



Tennessee Gas Pipeline
Company, L.L.C.
a Kinder Morgan company

September 23, 2017

U.S. Environmental Protection Agency
Office of Ecosystem Protection
EPA/OEP RGP Applications Coordinator
5 Post Office Square – Suite 100 (OEP06-01)
Boston, MA 02109
NPDES.Generalpermits@epa.gov

**Subject: Notice of Change for NPDES General Permit for Remediation Activity
Discharges in Massachusetts (NPDES Permit No. MAG910000)
Authorization No. MAG910716
Tennessee Gas Pipeline Company, L.L.C.
Connecticut Expansion Project**

Dear Ms. Shauna Little:

Tennessee Gas Pipeline Company, L.L.C. (“Tennessee”) has previously prepared and submitted a Notice of Intent (“NOI”) to be covered under the General Permit for Remediation Activity Discharges (“General Permit”, NPDES Permit No. MAG910000) for the Connecticut Expansion Project. The U.S. Environmental Protection Agency (“USEPA”) granted Tennessee authorization to discharge under the General Permit on August 29, 2017 (Authorization No. MAG 910716). As of this writing, and in compliance with United States Department of Transportation (“DOT”) regulations 49 CFR Part 192 specifications, Tennessee has successfully conducted hydrostatic testing on the 3.81-mile Massachusetts Loop.

As originally proposed, water from Lower Spectacle Pond in Sandisfield, Massachusetts was used to hydrostatically test the Massachusetts Loop pipeline. Prior to initiating the test, a sample of water from Lower Spectacle Pond was analyzed to confirm that it did not exceed any effluent limitations specified in the authorization letter. The pipeline was filled with water and maintained at a test pressure and duration in compliance with Tennessee’s engineering standards and applicable federal regulations. Upon satisfactory completion of the hydrostatic testing and depressurization, prior to discharge of the pressure testing water, and as required under the General Permit and the authorization letter, in-process samples of the water were collected and analyzed to confirm all concentrations for parameters listed in the authorization letter were below the stated effluent limits.

As a result of the testing, several parameters were found to exceed the effluent limitations, as shown in Table 1.

Table 1. Parameters with General Permit Effluent Limitation Exceedances

Parameter	RGP Effluent Limit	In-Process^(a) (Post-Depressurization)
Tetrachloroethylene	3.3 µg/L	9.1 µg/L
Copper (total)	2.4 µg/L	3.5 µg/L
Iron (total)	1.0 mg/L	1.9 mg/L
Lead (total)	0.41 µg/L	0.69 µg/L
Nickel (total)	13.4 µg/L	24 µg/L
Zinc	30.8 µg/L	570 µg/L

(a) These data are from the latest/verification round of testing. All test results are included as enclosures to this NOC letter.

In response to the reported exceedances of effluent limitations,¹ Tennessee has subcontracted an independent contractor (ProAct Services Corporation) to design, build, and operate a treatment system (schematic attached), which will be utilized to treat the in-process water to achieve concentrations below the authorization letter requirements and therefore in compliance with the General Permit. The treatment system will include particulate filtration, removal of organic compounds with granular activated carbon (“GAC”), and removal of soluble metals, if required, using a cation exchange resin.

After the hydrostatic/in-process test water has been treated by the remediation system and has been verified through sampling and testing at a certified laboratory to be below the effluent limitations of the authorization letter, the remaining water will be treated and discharged to an upland area through a dewatering structure consisting of an energy dissipation device and dewatering structure.

Effluent from the treatment system will be monitored during the discharge in accordance with the General Permit. Discharge will be controlled to approximately 500 gallons per minute to maximize the remediation system efficiency and allow more over land infiltration. Potential environmental impacts from the discharge of test water will be minimized by utilizing the measures outlined in FERC’s Upland Erosion Control, Revegetation, and Maintenance Plan and Wetland and Waterbody Construction and Mitigation Procedures, as well as by complying with all applicable federal, state, and local permit requirements including the effluent limitations, monitoring, and reporting requirements as specified in the General Permit.

Tennessee has also revised its Best Management Practices Plan (“BMPP”), developed in accordance with Section 2.5.1 of the General Permit. Tennessee certifies that the BMPP meets the requirements of the General Permit and will be implemented upon initiation of discharge.

Tennessee will test and verify that the treated hydrostatic/in-process test water meets the effluent limitations of the authorization letter as early as the end of the day on Monday, September 25th. Upon confirmation that the treated water meets the effluent limitation, Tennessee will begin to discharge the water in accordance with all applicable permits and requirements as explained above. It is Tennessee’s understanding that the remediation plan outlined and its intent to implement the plan as described above in this letter is in compliance with the General Permit.

¹ Tennessee has attached to this letter the following test results:
 Influent Sampling Results, Influent_Lower_Spectacle_Pond_20170906.pdf
 In Process Sampling Results, In_Process_HydroTest_Depressure_20170914.pdf

Thank you for your attention to this Notice of Change and please do not hesitate to contact me at Brian_Benito@kindermorgan.com or 203-233-6992 should you require any additional information or have any questions.

Thank you for your continued attention to this Project.

Sincerely,



Brian M. Benito, Jr.
Environmental Project Manager
Tennessee Gas Pipeline Company, L.L.C.

Cc:
David Webster, USEPA, david.webster@epa.gov
David Cameron, MassDEP, David.Cameron@state.ma.us

Enclosures:

Remediation General Permit, Authorization No. MAG 910716
Notice of Change for Remediation General Permit Notice of Intent – Massachusetts Loop
Influent and In-process (Post-depressurization) Water Sampling Results
Treatment Process Flow Diagram

II. Suggested Format for the Remediation General Permit Notice of Change (NOC)

A. General site information

1. NPDES permit number assigned by EPA: MAG910716			
2. Name of site: Connecticut Expansion Project		Site address: Town Hill Road to S Beech Plain Road	
		Street:	
		City: Sandisfield	State: MA Zip: 01255
3. Site owner Tennessee Gas Pipeline, LLC Owner is (check one): ☐ Federal ☐ State/Tribal ☒ Private ☐ Other, if so, describe:		Contact Person: Brian M. Benito, Jr.	
		Telephone: 860-763-6052	Email: brian_benito@kindermorgan.com
		Mailing address: 8 Anngina Drive.	
		Street:	
		City: Enfield	State: CT Zip: 06082
4. Site operator, if different than owner Same		Contact Person:	
		Telephone:	Email:
		Mailing address:	
		Street:	
		City:	State: Zip:
5. Discharge identification: Outfall 001		Discharge location: -73.122348, 43.158859	Receiving water(s): Spectacle Pond Brook

B. Type of change(s) requested

Requested change (check all that apply):	
☐	1. Request for reduction in monitoring requirements to no less than once per year, based on monitoring data attached in accordance with Appendix IV, Part 2 instructions. Written approval by EPA is required for this change to be effective.
☐	i. Influent monitoring requirement reduction based on monitoring data for six (6) consecutive months and ten (10) samples.
☐	ii. Effluent monitoring requirement reduction based on monitoring data for six (6) consecutive months and ten (10) samples that are in compliance with the RGP effluent limitations, and data and BMP requirements.
☐	2. Request for site-specific effluent flow limitation, which will not exceed 1.0 MGD or the design flow of the treatment system, or site-specific monitoring requirement that eliminates flow meter requirement based on written rationale attached in accordance with Appendix IV, Part 2 instructions. Written approval by EPA is required for this change to be effective.
☐	3. Request for a change in pH range approved by NHDES, based on supporting documentation attached in accordance with Appendix IV, Part 2 instructions. Written approval by EPA is required for this change to be effective.
☐	4. Request for change in authorized pollutants or pollutant parameters, based on monitoring data attached in accordance with Appendix IV, Part 2 instructions. This type of change requires written approval by EPA. Additional effluent limitations and/or monitoring requirements may apply.
☐	5. Request to discharge chemical(s) and/or additive(s) that were not disclosed in the NOI submitted for the site, based on written rationale and/or monitoring data attached in accordance with Appendix IV, Part 2 instructions. Written approval by EPA is required for this change to be effective.
☐	6. Change to administrative information. Supporting documentation is attached in accordance with Appendix IV, Part 2 instructions.
☐	7. Notification of a change in discharge location. The receiving water information submitted with the NOI for the site remains unchanged. Supporting documentation is attached in accordance with Appendix IV, Part 2 instructions.
☐	8. Notification of a change in activity area. The receiving water information submitted with the NOI for the site and the operator named in the authorization to discharge remain unchanged. Any change in treatment or discharge location are also included in the NOC, or are unchanged. Supporting documentation is attached in accordance with Appendix IV, Part 2 instructions.
☒	9. Notification of a change to a treatment system or process that adds or removes any major component. Supporting rationale is attached in accordance with Appendix IV, Part 2 instructions.
☐	10. Notification of a temporary cessation of discharge greater than 90 days. Supporting rationale is attached in accordance with Appendix IV, Part 2 instructions.

C. Certification requirement

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Notification provided to the appropriate State, including a copy of this NOC.

Check one: Yes ☒ No ☐

Notification has been provided to the municipality in which the discharge is located, including a copy of this NOC, if requested.

Check one: Yes ☒ No ☐

Notification has been provided to the owner of a private or municipal storm sewer system, if such system is used for site discharges, including a copy of this NOC, if requested.

