

December 18, 2019

Mr. John Miller, P.E.
NYSDEC
Division of Environmental Remediation
625 Broadway, 11th floor
Albany, NY 12233-7014
sent via john.miller@dec.ny.gov

*Re: Post Remedy Semi-annual Groundwater Sampling Report – Spring and Fall 2019
Love Road Development Site (BCP Site C314113)
Poughkeepsie, Dutchess County, New York
Chazen Job #81434.00*

Dear Mr. Miller:

The Chazen Companies (Chazen) has completed the third and fourth post-remedy semi-annual groundwater sampling events at the above-referenced Site (**Figure 1**) consistent with the approved Site Management Plan (SMP). These semi-annual sampling events establish a two-year groundwater quality data record for the Site following completion of the Site remedy. Based on the improved Site groundwater conditions discussed below, a reduction in the frequency of groundwater monitoring at the Site appears warranted.

GROUNDWATER SAMPLING FIELD ACTIVITIES

The 2019 semi-annual groundwater sampling events occurred on June 6 and November 14, and included the following activities:

- Groundwater samples were collected from four monitoring wells locations: three overburden aquifer wells MW-5 (upgradient), MW-6, and MW-7, and one downgradient bedrock aquifer well 2009-MW-2. This network of wells is used to monitor upgradient and downgradient groundwater conditions relative to the area of a former 1,000-gallon underground storage tank (UST) and where source area soil was removed as part of the Site remedy. Monitoring well locations are shown on the attached **Figure 2**.
- Samples were collected using a peristaltic pump and low-flow purging and sampling techniques. Field sampling logs are attached for reference.
- Groundwater samples were submitted to York Analytical Laboratories of Stratford, CT under standard chain-of-custody for analysis of CP-51 list of volatile organic compounds (VOCs) via USEPA method 8260. A trip blank QA/QC sample was also submitted for analysis.

GROUNDWATER SAMPLING ANALYTICAL RESULTS

The analytical results are presented in **Table 1a** and the analytical laboratory report is attached for reference. In comparison to prior sampling events and NYSDEC Part 703.5 groundwater quality standards (GWQS), the VOC results indicate the following:

- A limited area of impacted groundwater remains at the Site within the overburden aquifer in the vicinity of upgradient well MW-5, with only two compounds slightly exceeding their respective standards. Overall, concentrations were similar to prior events.
- No detections have been reported in MW-6 for the last three consecutive events, and results have been less than GWQSs for the last four consecutive events.
- Results for MW-7 have been primarily non-detect or trace concentrations for the last four consecutive events.
- VOCs have remained non-detect in the downgradient bedrock monitoring well 2009-MW-2.
- The trip blank results (**Table 1b**) demonstrate satisfactory sample handling and transport practices.

CONCLUSIONS

Chazen has completed two years of post-remedy semi-annual groundwater sampling as required by the SMP. The sampling record demonstrates that overall groundwater conditions have improved since completion of the Site remedy in 2017, with only limited low level petroleum impacts remaining in the upgradient overburden well near the former 1,000-gallon UST.

Based on the two years of data, Chazen requests that the frequency of monitoring well sampling be reduced from semi-annually to once every two years (i.e., biennial or every other year), and the Periodic Review Report frequency be reduced from annually to every two years.

Please feel free to contact me at (518) 824-1928 if you have any questions.

Sincerely,

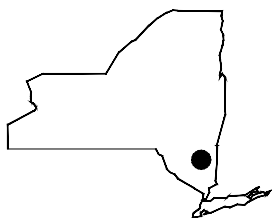
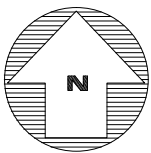
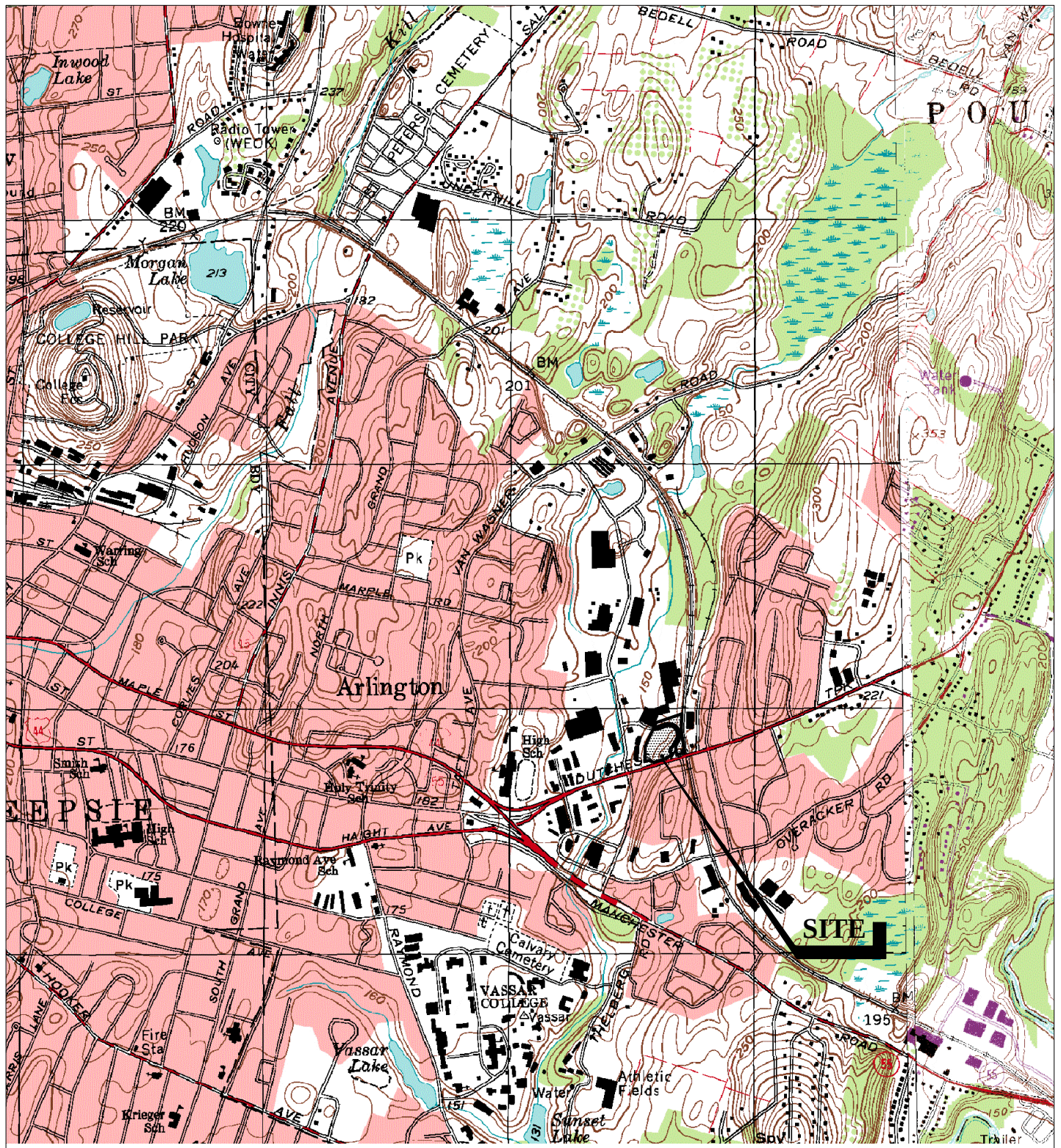


