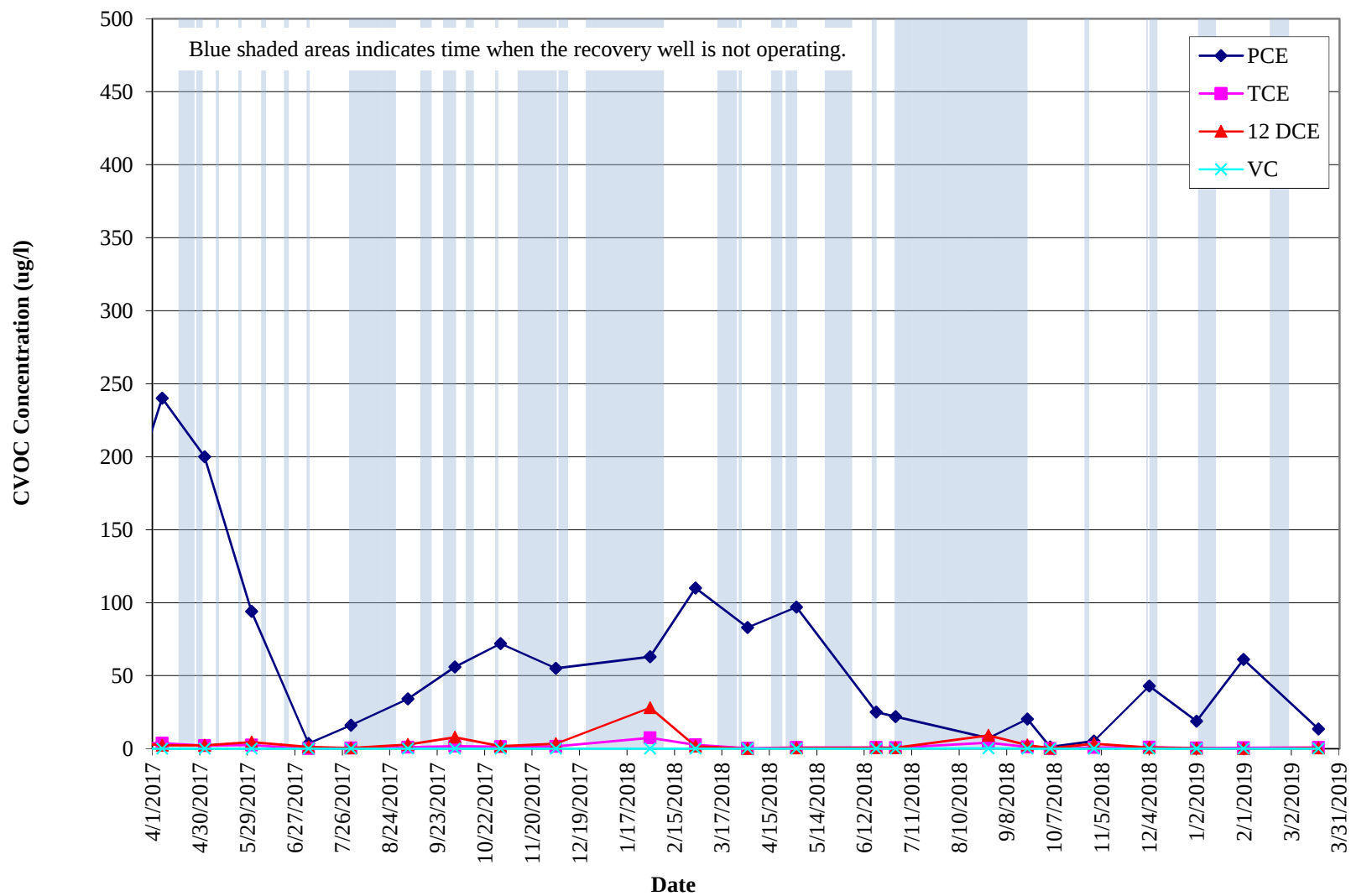
GRAPH 3 **GROUNDWATER REMEDIAL ACTION** **ROWE INDUSTRIES SUPERFUND SITE** **SAG HARBOR, NEW YORK**

FSP&T Recovery Well PCE Concentration



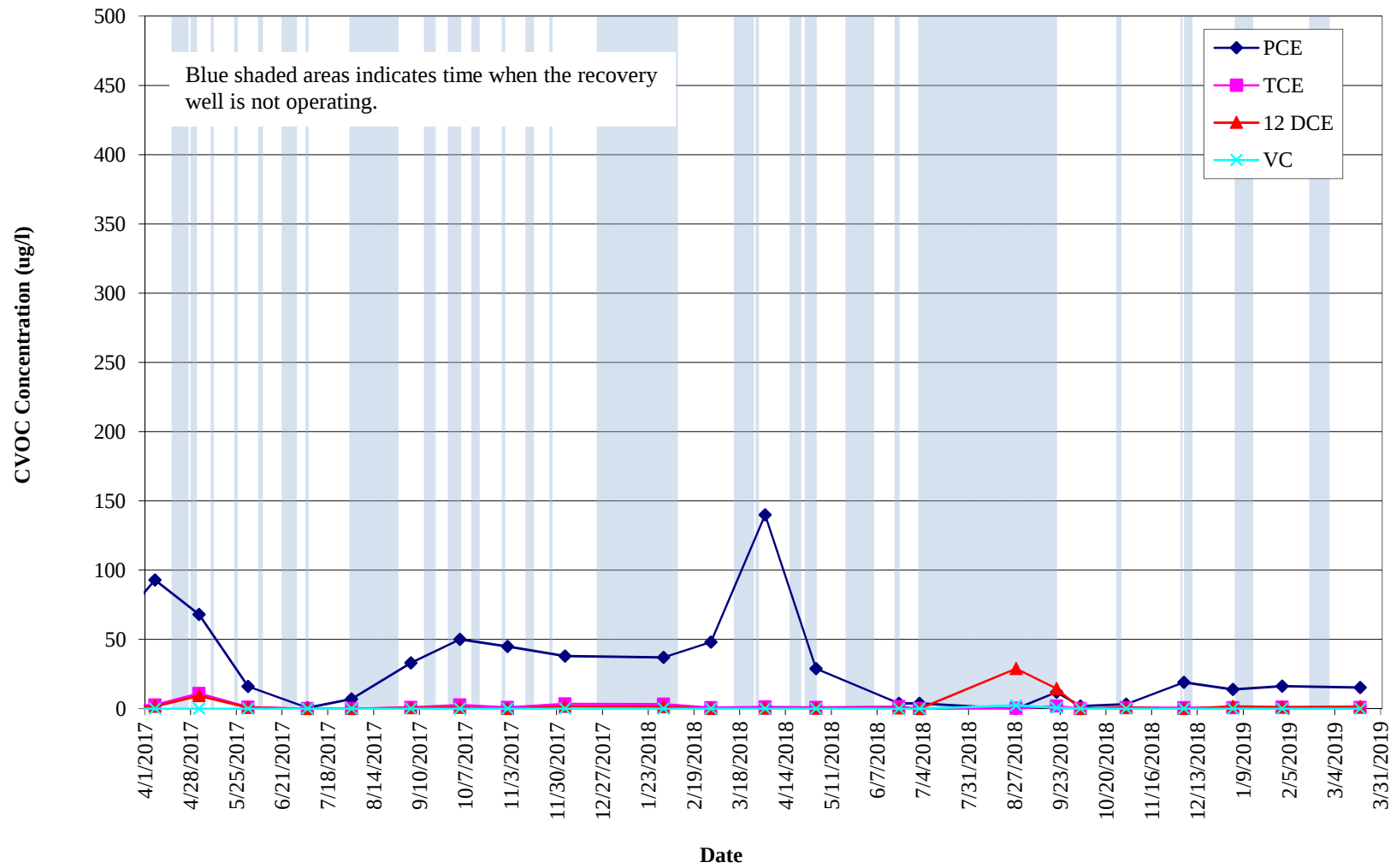
GRAPH 4
GROUNDWATER REMEDIAL ACTION
ROWE INDUSTRIES SUPERFUND SITE
SAG HARBOR, NEW YORK