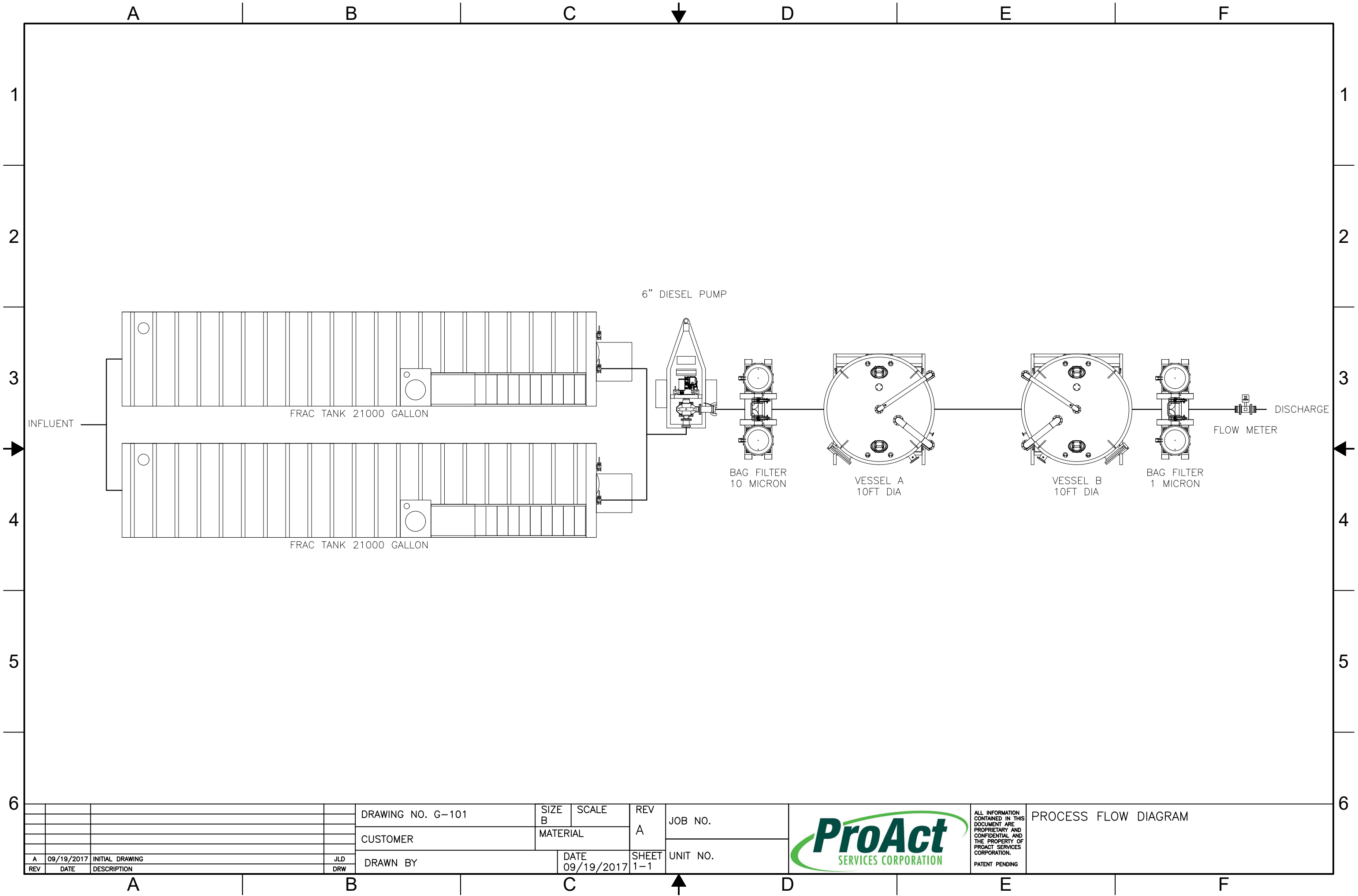
Check one: Yes ☐ No ☐ NA ☒

Signature:



Date: September 22, 2017

Print Name and Title: Brian M. Benito Jr., Project Manager



A	09/19/2017	INITIAL DRAWING	JLD
REV	DATE	DESCRIPTION	DRW

DRAWING NO. G-101	SIZE B	SCALE	REV A
CUSTOMER	MATERIAL		
DRAWN BY	DATE 09/19/2017	SHEET 1-1	

JOB NO.
UNIT NO.



ALL INFORMATION CONTAINED IN THIS DOCUMENT ARE PROPRIETARY AND CONFIDENTIAL AND THE PROPERTY OF PROACT SERVICES CORPORATION.
PATENT PENDING

PROCESS FLOW DIAGRAM

September 13, 2017

Mike Evans
AECOM - Providence, RI
10 Orms Street, Suite 405
Providence, RI 02904

Project Location: Sandisfield, MA
Client Job Number:
Project Number: 60536853
Laboratory Work Order Number: 17I0156

Enclosed are results of analyses for samples received by the laboratory on September 6, 2017. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Kerry K. McGee". The signature is written in a cursive, flowing style.

Kerry K. McGee
Project Manager

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

AECOM - Providence, RI
10 Orms Street, Suite 405
Providence, RI 02904
ATTN: Mike Evans

REPORT DATE: 9/13/2017

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 60536853

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 1710156

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

PROJECT LOCATION: Sandisfield, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SP-W	1710156-01	Surface Water		-	NY NELAP 10026/ MA M-NY044 +others
				EPA 1664B	
				EPA 200.7	
				EPA 200.8	
				EPA 245.1	
				EPA 300.0	NY11393/MA-MA1138/M A1110
				EPA 504.1	
				EPA 608	
				EPA 624	
				EPA 625	
				SM19-22 4500 NH3 C	MA M-MA-086/CT PH-0574/NY11148
				SM21-22 2540D	
				SM21-22 3500 Cr B	
				SM21-22 4500 CL G	
				SW-846 8270D	
				SW-846 9014	MA M-MA-086/CT PH-0574/NY11148
Trip Blank	1710156-02	Trip Blank Water		Tri Chrome Calc.	
				EPA 624	

CASE NARRATIVE SUMMARY

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

For method 8270, only a select list of compounds was requested and reported.

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EPA 200.8**Qualifications:****L-07**

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:**Silver**

B185738-BSD1

V-20

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:**Silver**

1710156-01[SP-W], B185738-BLK1, B185738-BS1, B185738-BSD1, B185738-DUP1, B185738-MS1

EPA 625**Qualifications:****L-04**

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:**2-Chloronaphthalene**

1710156-01[SP-W], B185689-BLK1, B185689-BS1, B185689-BSD1

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:**Hexachlorocyclopentadiene**

B185689-BSD1

V-04

Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria.

Analyte & Samples(s) Qualified:**Benzidine**

1710156-01[SP-W], B185689-BLK1, B185689-BS1, B185689-BSD1

V-05

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

Analyte & Samples(s) Qualified:**2,4-Dinitrophenol**

1710156-01[SP-W], B185689-BLK1, B185689-BS1, B185689-BSD1

Bis(2-chloroisopropyl)ether

1710156-01[SP-W], B185689-BLK1, B185689-BS1, B185689-BSD1

Hexachlorocyclopentadiene

1710156-01[SP-W], B185689-BLK1, B185689-BS1, B185689-BSD1

V-20

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:**Benzo(g,h,i)perylene**

1710156-01[SP-W], B185689-BLK1, B185689-BS1, B185689-BSD1

N-Nitrosodimethylamine

1710156-01[SP-W], B185689-BLK1, B185689-BS1, B185689-BSD1

SW-846 8270D**Qualifications:**

B

Analyte is found in the associated blank as well as in the sample.

Analyte & Samples(s) Qualified:**Bis(2-Ethylhexyl)phthalate**

17I0156-01[SP-W], B185689-BLK1, B185689-BS1, B185689-BSD1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

A handwritten signature in black ink, appearing to read "Daren J. Damboragian", is written over a light gray rectangular background.

Daren J. Damboragian
Director of Operations

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

Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710156

Date Received: 9/6/2017

Field Sample #: SP-W

Sampled: 9/6/2017 10:45

Sample ID: 1710156-01

Sample Matrix: Surface Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	4.9	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.11	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
Benzene	ND	1.0	0.12	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
tert-Butyl Alcohol (TBA)	ND	20	2.2	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
Carbon Tetrachloride	ND	2.0	0.25	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
1,2-Dichlorobenzene	ND	2.0	0.17	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
1,3-Dichlorobenzene	ND	2.0	0.17	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
1,4-Dichlorobenzene	ND	2.0	0.15	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
1,2-Dichloroethane	ND	2.0	0.19	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
1,1-Dichloroethane	ND	2.0	0.16	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
1,1-Dichloroethylene	ND	2.0	0.21	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
1,4-Dioxane	ND	50	26	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
Ethylbenzene	ND	2.0	0.13	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
Methyl tert-Butyl Ether (MTBE)	ND	2.0	0.090	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
Methylene Chloride	ND	5.0	3.2	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
Tetrachloroethylene	ND	2.0	0.27	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
Toluene	ND	1.0	0.17	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
1,1,1-Trichloroethane	ND	2.0	0.13	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
1,1,2-Trichloroethane	ND	2.0	0.24	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
Trichloroethylene	ND	2.0	0.20	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
Vinyl Chloride	ND	2.0	0.13	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
m+p Xylene	ND	2.0	0.26	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
o-Xylene	ND	2.0	0.13	µg/L	1		EPA 624	9/7/17	9/8/17 7:22	EEH
Surrogates	% Recovery	Recovery Limits		Flag/Qual						
1,2-Dichloroethane-d4	114	70-130								
Toluene-d8	102	70-130								
4-Bromofluorobenzene	93.2	70-130								

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Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710156

Date Received: 9/6/2017

Field Sample #: SP-W

Sampled: 9/6/2017 10:45

Sample ID: 1710156-01

Sample Matrix: Surface Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzo(a)anthracene	ND	0.050	0.050	µg/L	1		SW-846 8270D	9/7/17	9/11/17 13:37	CJM
Benzo(a)pyrene	ND	0.10	0.10	µg/L	1		SW-846 8270D	9/7/17	9/11/17 13:37	CJM
Benzo(b)fluoranthene	ND	0.050	0.050	µg/L	1		SW-846 8270D	9/7/17	9/11/17 13:37	CJM
Benzo(k)fluoranthene	ND	0.20	0.20	µg/L	1		SW-846 8270D	9/7/17	9/11/17 13:37	CJM
Bis(2-Ethylhexyl)phthalate	0.20	1.0	0.10	µg/L	1	B, J	SW-846 8270D	9/7/17	9/11/17 13:37	CJM
Chrysene	ND	0.20	0.20	µg/L	1		SW-846 8270D	9/7/17	9/11/17 13:37	CJM
Dibenz(a,h)anthracene	ND	0.20	0.20	µg/L	1		SW-846 8270D	9/7/17	9/11/17 13:37	CJM
Indeno(1,2,3-cd)pyrene	ND	0.20	0.20	µg/L	1		SW-846 8270D	9/7/17	9/11/17 13:37	CJM
Pentachlorophenol	ND	1.0	0.34	µg/L	1		SW-846 8270D	9/7/17	9/11/17 13:37	CJM
Surrogates	% Recovery		Recovery Limits		Flag/Qual					
2-Fluorophenol	49.2		15-110							
Phenol-d6	35.3		15-110							
Nitrobenzene-d5	80.7		30-130							
2-Fluorobiphenyl	80.1		30-130							
2,4,6-Tribromophenol	99.4		15-110							
p-Terphenyl-d14	67.4		30-130							

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Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710156