Arlette St. Romain
Director, Environmental Due Diligence and Brownfield Investigations

Attachments:

Figure 1 – Site Location Map
Figure 2 – Groundwater Monitoring Well Locations
Table 1a - Summary of Groundwater Sample Analytical Results
Table 1b – Summary of Groundwater QC/QC Sample Analytical Results
Laboratory Analytical Reports 19F0242 and 19K0602

cc: Frank Redl



MAP REFERENCE

THIS MAP WAS PREPARED FROM THE FOLLOWING 7.5 MINUTE USGS MAPS:
 Poughkeepsie Quadrangle 1964, Photorevised 1980
 Poughkeepsie Quadrangle 1963, Photorevised 1980

SCALE:	
HORZ.: 1" = 2000'	
VERT.: N/A	
DATUM:	
HORZ.: N/A	
VERT.: N/A	
GRAPHIC SCALE	



FUSS & O'NEILL

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 Poughkeepsie, NY 12601
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HERBERT REDL
 AA/REMEDIAL WORK PLAN
 USGS LOCATION MAP
 2 LOVE ROAD

TOWN OF POUGHKEEPSIE

NEW YORK

PROJ. No.: 20040761.A8N
 DATE: JULY 2012

FIGURE 1

TABLE 1a
SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS

Love Road Development Site (BCP Site C314113)
Poughkeepsie, Dutchess County, New York

Sample Location/ ID:	6 NYCRR Part 703.5	MW-5					MW-6					MW-7					2009-MW-2					
Lab Sample ID:		17I1106-02	18E0898-02	19B0846-04	19F0242-02	19K0602-02	17I1106-04	18E0898-01	19B0846-03	19F0242-03	19K0602-03	17I1106-03	18E0898-03	19B0846-02	19F0242-04	19K0602-04	17I1106-01	18E0898-04	19B0846-01	19F0242-01	19K0602-01	
Sampling Date/ Time:		9/26/17	5/17/18	2/22/19	6/6/19	11/14/19	9/26/17	5/17/18	2/22/19	6/6/19	11/14/19	9/26/17	5/17/18	2/22/19	6/6/19	11/14/19	9/26/17	5/17/18	2/22/19	6/6/19	11/14/19	
Matrix		Groundwater					Groundwater					Groundwater					Groundwater					
COMPOUND		Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result
Volatile Organics, CP-51 List	ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L	
1,2,4-Trimethylbenzene	5	ND	0.29	J	ND		ND		0.44	J	0.97		1.0		ND		ND		ND		ND	
1,3,5-Trimethylbenzene	5	ND	ND		ND		ND		ND		0.77		0.54		ND		ND		ND		ND	
Benzene	1	0.58	11		6.8		6.8		5.5		0.52		0.46	J	ND		ND		0.22	J	ND	
Ethyl Benzene	5	0.82	ND		0.33	J	0.87		0.72	J	19		0.47	J	ND		ND		ND		ND	
Isopropylbenzene	5	15	1.8		2.4		8.2		11		31		0.83		ND		ND		ND		ND	
Methyl tert-butyl ether (MTBE)	10	ND	ND		ND		ND		ND		ND		0.22	J	ND		ND		ND		ND	
Naphthalene	10	ND	ND		ND		ND		ND		ND		ND		ND		ND		ND		ND	
n-Butylbenzene	5	ND	ND		ND		ND		ND		3.2		ND		ND		ND		ND		ND	
n-Propylbenzene	5	0.65	0.25	J	ND		0.38	J	1.0		39		0.62		ND		ND		ND		ND	
o-Xylene	5	ND	ND		ND		ND		0.42	J	0.34	J	ND		ND		ND		ND		ND	
p- & m- Xylenes	5	0.97	J	ND		0.62	J	0.68	J	1.3	J	1.4		ND		ND		ND		ND		
p-Isopropyltoluene	5	ND	ND		ND		ND		ND		0.44	J	ND		ND		ND		ND		ND	
sec-Butylbenzene	5	6.4	1.7		2.3		3.2		4.7		4.0		0.21	J	ND		ND		0.42	J	0.34	J
tert-Butylbenzene	5	4.0	2.3		3.0		2.9		2.8		0.59		ND		ND		ND		1.1		0.9	0.55
Toluene	5	ND	ND		ND		0.40	J	ND		0.27	J	0.65		ND		ND		ND		ND	
Xylenes, Total	5	0.97	J	ND		ND		0.680	J	1.7	J	1.7		ND		ND		ND		ND		ND

NOTES:
Results that exceed the groundwater quality standard are in highlighted yellow.
ug/L = Micrograms per liter
Q is the Qualifier Column with definitions as follows:
J=analyte detected at or above the MDL (method detection limit) but below the RL (Reporting Limit) - data is estimated
ND=analyte not detected at the limit of quantitation/RL or limit of detection/MDL

TABLE 1b
SUMMARY OF GROUNDWATER QA/QC SAMPLE ANALYTICAL RESULTS

Love Road Development Site (BCP Site C314113)
Poughkeepsie, Dutchess County, New York

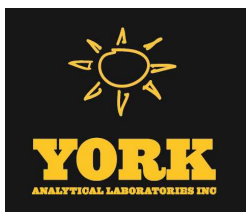
<i>Sample Location/ ID:</i>	<i>TB-01</i>	<i>Trip Blank</i>	<i>Trip Blank</i>	<i>Trip Blank</i>	<i>Trip Blank</i>
<i>Lab Sample ID:</i>	17I1106-07	17I1106-07	19B0846-05	19F0242-05	19K0602-05
<i>Sampling Date/ Time:</i>	09/26/17	09/26/17	02/22/19	06/06/19	11/14/19
<i>Matrix</i>	Deionized Water				
COMPOUND	Result Q	Result Q	Result Q	Result Q	Result Q
Volatile Organics, CP-51 List	<i>ug/L</i>	<i>ug/L</i>	<i>ug/L</i>	<i>ug/L</i>	<i>ug/L</i>
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND
Ethyl Benzene	ND	ND	ND	ND	ND
Isopropylbenzene	ND	ND	ND	ND	ND
Methyl tert-butyl ether (MTBE)	ND	ND	ND	ND	ND
Naphthalene	ND	ND	ND	ND	ND
n-Butylbenzene	ND	ND	ND	ND	ND
n-Propylbenzene	ND	ND	ND	ND	ND
o-Xylene	ND	ND	ND	ND	ND
p- & m- Xylenes	ND	ND	ND	ND	ND
p-Isopropyltoluene	ND	ND	ND	ND	ND
sec-Butylbenzene	ND	ND	ND	ND	ND
tert-Butylbenzene	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND
Xylenes, Total	ND	ND	ND	ND	ND

NOTES:

ug/L = Micrograms per liter

D.I. = Deionized Water

ND=analyte not detected at the limit of quantitation/RL or limit of detection/MDL



Technical Report

prepared for:

Chazen Environmental Services (Poughkeepsie)

20 Elm St, Suite 110

Glens Falls NY, 12801

Attention: Arlette St. Romain

Report Date: 06/14/2019

Client Project ID: 81434.00

York Project (SDG) No.: 19F0242

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

RICHMOND HILL, NY 11418
ClientServices@yorklab.com

Report Date: 06/14/2019
Client Project ID: 81434.00
York Project (SDG) No.: 19F0242

Chazen Environmental Services (Poughkeepsie)
20 Elm St, Suite 110
Glens Falls NY, 12801
Attention: Arlette St. Romain

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on June 07, 2019 and listed below. The project was identified as your project: **81434.00**.

