



## PROJECT STATUS MEMORANDUM

**TO:** Pamela Tames, USEPA

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

**SUBJECT:** Rowe Industries Superfund Site  
NYS Site ID No. 152106  
Groundwater Recovery and Treatment System  
DRAFT August 2020 Status Report

**DATE:** November 30, 2020

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; 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. In February 2020, the FP&T system, which consists of four focused recover wells (FRW-1, FRW-2, FRW-3 and FRW-4), was turned off with EPA approval to conduct in-situ injection to treat contaminants in the former drum storage area (FDSCA). This status report presents a summary of performance, operation and maintenance for the FSP&T system and monitoring activities for the site from August 1, 2020 through August 31, 2020. 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

(August 1, 2020 through August 31, 2020)

- |   |                            |
|---|----------------------------|
| 1. Hours of operation during the reporting period:  | 704 hours (94.7%)          |
| 2. Alarm conditions during the reporting period:  | See Table 1                |
| 3. Were the State Pollutant Discharge Elimination System (SPDES) volatile organic compounds (VOC) discharge permit criteria achieved: | Yes, (see Table 2, App. I) |
| 4. Total volume of water pumped during the reporting period:  | 1,311,531 gal.             |
| 5. Was the system effluent flow below the SPDES limit of 1,023,000 gpd:   | Yes, (see Graph 1)         |
| 6. Mass of VOCs recovered during the reporting period:  | <0.01 pound (see Graph 2)  |
| 7. Cumulative mass of VOCs recovered since startup on 12/17/02:<br>(calculations can be provided upon request)                        | 230.0 pounds               |



## PUMP AND TREAT SYSTEM STATUS SUMMARY

On August 7, 2020, a fernco fitting on the booster blower piping was observed to be loose. On August 20, 2020, the fernco fitting was tightened. The remaining O&M activities for August 2020 are included in Table 1.

### SUMMARY OF SAMPLING ACTIVITIES

August 2020 groundwater quality sampling was completed for the following wells:

- A monthly groundwater sample was collected from RW-2 on August 7, 2020.

Table 3 presents a summary of the quality results for water samples collected from downgradient recovery well RW-2. Graph 3 presents tetrachloroethylene (PCE) concentrations for samples collected from RW-2 for the last 24 months. The laboratory analytical report for the water sample collected from the recovery well is included as Appendix I. Because RW-2 is the only well operating, the sample from that well also serves as the influent system sample.

The PCE, trichloroethylene (TCE), cis-1,2-dichloroethylene (cis-DCE), vinyl chloride (VC) and trichloroethane (TCA) concentrations in the groundwater sample collected from RW-2 were below the respective Applicable or Relevant and Appropriate Requirements (ARARs); concentrations at RW-2 have been below the ARARs for over 10 years.

A groundwater sample from RW-2 will continue to be collected and analyzed monthly.

### FUTURE O&M ACTIVITIES

O&M activities scheduled for September 2020 include:

- normal bi-weekly/monthly O&M activities.

#### 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

## **TABLES**

**TABLE 1**

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

**MAINTENANCE LOG  
(August 1, 2020 through August 31, 2020)**

Date	Time	System Changes/Modifications	Personnel
8/5/20	4:06 PM	Power Failure alarm and Pump Fault Alarm caused by an electrical storm. System shuts down.	
8/7/20	7:47 AM	Reset power failure and pump fault alarms and restarted the system without issue.	SP
		High humidity and heat inside the building is causing tank and pipe sweating condensation, which is a normal occurrence for the FSP&T system in the summertime. Dehumidifier is operating but has little affect. Floors were squeegeed to remove water from the floor.	SP
		Fernco attachment on booster blower piping is loose. Evaluate issue for follow-up work on subsequent visit.	SP
8/20/20		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. Cleaned filter baskets and housings.	SP
		High humidity and heat inside the building continues to cause condensation. Floors were squeegeed to remove water from the floor.	SP
		Re-connected exterior fernco on the booster blower pipe.	SP

Notes:

SP                    Scott Philbrick, WSP USA

H:\NABIS\2020\Monthly Rpts\August\Table 1 Maintenance Record - Aug 2020.docx

TABLE 2

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

**Effluent Water Quality Results**

Date Sampled <sup>2/</sup>	pH <sup>1/</sup>	TDS <sup>4/</sup> (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	---	---
5-Sep-19	6.8	172	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	0.291	ND<0.278
3-Oct-19	6.5	165	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	0.612	ND<0.278
4-Nov-19	6.0	102	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	0.536	ND<0.278
5-Dec-19	6.8	129	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	NA	NA
7-Jan-20	6.8	175	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	NA	NA
4-Feb-20	7.0	122	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	NA	NA
2-Mar-20	7.0	137	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	NA	NA
2-Apr-20	7.0	161	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	NA	NA
7-May-20	7.0	299	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	NA	NA
2-Jun-20	6.8	174	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	NA	NA
7-Jul-20	7.0	125	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	NA	NA
7-Aug-20	6.8	178	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	NA	NA

SPDES: State Pollutant Discharge Elimination System

mg/l: Milligrams per liter

ug/l: Micrograms per liter

---: Not established

NM: Not Measured

TDS: Total dissolved solids

PCE: Tetrachloroethylene

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

TCE: Trichloroethene

1,1-DCA: 1,1-Dichloroethane

1,1-DCE: 1,1-Dichloroethene

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

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

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

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

ND: Not detected NA: Not Analyzed

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

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.

## Notes:

- Based on the SPDES criteria from an NYSDEC letter dated on May 6, 2016, the allowable pH range for the Rowe Site is between 6.5 and 8.5. The effluent pH was 6.8 on August 20, 2020. Historic pH measurements from recovery wells indicate that natural background pH concentrations are less than 6.5.
- "Effluent" samples were collected from sample port labeled NP2-10 unless otherwise noted.
- Starting in October 2016, FSP&T system samples are collected monthly instead of once every two weeks. The pH of the effluent water is measured two times per month in accordance with the SPDES requirements.

TABLE 3

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

**Recovery Well Water Quality Results**

Recovery Well <sup>1/</sup>	Date Sampled	PCE (ug/L)	TCE (ug/L)	TCA (ug/L)	Chloroform (ug/L)	MTBE (ug/L)	1,1-Dichloroethane (ug/L)	cis-1,2-Dichloroethene (ug/L)	1,1-Dichloroethene (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	1-Aug-19	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
	5-Sep-19	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
	3-Oct-19	ND<0.5	0.220	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-Nov-19	0.400	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	5-Dec-19	0.270	0.300	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-Jan-20	0.250	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
	4-Feb-20	0.270 Q	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-Mar-20	1.67 C	0.250	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-20	0.230	0.230 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
	7-May-20	0.240	ND<0.5	ND<0.5	0.210	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-Jun-20	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
	7-Jul-20	0.220	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5
	7-Aug-20	ND<0.5	ND<0.5	ND<0.5		0.260	ND<0.5	ND<0.5	ND<0.5	ND<2	ND<0.5	ND<0.5	ND<1	ND<0.5

PCE: Tetrachloroethylene

MTBE: Methyl tertiary-butyl ether

TCE: Trichloroethylene

NS: Not sampled

TCA: 1,1,1-Trichloroethane

ND: Not detected

&lt;#: Less than method detection limit

ug/L: Micrograms per liter

-: Not analyzed

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

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

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.