Date Received: 9/6/2017

Field Sample #: SP-W

Sampled: 9/6/2017 10:45

Sample ID: 1710156-01

Sample Matrix: Surface Water

Semivolatile Organic Compounds by - GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.0	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Acenaphthylene	ND	5.0	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Anthracene	ND	5.0	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Benzidine	ND	20	µg/L	1	V-04	EPA 625	9/7/17	9/8/17 10:05	BGL
Benzo(g,h,i)perylene	ND	5.0	µg/L	1	V-20	EPA 625	9/7/17	9/8/17 10:05	BGL
4-Bromophenylphenylether	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Butylbenzylphthalate	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
4-Chloro-3-methylphenol	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Bis(2-chloroethyl)ether	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Bis(2-chloroisopropyl)ether	ND	10	µg/L	1	V-05	EPA 625	9/7/17	9/8/17 10:05	BGL
2-Chloronaphthalene	ND	10	µg/L	1	L-04	EPA 625	9/7/17	9/8/17 10:05	BGL
2-Chlorophenol	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
4-Chlorophenylphenylether	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Di-n-butylphthalate	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
1,3-Dichlorobenzene	ND	5.0	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
1,4-Dichlorobenzene	ND	5.0	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
1,2-Dichlorobenzene	ND	5.0	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
3,3-Dichlorobenzidine	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
2,4-Dichlorophenol	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Diethylphthalate	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
2,4-Dimethylphenol	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Dimethylphthalate	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
4,6-Dinitro-2-methylphenol	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
2,4-Dinitrophenol	ND	10	µg/L	1	V-05	EPA 625	9/7/17	9/8/17 10:05	BGL
2,4-Dinitrotoluene	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
2,6-Dinitrotoluene	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Di-n-octylphthalate	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
1,2-Diphenylhydrazine (as Azobenzene)	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Fluoranthene	ND	5.0	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Fluorene	ND	5.0	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Hexachlorobenzene	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Hexachlorobutadiene	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Hexachlorocyclopentadiene	ND	10	µg/L	1	V-05	EPA 625	9/7/17	9/8/17 10:05	BGL
Hexachloroethane	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Isophorone	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Naphthalene	ND	5.0	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Nitrobenzene	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
2-Nitrophenol	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
4-Nitrophenol	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
N-Nitrosodimethylamine	ND	10	µg/L	1	V-20	EPA 625	9/7/17	9/8/17 10:05	BGL
N-Nitrosodiphenylamine	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
N-Nitrosodi-n-propylamine	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
2-Methylnaphthalene	ND	5.0	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL

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Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710156

Date Received: 9/6/2017

Field Sample #: SP-W

Sampled: 9/6/2017 10:45

Sample ID: 1710156-01

Sample Matrix: Surface Water

Semivolatile Organic Compounds by - GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Phenanthrene	ND	5.0	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
2-Methylphenol	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Phenol	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
3/4-Methylphenol	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Pyrene	ND	5.0	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
1,2,4-Trichlorobenzene	ND	5.0	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
2,4,6-Trichlorophenol	ND	10	µg/L	1		EPA 625	9/7/17	9/8/17 10:05	BGL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
2-Fluorophenol	39.1	15-110						9/8/17 10:05	
Phenol-d6	23.9	15-110						9/8/17 10:05	
Nitrobenzene-d5	74.2	30-130						9/8/17 10:05	
2-Fluorobiphenyl	71.5	30-130						9/8/17 10:05	
2,4,6-Tribromophenol	81.8	15-110						9/8/17 10:05	
p-Terphenyl-d14	88.2	30-130						9/8/17 10:05	

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Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710156

Date Received: 9/6/2017

Field Sample #: SP-W

Sampled: 9/6/2017 10:45

Sample ID: 1710156-01

Sample Matrix: Surface Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	0.057	µg/L	1		EPA 608	9/7/17	9/8/17 12:05	KAL
Aroclor-1221 [1]	ND	0.10	0.062	µg/L	1		EPA 608	9/7/17	9/8/17 12:05	KAL
Aroclor-1232 [1]	ND	0.10	0.038	µg/L	1		EPA 608	9/7/17	9/8/17 12:05	KAL
Aroclor-1242 [1]	ND	0.10	0.054	µg/L	1		EPA 608	9/7/17	9/8/17 12:05	KAL
Aroclor-1248 [1]	ND	0.10	0.064	µg/L	1		EPA 608	9/7/17	9/8/17 12:05	KAL
Aroclor-1254 [1]	ND	0.10	0.071	µg/L	1		EPA 608	9/7/17	9/8/17 12:05	KAL
Aroclor-1260 [1]	ND	0.10	0.073	µg/L	1		EPA 608	9/7/17	9/8/17 12:05	KAL
Surrogates	% Recovery		Recovery Limits		Flag/Qual					
Decachlorobiphenyl [1]	91.2		30-150				9/8/17 12:05			
Decachlorobiphenyl [2]	97.8		30-150				9/8/17 12:05			
Tetrachloro-m-xylene [1]	93.4		30-150				9/8/17 12:05			
Tetrachloro-m-xylene [2]	92.5		30-150				9/8/17 12:05			

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Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710156

Date Received: 9/6/2017

Field Sample #: SP-W

Sampled: 9/6/2017 10:45

Sample ID: 1710156-01

Sample Matrix: Surface Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0		µg/L	1		EPA 200.8	9/7/17	9/11/17 20:41	WSD
Arsenic	ND	1.0		µg/L	1		EPA 200.8	9/7/17	9/11/17 20:41	WSD
Cadmium	ND	0.20		µg/L	1		EPA 200.8	9/7/17	9/11/17 20:41	WSD
Chromium	ND	10		µg/L	1		EPA 200.8	9/7/17	9/11/17 20:41	WSD
Chromium, Trivalent	ND	0.010		mg/L	1		Tri Chrome Calc.	9/7/17	9/13/17 16:13	WSD
Copper	ND	1.0		µg/L	1		EPA 200.8	9/7/17	9/11/17 20:41	WSD
Iron	0.46	0.050		mg/L	1		EPA 200.7	9/7/17	9/13/17 15:09	QNW
Lead	ND	0.50		µg/L	1		EPA 200.8	9/7/17	9/11/17 20:41	WSD
Mercury	ND	0.00010		mg/L	1		EPA 245.1	9/8/17	9/11/17 8:42	TJK
Nickel	ND	5.0		µg/L	1		EPA 200.8	9/7/17	9/11/17 20:41	WSD
Selenium	ND	5.0	2.1	µg/L	1		EPA 200.8	9/7/17	9/11/17 20:41	WSD
Silver	ND	0.20		µg/L	1	V-20	EPA 200.8	9/7/17	9/11/17 20:41	WSD
Zinc	ND	20		µg/L	1		EPA 200.8	9/7/17	9/11/17 20:41	WSD

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Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710156

Date Received: 9/6/2017

Field Sample #: SP-W

Sampled: 9/6/2017 10:45

Sample ID: 1710156-01

Sample Matrix: Surface Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chlorine, Residual	ND	0.020	mg/L	1		SM21-22 4500 CL G	9/6/17	9/6/17 23:50	DJM
Hexavalent Chromium	ND	0.0040	mg/L	1		SM21-22 3500 Cr B	9/6/17	9/6/17 23:00	DJM
Total Suspended Solids	5.0	5.0	mg/L	1		SM21-22 2540D	9/8/17	9/8/17 13:30	VAK
Silica Gel Treated HEM (SGT-HEM)	11	1.4	mg/L	1		EPA 1664B	9/7/17	9/7/17 14:00	LL

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Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710156

Date Received: 9/6/2017

Field Sample #: SP-W

Sampled: 9/6/2017 10:45

Sample ID: 1710156-01

Sample Matrix: Surface Water

Drinking Water Organics EPA 504.1

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,2-Dibromoethane (EDB) (1)	ND	0.020	µg/L	1		EPA 504.1	9/8/17	9/8/17 19:38	JMB
Surrogates	% Recovery	Recovery Limits			Flag/Qual				
1,3-Dibromopropane (1)	87.5	70-130						9/8/17 19:38	

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Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710156

Date Received: 9/6/2017

Field Sample #: SP-W

Sampled: 9/6/2017 10:45

Sample ID: 1710156-01

Sample Matrix: Surface Water

Ethanol

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ethanol	ND	2000	ug/L	1		1671A		9/7/17 0:00	TAN

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Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710156

Date Received: 9/6/2017

Field Sample #: SP-W

Sampled: 9/6/2017 10:45

Sample ID: 1710156-01

Sample Matrix: Surface Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	0.038	0.075	mg/L	1		SM19-22 4500 NH3 C		9/8/17 0:00	AAL
Cyanide	ND	0.005	mg/L	1		SW-846 9014		9/8/17 0:00	AAL

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Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710156

Date Received: 9/6/2017

Field Sample #: SP-W

Sampled: 9/6/2017 10:45

Sample ID: 1710156-01

Sample Matrix: Surface Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chloride	12	1	mg/L	1		EPA 300.0		9/8/17 0:00	ESA

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Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710156

Date Received: 9/6/2017

Field Sample #: Trip Blank

Sampled: 9/6/2017 00:00

Sample ID: 1710156-02

Sample Matrix: Trip Blank Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	17	50	4.9	µg/L	1	J	EPA 624	9/7/17	9/8/17 6:55	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.11	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
Benzene	ND	1.0	0.12	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
tert-Butyl Alcohol (TBA)	ND	20	2.2	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
Carbon Tetrachloride	ND	2.0	0.25	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
1,2-Dichlorobenzene	ND	2.0	0.17	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
1,3-Dichlorobenzene	ND	2.0	0.17	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
1,4-Dichlorobenzene	ND	2.0	0.15	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
1,2-Dichloroethane	ND	2.0	0.19	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
1,1-Dichloroethane	ND	2.0	0.16	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
1,1-Dichloroethylene	ND	2.0	0.21	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
1,4-Dioxane	ND	50	26	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
Ethylbenzene	ND	2.0	0.13	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
Methyl tert-Butyl Ether (MTBE)	ND	2.0	0.090	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
Methylene Chloride	6.8	5.0	3.2	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
Tetrachloroethylene	ND	2.0	0.27	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
Toluene	ND	1.0	0.17	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
1,1,1-Trichloroethane	ND	2.0	0.13	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
1,1,2-Trichloroethane	ND	2.0	0.24	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
Trichloroethylene	ND	2.0	0.20	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
Vinyl Chloride	ND	2.0	0.13	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
m+p Xylene	ND	2.0	0.26	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
o-Xylene	ND	2.0	0.13	µg/L	1		EPA 624	9/7/17	9/8/17 6:55	EEH
Surrogates	% Recovery		Recovery Limits		Flag/Qual					
1,2-Dichloroethane-d4	114		70-130				9/8/17 6:55			
Toluene-d8	101		70-130				9/8/17 6:55			
4-Bromofluorobenzene	94.0		70-130				9/8/17 6:55			