FP&T Recovery Well VOC Concentrations for FRW-1



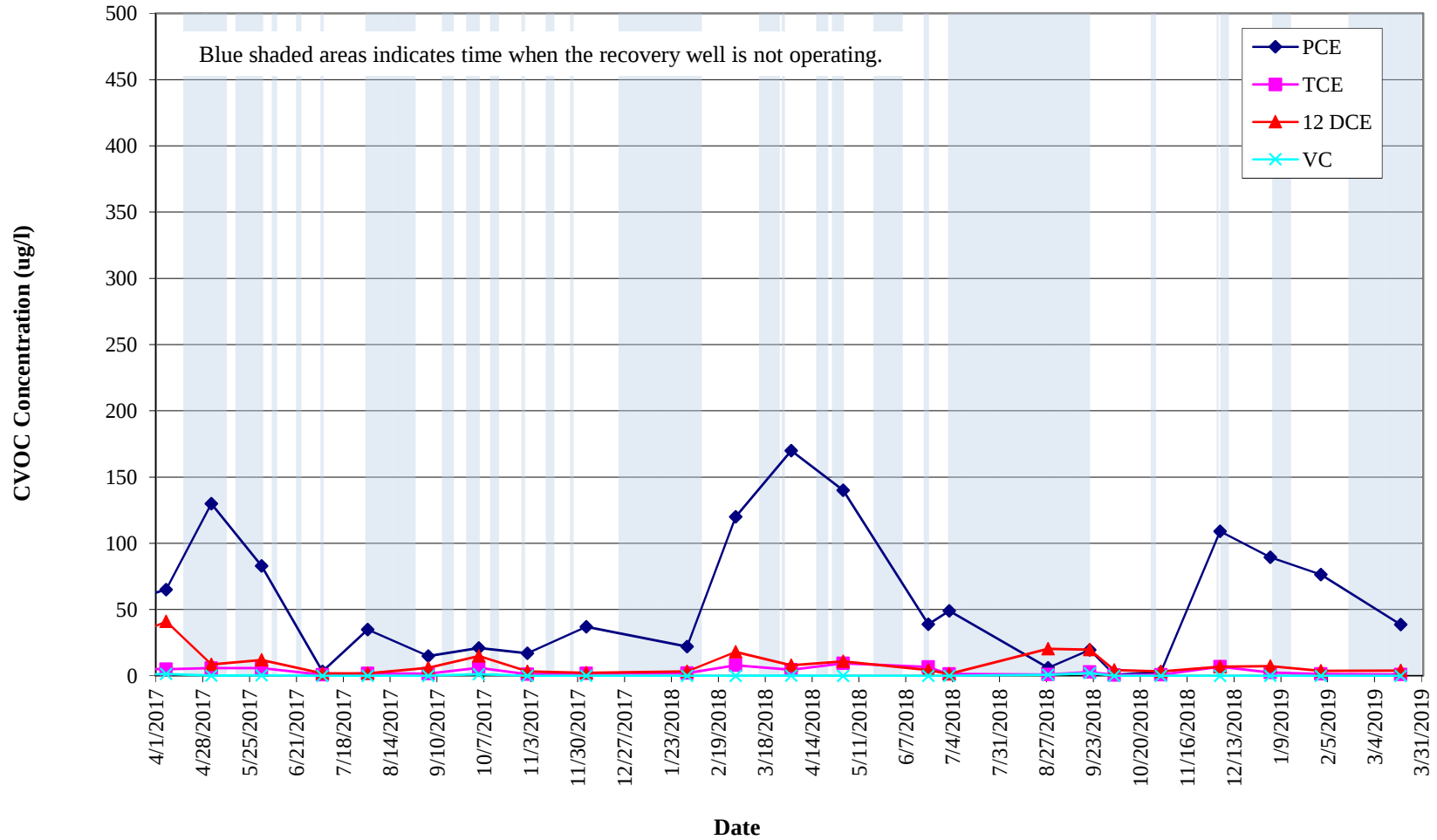
GRAPH 5
GROUNDWATER REMEDIAL ACTION
ROWE INDUSTRIES SUPERFUND SITE
SAG HARBOR, NEW YORK

FP&T Recovery Well VOC Concentrations for FRW-2



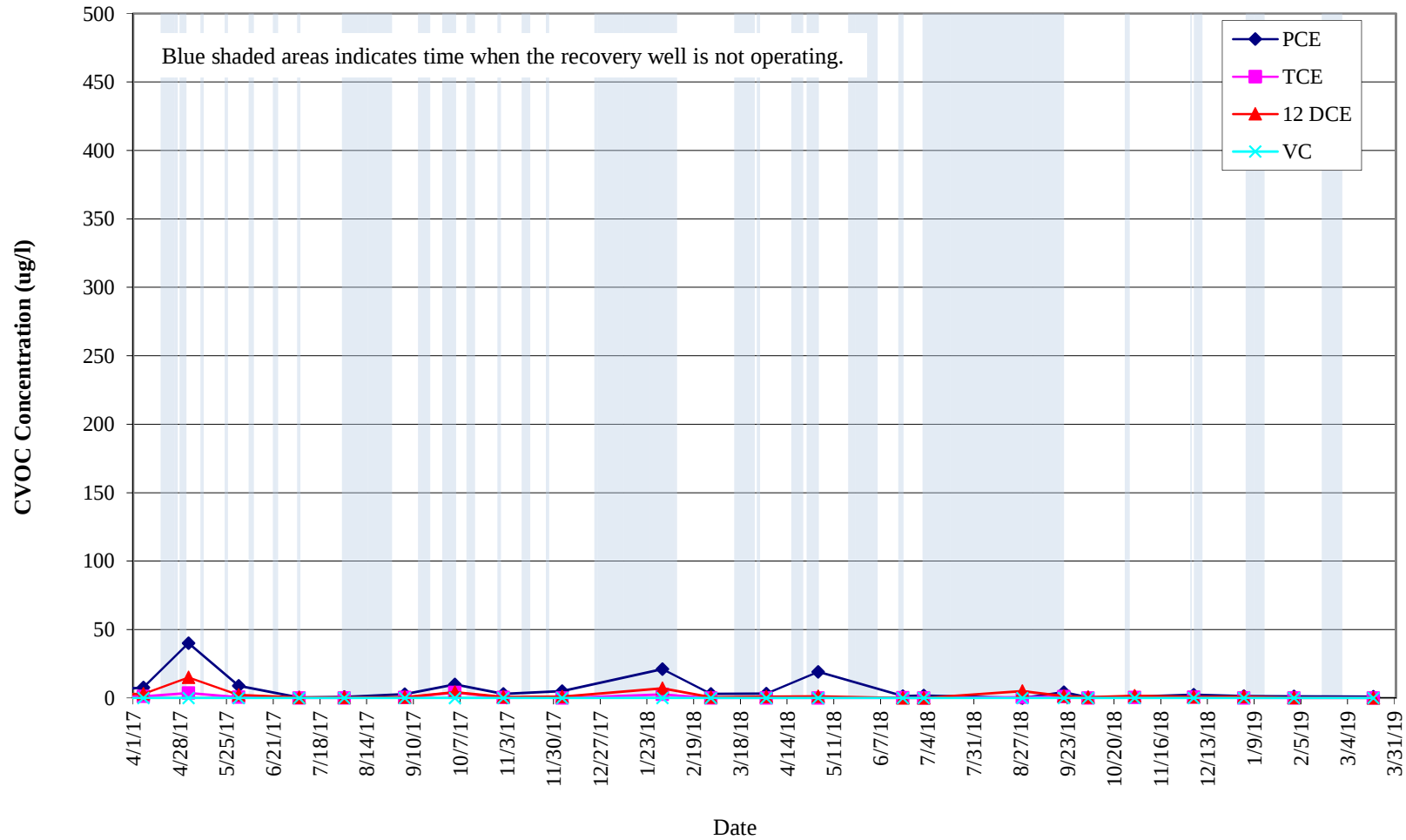
GRAPH 6
GROUNDWATER REMEDIAL ACTION
ROWE INDUSTRIES SUPERFUND SITE
SAG HARBOR, NEW YORK

FP&T Recovery Well VOC Concentrations for FRW-3

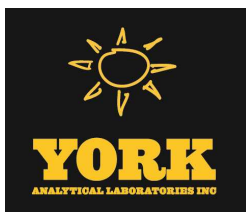


GRAPH 7
GROUNDWATER REMEDIAL ACTION
ROWE INDUSTRIES SUPERFUND SITE
SAG HARBOR, NEW YORK

FP&T Recovery Well VOC Concentrations for FRW-4



APPENDIX I
MARCH 2019 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: 03/08/2019
Client Project ID: 31401451.000 Task 01.00
York Project (SDG) No.: 19C0087

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

STRATFORD, CT 06615
(203) 325-1371



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

RICHMOND HILL, NY 11418
ClientServices@yorklab.com

Report Date: 03/08/2019
Client Project ID: 31401451.000 Task 01.00
York Project (SDG) No.: 19C0087

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 March 04, 2019 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>
19C0087-01	WQ030119: 1405 NP2-6	Water	03/01/2019	03/04/2019
19C0087-02	WQ030119: 1410 NP2-10	Water	03/01/2019	03/04/2019

General Notes for York Project (SDG) No.: 19C0087

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: 03/08/2019





Sample Information

Client Sample ID: WQ030119: 1405 NP2-6

York Sample ID: 19C0087-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19C0087

31401451.000 Task 01.00

Water

March 1, 2019 2:05 pm

03/04/2019

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	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	03/07/2019 07:30	03/07/2019 16:13	RDS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS



Sample Information

Client Sample ID: WQ030119: 1405 NP2-6

York Sample ID: 19C0087-01

York Project (SDG) No.
19C0087

Client Project ID
31401451.000 Task 01.00

Matrix
Water

Collection Date/Time
March 1, 2019 2:05 pm

Date Received
03/04/2019

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
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
591-78-6	2-Hexanone	ND		ug/L	0.200	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
67-64-1	Acetone	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
75-00-3	Chloroethane	ND		ug/L	0.200	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
74-87-3	Chloromethane	0.250		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
156-59-2	cis-1,2-Dichloroethylene	0.220		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS



Sample Information

Client Sample ID: WQ030119: 1405 NP2-6

York Sample ID: 19C0087-01

York Project (SDG) No.

19C0087

Client Project ID

31401451.000 Task 01.00

Matrix

Water

Collection Date/Time

March 1, 2019 2:05 pm

Date Received

03/04/2019

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
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
127-18-4	Tetrachloroethylene	1.80		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
79-01-6	Trichloroethylene	0.210		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:13	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	03/07/2019 07:30	03/07/2019 16:13	RDS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	98.0 %	70-130								
2037-26-5	Surrogate: SURR: Toluene-d8	93.6 %	70-130								
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	102 %	70-130								



Sample Information

Client Sample ID: WQ030119: 1410 NP2-10

York Sample ID: 19C0087-02

York Project (SDG) No.