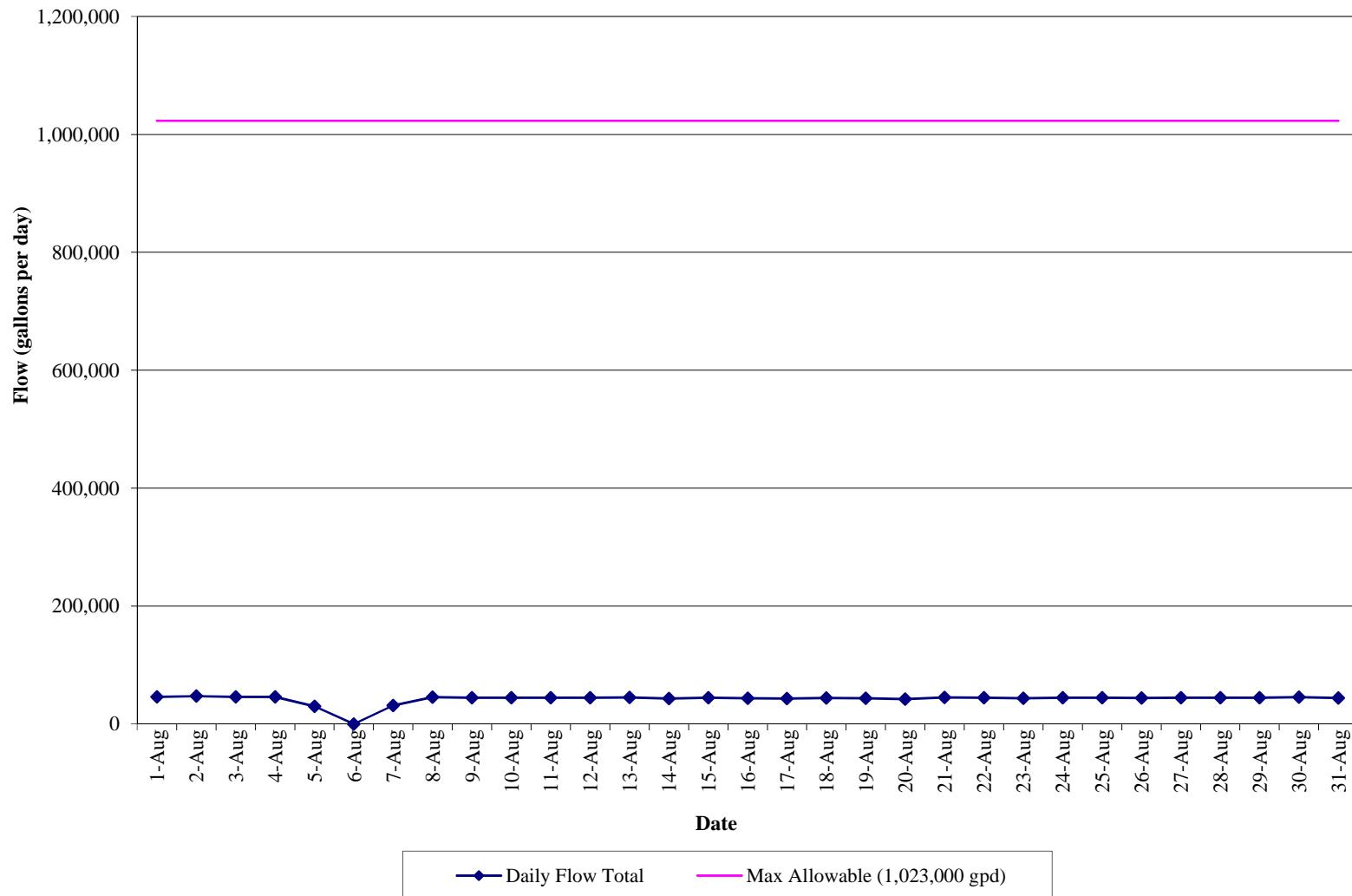
Bold values indicate an exceedance of the ARAR standard established for the site.

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

## **GRAPHS**

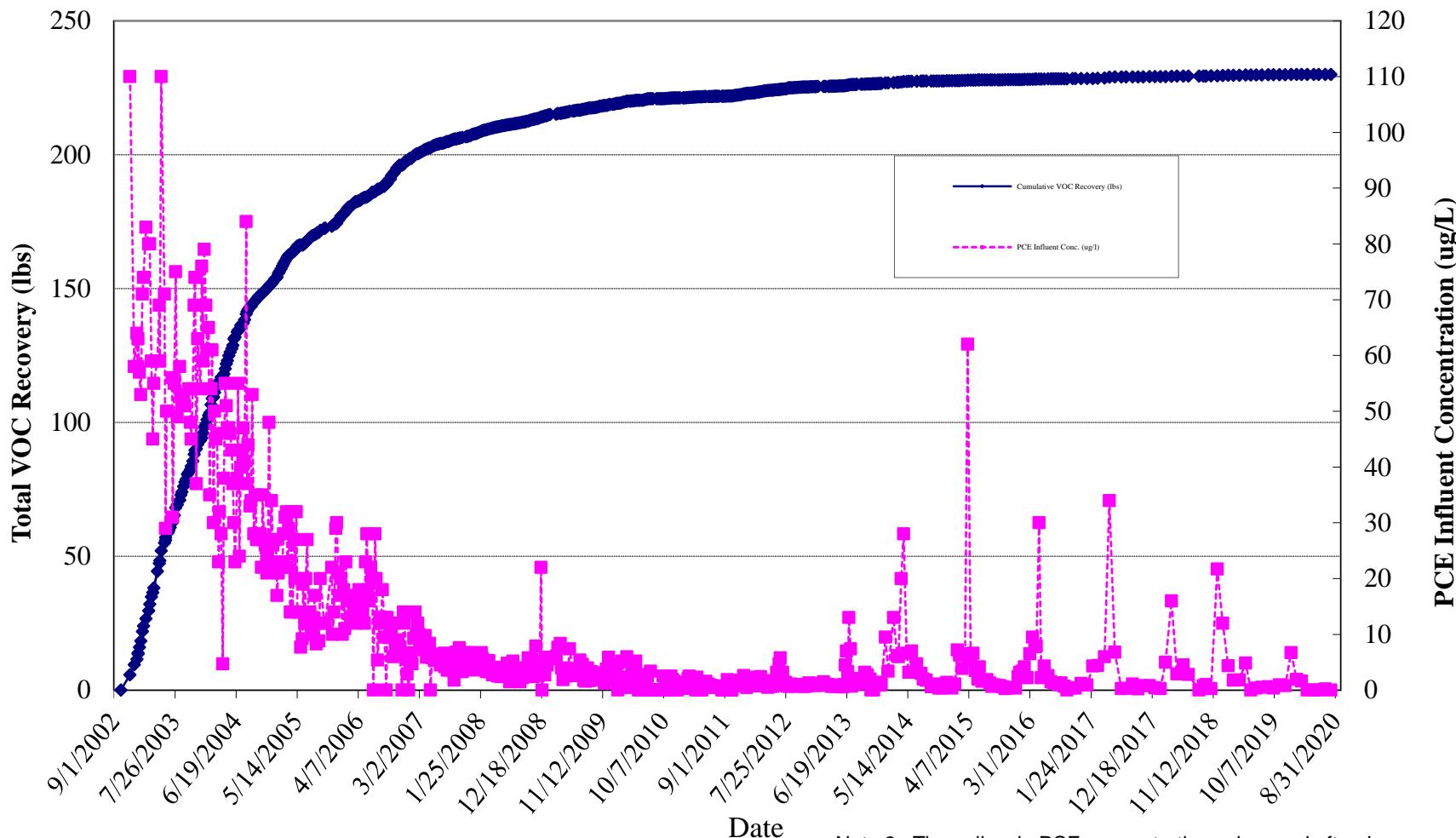
**GRAPH 1**  
**GROUNDWATER REMEDIAL ACTION**  
**ROWE INDUSTRIES SUPERFUND SITE**  
**SAG HARBOR, NEW YORK**