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>
19F0242-01	MW 2	Water	06/06/2019	06/07/2019
19F0242-02	MW 5	Water	06/06/2019	06/07/2019
19F0242-03	MW 6	Water	06/06/2019	06/07/2019
19F0242-04	MW 7	Water	06/06/2019	06/07/2019
19F0242-05	Trip Blank	Water	06/06/2019	06/07/2019

General Notes for York Project (SDG) No.: 19F0242

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: 06/14/2019





Sample Information

Client Sample ID: MW 2

York Sample ID: 19F0242-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19F0242

81434.00

Water

June 6, 2019 2:30 am

06/07/2019

Volatile Organics, CP-51 (STARS) 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
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 16:09	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 16:09	RDS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 16:09	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 16:09	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 16:09	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 16:09	RDS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 16:09	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 16:09	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 16:09	RDS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 16:09	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 16:09	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 16:09	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 16:09	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 16:09	RDS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 16:09	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/13/2019 07:30	06/13/2019 16:09	RDS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	98.0 %	69-130								
2037-26-5	Surrogate: SURR: Toluene-d8	99.3 %	81-117								
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	106 %	79-122								



Sample Information

Client Sample ID: MW 5

York Sample ID: 19F0242-02

York Project (SDG) No.

19F0242

Client Project ID

81434.00

Matrix

Water

Collection Date/Time

June 6, 2019 4:10 am

Date Received

06/07/2019

Volatile Organics, CP-51 (STARS) 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
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 12:30	06/14/2019 09:31	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 12:30	06/14/2019 09:31	RDS
71-43-2	Benzene	6.8		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 12:30	06/14/2019 09:31	RDS
100-41-4	Ethyl Benzene	0.87		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 12:30	06/14/2019 09:31	RDS
98-82-8	Isopropylbenzene	8.2		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 12:30	06/14/2019 09:31	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 12:30	06/14/2019 09:31	RDS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 12:30	06/14/2019 09:31	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 12:30	06/14/2019 09:31	RDS
103-65-1	n-Propylbenzene	0.38	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 12:30	06/14/2019 09:31	RDS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 12:30	06/14/2019 09:31	RDS
179601-23-1	p- & m- Xylenes	0.68	J	ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 12:30	06/14/2019 09:31	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 12:30	06/14/2019 09:31	RDS
135-98-8	sec-Butylbenzene	3.2		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 12:30	06/14/2019 09:31	RDS
98-06-6	tert-Butylbenzene	2.9		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 12:30	06/14/2019 09:31	RDS
108-88-3	Toluene	0.40	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 12:30	06/14/2019 09:31	RDS
1330-20-7	Xylenes, Total	0.68	J	ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/13/2019 12:30	06/14/2019 09:31	RDS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	93.2 %			69-130						
2037-26-5	Surrogate: SURR: Toluene-d8	97.3 %			81-117						
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	187 %	S-10		79-122						



Sample Information

Client Sample ID: MW 6

York Sample ID: 19F0242-03

York Project (SDG) No.
19F0242

Client Project ID
81434.00

Matrix
Water

Collection Date/Time
June 6, 2019 5:00 am

Date Received
06/07/2019

Volatile Organics, CP-51 (STARS) 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
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:06	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:06	RDS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:06	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:06	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:06	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:06	RDS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:06	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:06	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:06	RDS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/13/2019 07:30	06/13/2019 17:06	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/13/2019 07:30	06/13/2019 17:06	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:06	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:06	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:06	RDS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:06	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/13/2019 07:30	06/13/2019 17:06	RDS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	96.9 %	69-130								
2037-26-5	Surrogate: SURR: Toluene-d8	98.4 %	81-117								
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	112 %	79-122								

Sample Information

Client Sample ID: MW 7

York Sample ID: 19F0242-04

York Project (SDG) No.
19F0242

Client Project ID
81434.00

Matrix
Water

Collection Date/Time
June 6, 2019 5:45 am

Date Received
06/07/2019



Sample Information

Client Sample ID: MW 7

York Sample ID: 19F0242-04

York Project (SDG) No.
19F0242

Client Project ID
81434.00

Matrix
Water

Collection Date/Time
June 6, 2019 5:45 am

Date Received
06/07/2019

Volatile Organics, CP-51 (STARS) 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
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:35	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:35	RDS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:35	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:35	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:35	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:35	RDS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:35	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:35	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:35	RDS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/13/2019 07:30	06/13/2019 17:35	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	06/13/2019 07:30	06/13/2019 17:35	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:35	RDS
135-98-8	sec-Butylbenzene	0.34	J	ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:35	RDS
98-06-6	tert-Butylbenzene	0.91		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:35	RDS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 17:35	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/13/2019 07:30	06/13/2019 17:35	RDS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	95.2 %	69-130								
2037-26-5	Surrogate: SURR: Toluene-d8	101 %	81-117								
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	117 %	79-122								

Sample Information

Client Sample ID: Trip Blank

York Sample ID: 19F0242-05

York Project (SDG) No.
19F0242

Client Project ID
81434.00

Matrix
Water

Collection Date/Time
June 6, 2019 12:00 am

Date Received
06/07/2019



Sample Information

Client Sample ID: Trip Blank

York Sample ID: 19F0242-05

York Project (SDG) No.
19F0242

Client Project ID
81434.00

Matrix
Water

Collection Date/Time
June 6, 2019 12:00 am

Date Received
06/07/2019

Volatile Organics, CP-51 (STARS) 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
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 15:40	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 15:40	RDS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 15:40	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 15:40	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 15:40	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 15:40	RDS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 15:40	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 15:40	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 15:40	RDS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 15:40	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 15:40	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 15:40	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 15:40	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 15:40	RDS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	06/13/2019 07:30	06/13/2019 15:40	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	06/13/2019 07:30	06/13/2019 15:40	RDS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: SURRE: 1,2-Dichloroethane-d4	127 %	69-130								
2037-26-5	Surrogate: SURRE: Toluene-d8	95.3 %	81-117								
460-00-4	Surrogate: SURRE: p-Bromofluorobenzene	102 %	79-122								



Analytical Batch Summary

Batch ID: BF90671

Preparation Method: EPA 5030B

Prepared By: AB

YORK Sample ID	Client Sample ID	Preparation Date
19F0242-01	MW 2	06/13/19
19F0242-03	MW 6	06/13/19
19F0242-04	MW 7	06/13/19
19F0242-05	Trip Blank	06/13/19
BF90671-BLK1	Blank	06/13/19
BF90671-BS1	LCS	06/13/19
BF90671-BSD1	LCS Dup	06/13/19

Batch ID: BF90685

Preparation Method: EPA 5030B

Prepared By: RDS

YORK Sample ID	Client Sample ID	Preparation Date
19F0242-02	MW 5	06/13/19
BF90685-BLK1	Blank	06/13/19
BF90685-BS1	LCS	06/13/19
BF90685-BSD1	LCS Dup	06/13/19