19C0087

Client Project ID

31401451.000 Task 01.00

Matrix

Water

Collection Date/Time

March 1, 2019 2:10 pm

Date Received

03/04/2019

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	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	03/07/2019 07:30	03/07/2019 16:42	RDS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS



Sample Information

Client Sample ID: WQ030119: 1410 NP2-10

York Sample ID: 19C0087-02

York Project (SDG) No.
19C0087

Client Project ID
31401451.000 Task 01.00

Matrix
Water

Collection Date/Time
March 1, 2019 2:10 pm

Date Received
03/04/2019

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
591-78-6	2-Hexanone	ND		ug/L	0.200	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
67-64-1	Acetone	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
75-00-3	Chloroethane	ND		ug/L	0.200	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
74-87-3	Chloromethane	0.280		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 16:42	RDS



Sample Information

Client Sample ID: WQ030119: 1410 NP2-10

York Sample ID: 19C0087-02

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19C0087

31401451.000 Task 01.00

Water

March 1, 2019 2:10 pm

03/04/2019

Iron by EPA 200.7

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 200.7

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	6.31		mg/L	0.278	1	EPA 200.7	03/06/2019 11:00	03/06/2019 12:42	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	ND		mg/L	0.278	1	EPA 6010D	03/05/2019 13:48	03/06/2019 11:10	KML
							Certifications:	CTDOH,NELAC-NY10854,NJDEP,PADEP		

Total Dissolved Solids

Log-in Notes:

Sample Notes:

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Dissolved Solids	142		mg/L	10.0	1	SM 2540C	03/04/2019 19:41	03/06/2019 19:00	AA
							Certifications:	NELAC-NY10854,CTDOH,NJDEP,PADEP		



Analytical Batch Summary

Batch ID: BC90137 **Preparation Method:** % Solids Prep **Prepared By:** AA

YORK Sample ID	Client Sample ID	Preparation Date
19C0087-02	WQ030119: 1410 NP2-10	03/04/19
BC90137-BLK1	Blank	03/04/19

Batch ID: BC90179 **Preparation Method:** EPA 3015A **Prepared By:** SY

YORK Sample ID	Client Sample ID	Preparation Date
19C0087-02	WQ030119: 1410 NP2-10	03/05/19
BC90179-BLK1	Blank	03/05/19
BC90179-BS1	LCS	03/05/19

Batch ID: BC90253 **Preparation Method:** EPA 200.7 **Prepared By:** SY

YORK Sample ID	Client Sample ID	Preparation Date
19C0087-02	WQ030119: 1410 NP2-10	03/06/19
BC90253-BLK1	Blank	03/06/19
BC90253-BS1	LCS	03/06/19

Batch ID: BC90336 **Preparation Method:** EPA 5030B **Prepared By:** RDS

YORK Sample ID	Client Sample ID	Preparation Date
19C0087-01	WQ030119: 1405 NP2-6	03/07/19
19C0087-02	WQ030119: 1410 NP2-10	03/07/19
BC90336-BLK1	Blank	03/07/19
BC90336-BS1	LCS	03/07/19
BC90336-BSD1	LCS Dup	03/07/19



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 BC90336 - EPA 5030B

Blank (BC90336-BLK1)

Prepared & Analyzed: 03/07/2019

1,1,1,2-Tetrachloroethane	ND	0.500	ug/L
1,1,1-Trichloroethane	ND	0.500	"
1,1,2,2-Tetrachloroethane	ND	0.500	"
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.500	"
1,1,2-Trichloroethane	ND	0.500	"
1,1-Dichloroethane	ND	0.500	"
1,1-Dichloroethylene	ND	0.500	"
1,1-Dichloropropylene	ND	0.500	"
1,2,3-Trichlorobenzene	ND	2.00	"
1,2,3-Trichloropropane	ND	0.500	"
1,2,4-Trichlorobenzene	ND	0.500	"
1,2,4-Trimethylbenzene	ND	0.500	"
1,2-Dibromo-3-chloropropane	ND	0.500	"
1,2-Dibromoethane	ND	0.500	"
1,2-Dichlorobenzene	ND	0.500	"
1,2-Dichloroethane	ND	0.500	"
1,2-Dichloropropane	ND	0.500	"
1,3,5-Trimethylbenzene	ND	0.500	"
1,3-Dichlorobenzene	ND	0.500	"
1,3-Dichloropropane	ND	0.500	"
1,4-Dichlorobenzene	ND	0.500	"
2,2-Dichloropropane	ND	0.500	"
2-Chlorotoluene	ND	0.500	"
2-Hexanone	ND	2.00	"
4-Chlorotoluene	ND	0.500	"
Acetone	ND	2.00	"
Benzene	ND	0.500	"
Bromobenzene	ND	0.500	"
Bromochloromethane	ND	0.500	"
Bromodichloromethane	ND	0.500	"
Bromoform	ND	0.500	"
Bromomethane	ND	0.500	"
Carbon tetrachloride	ND	0.500	"
Chlorobenzene	ND	0.500	"
Chloroethane	ND	2.00	"
Chloroform	ND	0.500	"
Chloromethane	ND	0.500	"
cis-1,2-Dichloroethylene	ND	0.500	"
cis-1,3-Dichloropropylene	ND	0.500	"
Dibromochloromethane	ND	0.500	"
Dibromomethane	ND	0.500	"
Dichlorodifluoromethane	ND	0.500	"
Ethyl Benzene	ND	0.500	"
Hexachlorobutadiene	ND	0.500	"
Isopropylbenzene	ND	0.500	"
Methyl tert-butyl ether (MTBE)	ND	0.500	"
Methylene chloride	ND	2.00	"
Naphthalene	ND	2.00	"
n-Butylbenzene	ND	0.500	"
n-Propylbenzene	ND	0.500	"



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 BC90336 - EPA 5030B

Blank (BC90336-BLK1)

Prepared & Analyzed: 03/07/2019

o-Xylene	ND	0.500	ug/L
p- & m- Xylenes	ND	1.00	"
p-Isopropyltoluene	ND	0.500	"
sec-Butylbenzene	ND	0.500	"
Styrene	ND	0.500	"
tert-Butylbenzene	ND	0.500	"
Tetrachloroethylene	ND	0.500	"
Toluene	ND	0.500	"
trans-1,2-Dichloroethylene	ND	0.500	"
trans-1,3-Dichloropropylene	ND	0.500	"
Trichloroethylene	ND	0.500	"
Trichlorofluoromethane	ND	0.500	"
Vinyl Chloride	ND	0.500	"
Xylenes, Total	ND	1.50	"

Surrogate: SURR: 1,2-Dichloroethane-d4

10.0

"

10.0

100

70-130

Surrogate: SURR: Toluene-d8

9.31

"

10.0

93.1

70-130

Surrogate: SURR: p-Bromofluorobenzene

10.0

"

10.0

100

70-130

LCS (BC90336-BS1)

Prepared & Analyzed: 03/07/2019

1,1,1,2-Tetrachloroethane	10.2	ug/L	10.0	102	82-126	30
1,1,1-Trichloroethane	11.2	"	10.0	112	70-130	20
1,1,2,2-Tetrachloroethane	9.96	"	10.0	99.6	70-130	20
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	12.2	"	10.0	122	70-130	20
1,1,2-Trichloroethane	9.66	"	10.0	96.6	70-130	20
1,1-Dichloroethane	11.2	"	10.0	112	70-130	20
1,1-Dichloroethylene	11.4	"	10.0	114	70-130	20
1,1-Dichloropropylene	11.2	"	10.0	112	83-133	30
1,2,3-Trichlorobenzene	9.44	"	10.0	94.4	70-130	20
1,2,3-Trichloropropane	10.1	"	10.0	101	77-128	30
1,2,4-Trichlorobenzene	9.44	"	10.0	94.4	70-130	20
1,2,4-Trimethylbenzene	9.86	"	10.0	98.6	82-132	20
1,2-Dibromo-3-chloropropane	9.96	"	10.0	99.6	40-160	20
1,2-Dibromoethane	9.93	"	10.0	99.3	70-130	20
1,2-Dichlorobenzene	9.65	"	10.0	96.5	70-130	20
1,2-Dichloroethane	10.9	"	10.0	109	70-130	20
1,2-Dichloropropane	9.87	"	10.0	98.7	70-130	20
1,3,5-Trimethylbenzene	9.99	"	10.0	99.9	80-131	30
1,3-Dichlorobenzene	9.53	"	10.0	95.3	70-130	20
1,3-Dichloropropane	10.1	"	10.0	101	81-125	30
1,4-Dichlorobenzene	9.48	"	10.0	94.8	70-130	20
2,2-Dichloropropane	11.5	"	10.0	115	56-150	30
2-Chlorotoluene	10.0	"	10.0	100	79-130	30
2-Hexanone	9.93	"	10.0	99.3	40-160	20
4-Chlorotoluene	9.82	"	10.0	98.2	79-128	30
Acetone	11.0	"	10.0	110	40-160	20
Benzene	11.2	"	10.0	112	70-130	20
Bromobenzene	9.80	"	10.0	98.0	78-129	30
Bromochloromethane	11.2	"	10.0	112	70-130	20
Bromodichloromethane	9.96	"	10.0	99.6	70-130	20
Bromoform	9.57	"	10.0	95.7	70-130	20
Bromomethane	8.18	"	10.0	81.8	40-160	20