**Effluent Flow Data**  
**(August 1, 2020 to August 31, 2020)**



**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**

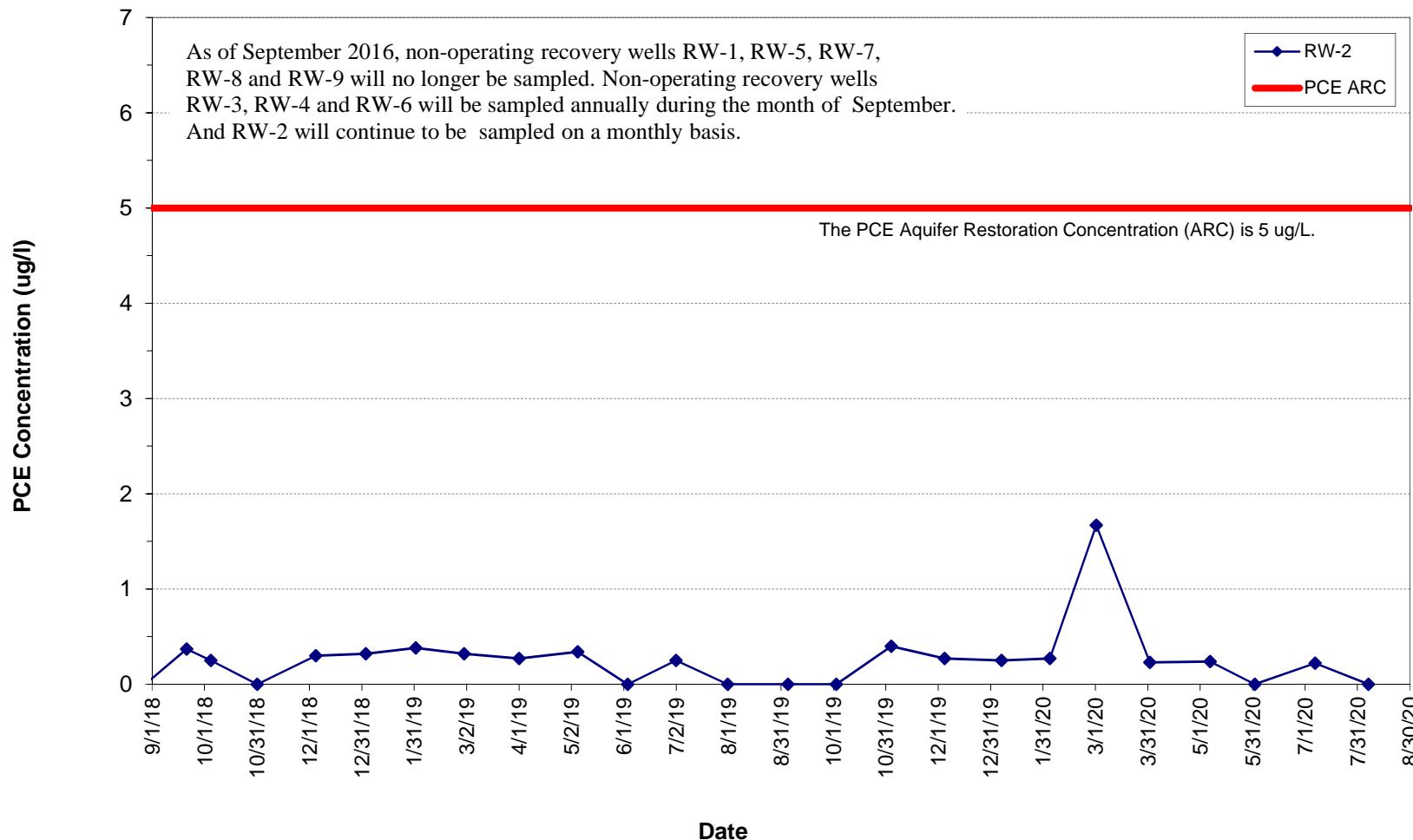


Note 1 : After September 22, 2008, the water recovered from the FP&T System is included in the results shown in this graph.

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**



**APPENDIX I**  
**AUGUST 2020 LABORATORY ANALYTICAL REPORT**  
**FOR FSP&T SYSTEM AND RW-2**



# Technical Report

prepared for:

**WSP USA, Inc. (Shelton)**  
4 Research Drive, Suite 204  
Shelton CT, 06484

**Attention: Tunde Komuves-Sandor**

Report Date: 08/11/2020

**Client Project ID: 31402600.000 Task 01.00 Rowe Industries**  
**York Project (SDG) No.: 20H0269**

CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037



New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

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

Report Date: 08/11/2020  
Client Project ID: 31402600.000 Task 01.00 Rowe Industries  
York Project (SDG) No.: 20H0269

**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 August 07, 2020 and listed below. The project was identified as your project: **31402600.000 Task 01.00 Rowe Industries**.

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>
20H0269-01	WQ080720:1015NP1-1-2	Water	08/07/2020	08/07/2020

## General Notes for York Project (SDG) No.: 20H0269

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: 08/11/2020





## Sample Information

Client Sample ID: WQ080720:1015NP1-1-2

York Sample ID: 20H0269-01

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
20H0269	31402600.000 Task 01.00 Rowe Industries	Water	August 7, 2020 10:15 am	08/07/2020

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
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	08/10/2020 12:30	08/11/2020 07:53	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,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	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,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
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	08/10/2020 12:30	08/11/2020 07:53	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	08/10/2020 12:30	08/11/2020 07:53	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
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	08/10/2020 12:30	08/11/2020 07:53	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,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
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	08/10/2020 12:30	08/11/2020 07:53	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS



## Sample Information

Client Sample ID: WQ080720:1015NP1-1-2

York Sample ID: 20H0269-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20H0269	31402600.000 Task 01.00 Rowe Industries	Water	August 7, 2020 10:15 am	08/07/2020

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
591-78-6	2-Hexanone	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
67-64-1	Acetone	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
67-66-3	<b>Chloroform</b>	<b>0.260</b>		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
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	08/10/2020 12:30	08/11/2020 07:53	SS
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	08/10/2020 12:30	08/11/2020 07:53	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS