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Sample Extraction Data**EPA 1664B**

Lab Number [Field ID]	Batch	Initial [mL]	Date
17I0156-01 [SP-W]	B185692	970	09/07/17

Prep Method: EPA 200.7-EPA 200.7

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0156-01 [SP-W]	B185737	50.0	50.0	09/07/17

Prep Method: EPA 200.8-EPA 200.8

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0156-01 [SP-W]	B185738	50.0	50.0	09/07/17

Prep Method: EPA 245.1-EPA 245.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0156-01 [SP-W]	B185810	6.00	6.00	09/08/17

Prep Method: EPA 504 water-EPA 504.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0156-01 [SP-W]	B185851	35.3	35.0	09/08/17

Prep Method: SW-846 3510C-EPA 608

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0156-01 [SP-W]	B185770	1000	5.00	09/07/17

Prep Method: SW-846 5030B-EPA 624

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0156-01 [SP-W]	B185706	5	5.00	09/07/17
17I0156-02 [Trip Blank]	B185706	5	5.00	09/07/17

Prep Method: SW-846 3510C-EPA 625

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0156-01 [SP-W]	B185689	1000	1.00	09/07/17

SM21-22 2540D

Lab Number [Field ID]	Batch	Initial [mL]	Date
17I0156-01 [SP-W]	B185798	100	09/08/17

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332**Sample Extraction Data****SM21-22 3500 Cr B**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0156-01 [SP-W]	B185674	50.0	50.0	09/06/17

SM21-22 4500 CL G

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0156-01 [SP-W]	B185673	100	100	09/06/17

Prep Method: SW-846 3510C-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0156-01 [SP-W]	B185689	1000	1.00	09/07/17

Prep Method: SW-846 3005A-Tri Chrome Calc.

Lab Number [Field ID]	Batch	Initial [mL]	Date
17I0156-01 [SP-W]	B185739	1.00	09/07/17

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B185706 - SW-846 5030B
Blank (B185706-BLK1)

Prepared & Analyzed: 09/07/17

Acetone	ND	50	µg/L							
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L							
Benzene	ND	1.0	µg/L							
tert-Butyl Alcohol (TBA)	ND	20	µg/L							
Carbon Tetrachloride	ND	2.0	µg/L							
1,2-Dichlorobenzene	ND	2.0	µg/L							
1,3-Dichlorobenzene	ND	2.0	µg/L							
1,4-Dichlorobenzene	ND	2.0	µg/L							
1,2-Dichloroethane	ND	2.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
1,1-Dichloroethane	ND	2.0	µg/L							
1,1-Dichloroethylene	ND	2.0	µg/L							
1,4-Dioxane	ND	50	µg/L							
Ethylbenzene	ND	2.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	2.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							
Tetrachloroethylene	ND	2.0	µg/L							
Toluene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	2.0	µg/L							
1,1,2-Trichloroethane	ND	2.0	µg/L							
Trichloroethylene	ND	2.0	µg/L							
Vinyl Chloride	ND	2.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	2.0	µg/L							
Surrogate: 1,2-Dichloroethane-d4	27.9		µg/L	25.0		112	70-130			
Surrogate: Toluene-d8	25.4		µg/L	25.0		102	70-130			
Surrogate: 4-Bromofluorobenzene	23.1		µg/L	25.0		92.3	70-130			

LCS (B185706-BS1)

Prepared & Analyzed: 09/07/17

Acetone	89.8	50	µg/L	100		89.8	70-160			†
tert-Amyl Methyl Ether (TAME)	10.2	0.50	µg/L	10.0		102	70-130			
Benzene	10.6	1.0	µg/L	10.0		106	37-151			
tert-Butyl Alcohol (TBA)	81.7	20	µg/L	100		81.7	40-160			†
Carbon Tetrachloride	10.6	2.0	µg/L	10.0		106	70-140			
1,2-Dichlorobenzene	10.9	2.0	µg/L	10.0		109	18-190			
1,3-Dichlorobenzene	10.7	2.0	µg/L	10.0		107	59-156			
1,4-Dichlorobenzene	9.99	2.0	µg/L	10.0		99.9	18-190			
1,2-Dichloroethane	10.4	2.0	µg/L	10.0		104	49-155			
cis-1,2-Dichloroethylene	11.1	1.0	µg/L	10.0		111	70-130			
1,1-Dichloroethane	11.4	2.0	µg/L	10.0		114	59-155			
1,1-Dichloroethylene	9.79	2.0	µg/L	10.0		97.9	20-234			
1,4-Dioxane	96.2	50	µg/L	100		96.2	40-130			†
Ethylbenzene	10.3	2.0	µg/L	10.0		103	37-162			
Methyl tert-Butyl Ether (MTBE)	11.1	2.0	µg/L	10.0		111	70-130			
Methylene Chloride	10.4	5.0	µg/L	10.0		104	50-221			
Tetrachloroethylene	10.3	2.0	µg/L	10.0		103	64-148			
Toluene	10.4	1.0	µg/L	10.0		104	47-150			
1,1,1-Trichloroethane	10.6	2.0	µg/L	10.0		106	52-162			
1,1,2-Trichloroethane	10.6	2.0	µg/L	10.0		106	52-150			
Trichloroethylene	10.4	2.0	µg/L	10.0		104	71-157			
Vinyl Chloride	5.33	2.0	µg/L	10.0		53.3	20-251			
m+p Xylene	20.6	2.0	µg/L	20.0		103	70-130			

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B185706 - SW-846 5030B

LCS (B185706-BS1)

Prepared & Analyzed: 09/07/17

o-Xylene	10.2	2.0	µg/L	10.0		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	28.8		µg/L	25.0		115	70-130			
Surrogate: Toluene-d8	25.5		µg/L	25.0		102	70-130			
Surrogate: 4-Bromofluorobenzene	24.1		µg/L	25.0		96.4	70-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B185689 - SW-846 3510C										
Blank (B185689-BLK1)										
Prepared: 09/07/17 Analyzed: 09/11/17										
Benzo(a)anthracene	ND	0.050	µg/L							
Benzo(a)pyrene	ND	0.10	µg/L							
Benzo(b)fluoranthene	ND	0.050	µg/L							
Benzo(k)fluoranthene	ND	0.20	µg/L							
Bis(2-Ethylhexyl)phthalate	0.15	1.0	µg/L							J, B
Chrysene	ND	0.20	µg/L							
Dibenz(a,h)anthracene	ND	0.20	µg/L							
Indeno(1,2,3-cd)pyrene	ND	0.20	µg/L							
Pentachlorophenol	ND	1.0	µg/L							
Surrogate: 2-Fluorophenol	104		µg/L	200		51.9	15-110			
Surrogate: Phenol-d6	79.2		µg/L	200		39.6	15-110			
Surrogate: Nitrobenzene-d5	80.4		µg/L	100		80.4	30-130			
Surrogate: 2-Fluorobiphenyl	79.4		µg/L	100		79.4	30-130			
Surrogate: 2,4,6-Tribromophenol	202		µg/L	200		101	15-110			
Surrogate: p-Terphenyl-d14	67.6		µg/L	100		67.6	30-130			
LCS (B185689-BS1)										
Prepared: 09/07/17 Analyzed: 09/11/17										
Benzo(a)anthracene	82.6	1.2	µg/L	100		82.6	40-140			
Benzo(a)pyrene	90.1	2.5	µg/L	100		90.1	40-140			
Benzo(b)fluoranthene	90.1	1.2	µg/L	100		90.1	40-140			
Benzo(k)fluoranthene	86.8	5.0	µg/L	100		86.8	40-140			
Bis(2-Ethylhexyl)phthalate	78.2	25	µg/L	100		78.2	40-140			B
Chrysene	81.9	5.0	µg/L	100		81.9	40-140			
Dibenz(a,h)anthracene	85.3	5.0	µg/L	100		85.3	40-140			
Indeno(1,2,3-cd)pyrene	84.8	5.0	µg/L	100		84.8	40-140			
Pentachlorophenol	53.8	25	µg/L	100		53.8	30-130			
Surrogate: 2-Fluorophenol	105		µg/L	200		52.7	15-110			
Surrogate: Phenol-d6	79.7		µg/L	200		39.8	15-110			
Surrogate: Nitrobenzene-d5	87.8		µg/L	100		87.8	30-130			
Surrogate: 2-Fluorobiphenyl	91.0		µg/L	100		91.0	30-130			
Surrogate: 2,4,6-Tribromophenol	187		µg/L	200		93.3	15-110			
Surrogate: p-Terphenyl-d14	77.4		µg/L	100		77.4	30-130			
LCS Dup (B185689-BSD1)										
Prepared: 09/07/17 Analyzed: 09/11/17										
Benzo(a)anthracene	86.1	1.2	µg/L	100		86.1	40-140	4.12	20	
Benzo(a)pyrene	94.3	2.5	µg/L	100		94.3	40-140	4.50	20	
Benzo(b)fluoranthene	93.6	1.2	µg/L	100		93.6	40-140	3.78	20	
Benzo(k)fluoranthene	90.4	5.0	µg/L	100		90.4	40-140	4.01	20	
Bis(2-Ethylhexyl)phthalate	79.3	25	µg/L	100		79.3	40-140	1.46	20	B
Chrysene	86.0	5.0	µg/L	100		86.0	40-140	4.80	20	
Dibenz(a,h)anthracene	90.9	5.0	µg/L	100		90.9	40-140	6.38	20	
Indeno(1,2,3-cd)pyrene	90.3	5.0	µg/L	100		90.3	40-140	6.20	50	‡
Pentachlorophenol	55.9	25	µg/L	100		55.9	30-130	3.69	50	‡
Surrogate: 2-Fluorophenol	112		µg/L	200		56.2	15-110			
Surrogate: Phenol-d6	86.7		µg/L	200		43.4	15-110			
Surrogate: Nitrobenzene-d5	85.6		µg/L	100		85.6	30-130			
Surrogate: 2-Fluorobiphenyl	89.8		µg/L	100		89.8	30-130			
Surrogate: 2,4,6-Tribromophenol	186		µg/L	200		93.1	15-110			
Surrogate: p-Terphenyl-d14	71.8		µg/L	100		71.8	30-130			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B185689 - SW-846 3510C										
Blank (B185689-BLK1)				Prepared: 09/07/17 Analyzed: 09/08/17						
Acenaphthene	ND	5.0	µg/L							
Acenaphthylene	ND	5.0	µg/L							
Anthracene	ND	5.0	µg/L							
Benzidine	ND	20	µg/L							V-04
Benzo(g,h,i)perylene	ND	5.0	µg/L							V-20
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							
4-Chloro-3-methylphenol	ND	10	µg/L							
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-chloroisopropyl)ether	ND	10	µg/L							V-05
2-Chloronaphthalene	ND	10	µg/L							L-04
2-Chlorophenol	ND	10	µg/L							
4-Chlorophenylphenylether	ND	10	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
1,3-Dichlorobenzene	ND	5.0	µg/L							
1,4-Dichlorobenzene	ND	5.0	µg/L							
1,2-Dichlorobenzene	ND	5.0	µg/L							
3,3-Dichlorobenzidine	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
4,6-Dinitro-2-methylphenol	ND	10	µg/L							
2,4-Dinitrophenol	ND	10	µg/L							V-05
2,4-Dinitrotoluene	ND	10	µg/L							
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							
1,2-Diphenylhydrazine (as Azobenzene)	ND	10	µg/L							
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							
Fluoranthene	ND	5.0	µg/L							
Fluorene	ND	5.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							
Hexachlorocyclopentadiene	ND	10	µg/L							V-05
Hexachloroethane	ND	10	µg/L							
Isophorone	ND	10	µg/L							
Naphthalene	ND	5.0	µg/L							
Nitrobenzene	ND	10	µg/L							
2-Nitrophenol	ND	10	µg/L							
4-Nitrophenol	ND	10	µg/L							
N-Nitrosodimethylamine	ND	10	µg/L							V-20
N-Nitrosodiphenylamine	ND	10	µg/L							
N-Nitrosodi-n-propylamine	ND	10	µg/L							
2-Methylnaphthalene	ND	5.0	µg/L							
Phenanthrene	ND	5.0	µg/L							
2-Methylphenol	ND	10	µg/L							
Phenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Pyrene	ND	5.0	µg/L							
1,2,4-Trichlorobenzene	ND	5.0	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							
Surrogate: 2-Fluorophenol	84.5		µg/L	200		42.3	15-110			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B185689 - SW-846 3510C
Blank (B185689-BLK1)