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 BC90336 - EPA 5030B

LCS (BC90336-BS1)

Prepared & Analyzed: 03/07/2019

Carbon tetrachloride	11.4		ug/L	10.0		114	70-130			20	
Chlorobenzene	10.0		"	10.0		100	70-130			20	
Chloroethane	13.4		"	10.0		134	40-160			20	
Chloroform	11.1		"	10.0		111	70-130			20	
Chloromethane	11.9		"	10.0		119	40-160			20	
cis-1,2-Dichloroethylene	11.1		"	10.0		111	70-130			20	
cis-1,3-Dichloropropylene	10.0		"	10.0		100	70-130			20	
Dibromochloromethane	10.1		"	10.0		101	70-130			20	
Dibromomethane	9.86		"	10.0		98.6	72-134			30	
Dichlorodifluoromethane	11.1		"	10.0		111	40-160			20	
Ethyl Benzene	10.6		"	10.0		106	70-130			20	
Hexachlorobutadiene	11.0		"	10.0		110	67-146			30	
Isopropylbenzene	10.1		"	10.0		101	70-130			20	
Methyl tert-butyl ether (MTBE)	11.0		"	10.0		110	70-130			20	
Methylene chloride	10.3		"	10.0		103	70-130			20	
Naphthalene	9.66		"	10.0		96.6	70-147			30	
n-Butylbenzene	10.5		"	10.0		105	79-132			30	
n-Propylbenzene	10.3		"	10.0		103	78-133			30	
o-Xylene	10.3		"	10.0		103	70-130			20	
p- & m- Xylenes	21.4		"	20.0		107	70-130			20	
p-Isopropyltoluene	10.3		"	10.0		103	81-136			30	
sec-Butylbenzene	10.7		"	10.0		107	79-137			30	
Styrene	10.3		"	10.0		103	70-130			20	
tert-Butylbenzene	10.1		"	10.0		101	77-138			30	
Tetrachloroethylene	9.10		"	10.0		91.0	70-130			20	
Toluene	10.4		"	10.0		104	70-130			20	
trans-1,2-Dichloroethylene	10.9		"	10.0		109	70-130			20	
trans-1,3-Dichloropropylene	9.69		"	10.0		96.9	70-130			20	
Trichloroethylene	10.2		"	10.0		102	70-130			20	
Trichlorofluoromethane	12.2		"	10.0		122	40-160			20	
Vinyl Chloride	12.9		"	10.0		129	70-130			20	
Surrogate: SURR: 1,2-Dichloroethane-d4	9.66		"	10.0		96.6	70-130				
Surrogate: SURR: Toluene-d8	9.39		"	10.0		93.9	70-130				
Surrogate: SURR: p-Bromofluorobenzene	10.2		"	10.0		102	70-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BC90336 - EPA 5030B											
LCS Dup (BC90336-BSD1)						Prepared & Analyzed: 03/07/2019					
1,1,1,2-Tetrachloroethane	9.77		ug/L	10.0		97.7	82-126		3.91	30	
1,1,1-Trichloroethane	10.6		"	10.0		106	70-130		5.14	20	
1,1,2,2-Tetrachloroethane	9.95		"	10.0		99.5	70-130		0.100	20	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.5		"	10.0		115	70-130		6.09	20	
1,1,2-Trichloroethane	9.70		"	10.0		97.0	70-130		0.413	20	
1,1-Dichloroethane	10.8		"	10.0		108	70-130		3.09	20	
1,1-Dichloroethylene	10.8		"	10.0		108	70-130		5.86	20	
1,1-Dichloropropylene	10.6		"	10.0		106	83-133		5.40	30	
1,2,3-Trichlorobenzene	8.93		"	10.0		89.3	70-130		5.55	20	
1,2,3-Trichloropropane	10.0		"	10.0		100	77-128		0.398	30	
1,2,4-Trichlorobenzene	9.14		"	10.0		91.4	70-130		3.23	20	
1,2,4-Trimethylbenzene	9.47		"	10.0		94.7	82-132		4.04	20	
1,2-Dibromo-3-chloropropane	10.0		"	10.0		100	40-160		0.700	20	
1,2-Dibromoethane	9.94		"	10.0		99.4	70-130		0.101	20	
1,2-Dichlorobenzene	9.47		"	10.0		94.7	70-130		1.88	20	
1,2-Dichloroethane	10.6		"	10.0		106	70-130		2.14	20	
1,2-Dichloropropane	9.55		"	10.0		95.5	70-130		3.30	20	
1,3,5-Trimethylbenzene	9.50		"	10.0		95.0	80-131		5.03	30	
1,3-Dichlorobenzene	9.22		"	10.0		92.2	70-130		3.31	20	
1,3-Dichloropropane	9.99		"	10.0		99.9	81-125		1.39	30	
1,4-Dichlorobenzene	9.16		"	10.0		91.6	70-130		3.43	20	
2,2-Dichloropropane	10.8		"	10.0		108	56-150		6.46	30	
2-Chlorotoluene	9.60		"	10.0		96.0	79-130		4.08	30	
2-Hexanone	10.1		"	10.0		101	40-160		1.90	20	
4-Chlorotoluene	9.38		"	10.0		93.8	79-128		4.58	30	
Acetone	11.6		"	10.0		116	40-160		5.85	20	
Benzene	10.9		"	10.0		109	70-130		2.80	20	
Bromobenzene	9.52		"	10.0		95.2	78-129		2.90	30	
Bromochloromethane	11.1		"	10.0		111	70-130		0.990	20	
Bromodichloromethane	9.75		"	10.0		97.5	70-130		2.13	20	
Bromoform	9.61		"	10.0		96.1	70-130		0.417	20	
Bromomethane	8.43		"	10.0		84.3	40-160		3.01	20	
Carbon tetrachloride	10.8		"	10.0		108	70-130		5.31	20	
Chlorobenzene	9.65		"	10.0		96.5	70-130		4.06	20	
Chloroethane	12.2		"	10.0		122	40-160		9.24	20	
Chloroform	10.7		"	10.0		107	70-130		3.31	20	
Chloromethane	11.5		"	10.0		115	40-160		2.91	20	
cis-1,2-Dichloroethylene	10.7		"	10.0		107	70-130		3.58	20	
cis-1,3-Dichloropropylene	9.68		"	10.0		96.8	70-130		3.35	20	
Dibromochloromethane	9.86		"	10.0		98.6	70-130		2.21	20	
Dibromomethane	9.72		"	10.0		97.2	72-134		1.43	30	
Dichlorodifluoromethane	10.5		"	10.0		105	40-160		5.56	20	
Ethyl Benzene	10.1		"	10.0		101	70-130		4.84	20	
Hexachlorobutadiene	10.3		"	10.0		103	67-146		6.37	30	
Isopropylbenzene	9.63		"	10.0		96.3	70-130		4.37	20	
Methyl tert-butyl ether (MTBE)	10.9		"	10.0		109	70-130		0.733	20	
Methylene chloride	10.1		"	10.0		101	70-130		2.55	20	
Naphthalene	9.72		"	10.0		97.2	70-147		0.619	30	
n-Butylbenzene	9.52		"	10.0		95.2	79-132		9.60	30	
n-Propylbenzene	9.76		"	10.0		97.6	78-133		5.29	30	
o-Xylene	9.94		"	10.0		99.4	70-130		3.85	20	



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 BC90336 - EPA 5030B

LCS Dup (BC90336-BSD1)

Prepared & Analyzed: 03/07/2019

p- & m- Xylenes	20.3		ug/L	20.0		102	70-130		5.03	20
p-Isopropyltoluene	9.78		"	10.0		97.8	81-136		4.99	30
sec-Butylbenzene	10.2		"	10.0		102	79-137		4.59	30
Styrene	9.95		"	10.0		99.5	70-130		3.84	20
tert-Butylbenzene	9.68		"	10.0		96.8	77-138		3.95	30
Tetrachloroethylene	8.64		"	10.0		86.4	70-130		5.19	20
Toluene	9.90		"	10.0		99.0	70-130		4.54	20
trans-1,2-Dichloroethylene	10.4		"	10.0		104	70-130		4.32	20
trans-1,3-Dichloropropylene	9.41		"	10.0		94.1	70-130		2.93	20
Trichloroethylene	9.58		"	10.0		95.8	70-130		5.78	20
Trichlorofluoromethane	11.5		"	10.0		115	40-160		5.41	20
Vinyl Chloride	12.2		"	10.0		122	70-130		5.65	20
Surrogate: SURR: 1,2-Dichloroethane-d4	9.91		"	10.0		99.1	70-130			
Surrogate: SURR: Toluene-d8	9.36		"	10.0		93.6	70-130			
Surrogate: SURR: p-Bromofluorobenzene	10.2		"	10.0		102	70-130			



Metals by ICP - Quality Control Data
York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BC90179 - EPA 3015A

Blank (BC90179-BLK1)

Prepared: 03/05/2019 Analyzed: 03/06/2019

Iron - Dissolved ND 0.278 mg/L

LCS (BC90179-BS1)

Prepared: 03/05/2019 Analyzed: 03/06/2019

Iron - Dissolved 1.24 0.278 mg/L 1.11 112 80-120

Batch BC90253 - EPA 200.7

Blank (BC90253-BLK1)

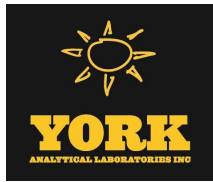
Prepared & Analyzed: 03/06/2019

Iron ND 0.278 mg/L

LCS (BC90253-BS1)

Prepared & Analyzed: 03/06/2019

Iron 1.15 0.278 mg/L 1.11 103 85-115



Miscellaneous Physical Parameters - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC Limits	Flag	RPD Limit	Flag
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Batch BC90137 - % Solids Prep

Blank (BC90137-BLK1)

Prepared: 03/04/2019 Analyzed: 03/06/2019

Total Dissolved Solids	ND	10.0	mg/L
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Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
19C0087-01	WQ030119: 1405 NP2-6	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19C0087-02	WQ030119: 1410 NP2-10	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



Sample and Data Qualifiers Relating to This Work Order

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.