## Sample Information

Client Sample ID: **WQ080720:1015NP1-1-2**

York Sample ID: **20H0269-01**

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
20H0269	31402600.000 Task 01.00 Rowe Industries	Water	August 7, 2020 10:15 am	08/07/2020

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
127-18-4	Tetrachloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
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	08/10/2020 12:30	08/11/2020 07:53	SS
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	08/10/2020 12:30	08/11/2020 07:53	SS
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 07:53	SS
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	08/10/2020 12:30	08/11/2020 07:53	SS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	110 %	69-130								
2037-26-5	Surrogate: SURR: Toluene-d8	103 %	81-117								
460-00-4	Surrogate: SURR: p-Bromoanisole	109 %	79-122								



## Analytical Batch Summary

**Batch ID:** BH00451

**Preparation Method:** EPA 5030B

**Prepared By:** CLO

YORK Sample ID	Client Sample ID	Preparation Date
20H0269-01	WQ080720:1015NP1-1-2	08/10/20
BH00451-BLK1	Blank	08/10/20
BH00451-BS1	LCS	08/10/20
BH00451-BSD1	LCS Dup	08/10/20



## 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	RPD Limit	RPD Flag
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#### Batch BH00451 - EPA 5030B

##### Blank (BH00451-BLK1)

Prepared & Analyzed: 08/10/2020

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	0.500	"								
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	0.500	"								
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	0.500	"								
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	"								



## Volatile Organic Compounds by GC/MS - Quality Control Data

### York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
<b>Batch BH00451 - EPA 5030B</b>											
<b>Blank (BH00451-BLK1)</b>											
Prepared & Analyzed: 08/10/2020											
n-Propylbenzene	ND	0.500	ug/L								
o-Xylene	ND	0.500	"								
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	"								
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>	11.4		"	10.0		114	69-130				
<i>Surrogate: SURR: Toluene-d8</i>	10.1		"	10.0		101	81-117				
<i>Surrogate: SURR: p-Bromofluorobenzene</i>	10.3		"	10.0		103	79-122				
<b>LCS (BH00451-BS1)</b>											
Prepared & Analyzed: 08/10/2020											
1,1,1,2-Tetrachloroethane	9.94		ug/L	10.0		99.4	82-126				
1,1,1-Trichloroethane	10.8		"	10.0		108	78-136				
1,1,2,2-Tetrachloroethane	9.22		"	10.0		92.2	76-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.0		"	10.0		110	54-165				
1,1,2-Trichloroethane	10.0		"	10.0		100	82-123				
1,1-Dichloroethane	9.81		"	10.0		98.1	82-129				
1,1-Dichloroethylene	12.0		"	10.0		120	68-138				
1,1-Dichloropropylene	10.6		"	10.0		106	83-133				
1,2,3-Trichlorobenzene	9.46		"	10.0		94.6	76-136				
1,2,3-Trichloropropane	9.60		"	10.0		96.0	77-128				
1,2,4-Trichlorobenzene	9.21		"	10.0		92.1	76-137				
1,2,4-Trimethylbenzene	8.88		"	10.0		88.8	82-132				
1,2-Dibromo-3-chloropropane	10.0		"	10.0		100	45-147				
1,2-Dibromoethane	10.1		"	10.0		101	83-124				
1,2-Dichlorobenzene	9.24		"	10.0		92.4	79-123				
1,2-Dichloroethane	10.9		"	10.0		109	73-132				
1,2-Dichloropropane	9.97		"	10.0		99.7	78-126				
1,3,5-Trimethylbenzene	8.73		"	10.0		87.3	80-131				
1,3-Dichlorobenzene	8.74		"	10.0		87.4	86-122				
1,3-Dichloropropane	10.3		"	10.0		103	81-125				
1,4-Dichlorobenzene	8.82		"	10.0		88.2	85-124				
2,2-Dichloropropane	8.97		"	10.0		89.7	56-150				
2-Chlorotoluene	8.22		"	10.0		82.2	79-130				
2-Hexanone	11.5		"	10.0		115	51-146				
4-Chlorotoluene	8.21		"	10.0		82.1	79-128				
Acetone	11.2		"	10.0		112	14-150				
Benzene	9.77		"	10.0		97.7	85-126				
Bromobenzene	8.46		"	10.0		84.6	78-129				
Bromo(chloromethane	11.2		"	10.0		112	77-128				
Bromodichloromethane	10.5		"	10.0		105	79-128				



## Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
<b>Batch BH00451 - EPA 5030B</b>											
<b>LCS (BH00451-BS1)</b>											
Prepared & Analyzed: 08/10/2020											
Bromoform	9.25		ug/L	10.0	92.5	78-133					
Bromomethane	9.43		"	10.0	94.3	43-168					
Carbon tetrachloride	10.4		"	10.0	104	77-141					
Chlorobenzene	9.43		"	10.0	94.3	88-120					
Chloroethane	11.9		"	10.0	119	65-136					
Chloroform	10.3		"	10.0	103	82-128					
Chloromethane	12.8		"	10.0	128	43-155					
cis-1,2-Dichloroethylene	10.1		"	10.0	101	83-129					
cis-1,3-Dichloropropylene	10.0		"	10.0	100	80-131					
Dibromochloromethane	10.5		"	10.0	105	80-130					
Dibromomethane	10.4		"	10.0	104	72-134					
Dichlorodifluoromethane	15.8		"	10.0	158	44-144	High Bias				
Ethyl Benzene	9.65		"	10.0	96.5	80-131					
Hexachlorobutadiene	9.16		"	10.0	91.6	67-146					
Isopropylbenzene	8.58		"	10.0	85.8	76-140					
Methyl tert-butyl ether (MTBE)	10.9		"	10.0	109	76-135					
Methylene chloride	10.9		"	10.0	109	55-137					
Naphthalene	10.1		"	10.0	101	70-147					
n-Butylbenzene	12.0		"	10.0	120	79-132					
n-Propylbenzene	8.69		"	10.0	86.9	78-133					
o-Xylene	9.46		"	10.0	94.6	78-130					
p- & m- Xylenes	19.2		"	20.0	96.0	77-133					
p-Isopropyltoluene	9.33		"	10.0	93.3	81-136					
sec-Butylbenzene	9.82		"	10.0	98.2	79-137					
Styrene	9.93		"	10.0	99.3	67-132					
tert-Butylbenzene	8.07		"	10.0	80.7	77-138					
Tetrachloroethylene	9.04		"	10.0	90.4	82-131					
Toluene	9.91		"	10.0	99.1	80-127					
trans-1,2-Dichloroethylene	10.6		"	10.0	106	80-132					
trans-1,3-Dichloropropylene	9.86		"	10.0	98.6	78-131					
Trichloroethylene	9.71		"	10.0	97.1	82-128					
Trichlorofluoromethane	12.2		"	10.0	122	67-139					
Vinyl Chloride	12.1		"	10.0	121	58-145					
Surrogate: SURR: 1,2-Dichloroethane-d4	11.7		"	10.0	117	69-130					
Surrogate: SURR: Toluene-d8	9.84		"	10.0	98.4	81-117					
Surrogate: SURR: p-Bromofluorobenzene	8.76		"	10.0	87.6	79-122					