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 BF90671 - EPA 5030B

Blank (BF90671-BLK1)

Prepared & Analyzed: 06/13/2019

1,2,4-Trimethylbenzene	ND	0.50	ug/L								
1,3,5-Trimethylbenzene	ND	0.50	"								
Benzene	ND	0.50	"								
Ethyl Benzene	ND	0.50	"								
Isopropylbenzene	ND	0.50	"								
Methyl tert-butyl ether (MTBE)	ND	0.50	"								
Naphthalene	ND	2.0	"								
n-Butylbenzene	ND	0.50	"								
n-Propylbenzene	ND	0.50	"								
o-Xylene	ND	0.50	"								
p- & m- Xylenes	ND	1.0	"								
p-Isopropyltoluene	ND	0.50	"								
sec-Butylbenzene	ND	0.50	"								
tert-Butylbenzene	ND	0.50	"								
Toluene	ND	0.50	"								
Xylenes, Total	ND	1.5	"								
Surrogate: SURR: 1,2-Dichloroethane-d4	10.0		"	10.0		100	69-130				
Surrogate: SURR: Toluene-d8	9.83		"	10.0		98.3	81-117				
Surrogate: SURR: p-Bromofluorobenzene	10.6		"	10.0		106	79-122				

LCS (BF90671-BS1)

Prepared & Analyzed: 06/13/2019

1,2,4-Trimethylbenzene	11		ug/L	10.0		114	82-132				
1,3,5-Trimethylbenzene	12		"	10.0		116	80-131				
Benzene	9.9		"	10.0		99.2	85-126				
Ethyl Benzene	10		"	10.0		105	80-131				
Isopropylbenzene	12		"	10.0		120	76-140				
Methyl tert-butyl ether (MTBE)	10		"	10.0		99.5	76-135				
Naphthalene	10		"	10.0		100	70-147				
n-Butylbenzene	10		"	10.0		104	79-132				
n-Propylbenzene	12		"	10.0		122	78-133				
o-Xylene	10		"	10.0		103	78-130				
p- & m- Xylenes	21		"	20.0		106	77-133				
p-Isopropyltoluene	11		"	10.0		114	81-136				
sec-Butylbenzene	12		"	10.0		121	79-137				
tert-Butylbenzene	11		"	10.0		115	77-138				
Toluene	10		"	10.0		103	80-127				
Surrogate: SURR: 1,2-Dichloroethane-d4	9.42		"	10.0		94.2	69-130				
Surrogate: SURR: Toluene-d8	10.1		"	10.0		101	81-117				
Surrogate: SURR: p-Bromofluorobenzene	12.3		"	10.0		123	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 BF90671 - EPA 5030B

LCS Dup (BF90671-BS01)

Prepared & Analyzed: 06/13/2019

1,2,4-Trimethylbenzene	9.8		ug/L	10.0		98.1	82-132		14.7	30
1,3,5-Trimethylbenzene	9.8		"	10.0		98.1	80-131		16.4	30
Benzene	9.9		"	10.0		99.0	85-126		0.202	30
Ethyl Benzene	9.9		"	10.0		99.0	80-131		5.69	30
Isopropylbenzene	9.9		"	10.0		98.6	76-140		19.2	30
Methyl tert-butyl ether (MTBE)	11		"	10.0		105	76-135		5.76	30
Naphthalene	10		"	10.0		104	70-147		3.91	30
n-Butylbenzene	9.7		"	10.0		97.4	79-132		6.07	30
n-Propylbenzene	10		"	10.0		102	78-133		17.8	30
o-Xylene	9.9		"	10.0		99.3	78-130		3.66	30
p- & m- Xylenes	20		"	20.0		100	77-133		5.97	30
p-Isopropyltoluene	9.8		"	10.0		97.8	81-136		15.5	30
sec-Butylbenzene	10		"	10.0		103	79-137		15.7	30
tert-Butylbenzene	9.7		"	10.0		97.2	77-138		16.4	30
Toluene	9.7		"	10.0		96.9	80-127		6.30	30
Surrogate: SURR: 1,2-Dichloroethane-d4	9.84		"	10.0		98.4	69-130			
Surrogate: SURR: Toluene-d8	9.74		"	10.0		97.4	81-117			
Surrogate: SURR: p-Bromofluorobenzene	10.4		"	10.0		104	79-122			

Batch BF90685 - EPA 5030B

Blank (BF90685-BLK1)

Prepared: 06/13/2019 Analyzed: 06/14/2019

1,2,4-Trimethylbenzene	ND	0.50	ug/L							
1,3,5-Trimethylbenzene	ND	0.50	"							
Benzene	ND	0.50	"							
Ethyl Benzene	ND	0.50	"							
Isopropylbenzene	ND	0.50	"							
Methyl tert-butyl ether (MTBE)	ND	0.50	"							
Naphthalene	ND	2.0	"							
n-Butylbenzene	ND	0.50	"							
n-Propylbenzene	ND	0.50	"							
o-Xylene	ND	0.50	"							
p- & m- Xylenes	ND	1.0	"							
p-Isopropyltoluene	ND	0.50	"							
sec-Butylbenzene	ND	0.50	"							
tert-Butylbenzene	ND	0.50	"							
Toluene	ND	0.50	"							
Xylenes, Total	ND	1.5	"							
Surrogate: SURR: 1,2-Dichloroethane-d4	9.51		"	10.0		95.1	69-130			
Surrogate: SURR: Toluene-d8	10.0		"	10.0		100	81-117			
Surrogate: SURR: p-Bromofluorobenzene	10.8		"	10.0		108	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 BF90685 - EPA 5030B

LCS (BF90685-BS1)

Prepared & Analyzed: 06/13/2019

1,2,4-Trimethylbenzene	10		ug/L	10.0		100	82-132				
1,3,5-Trimethylbenzene	10		"	10.0		100	80-131				
Benzene	10		"	10.0		102	85-126				
Ethyl Benzene	10		"	10.0		103	80-131				
Isopropylbenzene	10		"	10.0		102	76-140				
Methyl tert-butyl ether (MTBE)	11		"	10.0		107	76-135				
Naphthalene	10		"	10.0		104	70-147				
n-Butylbenzene	9.6		"	10.0		96.5	79-132				
n-Propylbenzene	10		"	10.0		104	78-133				
o-Xylene	10		"	10.0		102	78-130				
p- & m- Xylenes	21		"	20.0		103	77-133				
p-Isopropyltoluene	9.9		"	10.0		99.0	81-136				
sec-Butylbenzene	11		"	10.0		106	79-137				
tert-Butylbenzene	10		"	10.0		100	77-138				
Toluene	10		"	10.0		101	80-127				
Surrogate: SURR: 1,2-Dichloroethane-d4	9.69		"	10.0		96.9	69-130				
Surrogate: SURR: Toluene-d8	9.86		"	10.0		98.6	81-117				
Surrogate: SURR: p-Bromofluorobenzene	10.6		"	10.0		106	79-122				

LCS Dup (BF90685-BSD1)