Prepared: 09/07/17 Analyzed: 09/08/17

Surrogate: Phenol-d6	52.2		µg/L	200		26.1	15-110			
Surrogate: Nitrobenzene-d5	71.0		µg/L	100		71.0	30-130			
Surrogate: 2-Fluorobiphenyl	70.4		µg/L	100		70.4	30-130			
Surrogate: 2,4,6-Tribromophenol	161		µg/L	200		80.7	15-110			
Surrogate: p-Terphenyl-d14	87.1		µg/L	100		87.1	30-130			

LCS (B185689-BS1)

Prepared: 09/07/17 Analyzed: 09/08/17

Acenaphthene	63.2	5.0	µg/L	100		63.2	47-145			
Acenaphthylene	62.6	5.0	µg/L	100		62.6	33-145			
Anthracene	71.0	5.0	µg/L	100		71.0	27-133			
Benztidine	85.9	20	µg/L	100		85.9	40-140			V-04
Benzo(g,h,i)perylene	68.5	5.0	µg/L	100		68.5	1-219			V-20
4-Bromophenylphenylether	74.9	10	µg/L	100		74.9	53-127			
Butylbenzylphthalate	80.6	10	µg/L	100		80.6	1-152			
4-Chloro-3-methylphenol	74.0	10	µg/L	100		74.0	22-147			
Bis(2-chloroethyl)ether	67.5	10	µg/L	100		67.5	12-158			
Bis(2-chloroisopropyl)ether	60.8	10	µg/L	100		60.8	36-166			V-05
2-Chloronaphthalene	58.8	10	µg/L	100		58.8 *	60-118			L-04
2-Chlorophenol	61.9	10	µg/L	100		61.9	23-134			
4-Chlorophenylphenylether	71.4	10	µg/L	100		71.4	25-158			
Di-n-butylphthalate	83.9	10	µg/L	100		83.9	1-118			
1,3-Dichlorobenzene	57.7	5.0	µg/L	100		57.7	1-172			
1,4-Dichlorobenzene	58.9	5.0	µg/L	100		58.9	20-124			
1,2-Dichlorobenzene	58.6	5.0	µg/L	100		58.6	32-129			
3,3-Dichlorobenzidine	118	10	µg/L	100		118	1-262			
2,4-Dichlorophenol	70.3	10	µg/L	100		70.3	39-135			
Diethylphthalate	75.5	10	µg/L	100		75.5	1-114			
2,4-Dimethylphenol	76.5	10	µg/L	100		76.5	32-119			
Dimethylphthalate	71.1	10	µg/L	100		71.1	1-112			
4,6-Dinitro-2-methylphenol	66.0	10	µg/L	100		66.0	1-181			
2,4-Dinitrophenol	52.7	10	µg/L	100		52.7	1-191			V-05
2,4-Dinitrotoluene	66.5	10	µg/L	100		66.5	39-139			
2,6-Dinitrotoluene	69.4	10	µg/L	100		69.4	50-158			
Di-n-octylphthalate	79.3	10	µg/L	100		79.3	4-146			
1,2-Diphenylhydrazine (as Azobenzene)	74.9	10	µg/L	100		74.9	40-140			
Bis(2-Ethylhexyl)phthalate	86.7	10	µg/L	100		86.7	8-158			
Fluoranthene	78.9	5.0	µg/L	100		78.9	26-137			
Fluorene	65.6	5.0	µg/L	100		65.6	59-121			
Hexachlorobenzene	71.4	10	µg/L	100		71.4	1-152			
Hexachlorobutadiene	80.0	10	µg/L	100		80.0	24-116			
Hexachlorocyclopentadiene	42.9	10	µg/L	100		42.9	40-140			V-05
Hexachloroethane	67.8	10	µg/L	100		67.8	40-113			
Isophorone	71.9	10	µg/L	100		71.9	21-196			
Naphthalene	64.8	5.0	µg/L	100		64.8	21-133			
Nitrobenzene	68.8	10	µg/L	100		68.8	35-180			
2-Nitrophenol	69.3	10	µg/L	100		69.3	29-182			
4-Nitrophenol	37.7	10	µg/L	100		37.7	1-132			
N-Nitrosodimethylamine	65.4	10	µg/L	100		65.4	40-140			V-20
N-Nitrosodiphenylamine	92.0	10	µg/L	100		92.0	40-140			
N-Nitrosodi-n-propylamine	66.6	10	µg/L	100		66.6	1-230			
2-Methylnaphthalene	69.6	5.0	µg/L	100		69.6	40-140			
Phenanthrene	70.2	5.0	µg/L	100		70.2	54-120			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B185689 - SW-846 3510C										
LCS (B185689-BS1)										
Prepared: 09/07/17 Analyzed: 09/08/17										
2-Methylphenol	51.3	10	µg/L	100		51.3	30-130			
Phenol	27.5	10	µg/L	100		27.5	5-112			
3/4-Methylphenol	52.7	10	µg/L	100		52.7	30-130			
Pyrene	64.7	5.0	µg/L	100		64.7	52-115			
1,2,4-Trichlorobenzene	67.1	5.0	µg/L	100		67.1	44-142			
2,4,6-Trichlorophenol	70.0	10	µg/L	100		70.0	37-144			
Surrogate: 2-Fluorophenol	95.9		µg/L	200		48.0	15-110			
Surrogate: Phenol-d6	65.7		µg/L	200		32.8	15-110			
Surrogate: Nitrobenzene-d5	80.3		µg/L	100		80.3	30-130			
Surrogate: 2-Fluorobiphenyl	74.7		µg/L	100		74.7	30-130			
Surrogate: 2,4,6-Tribromophenol	163		µg/L	200		81.6	15-110			
Surrogate: p-Terphenyl-d14	80.2		µg/L	100		80.2	30-130			
LCS Dup (B185689-BSD1)										
Prepared: 09/07/17 Analyzed: 09/08/17										
Acenaphthene	62.7	5.0	µg/L	100		62.7	47-145	0.763		
Acenaphthylene	61.3	5.0	µg/L	100		61.3	33-145	2.00		
Anthracene	69.5	5.0	µg/L	100		69.5	27-133	2.21		
Benzidine	99.8	20	µg/L	100		99.8	40-140	14.9		V-04
Benzo(g,h,i)perylene	73.3	5.0	µg/L	100		73.3	1-219	6.70		V-20
4-Bromophenylphenylether	73.2	10	µg/L	100		73.2	53-127	2.19		
Butylbenzylphthalate	78.8	10	µg/L	100		78.8	1-152	2.17		
4-Chloro-3-methylphenol	72.8	10	µg/L	100		72.8	22-147	1.68		
Bis(2-chloroethyl)ether	67.5	10	µg/L	100		67.5	12-158	0.0296		
Bis(2-chloroisopropyl)ether	60.5	10	µg/L	100		60.5	36-166	0.429		V-05
2-Chloronaphthalene	59.2	10	µg/L	100		59.2	* 60-118	0.695		L-04
2-Chlorophenol	59.5	10	µg/L	100		59.5	23-134	4.07		
4-Chlorophenylphenylether	69.3	10	µg/L	100		69.3	25-158	3.06		
Di-n-butylphthalate	83.5	10	µg/L	100		83.5	1-118	0.394		
1,3-Dichlorobenzene	54.6	5.0	µg/L	100		54.6	1-172	5.57		
1,4-Dichlorobenzene	55.2	5.0	µg/L	100		55.2	20-124	6.45		
1,2-Dichlorobenzene	56.5	5.0	µg/L	100		56.5	32-129	3.65		
3,3-Dichlorobenzidine	114	10	µg/L	100		114	1-262	3.84		
2,4-Dichlorophenol	68.6	10	µg/L	100		68.6	39-135	2.39		
Diethylphthalate	76.1	10	µg/L	100		76.1	1-114	0.818		
2,4-Dimethylphenol	74.3	10	µg/L	100		74.3	32-119	2.82		
Dimethylphthalate	69.3	10	µg/L	100		69.3	1-112	2.55		
4,6-Dinitro-2-methylphenol	65.0	10	µg/L	100		65.0	1-181	1.50		
2,4-Dinitrophenol	51.3	10	µg/L	100		51.3	1-191	2.69		V-05
2,4-Dinitrotoluene	65.2	10	µg/L	100		65.2	39-139	1.94		
2,6-Dinitrotoluene	68.0	10	µg/L	100		68.0	50-158	2.12		
Di-n-octylphthalate	78.0	10	µg/L	100		78.0	4-146	1.58		
1,2-Diphenylhydrazine (as Azobenzene)	76.1	10	µg/L	100		76.1	40-140	1.62		
Bis(2-Ethylhexyl)phthalate	84.7	10	µg/L	100		84.7	8-158	2.30		
Fluoranthene	76.4	5.0	µg/L	100		76.4	26-137	3.22		
Fluorene	64.9	5.0	µg/L	100		64.9	59-121	1.06		
Hexachlorobenzene	70.8	10	µg/L	100		70.8	1-152	0.774		
Hexachlorobutadiene	75.9	10	µg/L	100		75.9	24-116	5.28		
Hexachlorocyclopentadiene	39.5	10	µg/L	100		39.5	* 40-140	8.15		L-07, V-05
Hexachloroethane	65.4	10	µg/L	100		65.4	40-113	3.48		
Isophorone	71.4	10	µg/L	100		71.4	21-196	0.726		
Naphthalene	63.5	5.0	µg/L	100		63.5	21-133	1.97		
Nitrobenzene	68.1	10	µg/L	100		68.1	35-180	0.950		