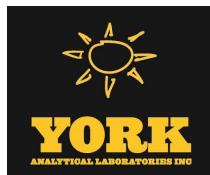
## Volatile Organic Compounds by GC/MS - Quality Control Data

**York Analytical Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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### **Batch BH00451 - EPA 5030B**

LCS Dup (BH00451-BSD1)	Prepared & Analyzed: 08/10/2020									
1,1,1,2-Tetrachloroethane	9.84		ug/L	10.0	98.4	82-126			1.01	30
1,1,1-Trichloroethane	11.0		"	10.0	110	78-136			1.29	30
1,1,2,2-Tetrachloroethane	9.55		"	10.0	95.5	76-129			3.52	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.8		"	10.0	108	54-165			2.66	30
1,1,2-Trichloroethane	9.94		"	10.0	99.4	82-123			0.602	30
1,1-Dichloroethane	9.81		"	10.0	98.1	82-129			0.00	30
1,1-Dichloroethylene	11.8		"	10.0	118	68-138			1.76	30
1,1-Dichloropropylene	10.6		"	10.0	106	83-133			0.471	30
1,2,3-Trichlorobenzene	9.36		"	10.0	93.6	76-136			1.06	30
1,2,3-Trichloropropane	9.81		"	10.0	98.1	77-128			2.16	30
1,2,4-Trichlorobenzene	9.29		"	10.0	92.9	76-137			0.865	30
1,2,4-Trimethylbenzene	9.19		"	10.0	91.9	82-132			3.43	30
1,2-Dibromo-3-chloropropane	10.6		"	10.0	106	45-147			5.73	30
1,2-Dibromoethane	9.90		"	10.0	99.0	83-124			1.80	30
1,2-Dichlorobenzene	9.62		"	10.0	96.2	79-123			4.03	30
1,2-Dichloroethane	10.6		"	10.0	106	73-132			2.61	30
1,2-Dichloropropane	9.88		"	10.0	98.8	78-126			0.907	30
1,3,5-Trimethylbenzene	9.01		"	10.0	90.1	80-131			3.16	30
1,3-Dichlorobenzene	9.14		"	10.0	91.4	86-122			4.47	30
1,3-Dichloropropane	9.98		"	10.0	99.8	81-125			2.86	30
1,4-Dichlorobenzene	9.28		"	10.0	92.8	85-124			5.08	30
2,2-Dichloropropane	8.43		"	10.0	84.3	56-150			6.21	30
2-Chlorotoluene	8.63		"	10.0	86.3	79-130			4.87	30
2-Hexanone	11.5		"	10.0	115	51-146			0.0871	30
4-Chlorotoluene	8.59		"	10.0	85.9	79-128			4.52	30
Acetone	9.85		"	10.0	98.5	14-150			13.3	30
Benzene	9.78		"	10.0	97.8	85-126			0.102	30
Bromobenzene	8.77		"	10.0	87.7	78-129			3.60	30
Bromochloromethane	11.3		"	10.0	113	77-128			0.443	30
Bromodichloromethane	10.3		"	10.0	103	79-128			1.63	30
Bromoform	9.27		"	10.0	92.7	78-133			0.216	30
Bromomethane	10.7		"	10.0	107	43-168			12.8	30
Carbon tetrachloride	10.4		"	10.0	104	77-141			0.192	30
Chlorobenzene	9.40		"	10.0	94.0	88-120			0.319	30
Chloroethane	10.9		"	10.0	109	65-136			8.33	30
Chloroform	10.2		"	10.0	102	82-128			1.18	30
Chloromethane	12.6		"	10.0	126	43-155			2.12	30
cis-1,2-Dichloroethylene	10.0		"	10.0	100	83-129			0.497	30
cis-1,3-Dichloropropylene	9.98		"	10.0	99.8	80-131			0.300	30
Dibromochloromethane	10.4		"	10.0	104	80-130			1.24	30
Dibromomethane	10.7		"	10.0	107	72-134			2.74	30
Dichlorodifluoromethane	16.0		"	10.0	160	44-144	High Bias		1.26	30
Ethyl Benzene	9.65		"	10.0	96.5	80-131			0.00	30
Hexachlorobutadiene	9.40		"	10.0	94.0	67-146			2.59	30
Isopropylbenzene	8.93		"	10.0	89.3	76-140			4.00	30
Methyl tert-butyl ether (MTBE)	10.7		"	10.0	107	76-135			2.04	30
Methylene chloride	10.4		"	10.0	104	55-137			4.96	30
Naphthalene	10.0		"	10.0	100	70-147			0.695	30
n-Butylbenzene	12.4		"	10.0	124	79-132			3.61	30
n-Propylbenzene	9.02		"	10.0	90.2	78-133			3.73	30



## Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
<b>Batch BH00451 - EPA 5030B</b>											
<b>LCS Dup (BH00451-BSD1)</b>											
Prepared & Analyzed: 08/10/2020											
o-Xylene	9.42		ug/L	10.0	94.2	78-130			0.424	30	
p- & m- Xylenes	19.2		"	20.0	96.2	77-133			0.156	30	
p-Isopropyltoluene	9.60		"	10.0	96.0	81-136			2.85	30	
sec-Butylbenzene	10.1		"	10.0	101	79-137			3.11	30	
Styrene	9.88		"	10.0	98.8	67-132			0.505	30	
tert-Butylbenzene	8.44		"	10.0	84.4	77-138			4.48	30	
Tetrachloroethylene	9.08		"	10.0	90.8	82-131			0.442	30	
Toluene	9.75		"	10.0	97.5	80-127			1.63	30	
trans-1,2-Dichloroethylene	10.6		"	10.0	106	80-132			0.659	30	
trans-1,3-Dichloropropylene	9.94		"	10.0	99.4	78-131			0.808	30	
Trichloroethylene	9.88		"	10.0	98.8	82-128			1.74	30	
Trichlorofluoromethane	12.4		"	10.0	124	67-139			1.63	30	
Vinyl Chloride	12.2		"	10.0	122	58-145			0.824	30	
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>	11.0		"	10.0	110	69-130					
<i>Surrogate: SURR: Toluene-d8</i>	9.96		"	10.0	99.6	81-117					
<i>Surrogate: SURR: p-Bromofluorobenzene</i>	8.98		"	10.0	89.8	79-122					



### Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
20H0269-01	WQ080720:1015NP1-1-2	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



## Sample and Data Qualifiers Relating to This Work Order

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

CCV-E The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).

### Definitions and Other Explanations

\* Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.

ND NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)

RL REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.

LOQ LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence . This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.

LOD LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.

MDL METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.

Reported to This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.

NR Not reported

RPD Relative Percent Difference

Wet The data has been reported on an as-received (wet weight) basis

Low Bias Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

High Bias High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

Non-Dir. Non-dir. flag (Non-Directional Bias ) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

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

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

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

Certification for pH is no longer offered by NYDOH ELAP.