Prepared & Analyzed: 06/13/2019

1,2,4-Trimethylbenzene	9.9		ug/L	10.0		99.4	82-132		0.602	30	
1,3,5-Trimethylbenzene	10		"	10.0		99.7	80-131		0.700	30	
Benzene	10		"	10.0		99.8	85-126		1.69	30	
Ethyl Benzene	10		"	10.0		100	80-131		2.56	30	
Isopropylbenzene	10		"	10.0		101	76-140		1.48	30	
Methyl tert-butyl ether (MTBE)	10		"	10.0		105	76-135		2.17	30	
Naphthalene	10		"	10.0		105	70-147		0.574	30	
n-Butylbenzene	9.5		"	10.0		94.8	79-132		1.78	30	
n-Propylbenzene	10		"	10.0		103	78-133		0.871	30	
o-Xylene	10		"	10.0		101	78-130		1.38	30	
p- & m- Xylenes	20		"	20.0		101	77-133		1.86	30	
p-Isopropyltoluene	9.8		"	10.0		98.1	81-136		0.913	30	
sec-Butylbenzene	11		"	10.0		106	79-137		0.472	30	
tert-Butylbenzene	9.9		"	10.0		98.9	77-138		1.60	30	
Toluene	9.9		"	10.0		98.7	80-127		2.70	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	9.54		"	10.0		95.4	69-130				
Surrogate: SURR: Toluene-d8	9.87		"	10.0		98.7	81-117				
Surrogate: SURR: p-Bromofluorobenzene	10.7		"	10.0		107	79-122				



Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
19F0242-01	MW 2	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19F0242-02	MW 5	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19F0242-03	MW 6	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19F0242-04	MW 7	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19F0242-05	Trip Blank	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



Sample and Data Qualifiers Relating to This Work Order

S-10	Surrogates recoveries were below laboratory control limits. Insufficient sample was available for re-extraction/reanalysis.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.

Definitions and Other Explanations

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

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

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

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

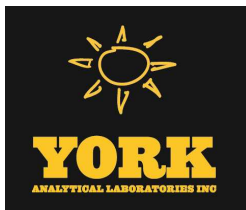
Certification for pH is no longer offered by NYDOH ELAP.

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



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





Technical Report

prepared for:

Chazen Environmental Services (Poughkeepsie)

21 Fox Street

Poughkeepsie NY, 12601

Attention: Will Olsen

Report Date: 11/22/2019

Client Project ID: 81434.00 Task 16B0

York Project (SDG) No.: 19K0602

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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132-02 89th AVENUE
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RICHMOND HILL, NY 11418
ClientServices@yorklab.com

Report Date: 11/22/2019
Client Project ID: 81434.00 Task 16B0
York Project (SDG) No.: 19K0602

Chazen Environmental Services (Poughkeepsie)

21 Fox Street
Poughkeepsie NY, 12601
Attention: Will Olsen

Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on November 15, 2019 and listed below. The project was identified as your project: **81434.00 Task 16B0**.

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>
19K0602-01	2009-MW-2	Water	11/14/2019	11/15/2019
19K0602-02	MW-5	Water	11/14/2019	11/15/2019
19K0602-03	MW-6	Water	11/14/2019	11/15/2019
19K0602-04	MW-7	Water	11/14/2019	11/15/2019
19K0602-05	Trip Blank	Water	11/14/2019	11/15/2019

General Notes for York Project (SDG) No.: 19K0602

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: 11/22/2019





Sample Information

Client Sample ID: 2009-MW-2

York Sample ID: 19K0602-01

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

19K0602

81434.00 Task 16B0

Water

November 14, 2019 10:14 am

11/15/2019

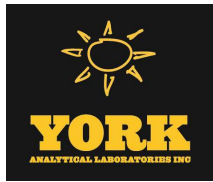
Volatile Organics, CP-51 (STARS) Low level

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
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 18:34	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 18:34	RDS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 18:34	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 18:34	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 18:34	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 18:34	RDS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 18:34	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 18:34	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 18:34	RDS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 18:34	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 18:34	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 18:34	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 18:34	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 18:34	RDS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 18:34	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/19/2019 07:30	11/19/2019 18:34	RDS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	91.5 %	69-130								
2037-26-5	Surrogate: SURR: Toluene-d8	94.6 %	81-117								
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	105 %	79-122								



Sample Information

Client Sample ID: MW-5

York Sample ID: 19K0602-02

York Project (SDG) No.

19K0602

Client Project ID

81434.00 Task 16B0

Matrix

Water

Collection Date/Time

November 14, 2019 11:23 am

Date Received

11/15/2019

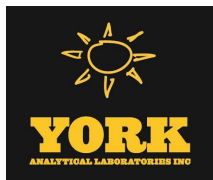
Volatile Organics, CP-51 (STARS) Low level

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
95-63-6	1,2,4-Trimethylbenzene	0.44	J	ug/L	0.40	1.0	2	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 19:03	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.40	1.0	2	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 19:03	RDS
71-43-2	Benzene	5.5		ug/L	0.40	1.0	2	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 19:03	RDS
100-41-4	Ethyl Benzene	0.72	J	ug/L	0.40	1.0	2	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 19:03	RDS
98-82-8	Isopropylbenzene	11		ug/L	0.40	1.0	2	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 19:03	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.40	1.0	2	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 19:03	RDS
91-20-3	Naphthalene	ND		ug/L	2.0	4.0	2	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 19:03	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.40	1.0	2	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 19:03	RDS
103-65-1	n-Propylbenzene	1.0		ug/L	0.40	1.0	2	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 19:03	RDS
95-47-6	o-Xylene	0.42	J	ug/L	0.40	1.0	2	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/19/2019 07:30	11/19/2019 19:03	RDS
179601-23-1	p- & m- Xylenes	1.3	J	ug/L	1.0	2.0	2	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PADEP	11/19/2019 07:30	11/19/2019 19:03	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.40	1.0	2	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 19:03	RDS
135-98-8	sec-Butylbenzene	4.7		ug/L	0.40	1.0	2	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 19:03	RDS
98-06-6	tert-Butylbenzene	2.8		ug/L	0.40	1.0	2	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 19:03	RDS
108-88-3	Toluene	ND		ug/L	0.40	1.0	2	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 19:03	RDS
1330-20-7	Xylenes, Total	1.7	J	ug/L	1.2	3.0	2	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/19/2019 07:30	11/19/2019 19:03	RDS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: SURRE: 1,2-Dichloroethane-d4	84.4 %			69-130						
2037-26-5	Surrogate: SURRE: Toluene-d8	93.6 %			81-117						
460-00-4	Surrogate: SURRE: p-Bromofluorobenzene	124 %	S-08		79-122						



Sample Information

Client Sample ID: MW-6

York Sample ID: 19K0602-03

York Project (SDG) No.
19K0602

Client Project ID
81434.00 Task 16B0

Matrix
Water

Collection Date/Time
November 14, 2019 12:04 pm

Date Received
11/15/2019

Volatile Organics, CP-51 (STARS) 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
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 20:01	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 20:01	RDS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 20:01	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 20:01	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 20:01	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 20:01	RDS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 20:01	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 20:01	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 20:01	RDS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 20:01	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 20:01	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 20:01	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 20:01	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 20:01	RDS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/19/2019 07:30	11/19/2019 20:01	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/19/2019 07:30	11/19/2019 20:01	RDS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	93.2 %	69-130								
2037-26-5	Surrogate: SURR: Toluene-d8	95.8 %	81-117								
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	108 %	79-122								