Field Chain-of-Custody Record

YORK Project No.

19C 0087

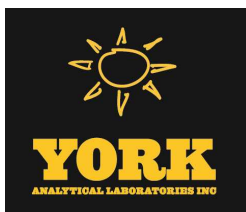


NOTE: YORK's Standard Terms & Conditions are listed on the back side of this document. This document serves as your written authorization for YORK to proceed with the analyses requested below.

Your signature binds you to YORK's Standard Terms & Conditions.

Page 1 of 1Page 1 of 1[illegible]

APPENDIX II
MARCH 2019 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: 03/26/2019
Client Project ID: 31401451.000 Rowe
York Project (SDG) No.: 19C0771

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

STRATFORD, CT 06615
(203) 325-1371

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

RICHMOND HILL, NY 11418
ClientServices@yorklab.com

Report Date: 03/26/2019
Client Project ID: 31401451.000 Rowe
York Project (SDG) No.: 19C0771

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 March 20, 2019 with a temperature of 3.0 C. The project was identified as your project: **31401451.000 Rowe**.

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>
19C0771-01	WQ031919:1300 FRW-1	Water	03/19/2019	03/20/2019
19C0771-02	WQ031919:1305 FRW-2	Water	03/19/2019	03/20/2019
19C0771-03	WQ031919:1410 FRW-3	Water	03/19/2019	03/20/2019
19C0771-04	WQ031919:1315 FRW-4	Water	03/19/2019	03/20/2019

General Notes for York Project (SDG) No.: 19C0771

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: 03/26/2019





Sample Information

Client Sample ID: WQ031919:1300 FRW-1

York Sample ID: 19C0771-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19C0771

31401451.000 Rowe

Water

March 19, 2019 1:00 pm

03/20/2019

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	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	03/25/2019 07:30	03/25/2019 13:37	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 13:37	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 13:37	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 13:37	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 13:37	SS



Sample Information

Client Sample ID: WQ031919:1300 FRW-1

York Sample ID: 19C0771-01

York Project (SDG) No.
19C0771

Client Project ID
31401451.000 Rowe

Matrix
Water

Collection Date/Time
March 19, 2019 1:00 pm

Date Received
03/20/2019

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 13:37	SS
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
591-78-6	2-Hexanone	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
67-64-1	Acetone	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 13:37	SS
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 13:37	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
156-59-2	cis-1,2-Dichloroethylene	0.450		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 13:37	SS



Sample Information

Client Sample ID: WQ031919:1300 FRW-1

York Sample ID: 19C0771-01

York Project (SDG) No.
19C0771

Client Project ID
31401451.000 Rowe

Matrix
Water

Collection Date/Time
March 19, 2019 1:00 pm

Date Received
03/20/2019

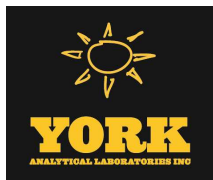
Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 13:37	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 13:37	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 13:37	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	03/25/2019 07:30	03/25/2019 13:37	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	03/25/2019 07:30	03/25/2019 13:37	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
127-18-4	Tetrachloroethylene	13.4	ICV-E	ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
79-01-6	Trichloroethylene	0.770		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS



Sample Information

Client Sample ID: WQ031919:1300 FRW-1

York Sample ID: 19C0771-01

York Project (SDG) No.
19C0771

Client Project ID
31401451.000 Rowe

Matrix
Water

Collection Date/Time
March 19, 2019 1:00 pm

Date Received
03/20/2019

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
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 13:37	SS
Surrogate Recoveries		Result			Acceptance Range						
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	106 %			70-130						
2037-26-5	Surrogate: SURR: Toluene-d8	108 %			70-130						
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	119 %			70-130						

Methane, Ethane & Ethylene

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Preparation for GC Analysis

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-84-0	* Ethane	ND		ug/L	10	1	GC/Headspace Certifications:	03/23/2019 09:34	03/25/2019 08:26	RB
74-85-1	* Ethylene (Ethene)	ND		ug/L	10	1	GC/Headspace Certifications:	03/23/2019 09:34	03/25/2019 08:26	RB

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	1.78		mg/L	0.278	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/22/2019 13:27	03/25/2019 13:10	KML

Nitrate 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
14797-55-8	Nitrate as N	2.48		mg/L	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/20/2019 10:52	03/20/2019 10:52	TJM

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	03/20/2019 10:52	03/20/2019 10:52	TJM

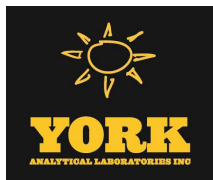
Sulfate as SO4

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
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Sample Information

Client Sample ID: WQ031919:1300 FRW-1

York Sample ID: 19C0771-01

York Project (SDG) No.
19C0771

Client Project ID
31401451.000 Rowe

Matrix
Water

Collection Date/Time
March 19, 2019 1:00 pm

Date Received
03/20/2019

Sulfate as SO4

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
14808-79-8	Sulfate	14.5		mg/L	1.00	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/20/2019 10:52	03/20/2019 10:52	TJM

Total Organic Carbon

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Organic Carbon (TOC)	2.55		mg/L	1.00	1	SM 5310C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/21/2019 08:33	03/21/2019 16:08	AD

Sample Information

Client Sample ID: WQ031919:1305 FRW-2

York Sample ID: 19C0771-02

York Project (SDG) No.
19C0771

Client Project ID
31401451.000 Rowe

Matrix
Water

Collection Date/Time
March 19, 2019 1:05 pm

Date Received
03/20/2019

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	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	03/25/2019 07:30	03/25/2019 14:09	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:09	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:09	SS



Sample Information

Client Sample ID: WQ031919:1305 FRW-2

York Sample ID: 19C0771-02

York Project (SDG) No.
19C0771

Client Project ID
31401451.000 Rowe

Matrix
Water

Collection Date/Time
March 19, 2019 1:05 pm

Date Received
03/20/2019

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
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:09	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:09	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:09	SS
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
591-78-6	2-Hexanone	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
67-64-1	Acetone	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:09	SS
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:09	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS



Sample Information

Client Sample ID: WQ031919:1305 FRW-2

York Sample ID: 19C0771-02

York Project (SDG) No.
19C0771

Client Project ID
31401451.000 Rowe

Matrix
Water

Collection Date/Time
March 19, 2019 1:05 pm

Date Received
03/20/2019

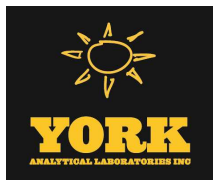
Volatile Organics, 8260 List - Low Level

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
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
156-59-2	cis-1,2-Dichloroethylene	1.54		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:09	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:09	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:09	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:09	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	03/25/2019 07:30	03/25/2019 14:09	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	03/25/2019 07:30	03/25/2019 14:09	SS



Sample Information

Client Sample ID: WQ031919:1305 FRW-2

York Sample ID: 19C0771-02

York Project (SDG) No.
19C0771

Client Project ID
31401451.000 Rowe

Matrix
Water

Collection Date/Time
March 19, 2019 1:05 pm

Date Received
03/20/2019

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
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
127-18-4	Tetrachloroethylene	15.2	ICV-E	ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
79-01-6	Trichloroethylene	0.950		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:09	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: SURRE: 1,2-Dichloroethane-d4	104 %	70-130								
2037-26-5	Surrogate: SURRE: Toluene-d8	106 %	70-130								
460-00-4	Surrogate: SURRE: p-Bromofluorobenzene	119 %	70-130								

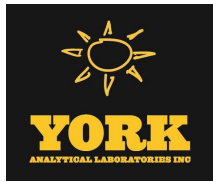
Methane, Ethane & Ethylene

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Preparation for GC Analysis

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-84-0	* Ethane	ND		ug/L	10	1	GC/Headspace Certifications:	03/23/2019 09:34	03/25/2019 08:56	RB
74-85-1	* Ethylene (Ethene)	ND		ug/L	10	1	GC/Headspace Certifications:	03/23/2019 09:34	03/25/2019 08:56	RB



Sample Information

Client Sample ID: WQ031919:1305 FRW-2

York Sample ID: 19C0771-02

York Project (SDG) No.

19C0771

Client Project ID

31401451.000 Rowe

Matrix

Water

Collection Date/Time

March 19, 2019 1:05 pm

Date Received

03/20/2019

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	1.46		mg/L	0.278	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/22/2019 13:27	03/25/2019 13:13	KML

Nitrate 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
14797-55-8	Nitrate as N	1.09		mg/L	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/20/2019 11:17	03/20/2019 11:17	TJM

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	03/20/2019 11:17	03/20/2019 11:17	TJM

Sulfate as SO4

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
14808-79-8	Sulfate	12.9		mg/L	1.00	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/20/2019 11:17	03/20/2019 11:17	TJM

Total Organic Carbon

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Organic Carbon (TOC)	1.74		mg/L	1.00	1	SM 5310C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/21/2019 08:33	03/21/2019 16:08	AD

Sample Information

Client Sample ID: WQ031919:1410 FRW-3

York Sample ID: 19C0771-03

York Project (SDG) No.