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B185689 - SW-846 3510C										
LCS Dup (B185689-BSD1)					Prepared: 09/07/17 Analyzed: 09/08/17					
2-Nitrophenol	62.5	10	µg/L	100		62.5	29-182	10.3		
4-Nitrophenol	35.6	10	µg/L	100		35.6	1-132	5.81		
N-Nitrosodimethylamine	68.6	10	µg/L	100		68.6	40-140	4.76		V-20
N-Nitrosodiphenylamine	91.1	10	µg/L	100		91.1	40-140	0.929		
N-Nitrosodi-n-propylamine	65.6	10	µg/L	100		65.6	1-230	1.39		
2-Methylnaphthalene	67.2	5.0	µg/L	100		67.2	40-140	3.42	20	
Phenanthrene	69.9	5.0	µg/L	100		69.9	54-120	0.386		
2-Methylphenol	49.9	10	µg/L	100		49.9	30-130	2.63	20	
Phenol	28.5	10	µg/L	100		28.5	5-112	3.46		
3/4-Methylphenol	50.9	10	µg/L	100		50.9	30-130	3.55	20	
Pyrene	63.7	5.0	µg/L	100		63.7	52-115	1.56		
1,2,4-Trichlorobenzene	65.3	5.0	µg/L	100		65.3	44-142	2.73		
2,4,6-Trichlorophenol	67.4	10	µg/L	100		67.4	37-144	3.81		
Surrogate: 2-Fluorophenol	90.3		µg/L	200		45.1	15-110			
Surrogate: Phenol-d6	60.6		µg/L	200		30.3	15-110			
Surrogate: Nitrobenzene-d5	78.6		µg/L	100		78.6	30-130			
Surrogate: 2-Fluorobiphenyl	70.5		µg/L	100		70.5	30-130			
Surrogate: 2,4,6-Tribromophenol	156		µg/L	200		77.8	15-110			
Surrogate: p-Terphenyl-d14	77.5		µg/L	100		77.5	30-130			

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QUALITY CONTROL
Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B185770 - SW-846 3510C										
Blank (B185770-BLK1)										
Prepared: 09/07/17 Analyzed: 09/08/17										
Aroclor-1016	ND	0.10	µg/L							
Aroclor-1016 [2C]	ND	0.10	µg/L							
Aroclor-1221	ND	0.10	µg/L							
Aroclor-1221 [2C]	ND	0.10	µg/L							
Aroclor-1232	ND	0.10	µg/L							
Aroclor-1232 [2C]	ND	0.10	µg/L							
Aroclor-1242	ND	0.10	µg/L							
Aroclor-1242 [2C]	ND	0.10	µg/L							
Aroclor-1248	ND	0.10	µg/L							
Aroclor-1248 [2C]	ND	0.10	µg/L							
Aroclor-1254	ND	0.10	µg/L							
Aroclor-1254 [2C]	ND	0.10	µg/L							
Aroclor-1260	ND	0.10	µg/L							
Aroclor-1260 [2C]	ND	0.10	µg/L							
Surrogate: Decachlorobiphenyl	2.07		µg/L	2.00		104	30-150			
Surrogate: Decachlorobiphenyl [2C]	2.21		µg/L	2.00		110	30-150			
Surrogate: Tetrachloro-m-xylene	1.91		µg/L	2.00		95.6	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.86		µg/L	2.00		93.0	30-150			
LCS (B185770-BS1)										
Prepared: 09/07/17 Analyzed: 09/08/17										
Aroclor-1016	0.49	0.20	µg/L	0.500		97.3	50-114			
Aroclor-1016 [2C]	0.54	0.20	µg/L	0.500		108	50-114			
Aroclor-1260	0.49	0.20	µg/L	0.500		98.3	8-127			
Aroclor-1260 [2C]	0.48	0.20	µg/L	0.500		95.4	8-127			
Surrogate: Decachlorobiphenyl	1.95		µg/L	2.00		97.4	30-150			
Surrogate: Decachlorobiphenyl [2C]	2.09		µg/L	2.00		105	30-150			
Surrogate: Tetrachloro-m-xylene	1.82		µg/L	2.00		91.2	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.80		µg/L	2.00		89.9	30-150			
LCS Dup (B185770-BSD1)										
Prepared: 09/07/17 Analyzed: 09/08/17										
Aroclor-1016	0.52	0.20	µg/L	0.500		103	50-114	6.09		
Aroclor-1016 [2C]	0.55	0.20	µg/L	0.500		111	50-114	2.48		
Aroclor-1260	0.50	0.20	µg/L	0.500		99.5	8-127	1.25		
Aroclor-1260 [2C]	0.48	0.20	µg/L	0.500		96.8	8-127	1.49		
Surrogate: Decachlorobiphenyl	2.03		µg/L	2.00		102	30-150			
Surrogate: Decachlorobiphenyl [2C]	2.20		µg/L	2.00		110	30-150			
Surrogate: Tetrachloro-m-xylene	1.91		µg/L	2.00		95.3	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.89		µg/L	2.00		94.7	30-150			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B185737 - EPA 200.7										
Blank (B185737-BLK1)				Prepared: 09/07/17 Analyzed: 09/12/17						
Iron	ND	0.050	mg/L							
LCS (B185737-BS1)				Prepared: 09/07/17 Analyzed: 09/12/17						
Iron	4.07	0.050	mg/L	4.00		102	85-115			
LCS Dup (B185737-BSD1)				Prepared: 09/07/17 Analyzed: 09/12/17						
Iron	4.15	0.050	mg/L	4.00		104	85-115	2.07	20	
Duplicate (B185737-DUP1)				Source: 1710156-01		Prepared: 09/07/17 Analyzed: 09/13/17				
Iron	0.499	0.050	mg/L		0.458			8.57	20	
Matrix Spike (B185737-MS1)				Source: 1710156-01		Prepared: 09/07/17 Analyzed: 09/13/17				
Iron	4.51	0.050	mg/L	4.00	0.458	101	70-130			
Batch B185738 - EPA 200.8										
Blank (B185738-BLK1)				Prepared: 09/07/17 Analyzed: 09/11/17						
Antimony	ND	1.0	µg/L							
Arsenic	ND	1.0	µg/L							
Cadmium	ND	0.20	µg/L							
Chromium	ND	10	µg/L							
Copper	ND	1.0	µg/L							
Lead	ND	0.50	µg/L							
Nickel	ND	5.0	µg/L							
Selenium	ND	5.0	µg/L							
Silver	ND	0.20	µg/L							V-20
Zinc	ND	20	µg/L							
LCS (B185738-BS1)				Prepared: 09/07/17 Analyzed: 09/11/17						
Antimony	529	10	µg/L	500		106	85-115			
Arsenic	522	10	µg/L	500		104	85-115			
Cadmium	513	2.0	µg/L	500		103	85-115			
Chromium	528	100	µg/L	500		106	85-115			
Copper	1040	10	µg/L	1000		104	85-115			
Lead	511	5.0	µg/L	500		102	85-115			
Nickel	526	50	µg/L	500		105	85-115			
Selenium	512	50	µg/L	500		102	85-115			
Silver	538	2.0	µg/L	500		108	85-115			V-20
Zinc	1030	200	µg/L	1000		103	85-115			
LCS Dup (B185738-BSD1)				Prepared: 09/07/17 Analyzed: 09/11/17						
Antimony	565	10	µg/L	500		113	85-115	6.57	20	
Arsenic	560	10	µg/L	500		112	85-115	6.99	20	
Cadmium	545	2.0	µg/L	500		109	85-115	6.14	20	
Chromium	557	100	µg/L	500		111	85-115	5.39	20	
Copper	1100	10	µg/L	1000		110	85-115	5.78	20	
Lead	540	5.0	µg/L	500		108	85-115	5.64	20	
Nickel	557	50	µg/L	500		111	85-115	5.76	20	
Selenium	548	50	µg/L	500		110	85-115	6.77	20	
Silver	579	2.0	µg/L	500		116	* 85-115	7.28	20	L-07, V-20
Zinc	1080	200	µg/L	1000		108	85-115	5.56	20	

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QUALITY CONTROL
Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B185738 - EPA 200.8										
Duplicate (B185738-DUP1)	Source: 1710156-01			Prepared: 09/07/17 Analyzed: 09/11/17						
Antimony	ND	1.0	µg/L		ND			NC	20	
Arsenic	ND	1.0	µg/L		ND			NC	20	
Cadmium	ND	0.20	µg/L		ND			NC	20	
Chromium	ND	10	µg/L		ND			NC	20	
Copper	ND	1.0	µg/L		ND			NC	20	
Lead	ND	0.50	µg/L		ND			NC	20	
Nickel	ND	5.0	µg/L		ND			NC	20	
Selenium	ND	5.0	µg/L		ND			NC	20	
Silver	ND	0.20	µg/L		ND			NC	20	V-20
Zinc	ND	20	µg/L		ND			NC	20	
Matrix Spike (B185738-MS1)	Source: 1710156-01			Prepared: 09/07/17 Analyzed: 09/11/17						
Antimony	538	10	µg/L	500	ND	108	70-130			
Arsenic	537	10	µg/L	500	ND	107	70-130			
Cadmium	522	2.0	µg/L	500	ND	104	70-130			
Chromium	537	100	µg/L	500	ND	107	70-130			
Copper	1060	10	µg/L	1000	ND	106	70-130			
Lead	527	5.0	µg/L	500	ND	105	70-130			
Nickel	539	50	µg/L	500	ND	108	70-130			
Selenium	520	50	µg/L	500	ND	104	70-130			
Silver	548	2.0	µg/L	500	ND	110	70-130			V-20
Zinc	1050	200	µg/L	1000	ND	105	70-130			
Batch B185810 - EPA 245.1										
Blank (B185810-BLK1)	Prepared: 09/08/17 Analyzed: 09/11/17									
Mercury	ND	0.00010	mg/L							
LCS (B185810-BS1)	Prepared: 09/08/17 Analyzed: 09/11/17									
Mercury	0.00179	0.00010	mg/L	0.00200		89.7	85-115			
LCS Dup (B185810-BSD1)	Prepared: 09/08/17 Analyzed: 09/11/17									
Mercury	0.00185	0.00010	mg/L	0.00200		92.5	85-115	3.02	20	
Duplicate (B185810-DUP1)	Source: 1710156-01			Prepared: 09/08/17 Analyzed: 09/11/17						
Mercury	ND	0.00010	mg/L		ND			NC	30	
Matrix Spike (B185810-MS1)	Source: 1710156-01			Prepared: 09/08/17 Analyzed: 09/11/17						
Mercury	0.00191	0.00010	mg/L	0.00200	ND	95.6	75-125			