Sample Information

Client Sample ID: MW-7

York Sample ID: 19K0602-04

York Project (SDG) No.
19K0602

Client Project ID
81434.00 Task 16B0

Matrix
Water

Collection Date/Time
November 14, 2019 12:40 pm

Date Received
11/15/2019



Sample Information

Client Sample ID: MW-7

York Sample ID: 19K0602-04

York Project (SDG) No.
19K0602

Client Project ID
81434.00 Task 16B0

Matrix
Water

Collection Date/Time
November 14, 2019 12:40 pm

Date Received
11/15/2019

Volatile Organics, CP-51 (STARS) 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
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:01	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:01	RDS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:01	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:01	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:01	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:01	RDS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:01	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:01	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:01	RDS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:01	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:01	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:01	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:01	RDS
98-06-6	tert-Butylbenzene	0.55		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:01	RDS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:01	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/21/2019 07:30	11/21/2019 17:01	RDS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: SURRE: 1,2-Dichloroethane-d4	91.1 %	69-130								
2037-26-5	Surrogate: SURRE: Toluene-d8	93.1 %	81-117								
460-00-4	Surrogate: SURRE: p-Bromofluorobenzene	108 %	79-122								

Sample Information

Client Sample ID: Trip Blank

York Sample ID: 19K0602-05

York Project (SDG) No.
19K0602

Client Project ID
81434.00 Task 16B0

Matrix
Water

Collection Date/Time
November 14, 2019 12:00 am

Date Received
11/15/2019



Sample Information

Client Sample ID: Trip Blank

York Sample ID: 19K0602-05

York Project (SDG) No.
19K0602

Client Project ID
81434.00 Task 16B0

Matrix
Water

Collection Date/Time
November 14, 2019 12:00 am

Date Received
11/15/2019

Volatile Organics, CP-51 (STARS) 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
95-63-6	1,2,4-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:30	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:30	RDS
71-43-2	Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:30	RDS
100-41-4	Ethyl Benzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:30	RDS
98-82-8	Isopropylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:30	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:30	RDS
91-20-3	Naphthalene	ND		ug/L	1.0	2.0	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:30	RDS
104-51-8	n-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:30	RDS
103-65-1	n-Propylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:30	RDS
95-47-6	o-Xylene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:30	RDS
179601-23-1	p- & m- Xylenes	ND		ug/L	0.50	1.0	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:30	RDS
99-87-6	p-Isopropyltoluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:30	RDS
135-98-8	sec-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:30	RDS
98-06-6	tert-Butylbenzene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:30	RDS
108-88-3	Toluene	ND		ug/L	0.20	0.50	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP,PADEP	11/21/2019 07:30	11/21/2019 17:30	RDS
1330-20-7	Xylenes, Total	ND		ug/L	0.60	1.5	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJDEP	11/21/2019 07:30	11/21/2019 17:30	RDS
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: SURR: 1,2-Dichloroethane-d4	94.8 %	69-130								
2037-26-5	Surrogate: SURR: Toluene-d8	91.7 %	81-117								
460-00-4	Surrogate: SURR: p-Bromofluorobenzene	105 %	79-122								



Analytical Batch Summary

Batch ID: BK90921

Preparation Method: EPA 5030B

Prepared By: RDS

YORK Sample ID	Client Sample ID	Preparation Date
19K0602-01	2009-MW-2	11/19/19
19K0602-02	MW-5	11/19/19
19K0602-02RE1	MW-5	11/19/19
19K0602-03	MW-6	11/19/19
BK90921-BLK1	Blank	11/19/19
BK90921-BS1	LCS	11/19/19
BK90921-BS2	LCS	11/19/19
BK90921-BSD1	LCS Dup	11/19/19
BK90921-BSD2	LCS Dup	11/19/19

Batch ID: BK91105

Preparation Method: EPA 5030B

Prepared By: AB

YORK Sample ID	Client Sample ID	Preparation Date
19K0602-04	MW-7	11/21/19
19K0602-05	Trip Blank	11/21/19
BK91105-BLK1	Blank	11/21/19
BK91105-BS1	LCS	11/21/19
BK91105-BS2	LCS	11/21/19
BK91105-BSD1	LCS Dup	11/21/19
BK91105-BSD2	LCS Dup	11/21/19



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 BK90921 - EPA 5030B

Blank (BK90921-BLK1)

Prepared & Analyzed: 11/19/2019

1,2,4-Trimethylbenzene	ND	0.50	ug/L								
1,3,5-Trimethylbenzene	ND	0.50	"								
Benzene	ND	0.50	"								
Ethyl Benzene	ND	0.50	"								
Isopropylbenzene	ND	0.50	"								
Methyl tert-butyl ether (MTBE)	ND	0.50	"								
Naphthalene	ND	2.0	"								
n-Butylbenzene	ND	0.50	"								
n-Propylbenzene	ND	0.50	"								
o-Xylene	ND	0.50	"								
p- & m- Xylenes	ND	1.0	"								
p-Isopropyltoluene	ND	0.50	"								
sec-Butylbenzene	ND	0.50	"								
tert-Butylbenzene	ND	0.50	"								
Toluene	ND	0.50	"								
Xylenes, Total	ND	1.5	"								
Surrogate: SURR: 1,2-Dichloroethane-d4	9.21		"	10.0		92.1	69-130				
Surrogate: SURR: Toluene-d8	9.49		"	10.0		94.9	81-117				
Surrogate: SURR: p-Bromofluorobenzene	10.6		"	10.0		106	79-122				

LCS (BK90921-BS1)

Prepared & Analyzed: 11/19/2019

1,2,4-Trimethylbenzene	11		ug/L	10.0		108	82-132				
1,3,5-Trimethylbenzene	11		"	10.0		109	80-131				
Benzene	12		"	10.0		121	85-126				
Ethyl Benzene	11		"	10.0		113	80-131				
Isopropylbenzene	11		"	10.0		108	76-140				
Methyl tert-butyl ether (MTBE)	12		"	10.0		115	76-135				
Naphthalene	10		"	10.0		99.7	70-147				
n-Butylbenzene	9.2		"	10.0		92.3	79-132				
n-Propylbenzene	11		"	10.0		110	78-133				
o-Xylene	11		"	10.0		109	78-130				
p- & m- Xylenes	23		"	20.0		113	77-133				
p-Isopropyltoluene	11		"	10.0		107	81-136				
sec-Butylbenzene	11		"	10.0		113	79-137				
tert-Butylbenzene	11		"	10.0		107	77-138				
Toluene	11		"	10.0		111	80-127				
Surrogate: SURR: 1,2-Dichloroethane-d4	9.31		"	10.0		93.1	69-130				
Surrogate: SURR: Toluene-d8	9.52		"	10.0		95.2	81-117				
Surrogate: SURR: p-Bromofluorobenzene	10.5		"	10.0		105	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BK90921 - EPA 5030B

LCS (BK90921-BS2)