19C0771

Client Project ID

31401451.000 Rowe

Matrix

Water

Collection Date/Time

March 19, 2019 2:10 pm

Date Received

03/20/2019



Sample Information

Client Sample ID: WQ031919:1410 FRW-3

York Sample ID: 19C0771-03

York Project (SDG) No.
19C0771

Client Project ID
31401451.000 Rowe

Matrix
Water

Collection Date/Time
March 19, 2019 2:10 pm

Date Received
03/20/2019

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	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
71-55-6	1,1,1-Trichloroethane	0.240		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	03/25/2019 07:30	03/25/2019 14:41	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:41	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:41	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:41	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:41	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS



Sample Information

Client Sample ID: WQ031919:1410 FRW-3

York Sample ID: 19C0771-03

York Project (SDG) No.
19C0771

Client Project ID
31401451.000 Rowe

Matrix
Water

Collection Date/Time
March 19, 2019 2:10 pm

Date Received
03/20/2019

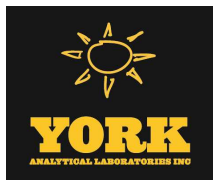
Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:41	SS
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
591-78-6	2-Hexanone	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
67-64-1	Acetone	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:41	SS
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:41	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
156-59-2	cis-1,2-Dichloroethylene	3.93		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:41	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:41	SS



Sample Information

Client Sample ID: WQ031919:1410 FRW-3

York Sample ID: 19C0771-03

York Project (SDG) No.
19C0771

Client Project ID
31401451.000 Rowe

Matrix
Water

Collection Date/Time
March 19, 2019 2:10 pm

Date Received
03/20/2019

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:41	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 14:41	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	03/25/2019 07:30	03/25/2019 14:41	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	03/25/2019 07:30	03/25/2019 14:41	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
127-18-4	Tetrachloroethylene	38.8	ICV-E	ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
79-01-6	Trichloroethylene	1.03		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 14:41	SS



Sample Information

Client Sample ID: WQ031919:1410 FRW-3

York Sample ID: 19C0771-03

York Project (SDG) No.
19C0771

Client Project ID
31401451.000 Rowe

Matrix
Water

Collection Date/Time
March 19, 2019 2:10 pm

Date Received
03/20/2019

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
Surrogate Recoveries		Result			Acceptance Range						
17060-07-0	Surrogate: SURRE: 1,2-Dichloroethane-d4	108 %				70-130					
2037-26-5	Surrogate: SURRE: Toluene-d8	105 %				70-130					
460-00-4	Surrogate: SURRE: p-Bromofluorobenzene	125 %				70-130					

Methane, Ethane & Ethylene

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Preparation for GC Analysis

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-84-0	* Ethane	ND		ug/L	10	1	GC/Headspace Certifications:	03/23/2019 09:34	03/25/2019 09:19	RB
74-85-1	* Ethylene (Ethene)	ND		ug/L	10	1	GC/Headspace Certifications:	03/23/2019 09:34	03/25/2019 09:19	RB

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	0.520		mg/L	0.278	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/22/2019 13:27	03/25/2019 13:15	KML

Nitrate 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
14797-55-8	Nitrate as N	2.62		mg/L	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/20/2019 11:42	03/20/2019 11:42	TJM

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	0.0521		mg/L	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,PADEP	03/20/2019 11:42	03/20/2019 11:42	TJM

Sulfate as SO4

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
14808-79-8	Sulfate	12.0		mg/L	1.00	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/20/2019 11:42	03/20/2019 11:42	TJM



Sample Information

Client Sample ID: WQ031919:1410 FRW-3

York Sample ID: 19C0771-03

York Project (SDG) No.

19C0771

Client Project ID

31401451.000 Rowe

Matrix

Water

Collection Date/Time

March 19, 2019 2:10 pm

Date Received

03/20/2019

Total Organic Carbon

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Organic Carbon (TOC)	1.95		mg/L	1.00	1	SM 5310C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/21/2019 08:33	03/21/2019 16:08	AD

Sample Information

Client Sample ID: WQ031919:1315 FRW-4

York Sample ID: 19C0771-04

York Project (SDG) No.

19C0771

Client Project ID

31401451.000 Rowe

Matrix

Water

Collection Date/Time

March 19, 2019 1:15 pm

Date Received

03/20/2019

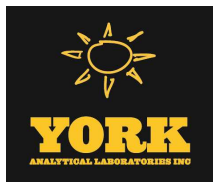
Volatile Organics, 8260 List - Low Level

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	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	03/25/2019 07:30	03/25/2019 15:13	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 15:13	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 15:13	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 15:13	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS



Sample Information

Client Sample ID: WQ031919:1315 FRW-4

York Sample ID: 19C0771-04

York Project (SDG) No.

19C0771

Client Project ID

31401451.000 Rowe

Matrix

Water

Collection Date/Time

March 19, 2019 1:15 pm

Date Received

03/20/2019

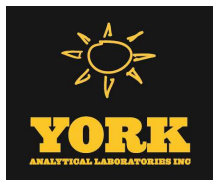
Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 15:13	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 15:13	SS
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
591-78-6	2-Hexanone	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
67-64-1	Acetone	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 15:13	SS
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 15:13	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS



Sample Information

Client Sample ID: WQ031919:1315 FRW-4

York Sample ID: 19C0771-04

York Project (SDG) No.
19C0771

Client Project ID
31401451.000 Rowe

Matrix
Water

Collection Date/Time
March 19, 2019 1:15 pm

Date Received
03/20/2019

Volatile Organics, 8260 List - Low Level

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 5030B

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
156-59-2	cis-1,2-Dichloroethylene	0.490		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 15:13	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 15:13	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 15:13	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAI	03/25/2019 07:30	03/25/2019 15:13	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	03/25/2019 07:30	03/25/2019 15:13	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	03/25/2019 07:30	03/25/2019 15:13	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS



Sample Information

Client Sample ID: WQ031919:1315 FRW-4

York Sample ID: 19C0771-04

York Project (SDG) No.
19C0771

Client Project ID
31401451.000 Rowe

Matrix
Water

Collection Date/Time
March 19, 2019 1:15 pm

Date Received
03/20/2019

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
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
127-18-4	Tetrachloroethylene	1.02	ICV-E	ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	03/25/2019 07:30	03/25/2019 15:13	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	104 %	70-130								
2037-26-5	Surrogate: SURR: Toluene-d8	108 %	70-130								
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	121 %	70-130								

Methane, Ethane & Ethylene

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Preparation for GC Analysis

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-84-0	* Ethane	ND		ug/L	10	1	GC/Headspace Certifications:	03/23/2019 09:34	03/25/2019 09:50	RB
74-85-1	* Ethylene (Ethene)	ND		ug/L	10	1	GC/Headspace Certifications:	03/23/2019 09:34	03/25/2019 09:50	RB

Iron, Dissolved by EPA 6010

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA 3015A

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-89-6	Iron	2.39		mg/L	0.278	1	EPA 6010D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	03/22/2019 13:27	03/25/2019 13:18	KML



Sample Information

Client Sample ID: WQ031919:1315 FRW-4

York Sample ID: 19C0771-04

York Project (SDG) No.
19C0771

Client Project ID
31401451.000 Rowe

Matrix
Water

Collection Date/Time
March 19, 2019 1:15 pm

Date Received
03/20/2019

Nitrate 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
14797-55-8	Nitrate as N	0.423		mg/L	0.0500	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/20/2019 12:07	03/20/2019 12:07	TJM

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	03/20/2019 12:07	03/20/2019 12:07	TJM

Sulfate as SO4

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
14808-79-8	Sulfate	5.57		mg/L	1.00	1	EPA 300.0 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/20/2019 12:07	03/20/2019 12:07	TJM

Total Organic Carbon

Log-in Notes:

Sample Notes:

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Organic Carbon (TOC)	1.34		mg/L	1.00	1	SM 5310C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	03/21/2019 08:33	03/21/2019 16:08	AD



Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
19C0771-01	WQ031919:1300 FRW-1	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19C0771-02	WQ031919:1305 FRW-2	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19C0771-03	WQ031919:1410 FRW-3	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19C0771-04	WQ031919:1315 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.
ICV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration verification (recovery exceeded 30% of expected value).
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

Definitions and Other Explanations

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

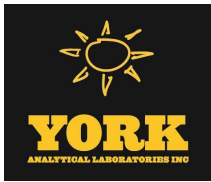
If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For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

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

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

Certification for pH is no longer offered by NYDOH ELAP.

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



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

Field Chain-of-Custody Record

YORK Project No.

17071

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

Your signature binds you to YORK's Standard Terms & Conditions.