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



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



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## ***Field Chain-of-Custody Record***

YORK Project N

20H0269

Page 1 of 1



# Technical Report

prepared for:

**WSP USA, Inc. (Shelton)**  
4 Research Drive, Suite 204  
Shelton CT, 06484

**Attention: Tunde Komuves-Sandor**

Report Date: 08/12/2020

**Client Project ID: 31402600.000 Task 01.00 Rowe Industries**  
**York Project (SDG) No.: 20H0271**

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  
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STRATFORD, CT 06615  
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■  
132-02 89th AVENUE  
FAX (203) 357-0166

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

Report Date: 08/12/2020  
Client Project ID: 31402600.000 Task 01.00 Rowe Industries  
York Project (SDG) No.: 20H0271

**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 August 07, 2020 and listed below. The project was identified as your project: **31402600.000 Task 01.00 Rowe Industries**.

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>
20H0271-01	WQ080720:10:00 NP2-10	Water	08/07/2020	08/07/2020

## General Notes for York Project (SDG) No.: 20H0271

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: 08/12/2020





## Sample Information

**Client Sample ID:** WQ080720:10:00 NP2-10

**York Sample ID:** 20H0271-01

<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Date Received</u>
20H0271	31402600.000 Task 01.00 Rowe Industries	Water	August 7, 2020 10:00 am	08/07/2020

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
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	08/10/2020 12:30	08/11/2020 08:20	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,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	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,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
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	08/10/2020 12:30	08/11/2020 08:20	SS
75-34-3	1,1-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
75-35-4	1,1-Dichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
563-58-6	1,1-Dichloropropylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	08/10/2020 12:30	08/11/2020 08:20	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
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	08/10/2020 12:30	08/11/2020 08:20	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,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
106-93-4	1,2-Dibromoethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
107-06-2	1,2-Dichloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
78-87-5	1,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
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	08/10/2020 12:30	08/11/2020 08:20	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
142-28-9	1,3-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
106-46-7	1,4-Dichlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
594-20-7	2,2-Dichloropropane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS



## Sample Information

Client Sample ID: WQ080720:10:00 NP2-10

York Sample ID: 20H0271-01

York Project (SDG) No.	Client Project ID	Matrix	Collection Date/Time	Date Received
20H0271	31402600.000 Task 01.00 Rowe Industries	Water	August 7, 2020 10:00 am	08/07/2020

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
95-49-8	2-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
591-78-6	2-Hexanone	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
106-43-4	4-Chlorotoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
67-64-1	Acetone	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
71-43-2	Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
108-86-1	Bromobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
74-97-5	Bromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
75-27-4	Bromodichloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
75-25-2	Bromoform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
74-83-9	Bromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
56-23-5	Carbon tetrachloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
108-90-7	Chlorobenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
75-00-3	Chloroethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
67-66-3	Chloroform	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
74-87-3	Chloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
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	08/10/2020 12:30	08/11/2020 08:20	SS
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	08/10/2020 12:30	08/11/2020 08:20	SS
124-48-1	Dibromochloromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
74-95-3	Dibromomethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
75-71-8	Dichlorodifluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
100-41-4	Ethyl Benzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
87-68-3	Hexachlorobutadiene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
98-82-8	Isopropylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS



## Sample Information

Client Sample ID: WQ080720:10:00 NP2-10

York Sample ID: 20H0271-01

York Project (SDG) No.

20H0271

Client Project ID

31402600.000 Task 01.00 Rowe Industries

Matrix

Water

Collection Date/Time

August 7, 2020 10:00 am

Date Received

08/07/2020

### Volatile Organics, 8260 List - Low Level

Sample Prepared by Method: EPA 5030B

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
75-09-2	Methylene chloride	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
91-20-3	Naphthalene	ND		ug/L	1.00	2.00	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
104-51-8	n-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
103-65-1	n-Propylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
95-47-6	o-Xylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.500	1.00	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
135-98-8	sec-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
100-42-5	Styrene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
98-06-6	tert-Butylbenzene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
127-18-4	Tetrachloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
108-88-3	Toluene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
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	08/10/2020 12:30	08/11/2020 08:20	SS
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	08/10/2020 12:30	08/11/2020 08:20	SS
79-01-6	Trichloroethylene	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
75-69-4	Trichlorofluoromethane	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
75-01-4	Vinyl Chloride	ND		ug/L	0.200	0.500	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	08/10/2020 12:30	08/11/2020 08:20	SS
1330-20-7	Xylenes, Total	ND		ug/L	0.600	1.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	08/10/2020 12:30	08/11/2020 08:20	SS
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>								
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	113 %	69-130								
2037-26-5	Surrogate: SURR: Toluene-d8	100 %	81-117								
460-00-4	Surrogate: SURR: p-Bromoformobenzene	110 %	79-122								

### Total Dissolved Solids

#### Log-in Notes:

#### Sample Notes:

120 RESEARCH DRIVE

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■ 132-02 89th AVENUE

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ClientServices@

Page 5 of 17



## Sample Information

Client Sample ID: WQ080720:10:00 NP2-10

York Sample ID: 20H0271-01

York Project (SDG) No.

20H0271

Client Project ID

31402600.000 Task 01.00 Rowe Industries

Matrix

Water

Collection Date/Time

August 7, 2020 10:00 am

Date Received

08/07/2020

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	178		mg/L	10.0	1	SM 2540C Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	08/10/2020 18:29	08/12/2020 03:43	AA



## Analytical Batch Summary

**Batch ID:** BH00451

**Preparation Method:** EPA 5030B

**Prepared By:** CLO

YORK Sample ID	Client Sample ID	Preparation Date
20H0271-01	WQ080720:10:00 NP2-10	08/10/20
BH00451-BLK1	Blank	08/10/20
BH00451-BS1	LCS	08/10/20
BH00451-BSD1	LCS Dup	08/10/20

**Batch ID:** BH00484

**Preparation Method:** % Solids Prep

**Prepared By:** AA

YORK Sample ID	Client Sample ID	Preparation Date
20H0271-01	WQ080720:10:00 NP2-10	08/10/20
BH00484-BLK1	Blank	08/10/20



## 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	RPD Limit	Flag
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### Batch BH00451 - EPA 5030B

#### Blank (BH00451-BLK1)

Prepared & Analyzed: 08/10/2020

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	0.500	"
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	0.500	"
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	0.500	"
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	"