Prepared & Analyzed: 11/19/2019

1,2,4-Trimethylbenzene	11		ug/L	10.0		108	82-132				
1,3,5-Trimethylbenzene	11		"	10.0		109	80-131				
Benzene	12		"	10.0		117	85-126				
Ethyl Benzene	11		"	10.0		112	80-131				
Isopropylbenzene	11		"	10.0		108	76-140				
Methyl tert-butyl ether (MTBE)	11		"	10.0		110	76-135				
Naphthalene	9.7		"	10.0		97.1	70-147				
n-Butylbenzene	9.5		"	10.0		94.7	79-132				
n-Propylbenzene	11		"	10.0		109	78-133				
o-Xylene	11		"	10.0		108	78-130				
p- & m- Xylenes	22		"	20.0		111	77-133				
p-Isopropyltoluene	11		"	10.0		110	81-136				
sec-Butylbenzene	11		"	10.0		115	79-137				
tert-Butylbenzene	11		"	10.0		108	77-138				
Toluene	11		"	10.0		109	80-127				
Surrogate: SURR: 1,2-Dichloroethane-d4	9.16		"	10.0		91.6	69-130				
Surrogate: SURR: Toluene-d8	9.55		"	10.0		95.5	81-117				
Surrogate: SURR: p-Bromofluorobenzene	10.5		"	10.0		105	79-122				

LCS Dup (BK90921-BSD1)

Prepared & Analyzed: 11/19/2019

1,2,4-Trimethylbenzene	11		ug/L	10.0		105	82-132		3.18	30	
1,3,5-Trimethylbenzene	10		"	10.0		105	80-131		3.65	30	
Benzene	11		"	10.0		114	85-126		6.14	30	
Ethyl Benzene	11		"	10.0		107	80-131		6.09	30	
Isopropylbenzene	10		"	10.0		103	76-140		4.82	30	
Methyl tert-butyl ether (MTBE)	11		"	10.0		115	76-135		0.348	30	
Naphthalene	10		"	10.0		101	70-147		1.30	30	
n-Butylbenzene	9.0		"	10.0		90.4	79-132		2.08	30	
n-Propylbenzene	10		"	10.0		104	78-133		4.67	30	
o-Xylene	10		"	10.0		104	78-130		4.59	30	
p- & m- Xylenes	21		"	20.0		107	77-133		5.38	30	
p-Isopropyltoluene	11		"	10.0		106	81-136		1.60	30	
sec-Butylbenzene	11		"	10.0		109	79-137		3.15	30	
tert-Butylbenzene	10		"	10.0		104	77-138		2.94	30	
Toluene	10		"	10.0		104	80-127		6.04	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	9.38		"	10.0		93.8	69-130				
Surrogate: SURR: Toluene-d8	9.45		"	10.0		94.5	81-117				
Surrogate: SURR: p-Bromofluorobenzene	10.5		"	10.0		105	79-122				



Volatile Organic Compounds by GC/MS - Quality Control Data

York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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Batch BK90921 - EPA 5030B

LCS Dup (BK90921-BSD2)

Prepared & Analyzed: 11/19/2019

1,2,4-Trimethylbenzene	11		ug/L	10.0		106	82-132		1.40	30	
1,3,5-Trimethylbenzene	11		"	10.0		107	80-131		1.67	30	
Benzene	12		"	10.0		115	85-126		1.98	30	
Ethyl Benzene	11		"	10.0		108	80-131		4.18	30	
Isopropylbenzene	11		"	10.0		106	76-140		1.77	30	
Methyl tert-butyl ether (MTBE)	11		"	10.0		110	76-135		0.635	30	
Naphthalene	9.8		"	10.0		97.8	70-147		0.718	30	
n-Butylbenzene	9.3		"	10.0		92.9	79-132		1.92	30	
n-Propylbenzene	11		"	10.0		108	78-133		1.38	30	
o-Xylene	11		"	10.0		105	78-130		2.81	30	
p- & m- Xylenes	21		"	20.0		107	77-133		3.75	30	
p-Isopropyltoluene	11		"	10.0		107	81-136		2.39	30	
sec-Butylbenzene	11		"	10.0		112	79-137		2.47	30	
tert-Butylbenzene	11		"	10.0		106	77-138		1.49	30	
Toluene	11		"	10.0		106	80-127		3.53	30	
Surrogate: SURR: 1,2-Dichloroethane-d4	9.19		"	10.0		91.9	69-130				
Surrogate: SURR: Toluene-d8	9.59		"	10.0		95.9	81-117				
Surrogate: SURR: p-Bromofluorobenzene	10.8		"	10.0		108	79-122				

Batch BK91105 - EPA 5030B

Blank (BK91105-BLK1)

Prepared & Analyzed: 11/21/2019

1,2,4-Trimethylbenzene	ND	0.50	ug/L								
1,3,5-Trimethylbenzene	ND	0.50	"								
Benzene	ND	0.50	"								
Ethyl Benzene	ND	0.50	"								
Isopropylbenzene	ND	0.50	"								
Methyl tert-butyl ether (MTBE)	ND	0.50	"								
Naphthalene	ND	2.0	"								
n-Butylbenzene	ND	0.50	"								
n-Propylbenzene	ND	0.50	"								
o-Xylene	ND	0.50	"								
p- & m- Xylenes	ND	1.0	"								
p-Isopropyltoluene	ND	0.50	"								
sec-Butylbenzene	ND	0.50	"								
tert-Butylbenzene	ND	0.50	"								
Toluene	ND	0.50	"								
Xylenes, Total	ND	1.5	"								
Surrogate: SURR: 1,2-Dichloroethane-d4	9.30		"	10.0		93.0	69-130				
Surrogate: SURR: Toluene-d8	9.11		"	10.0		91.1	81-117				
Surrogate: SURR: p-Bromofluorobenzene	10.4		"	10.0		104	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 BK91105 - EPA 5030B

LCS (BK91105-BS1)

Prepared & Analyzed: 11/21/2019

1,2,4-Trimethylbenzene	10		ug/L	10.0		99.7	82-132				
1,3,5-Trimethylbenzene	9.9		"	10.0		98.9	80-131				
Benzene	12		"	10.0		116	85-126				
Ethyl Benzene	10		"	10.0		105	80-131				
Isopropylbenzene	9.7		"	10.0		97.4	76-140				
Methyl tert-butyl ether (MTBE)	11		"	10.0		109	76-135				
Naphthalene	9.2		"	10.0		92.1	70-147				
n-Butylbenzene	9.0		"	10.0		89.9	79-132				
n-Propylbenzene	9.9		"	10.0		98.6	78-133				
o-Xylene	10		"	10.0		102	78-130				
p- & m- Xylenes	21		"	20.0		104	77-133				
p-Isopropyltoluene	10		"	10.0		102	81-136				
sec-Butylbenzene	11		"	10.0		106	79-137				
tert-Butylbenzene	9.7		"	10.0		97.1	77-138				
Toluene	10		"	10.0		104	80-127				
Surrogate: SURR: 1,2-Dichloroethane-d4	8.90		"	10.0		89.0	69-130				
Surrogate: SURR: Toluene-d8	9.26		"	10.0		92.6	81-117				
Surrogate: SURR: p-Bromofluorobenzene	10.4		"	10.0		104	79-122				

LCS (BK91105-BS2)