Page 1 of 1



YOUR Information

YOUR Information	
Company:	WSP
Address:	4 Rexford Ave Ste 704 Shelton, CT 06484
Phone:	203-929-8355
Contact:	Tunde Spindler
E-mail:	

4 Review One See 724
Stelown CT 06484

203-929-8155

Tunde Sundin

Turner, Sandra D. DWSF.COM

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

Panel Spas

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

Sample Identification
WB031919, 1300 FLW-1

WA031919.1305.FRW-2

110031919-1410 FRW-3

W16 031919: 1345 FRW-4

Comments:

Nitr bottles field filtered

Year / wsp

3/20/19 851

[illegible]

Samples Relinquished by / Company

Date/Time

Samples Received by / Company

Date/Time

Samples Relinquished by / Company

Samples Received by / Company

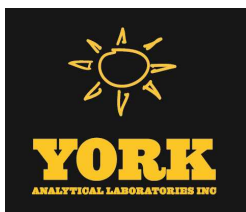
Date/Time

Samples Received in LAB by

Date/Time

Temp. Received at Lab

Phase 3-20-19 0852 @ 3.0 Degrees C



Technical Report

prepared for:

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

Report Date: 03/08/2019
Client Project ID: 31401451.000 Task 01.00
York Project (SDG) No.: 19C0086

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

STRATFORD, CT 06615
(203) 325-1371



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

RICHMOND HILL, NY 11418
ClientServices@yorklab.com

Report Date: 03/08/2019
Client Project ID: 31401451.000 Task 01.00
York Project (SDG) No.: 19C0086

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 March 04, 2019 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>
19C0086-01	WQ030119: 1400 NP1-1-2	Water	03/01/2019	03/04/2019

General Notes for York Project (SDG) No.: 19C0086

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: 03/08/2019





Sample Information

Client Sample ID: WQ030119: 1400 NP1-1-2

York Sample ID: 19C0086-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19C0086

31401451.000 Task 01.00

Water

March 1, 2019 2:00 pm

03/04/2019

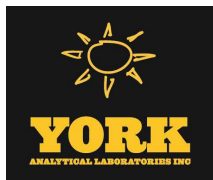
Volatile Organics, 8260 List - Low Level

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	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
71-55-6	1,1,1-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
79-00-5	1,1,2-Trichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	03/07/2019 07:30	03/07/2019 15:44	RDS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS



Sample Information

Client Sample ID: WQ030119: 1400 NP1-1-2

York Sample ID: 19C0086-01

York Project (SDG) No.
19C0086

Client Project ID
31401451.000 Task 01.00

Matrix
Water

Collection Date/Time
March 1, 2019 2:00 pm

Date Received
03/04/2019

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
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
591-78-6	2-Hexanone	ND		ug/L	0.200	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
67-64-1	Acetone	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
75-00-3	Chloroethane	ND		ug/L	0.200	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
74-87-3	Chloromethane	0.320		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS



Sample Information

Client Sample ID: WQ030119: 1400 NP1-1-2

York Sample ID: 19C0086-01

York Project (SDG) No.

19C0086

Client Project ID

31401451.000 Task 01.00

Matrix

Water

Collection Date/Time

March 1, 2019 2:00 pm

Date Received

03/04/2019

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
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
127-18-4	Tetrachloroethylene	0.320		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
79-01-6	Trichloroethylene	0.200		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	03/07/2019 07:30	03/07/2019 15:44	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	03/07/2019 07:30	03/07/2019 15:44	RDS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	97.3 %	70-130								
2037-26-5	Surrogate: SURR: Toluene-d8	93.1 %	70-130								
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	101 %	70-130								



Analytical Batch Summary

Batch ID: BC90336

Preparation Method: EPA 5030B

Prepared By: RDS

YORK Sample ID	Client Sample ID	Preparation Date
19C0086-01	WQ030119: 1400 NP1-1-2	03/07/19
BC90336-BLK1	Blank	03/07/19
BC90336-BS1	LCS	03/07/19
BC90336-BSD1	LCS Dup	03/07/19



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BC90336 - EPA 5030B											
Blank (BC90336-BLK1)										Prepared & Analyzed: 03/07/2019	
1,1,1,2-Tetrachloroethane	ND	0.500	ug/L								
1,1,1-Trichloroethane	ND	0.500	"								
1,1,2,2-Tetrachloroethane	ND	0.500	"								
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	0.500	"								
1,1,2-Trichloroethane	ND	0.500	"								
1,1-Dichloroethane	ND	0.500	"								
1,1-Dichloroethylene	ND	0.500	"								
1,1-Dichloropropylene	ND	0.500	"								
1,2,3-Trichlorobenzene	ND	2.00	"								
1,2,3-Trichloropropane	ND	0.500	"								
1,2,4-Trichlorobenzene	ND	0.500	"								
1,2,4-Trimethylbenzene	ND	0.500	"								
1,2-Dibromo-3-chloropropane	ND	0.500	"								
1,2-Dibromoethane	ND	0.500	"								
1,2-Dichlorobenzene	ND	0.500	"								
1,2-Dichloroethane	ND	0.500	"								
1,2-Dichloropropane	ND	0.500	"								
1,3,5-Trimethylbenzene	ND	0.500	"								
1,3-Dichlorobenzene	ND	0.500	"								
1,3-Dichloropropane	ND	0.500	"								
1,4-Dichlorobenzene	ND	0.500	"								
2,2-Dichloropropane	ND	0.500	"								
2-Chlorotoluene	ND	0.500	"								
2-Hexanone	ND	2.00	"								
4-Chlorotoluene	ND	0.500	"								
Acetone	ND	2.00	"								
Benzene	ND	0.500	"								
Bromobenzene	ND	0.500	"								
Bromochloromethane	ND	0.500	"								
Bromodichloromethane	ND	0.500	"								
Bromoform	ND	0.500	"								
Bromomethane	ND	0.500	"								
Carbon tetrachloride	ND	0.500	"								
Chlorobenzene	ND	0.500	"								
Chloroethane	ND	2.00	"								
Chloroform	ND	0.500	"								
Chloromethane	ND	0.500	"								
cis-1,2-Dichloroethylene	ND	0.500	"								
cis-1,3-Dichloropropylene	ND	0.500	"								
Dibromochloromethane	ND	0.500	"								
Dibromomethane	ND	0.500	"								
Dichlorodifluoromethane	ND	0.500	"								
Ethyl Benzene	ND	0.500	"								
Hexachlorobutadiene	ND	0.500	"								
Isopropylbenzene	ND	0.500	"								
Methyl tert-butyl ether (MTBE)	ND	0.500	"								
Methylene chloride	ND	2.00	"								
Naphthalene	ND	2.00	"								
n-Butylbenzene	ND	0.500	"								
n-Propylbenzene	ND	0.500	"								



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 BC90336 - EPA 5030B

Blank (BC90336-BLK1)

Prepared & Analyzed: 03/07/2019

o-Xylene	ND	0.500	ug/L
p- & m- Xylenes	ND	1.00	"
p-Isopropyltoluene	ND	0.500	"
sec-Butylbenzene	ND	0.500	"
Styrene	ND	0.500	"
tert-Butylbenzene	ND	0.500	"
Tetrachloroethylene	ND	0.500	"
Toluene	ND	0.500	"
trans-1,2-Dichloroethylene	ND	0.500	"
trans-1,3-Dichloropropylene	ND	0.500	"
Trichloroethylene	ND	0.500	"
Trichlorofluoromethane	ND	0.500	"
Vinyl Chloride	ND	0.500	"
Xylenes, Total	ND	1.50	"

Surrogate: SURR: 1,2-Dichloroethane-d4

10.0

"

10.0

100

70-130

Surrogate: SURR: Toluene-d8

9.31

"

10.0

93.1

70-130

Surrogate: SURR: p-Bromofluorobenzene

10.0

"

10.0

100

70-130

LCS (BC90336-BS1)

Prepared & Analyzed: 03/07/2019

1,1,1,2-Tetrachloroethane	10.2	ug/L	10.0	102	82-126	30
1,1,1-Trichloroethane	11.2	"	10.0	112	70-130	20
1,1,2,2-Tetrachloroethane	9.96	"	10.0	99.6	70-130	20
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	12.2	"	10.0	122	70-130	20
1,1,2-Trichloroethane	9.66	"	10.0	96.6	70-130	20
1,1-Dichloroethane	11.2	"	10.0	112	70-130	20
1,1-Dichloroethylene	11.4	"	10.0	114	70-130	20
1,1-Dichloropropylene	11.2	"	10.0	112	83-133	30
1,2,3-Trichlorobenzene	9.44	"	10.0	94.4	70-130	20
1,2,3-Trichloropropane	10.1	"	10.0	101	77-128	30
1,2,4-Trichlorobenzene	9.44	"	10.0	94.4	70-130	20
1,2,4-Trimethylbenzene	9.86	"	10.0	98.6	82-132	20
1,2-Dibromo-3-chloropropane	9.96	"	10.0	99.6	40-160	20
1,2-Dibromoethane	9.93	"	10.0	99.3	70-130	20
1,2-Dichlorobenzene	9.65	"	10.0	96.5	70-130	20
1,2-Dichloroethane	10.9	"	10.0	109	70-130	20
1,2-Dichloropropane	9.87	"	10.0	98.7	70-130	20
1,3,5-Trimethylbenzene	9.99	"	10.0	99.9	80-131	30
1,3-Dichlorobenzene	9.53	"	10.0	95.3	70-130	20
1,3-Dichloropropane	10.1	"	10.0	101	81-125	30
1,4-Dichlorobenzene	9.48	"	10.0	94.8	70-130	20
2,2-Dichloropropane	11.5	"	10.0	115	56-150	30
2-Chlorotoluene	10.0	"	10.0	100	79-130	30
2-Hexanone	9.93	"	10.0	99.3	40-160	20
4-Chlorotoluene	9.82	"	10.0	98.2	79-128	30
Acetone	11.0	"	10.0	110	40-160	20
Benzene	11.2	"	10.0	112	70-130	20
Bromobenzene	9.80	"	10.0	98.0	78-129	30
Bromochloromethane	11.2	"	10.0	112	70-130	20
Bromodichloromethane	9.96	"	10.0	99.6	70-130	20
Bromoform	9.57	"	10.0	95.7	70-130	20
Bromomethane	8.18	"	10.0	81.8	40-160	20