## Volatile Organic Compounds by GC/MS - Quality Control Data

### York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
<b>Batch BH00451 - EPA 5030B</b>											
<b>Blank (BH00451-BLK1)</b>											
n-Propylbenzene	ND	0.500	ug/L								
o-Xylene	ND	0.500	"								
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	"								
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>	11.4		"	10.0		114	69-130				
<i>Surrogate: SURR: Toluene-d8</i>	10.1		"	10.0		101	81-117				
<i>Surrogate: SURR: p-Bromofluorobenzene</i>	10.3		"	10.0		103	79-122				
<b>LCS (BH00451-BS1)</b>											
Prepared & Analyzed: 08/10/2020											
1,1,1,2-Tetrachloroethane	9.94		ug/L	10.0		99.4	82-126				
1,1,1-Trichloroethane	10.8		"	10.0		108	78-136				
1,1,2,2-Tetrachloroethane	9.22		"	10.0		92.2	76-129				
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	11.0		"	10.0		110	54-165				
1,1,2-Trichloroethane	10.0		"	10.0		100	82-123				
1,1-Dichloroethane	9.81		"	10.0		98.1	82-129				
1,1-Dichloroethylene	12.0		"	10.0		120	68-138				
1,1-Dichloropropylene	10.6		"	10.0		106	83-133				
1,2,3-Trichlorobenzene	9.46		"	10.0		94.6	76-136				
1,2,3-Trichloropropane	9.60		"	10.0		96.0	77-128				
1,2,4-Trichlorobenzene	9.21		"	10.0		92.1	76-137				
1,2,4-Trimethylbenzene	8.88		"	10.0		88.8	82-132				
1,2-Dibromo-3-chloropropane	10.0		"	10.0		100	45-147				
1,2-Dibromoethane	10.1		"	10.0		101	83-124				
1,2-Dichlorobenzene	9.24		"	10.0		92.4	79-123				
1,2-Dichloroethane	10.9		"	10.0		109	73-132				
1,2-Dichloropropane	9.97		"	10.0		99.7	78-126				
1,3,5-Trimethylbenzene	8.73		"	10.0		87.3	80-131				
1,3-Dichlorobenzene	8.74		"	10.0		87.4	86-122				
1,3-Dichloropropane	10.3		"	10.0		103	81-125				
1,4-Dichlorobenzene	8.82		"	10.0		88.2	85-124				
2,2-Dichloropropane	8.97		"	10.0		89.7	56-150				
2-Chlorotoluene	8.22		"	10.0		82.2	79-130				
2-Hexanone	11.5		"	10.0		115	51-146				
4-Chlorotoluene	8.21		"	10.0		82.1	79-128				
Acetone	11.2		"	10.0		112	14-150				
Benzene	9.77		"	10.0		97.7	85-126				
Bromobenzene	8.46		"	10.0		84.6	78-129				
Bromo(chloromethane	11.2		"	10.0		112	77-128				
Bromodichloromethane	10.5		"	10.0		105	79-128				



## Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
<b>Batch BH00451 - EPA 5030B</b>											
<b>LCS (BH00451-BS1)</b>											
Prepared & Analyzed: 08/10/2020											
Bromoform	9.25		ug/L	10.0	92.5	78-133					
Bromomethane	9.43		"	10.0	94.3	43-168					
Carbon tetrachloride	10.4		"	10.0	104	77-141					
Chlorobenzene	9.43		"	10.0	94.3	88-120					
Chloroethane	11.9		"	10.0	119	65-136					
Chloroform	10.3		"	10.0	103	82-128					
Chloromethane	12.8		"	10.0	128	43-155					
cis-1,2-Dichloroethylene	10.1		"	10.0	101	83-129					
cis-1,3-Dichloropropylene	10.0		"	10.0	100	80-131					
Dibromochloromethane	10.5		"	10.0	105	80-130					
Dibromomethane	10.4		"	10.0	104	72-134					
Dichlorodifluoromethane	15.8		"	10.0	158	44-144	High Bias				
Ethyl Benzene	9.65		"	10.0	96.5	80-131					
Hexachlorobutadiene	9.16		"	10.0	91.6	67-146					
Isopropylbenzene	8.58		"	10.0	85.8	76-140					
Methyl tert-butyl ether (MTBE)	10.9		"	10.0	109	76-135					
Methylene chloride	10.9		"	10.0	109	55-137					
Naphthalene	10.1		"	10.0	101	70-147					
n-Butylbenzene	12.0		"	10.0	120	79-132					
n-Propylbenzene	8.69		"	10.0	86.9	78-133					
o-Xylene	9.46		"	10.0	94.6	78-130					
p- & m- Xylenes	19.2		"	20.0	96.0	77-133					
p-Isopropyltoluene	9.33		"	10.0	93.3	81-136					
sec-Butylbenzene	9.82		"	10.0	98.2	79-137					
Styrene	9.93		"	10.0	99.3	67-132					
tert-Butylbenzene	8.07		"	10.0	80.7	77-138					
Tetrachloroethylene	9.04		"	10.0	90.4	82-131					
Toluene	9.91		"	10.0	99.1	80-127					
trans-1,2-Dichloroethylene	10.6		"	10.0	106	80-132					
trans-1,3-Dichloropropylene	9.86		"	10.0	98.6	78-131					
Trichloroethylene	9.71		"	10.0	97.1	82-128					
Trichlorofluoromethane	12.2		"	10.0	122	67-139					
Vinyl Chloride	12.1		"	10.0	121	58-145					
Surrogate: SURR: 1,2-Dichloroethane-d4	11.7		"	10.0	117	69-130					
Surrogate: SURR: Toluene-d8	9.84		"	10.0	98.4	81-117					
Surrogate: SURR: p-Bromofluorobenzene	8.76		"	10.0	87.6	79-122					



## Volatile Organic Compounds by GC/MS - Quality Control Data

**York Analytical Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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### **Batch BH00451 - EPA 5030B**