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B185673 - SM21-22 4500 CL G										
Blank (B185673-BLK1)				Prepared & Analyzed: 09/06/17						
Chlorine, Residual	ND	0.020	mg/L							
LCS (B185673-BS1)				Prepared & Analyzed: 09/06/17						
Chlorine, Residual	1.5	0.020	mg/L	1.30		117	82.5-130			
LCS Dup (B185673-BSD1)				Prepared & Analyzed: 09/06/17						
Chlorine, Residual	1.5	0.020	mg/L	1.30		118	82.5-130	1.11	6.2	
Duplicate (B185673-DUP1)				Prepared & Analyzed: 09/06/17						
Chlorine, Residual	ND	0.020	mg/L		ND			NC	44.8	
Matrix Spike (B185673-MS1)				Prepared & Analyzed: 09/06/17						
Chlorine, Residual	0.89	0.020	mg/L	1.00	ND	88.8	10-182			
Batch B185674 - SM21-22 3500 Cr B										
Blank (B185674-BLK1)				Prepared & Analyzed: 09/06/17						
Hexavalent Chromium	ND	0.0040	mg/L							
LCS (B185674-BS1)				Prepared & Analyzed: 09/06/17						
Hexavalent Chromium	0.11	0.0040	mg/L	0.100		108	86.6-115			
LCS Dup (B185674-BSD1)				Prepared & Analyzed: 09/06/17						
Hexavalent Chromium	0.11	0.0040	mg/L	0.100		110	86.6-115	2.22	6.61	
Duplicate (B185674-DUP1)				Prepared & Analyzed: 09/06/17						
Hexavalent Chromium	ND	0.0040	mg/L		ND			NC	20	
Matrix Spike (B185674-MS1)				Prepared & Analyzed: 09/06/17						
Hexavalent Chromium	0.10	0.0040	mg/L	0.100	ND	103	23.5-142			
Matrix Spike Dup (B185674-MSD1)				Prepared & Analyzed: 09/06/17						
Hexavalent Chromium	0.10	0.0040	mg/L	0.100	ND	100	23.5-142	2.38	7.59	
Batch B185692 - EPA 1664B										
Blank (B185692-BLK1)				Prepared & Analyzed: 09/07/17						
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L							
LCS (B185692-BS1)				Prepared & Analyzed: 09/07/17						
Silica Gel Treated HEM (SGT-HEM)	10		mg/L	10.0		105	64-132			

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B185798 - SM21-22 2540D
Blank (B185798-BLK1)

Prepared & Analyzed: 09/08/17

Total Suspended Solids	ND	2.5	mg/L							
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LCS (B185798-BS1)

Prepared & Analyzed: 09/08/17

Total Suspended Solids	186	10	mg/L	200		93.0	66.7-117			
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QUALITY CONTROL
Drinking Water Organics EPA 504.1 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B185851 - EPA 504 water
Blank (B185851-BLK1)

Prepared & Analyzed: 09/08/17

1,2-Dibromoethane (EDB)	ND	0.021	µg/L							
1,2-Dibromoethane (EDB) [2C]	ND	0.021	µg/L							

LCS (B185851-BS1)

Prepared & Analyzed: 09/08/17

1,2-Dibromoethane (EDB)	0.167	0.021	µg/L	0.183		91.4	70-130			
1,2-Dibromoethane (EDB) [2C]	0.187	0.021	µg/L	0.183		102	70-130			

LCS Dup (B185851-BSD1)

Prepared & Analyzed: 09/08/17

1,2-Dibromoethane (EDB)	0.150	0.021	µg/L	0.184		81.7	70-130	10.5		
1,2-Dibromoethane (EDB) [2C]	0.178	0.021	µg/L	0.184		96.6	70-130	5.00		

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
B	Analyte is found in the associated blank as well as in the sample.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria.
V-05	Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.
V-20	Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>EPA 200.7 in Water</i>	
Iron	CT,MA,NH,NY,RI,NC,ME,VA
<i>EPA 200.8 in Water</i>	
Antimony	CT,MA,NH,NY,RI,NC,ME,VA
Arsenic	CT,MA,NH,NY,RI,NC,ME,VA
Cadmium	CT,MA,NH,NY,RI,NC,ME,VA
Chromium	CT,MA,NH,NY,RI,NC,ME,VA
Copper	CT,MA,NH,NY,RI,NC,ME,VA
Lead	CT,MA,NH,NY,RI,NC,ME,VA
Nickel	CT,MA,NH,NY,RI,NC,ME,VA
Selenium	CT,MA,NH,NY,RI,NC,ME,VA
Silver	CT,MA,NH,NY,RI,NC,ME,VA
Zinc	CT,MA,NH,NY,RI,NC,ME,VA
<i>EPA 245.1 in Water</i>	
Mercury	CT,MA,NH,RI,NY,NC,ME,VA
<i>EPA 300.0 in Water</i>	
Chloride	NC,NY,MA,VA,ME,NH,CT,RI
<i>EPA 608 in Water</i>	
Aroclor-1016	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1016 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1221	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1221 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1232	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1232 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1242	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1242 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1248	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1248 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1254	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1254 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1260	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1260 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
<i>EPA 624 in Water</i>	
Acetone	NH,NY
Benzene	CT,MA,NH,NY,RI,NC,ME,VA
Carbon Tetrachloride	CT,MA,NH,NY,RI,NC,ME,VA
1,2-Dichlorobenzene	CT,MA,NH,NY,RI,NC,ME,VA
1,3-Dichlorobenzene	CT,MA,NH,NY,RI,NC,ME,VA
1,4-Dichlorobenzene	CT,MA,NH,NY,RI,NC,ME,VA
1,2-Dichloroethane	CT,MA,NH,NY,RI,NC,ME,VA
1,1-Dichloroethane	CT,MA,NH,NY,RI,NC,ME,VA
1,1-Dichloroethylene	CT,MA,NH,NY,RI,NC,ME,VA
Ethylbenzene	CT,MA,NH,NY,RI,NC,ME,VA
Methyl tert-Butyl Ether (MTBE)	NH,NY,NC
Methylene Chloride	CT,MA,NH,NY,RI,NC,ME,VA
Naphthalene	NC

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>EPA 624 in Water</i>	
Tetrachloroethylene	CT,MA,NH,NY,RI,NC,ME,VA
Toluene	CT,MA,NH,NY,RI,NC,ME,VA
1,2,4-Trichlorobenzene	NC
1,1,1-Trichloroethane	CT,MA,NH,NY,RI,NC,ME,VA
1,1,2-Trichloroethane	CT,MA,NH,NY,RI,NC,ME,VA
Trichloroethylene	CT,MA,NH,NY,RI,NC,ME,VA
Vinyl Chloride	CT,MA,NH,NY,RI,NC,ME,VA
m+p Xylene	CT,MA,NH,NY,RI,NC,VA
o-Xylene	CT,MA,NH,NY,RI,NC,VA
<i>EPA 625 in Water</i>	
Acenaphthene	CT,MA,NH,NY,NC,RI,ME,VA
Acenaphthylene	CT,MA,NH,NY,NC,RI,ME,VA
Anthracene	CT,MA,NH,NY,NC,RI,ME,VA
Benzidine	CT,MA,NH,NY,NC,RI,ME,VA
Benzo(a)anthracene	CT,MA,NH,NY,NC,RI,ME,VA
Benzo(a)pyrene	CT,MA,NH,NY,NC,RI,ME,VA
Benzo(b)fluoranthene	CT,MA,NH,NY,NC,RI,ME,VA
Benzo(g,h,i)perylene	CT,MA,NH,NY,NC,RI,ME,VA
Benzo(k)fluoranthene	CT,MA,NH,NY,NC,RI,ME,VA
4-Bromophenylphenylether	CT,MA,NH,NY,NC,RI,ME,VA
Butylbenzylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
4-Chloro-3-methylphenol	CT,MA,NH,NY,NC,RI,VA
Bis(2-chloroethyl)ether	CT,MA,NH,NY,NC,RI,ME,VA
Bis(2-chloroisopropyl)ether	CT,MA,NH,NY,NC,RI,ME,VA
2-Chloronaphthalene	CT,MA,NH,NY,NC,RI,ME,VA
2-Chlorophenol	CT,MA,NH,NY,NC,RI,ME,VA
4-Chlorophenylphenylether	CT,MA,NH,NY,NC,RI,ME,VA
Chrysene	CT,MA,NH,NY,NC,RI,ME,VA
Dibenz(a,h)anthracene	CT,MA,NH,NY,NC,RI,ME,VA
Di-n-butylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
1,3-Dichlorobenzene	MA,NC
1,4-Dichlorobenzene	MA,NC
1,2-Dichlorobenzene	MA,NC
3,3-Dichlorobenzidine	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dichlorophenol	CT,MA,NH,NY,NC,RI,ME,VA
Diethylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dimethylphenol	CT,MA,NH,NY,NC,RI,ME,VA
Dimethylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
4,6-Dinitro-2-methylphenol	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dinitrophenol	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dinitrotoluene	CT,MA,NH,NY,NC,RI,ME,VA
2,6-Dinitrotoluene	CT,MA,NH,NY,NC,RI,ME,VA
Di-n-octylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
1,2-Diphenylhydrazine (as Azobenzene)	NC
Bis(2-Ethylhexyl)phthalate	CT,MA,NH,NY,NC,RI,ME,VA
Fluoranthene	CT,MA,NH,NY,NC,RI,ME,VA