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 BC90336 - EPA 5030B

LCS (BC90336-BS1)

Prepared & Analyzed: 03/07/2019

Carbon tetrachloride	11.4		ug/L	10.0		114	70-130			20	
Chlorobenzene	10.0		"	10.0		100	70-130			20	
Chloroethane	13.4		"	10.0		134	40-160			20	
Chloroform	11.1		"	10.0		111	70-130			20	
Chloromethane	11.9		"	10.0		119	40-160			20	
cis-1,2-Dichloroethylene	11.1		"	10.0		111	70-130			20	
cis-1,3-Dichloropropylene	10.0		"	10.0		100	70-130			20	
Dibromochloromethane	10.1		"	10.0		101	70-130			20	
Dibromomethane	9.86		"	10.0		98.6	72-134			30	
Dichlorodifluoromethane	11.1		"	10.0		111	40-160			20	
Ethyl Benzene	10.6		"	10.0		106	70-130			20	
Hexachlorobutadiene	11.0		"	10.0		110	67-146			30	
Isopropylbenzene	10.1		"	10.0		101	70-130			20	
Methyl tert-butyl ether (MTBE)	11.0		"	10.0		110	70-130			20	
Methylene chloride	10.3		"	10.0		103	70-130			20	
Naphthalene	9.66		"	10.0		96.6	70-147			30	
n-Butylbenzene	10.5		"	10.0		105	79-132			30	
n-Propylbenzene	10.3		"	10.0		103	78-133			30	
o-Xylene	10.3		"	10.0		103	70-130			20	
p- & m- Xylenes	21.4		"	20.0		107	70-130			20	
p-Isopropyltoluene	10.3		"	10.0		103	81-136			30	
sec-Butylbenzene	10.7		"	10.0		107	79-137			30	
Styrene	10.3		"	10.0		103	70-130			20	
tert-Butylbenzene	10.1		"	10.0		101	77-138			30	
Tetrachloroethylene	9.10		"	10.0		91.0	70-130			20	
Toluene	10.4		"	10.0		104	70-130			20	
trans-1,2-Dichloroethylene	10.9		"	10.0		109	70-130			20	
trans-1,3-Dichloropropylene	9.69		"	10.0		96.9	70-130			20	
Trichloroethylene	10.2		"	10.0		102	70-130			20	
Trichlorofluoromethane	12.2		"	10.0		122	40-160			20	
Vinyl Chloride	12.9		"	10.0		129	70-130			20	
Surrogate: SURR: 1,2-Dichloroethane-d4	9.66		"	10.0		96.6	70-130				
Surrogate: SURR: Toluene-d8	9.39		"	10.0		93.9	70-130				
Surrogate: SURR: p-Bromofluorobenzene	10.2		"	10.0		102	70-130				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
Batch BC90336 - EPA 5030B											
LCS Dup (BC90336-BSD1)						Prepared & Analyzed: 03/07/2019					
1,1,1,2-Tetrachloroethane	9.77		ug/L	10.0		97.7	82-126		3.91	30	
1,1,1-Trichloroethane	10.6		"	10.0		106	70-130		5.14	20	
1,1,2,2-Tetrachloroethane	9.95		"	10.0		99.5	70-130		0.100	20	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.5		"	10.0		115	70-130		6.09	20	
1,1,2-Trichloroethane	9.70		"	10.0		97.0	70-130		0.413	20	
1,1-Dichloroethane	10.8		"	10.0		108	70-130		3.09	20	
1,1-Dichloroethylene	10.8		"	10.0		108	70-130		5.86	20	
1,1-Dichloropropylene	10.6		"	10.0		106	83-133		5.40	30	
1,2,3-Trichlorobenzene	8.93		"	10.0		89.3	70-130		5.55	20	
1,2,3-Trichloropropane	10.0		"	10.0		100	77-128		0.398	30	
1,2,4-Trichlorobenzene	9.14		"	10.0		91.4	70-130		3.23	20	
1,2,4-Trimethylbenzene	9.47		"	10.0		94.7	82-132		4.04	20	
1,2-Dibromo-3-chloropropane	10.0		"	10.0		100	40-160		0.700	20	
1,2-Dibromoethane	9.94		"	10.0		99.4	70-130		0.101	20	
1,2-Dichlorobenzene	9.47		"	10.0		94.7	70-130		1.88	20	
1,2-Dichloroethane	10.6		"	10.0		106	70-130		2.14	20	
1,2-Dichloropropane	9.55		"	10.0		95.5	70-130		3.30	20	
1,3,5-Trimethylbenzene	9.50		"	10.0		95.0	80-131		5.03	30	
1,3-Dichlorobenzene	9.22		"	10.0		92.2	70-130		3.31	20	
1,3-Dichloropropane	9.99		"	10.0		99.9	81-125		1.39	30	
1,4-Dichlorobenzene	9.16		"	10.0		91.6	70-130		3.43	20	
2,2-Dichloropropane	10.8		"	10.0		108	56-150		6.46	30	
2-Chlorotoluene	9.60		"	10.0		96.0	79-130		4.08	30	
2-Hexanone	10.1		"	10.0		101	40-160		1.90	20	
4-Chlorotoluene	9.38		"	10.0		93.8	79-128		4.58	30	
Acetone	11.6		"	10.0		116	40-160		5.85	20	
Benzene	10.9		"	10.0		109	70-130		2.80	20	
Bromobenzene	9.52		"	10.0		95.2	78-129		2.90	30	
Bromochloromethane	11.1		"	10.0		111	70-130		0.990	20	
Bromodichloromethane	9.75		"	10.0		97.5	70-130		2.13	20	
Bromoform	9.61		"	10.0		96.1	70-130		0.417	20	
Bromomethane	8.43		"	10.0		84.3	40-160		3.01	20	
Carbon tetrachloride	10.8		"	10.0		108	70-130		5.31	20	
Chlorobenzene	9.65		"	10.0		96.5	70-130		4.06	20	
Chloroethane	12.2		"	10.0		122	40-160		9.24	20	
Chloroform	10.7		"	10.0		107	70-130		3.31	20	
Chloromethane	11.5		"	10.0		115	40-160		2.91	20	
cis-1,2-Dichloroethylene	10.7		"	10.0		107	70-130		3.58	20	
cis-1,3-Dichloropropylene	9.68		"	10.0		96.8	70-130		3.35	20	
Dibromochloromethane	9.86		"	10.0		98.6	70-130		2.21	20	
Dibromomethane	9.72		"	10.0		97.2	72-134		1.43	30	
Dichlorodifluoromethane	10.5		"	10.0		105	40-160		5.56	20	
Ethyl Benzene	10.1		"	10.0		101	70-130		4.84	20	
Hexachlorobutadiene	10.3		"	10.0		103	67-146		6.37	30	
Isopropylbenzene	9.63		"	10.0		96.3	70-130		4.37	20	
Methyl tert-butyl ether (MTBE)	10.9		"	10.0		109	70-130		0.733	20	
Methylene chloride	10.1		"	10.0		101	70-130		2.55	20	
Naphthalene	9.72		"	10.0		97.2	70-147		0.619	30	
n-Butylbenzene	9.52		"	10.0		95.2	79-132		9.60	30	
n-Propylbenzene	9.76		"	10.0		97.6	78-133		5.29	30	
o-Xylene	9.94		"	10.0		99.4	70-130		3.85	20	



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 BC90336 - EPA 5030B

LCS Dup (BC90336-BSD1)

Prepared & Analyzed: 03/07/2019

p- & m- Xylenes	20.3		ug/L	20.0		102	70-130		5.03	20
p-Isopropyltoluene	9.78		"	10.0		97.8	81-136		4.99	30
sec-Butylbenzene	10.2		"	10.0		102	79-137		4.59	30
Styrene	9.95		"	10.0		99.5	70-130		3.84	20
tert-Butylbenzene	9.68		"	10.0		96.8	77-138		3.95	30
Tetrachloroethylene	8.64		"	10.0		86.4	70-130		5.19	20
Toluene	9.90		"	10.0		99.0	70-130		4.54	20
trans-1,2-Dichloroethylene	10.4		"	10.0		104	70-130		4.32	20
trans-1,3-Dichloropropylene	9.41		"	10.0		94.1	70-130		2.93	20
Trichloroethylene	9.58		"	10.0		95.8	70-130		5.78	20
Trichlorofluoromethane	11.5		"	10.0		115	40-160		5.41	20
Vinyl Chloride	12.2		"	10.0		122	70-130		5.65	20
Surrogate: SURR: 1,2-Dichloroethane-d4	9.91		"	10.0		99.1	70-130			
Surrogate: SURR: Toluene-d8	9.36		"	10.0		93.6	70-130			
Surrogate: SURR: p-Bromofluorobenzene	10.2		"	10.0		102	70-130			



Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
19C0086-01	WQ030119: 1400 NP1-1-2	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



Sample and Data Qualifiers Relating to This Work Order

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.