LCS Dup (BH00451-BSD1)	Prepared & Analyzed: 08/10/2020									
1,1,1,2-Tetrachloroethane	9.84		ug/L	10.0	98.4	82-126			1.01	30
1,1,1-Trichloroethane	11.0		"	10.0	110	78-136			1.29	30
1,1,2,2-Tetrachloroethane	9.55		"	10.0	95.5	76-129			3.52	30
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.8		"	10.0	108	54-165			2.66	30
1,1,2-Trichloroethane	9.94		"	10.0	99.4	82-123			0.602	30
1,1-Dichloroethane	9.81		"	10.0	98.1	82-129			0.00	30
1,1-Dichloroethylene	11.8		"	10.0	118	68-138			1.76	30
1,1-Dichloropropylene	10.6		"	10.0	106	83-133			0.471	30
1,2,3-Trichlorobenzene	9.36		"	10.0	93.6	76-136			1.06	30
1,2,3-Trichloropropane	9.81		"	10.0	98.1	77-128			2.16	30
1,2,4-Trichlorobenzene	9.29		"	10.0	92.9	76-137			0.865	30
1,2,4-Trimethylbenzene	9.19		"	10.0	91.9	82-132			3.43	30
1,2-Dibromo-3-chloropropane	10.6		"	10.0	106	45-147			5.73	30
1,2-Dibromoethane	9.90		"	10.0	99.0	83-124			1.80	30
1,2-Dichlorobenzene	9.62		"	10.0	96.2	79-123			4.03	30
1,2-Dichloroethane	10.6		"	10.0	106	73-132			2.61	30
1,2-Dichloropropane	9.88		"	10.0	98.8	78-126			0.907	30
1,3,5-Trimethylbenzene	9.01		"	10.0	90.1	80-131			3.16	30
1,3-Dichlorobenzene	9.14		"	10.0	91.4	86-122			4.47	30
1,3-Dichloropropane	9.98		"	10.0	99.8	81-125			2.86	30
1,4-Dichlorobenzene	9.28		"	10.0	92.8	85-124			5.08	30
2,2-Dichloropropane	8.43		"	10.0	84.3	56-150			6.21	30
2-Chlorotoluene	8.63		"	10.0	86.3	79-130			4.87	30
2-Hexanone	11.5		"	10.0	115	51-146			0.0871	30
4-Chlorotoluene	8.59		"	10.0	85.9	79-128			4.52	30
Acetone	9.85		"	10.0	98.5	14-150			13.3	30
Benzene	9.78		"	10.0	97.8	85-126			0.102	30
Bromobenzene	8.77		"	10.0	87.7	78-129			3.60	30
Bromochloromethane	11.3		"	10.0	113	77-128			0.443	30
Bromodichloromethane	10.3		"	10.0	103	79-128			1.63	30
Bromoform	9.27		"	10.0	92.7	78-133			0.216	30
Bromomethane	10.7		"	10.0	107	43-168			12.8	30
Carbon tetrachloride	10.4		"	10.0	104	77-141			0.192	30
Chlorobenzene	9.40		"	10.0	94.0	88-120			0.319	30
Chloroethane	10.9		"	10.0	109	65-136			8.33	30
Chloroform	10.2		"	10.0	102	82-128			1.18	30
Chloromethane	12.6		"	10.0	126	43-155			2.12	30
cis-1,2-Dichloroethylene	10.0		"	10.0	100	83-129			0.497	30
cis-1,3-Dichloropropylene	9.98		"	10.0	99.8	80-131			0.300	30
Dibromochloromethane	10.4		"	10.0	104	80-130			1.24	30
Dibromomethane	10.7		"	10.0	107	72-134			2.74	30
Dichlorodifluoromethane	16.0		"	10.0	160	44-144	High Bias		1.26	30
Ethyl Benzene	9.65		"	10.0	96.5	80-131			0.00	30
Hexachlorobutadiene	9.40		"	10.0	94.0	67-146			2.59	30
Isopropylbenzene	8.93		"	10.0	89.3	76-140			4.00	30
Methyl tert-butyl ether (MTBE)	10.7		"	10.0	107	76-135			2.04	30
Methylene chloride	10.4		"	10.0	104	55-137			4.96	30
Naphthalene	10.0		"	10.0	100	70-147			0.695	30
n-Butylbenzene	12.4		"	10.0	124	79-132			3.61	30
n-Propylbenzene	9.02		"	10.0	90.2	78-133			3.73	30



## Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
<b>Batch BH00451 - EPA 5030B</b>											
<b>LCS Dup (BH00451-BSD1)</b>											
Prepared & Analyzed: 08/10/2020											
o-Xylene	9.42		ug/L	10.0	94.2	78-130			0.424	30	
p- & m- Xylenes	19.2		"	20.0	96.2	77-133			0.156	30	
p-Isopropyltoluene	9.60		"	10.0	96.0	81-136			2.85	30	
sec-Butylbenzene	10.1		"	10.0	101	79-137			3.11	30	
Styrene	9.88		"	10.0	98.8	67-132			0.505	30	
tert-Butylbenzene	8.44		"	10.0	84.4	77-138			4.48	30	
Tetrachloroethylene	9.08		"	10.0	90.8	82-131			0.442	30	
Toluene	9.75		"	10.0	97.5	80-127			1.63	30	
trans-1,2-Dichloroethylene	10.6		"	10.0	106	80-132			0.659	30	
trans-1,3-Dichloropropylene	9.94		"	10.0	99.4	78-131			0.808	30	
Trichloroethylene	9.88		"	10.0	98.8	82-128			1.74	30	
Trichlorofluoromethane	12.4		"	10.0	124	67-139			1.63	30	
Vinyl Chloride	12.2		"	10.0	122	58-145			0.824	30	
<i>Surrogate: SURR: 1,2-Dichloroethane-d4</i>	11.0		"	10.0	110	69-130					
<i>Surrogate: SURR: Toluene-d8</i>	9.96		"	10.0	99.6	81-117					
<i>Surrogate: SURR: p-Bromofluorobenzene</i>	8.98		"	10.0	89.8	79-122					



## Miscellaneous Physical Parameters - Quality Control Data

### York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD RPD	RPD Limit	RPD Flag
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#### Batch BH00484 - % Solids Prep

##### Blank (BH00484-BLK1)

Prepared: 08/10/2020 Analyzed: 08/12/2020

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

Lab ID	Client Sample ID	Volatile Sample Container
20H0271-01	WQ080720:10:00 NP2-10	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



## Sample and Data Qualifiers Relating to This Work Order

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

CCV-E The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).

### Definitions and Other Explanations

\* Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.

ND NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)

RL REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.

LOQ LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence . This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.

LOD LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.

MDL METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.

Reported to This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.

NR Not reported

RPD Relative Percent Difference

Wet The data has been reported on an as-received (wet weight) basis

Low Bias Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

High Bias High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

Non-Dir. Non-dir. flag (Non-Directional Bias ) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

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

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

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

Certification for pH is no longer offered by NYDOH ELAP.

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



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

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# Field Chain-of-Custody Record

YORK Project No.

20H0271

Page 1 of 1

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

YOUR Information		Report To:	Invoice To:	YOUR Project Number 31401451.000 Task 01.00  31402600.000	Turn-Around Time RUSH - Next Day RUSH - Two Day RUSH - Three Day RUSH - Four Day Standard (5-7 Day) <input checked="" type="checkbox"/>
Company: WSP USA	Company: Same	Address:	Address:		
Address: 4 Research Drive, Suite 204 Shelton, CT 06484	Address:	Phone.: 203-929-8555	Phone.: Contact: Tunde Komubes-Sandor		
E-mail: tunde.sandor@wsp.com	E-mail: ↓	Contact:	E-mail:		
YOUR PO#: 31401451.000 Task 01.00					

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

Samples Collected by: (print your name above and sign below)		Matrix Codes	Samples From	Report / EDD Type (circle selections)		YORK Reg. Comp.
S - soil / solid	New York	X	Summary Report	CT RCP	Standard Excel EDD	Compared to the following Regulation(s): (please fill in)
GW - groundwater	New Jersey		QA Report	CT RCP DQA/DUE	EQuIS (Standard)	
DW - drinking water	Connecticut		NY ASP A Package	NJDEP Reduced Deliverables	NYSDEC EQuIS	
WW - wastewater	Pennsylvania		NY ASP B Package	NJDKQP	NJDEP SRP HazSite	
O - Oil	Other				Other:	

Sample Identification	Sample Matrix	Date/Time Sampled	Analysis Requested	Container Description
	GW		VOCs 8260 full list + freon 113	3 HCl VOA
WQ 080720: 10:00 NP2-10	GW	10:00 8-7-20	VOCs 8260 full list + freon 113; TDS	3 HCl VOA; 1 plastic

Comments:	Preservation: (check all that apply)	Special Instruction
	HCl ___ MeOH ___ HNO3 ___ H <sub>2</sub> SO <sub>4</sub> ___ NaOH ___ ZnAc ___ Ascorbic Acid ___ Other: _____	Field Filtered ___ Lab to Filter ___

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
<i>Sandy Rich WSP</i>	8-7-20				
Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by	Temp. Received at Lab
				<i>J. L. 8/7/20-1506</i>	<i>4.5</i> Degrees C