Prepared & Analyzed: 11/21/2019

1,2,4-Trimethylbenzene	10		ug/L	10.0		101	82-132				
1,3,5-Trimethylbenzene	10		"	10.0		102	80-131				
Benzene	12		"	10.0		122	85-126				
Ethyl Benzene	11		"	10.0		107	80-131				
Isopropylbenzene	9.9		"	10.0		99.2	76-140				
Methyl tert-butyl ether (MTBE)	12		"	10.0		120	76-135				
Naphthalene	9.7		"	10.0		97.1	70-147				
n-Butylbenzene	9.2		"	10.0		91.9	79-132				
n-Propylbenzene	10		"	10.0		100	78-133				
o-Xylene	10		"	10.0		105	78-130				
p- & m- Xylenes	21		"	20.0		107	77-133				
p-Isopropyltoluene	10		"	10.0		105	81-136				
sec-Butylbenzene	11		"	10.0		109	79-137				
tert-Butylbenzene	9.9		"	10.0		99.4	77-138				
Toluene	11		"	10.0		106	80-127				
Surrogate: SURR: 1,2-Dichloroethane-d4	9.29		"	10.0		92.9	69-130				
Surrogate: SURR: Toluene-d8	9.09		"	10.0		90.9	81-117				
Surrogate: SURR: p-Bromofluorobenzene	10.4		"	10.0		104	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 BK91105 - EPA 5030B

LCS Dup (BK91105-BSD1)

Prepared & Analyzed: 11/21/2019

1,2,4-Trimethylbenzene	9.4		ug/L	10.0		93.5	82-132		6.42	30
1,3,5-Trimethylbenzene	9.3		"	10.0		92.9	80-131		6.26	30
Benzene	11		"	10.0		110	85-126		5.21	30
Ethyl Benzene	9.8		"	10.0		98.5	80-131		6.10	30
Isopropylbenzene	9.0		"	10.0		89.9	76-140		8.01	30
Methyl tert-butyl ether (MTBE)	11		"	10.0		113	76-135		4.05	30
Naphthalene	9.5		"	10.0		94.7	70-147		2.78	30
n-Butylbenzene	7.5		"	10.0		75.4	79-132	Low Bias	17.5	30
n-Propylbenzene	9.1		"	10.0		91.3	78-133		7.69	30
o-Xylene	9.7		"	10.0		97.2	78-130		4.92	30
p- & m- Xylenes	20		"	20.0		98.9	77-133		5.46	30
p-Isopropyltoluene	9.6		"	10.0		95.8	81-136		5.78	30
sec-Butylbenzene	9.9		"	10.0		99.0	79-137		6.73	30
tert-Butylbenzene	9.0		"	10.0		90.0	77-138		7.59	30
Toluene	9.7		"	10.0		97.2	80-127		6.37	30
Surrogate: SURR: 1,2-Dichloroethane-d4	9.49		"	10.0		94.9	69-130			
Surrogate: SURR: Toluene-d8	9.17		"	10.0		91.7	81-117			
Surrogate: SURR: p-Bromofluorobenzene	10.3		"	10.0		103	79-122			

LCS Dup (BK91105-BSD2)

Prepared & Analyzed: 11/21/2019

1,2,4-Trimethylbenzene	9.8		ug/L	10.0		97.6	82-132		3.32	30
1,3,5-Trimethylbenzene	9.7		"	10.0		96.8	80-131		4.74	30
Benzene	12		"	10.0		119	85-126		2.65	30
Ethyl Benzene	10		"	10.0		104	80-131		2.74	30
Isopropylbenzene	9.4		"	10.0		94.2	76-140		5.17	30
Methyl tert-butyl ether (MTBE)	12		"	10.0		119	76-135		0.753	30
Naphthalene	9.4		"	10.0		93.9	70-147		3.35	30
n-Butylbenzene	8.8		"	10.0		87.5	79-132		4.91	30
n-Propylbenzene	9.6		"	10.0		96.5	78-133		3.96	30
o-Xylene	10		"	10.0		103	78-130		1.93	30
p- & m- Xylenes	21		"	20.0		104	77-133		2.65	30
p-Isopropyltoluene	10		"	10.0		99.6	81-136		4.90	30
sec-Butylbenzene	10		"	10.0		104	79-137		5.06	30
tert-Butylbenzene	9.6		"	10.0		95.9	77-138		3.58	30
Toluene	10		"	10.0		103	80-127		2.79	30
Surrogate: SURR: 1,2-Dichloroethane-d4	9.53		"	10.0		95.3	69-130			
Surrogate: SURR: Toluene-d8	9.15		"	10.0		91.5	81-117			
Surrogate: SURR: p-Bromofluorobenzene	10.3		"	10.0		103	79-122			



Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
19K0602-01	2009-MW-2	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19K0602-02	MW-5	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19K0602-03	MW-6	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19K0602-04	MW-7	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C
19K0602-05	Trip Blank	40mL Clear Vial (pre-pres.) HCl; Cool to 4° C



Sample and Data Qualifiers Relating to This Work Order

S-08	The recovery of this surrogate was outside of QC limits.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.

Definitions and Other Explanations

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

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

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

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

Certification for pH is no longer offered by NYDOH ELAP.

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



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



Field Chain-of-Custody Record

YORK Project No.

19K0602

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		Turn-Around Time	
Company: The Chazen Companies Address: 21 Fox Street 12601 Roughkeepsie, NY Phone: 845-454-3980 Contact: W.D. Olsen E-mail: wdo@chazecompanies.com	Company: Chazen Address: Phone: Contact: Arlene + W.D. E-mail:	Company: Chazen Address: Phone: Contact: Accounts Payable E-mail:	YOUR Project Number 81434.00 TASK 16BØ YOUR Project Name Redl - Love Road		RUSH - Next Day RUSH - Two Day RUSH - Three Day RUSH - Four Day Standard (5-7 Day)				
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.		Matrix Codes		Samples From		Report / EDD Type (circle selections)		YORK Reg. Comp.	
		S - soil / solid	New York	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)	TODS		
		DW - drinking water	Connecticut	NY ASP A Package	NJDEP Reduced Deliverables	NYSDEC EQUIS	1.1.1		
		WW - wastewater	Pennsylvania	NY ASP B Package	NJDEP SRP HazSite				
		O - Oil ; Other	Other		NJDQOP	Other:			
Sample Identification		Sample Matrix	Date/Time Sampled	Analysis Requested		Container Description			
2009-MW-2	GW	11-14-19 10:14	CP-51 VOCs		3x 40ml VOA				
MW-5		11:23							
MW-6		12:04							
MW-7		12:40							
TRIP BLANK	D.F.				2X 40ml VOA				
Comments: Samples placed in secure Chazen refrigerator - @ 15:15, 11-14-19.		Date/Time		Preservation: (check all that apply)		Special Instruction			
11-14-19 15:15		HCl MeOH HNO ₃ H ₂ SO ₄ NaOH ZnAc	Field Filtered Lab to Filter		Date/Time				
11-14-19 15:15		Ascorbic Acid Other:	Date/Time		11-15-19 1442				
Samples Relinquished by / Company		Samples Received by / Company		Samples Relinquished by / Company		Date/Time			
William G. Olsen / Chazen		Chiric		Chiric		Temp. Received at Lab			
11-14-19 15:15		11-15-19 9:10		11-15-19 1442		Degrees C			
Samples Relinquished by / Company		Samples Received by / Company		Samples Relinquished by / Company		Date/Time			
William G. Olsen / Chazen		Chiric		Chiric		Temp. Received at Lab			
11-14-19 15:15		11-15-19 9:10		11-15-19 1442		Degrees C			