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>EPA 625 in Water</i>	
Fluorene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachlorobenzene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachlorobutadiene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachlorocyclopentadiene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachloroethane	CT,MA,NH,NY,NC,RI,ME,VA
Indeno(1,2,3-cd)pyrene	CT,MA,NH,NY,NC,RI,ME,VA
Isophorone	CT,MA,NH,NY,NC,RI,ME,VA
Naphthalene	CT,MA,NH,NY,NC,RI,ME,VA
Nitrobenzene	CT,MA,NH,NY,NC,RI,ME,VA
2-Nitrophenol	CT,MA,NH,NY,NC,RI,ME,VA
4-Nitrophenol	CT,MA,NH,NY,NC,RI,ME,VA
N-Nitrosodimethylamine	CT,MA,NH,NY,NC,RI,ME,VA
N-Nitrosodiphenylamine	CT,MA,NH,NY,NC,RI,ME,VA
N-Nitrosodi-n-propylamine	CT,MA,NH,NY,NC,RI,ME,VA
Pentachlorophenol	CT,MA,NH,NY,NC,RI,ME,VA
2-Methylnaphthalene	NC
Phenanthrene	CT,MA,NH,NY,NC,RI,ME,VA
2-Methylphenol	NY,NC
Phenol	CT,MA,NH,NY,NC,RI,ME,VA
3/4-Methylphenol	NY,NC
Pyrene	CT,MA,NH,NY,NC,RI,ME,VA
1,2,4-Trichlorobenzene	CT,MA,NH,NY,NC,RI,ME,VA
2,4,6-Trichlorophenol	CT,MA,NH,NY,NC,RI,ME,VA
2-Fluorophenol	NC
<i>SM19-22 4500 NH3 C in Water</i>	
Ammonia as N	NY,MA,CT,RI,VA,NC,ME
<i>SM21-22 2540D in Water</i>	
Total Suspended Solids	CT,MA,NH,NY,RI,NC,ME,VA
<i>SM21-22 3500 Cr B in Water</i>	
Hexavalent Chromium	NY,CT,NH,RI,ME,VA,NC
<i>SM21-22 4500 CL G in Water</i>	
Chlorine, Residual	CT,MA,RI,ME
<i>SW-846 8270D in Water</i>	
Acenaphthene	CT,NY,NC,ME,NH,VA,NJ
Acenaphthylene	CT,NY,NC,ME,NH,VA,NJ
Anthracene	CT,NY,NC,ME,NH,VA,NJ
Benzidine	CT,NY,NC,ME,NH,VA,NJ
Benzo(a)anthracene	CT,NY,NC,ME,NH,VA,NJ
Benzo(a)pyrene	CT,NY,NC,ME,NH,VA,NJ
Benzo(b)fluoranthene	CT,NY,NC,ME,NH,VA,NJ
Benzo(g,h,i)perylene	CT,NY,NC,ME,NH,VA,NJ
Benzo(k)fluoranthene	CT,NY,NC,ME,NH,VA,NJ
Bis(2-chloroethyl)ether	CT,NY,NC,ME,NH,VA,NJ
Bis(2-chloroisopropyl)ether	CT,NY,NC,ME,NH,VA,NJ
Bis(2-Ethylhexyl)phthalate	CT,NY,NC,ME,NH,VA,NJ

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8270D in Water</i>	
4-Bromophenylphenylether	CT,NY,NC,ME,NH,VA,NJ
Butylbenzylphthalate	CT,NY,NC,ME,NH,VA,NJ
4-Chloro-3-methylphenol	CT,NY,NC,ME,NH,VA,NJ
2-Chloronaphthalene	CT,NY,NC,ME,NH,VA,NJ
2-Chlorophenol	CT,NY,NC,ME,NH,VA,NJ
4-Chlorophenylphenylether	CT,NY,NC,ME,NH,VA,NJ
Chrysene	CT,NY,NC,ME,NH,VA,NJ
Dibenz(a,h)anthracene	CT,NY,NC,ME,NH,VA,NJ
Di-n-butylphthalate	CT,NY,NC,ME,NH,VA,NJ
1,2-Dichlorobenzene	CT,NY,NC,ME,NH,VA,NJ
1,3-Dichlorobenzene	CT,NY,NC,ME,NH,VA,NJ
1,4-Dichlorobenzene	CT,NY,NC,ME,NH,VA,NJ
3,3-Dichlorobenzidine	CT,NY,NC,ME,NH,VA,NJ
2,4-Dichlorophenol	CT,NY,NC,ME,NH,VA,NJ
Diethylphthalate	CT,NY,NC,ME,NH,VA,NJ
2,4-Dimethylphenol	CT,NY,NC,ME,NH,VA,NJ
Dimethylphthalate	CT,NY,NC,ME,NH,VA,NJ
4,6-Dinitro-2-methylphenol	CT,NY,NC,ME,NH,VA,NJ
2,4-Dinitrophenol	CT,NY,NC,ME,NH,VA,NJ
2,4-Dinitrotoluene	CT,NY,NC,ME,NH,VA,NJ
2,6-Dinitrotoluene	CT,NY,NC,ME,NH,VA,NJ
Di-n-octylphthalate	CT,NY,NC,ME,NH,VA,NJ
1,2-Diphenylhydrazine (as Azobenzene)	NY,NC,ME
Fluoranthene	CT,NY,NC,ME,NH,VA,NJ
Fluorene	NY,NC,ME,NH,VA,NJ
Hexachlorobenzene	CT,NY,NC,ME,NH,VA,NJ
Hexachlorobutadiene	CT,NY,NC,ME,NH,VA,NJ
Hexachlorocyclopentadiene	CT,NY,NC,ME,NH,VA,NJ
Hexachloroethane	CT,NY,NC,ME,NH,VA,NJ
Indeno(1,2,3-cd)pyrene	CT,NY,NC,ME,NH,VA,NJ
Isophorone	CT,NY,NC,ME,NH,VA,NJ
2-Methylnaphthalene	CT,NY,NC,ME,NH,VA,NJ
2-Methylphenol	CT,NY,NC,NH,VA,NJ
3/4-Methylphenol	CT,NY,NC,NH,VA,NJ
Naphthalene	CT,NY,NC,ME,NH,VA,NJ
Nitrobenzene	CT,NY,NC,ME,NH,VA,NJ
2-Nitrophenol	CT,NY,NC,ME,NH,VA,NJ
4-Nitrophenol	CT,NY,NC,ME,NH,VA,NJ
N-Nitrosodimethylamine	CT,NY,NC,ME,NH,VA,NJ
N-Nitrosodiphenylamine	CT,NY,NC,ME,NH,VA,NJ
N-Nitrosodi-n-propylamine	CT,NY,NC,ME,NH,VA,NJ
Pentachlorophenol	CT,NY,NC,ME,NH,VA,NJ
Phenanthrene	CT,NY,NC,ME,NH,VA,NJ
Phenol	CT,NY,NC,ME,NH,VA,NJ
Pyrene	CT,NY,NC,ME,NH,VA,NJ
1,2,4-Trichlorobenzene	CT,NY,NC,ME,NH,VA,NJ
2,4,6-Trichlorophenol	CT,NY,NC,ME,NH,VA,NJ

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270D in Water	
2-Fluorophenol	NC,VA
Phenol-d6	VA
Nitrobenzene-d5	VA

SW-846 9014 in Water

Cyanide NY,CT,NH,NC,ME,VA

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	02/1/2018
MA	Massachusetts DEP	M-MA100	06/30/2018
CT	Connecticut Department of Public Health	PH-0567	09/30/2017
NY	New York State Department of Health	10899 NELAP	04/1/2018
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2018
RI	Rhode Island Department of Health	LAO00112	12/30/2017
NC	North Carolina Div. of Water Quality	652	12/31/2017
NJ	New Jersey DEP	MA007 NELAP	06/30/2018
FL	Florida Department of Health	E871027 NELAP	06/30/2018
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2018
ME	State of Maine	2011028	06/9/2019
VA	Commonwealth of Virginia	460217	12/14/2017
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2017
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2018
NC-DW	North Carolina Department of Health	25703	07/31/2018

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4. Influent and Effluent Characteristics

Parameter	Believed absent	Believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent		TBEL	WQBEL
						Daily maximum (µg/l)	Daily average (µg/l)	Daily maximum (µg/l)	Daily average (µg/l)		
a. Inorganics											
Ammonia	X		1	SM4500-NH3 C- (11)	200	<200				Report mg/L	---
Chloride		X	1	EPA 300.0	1000	13600				Report µg/l	---
Total Residual Chlorine	X										
Total Suspended Solids		X	1	SM2540D (11)	500	600					
Antimony	X		1	EPA 200.7	6	<6				30 mg/L	
Arsenic	X		1	EPA 200.7	4	<4				206 µg/L	
Cadmium	X		1	EPA 200.7	2.5	<2.5				104 µg/L	
Chromium III	X		1	Calculated	10	<10				10.2 µg/L	
Chromium VI	X		1	SM3500-Cr-8 (11)/7150A	25	<25				323 µg/L	
Copper	X		1	EPA 200.7	5	<5				323 µg/L	
Iron		X	1	EPA 200.7	40	233				242 µg/L	
Lead	X		1	EPA 200.8	1.3	<1.3				5,000 µg/L	
Mercury	X		1	EPA 245.1/7150A	0.2	<0.2				160 µg/L	
Nickel	X		1	EPA 200.7	5	<5				0.739 µg/L	
Selenium	X		1	EPA 200.7	15	<15				1,450 µg/L	
Silver	X		1	EPA 200.7	5	<5				235.8 µg/L	
Zinc	X		1	EPA 200.7	5	<5				35.1 µg/L	
Cyanide	X		1	EPA 335.4 / SM846 3012B	5	<5				420 µg/L	
						<5				178 mg/L	
b. Non-Halogenated VOCs											
Total BTEX	X		1	SM846 8260C	1	<1				100 µg/L	---
Benzene	X		1	SM846 8260C	1	<1				5.0 µg/L	---
1,4 Dioxane	X		1	SM846 8260C	20	<20				200 µg/L	---
Acetone	X		1	SM846 8260C	10	<10				7.97 mg/L	---
Phenol	X		1	SM846 8260C	5.1	<5.1				1,080 µg/L	

MAG910000
NHG910000

Appendix IV – Part 1 – NOI
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Parameter	Believed absent	Believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent		TBEL	WQBEL
						Daily maximum (µg/l)	Daily average (µg/l)	Daily maximum (µg/l)	Daily average (µg/l)		
c. Halogenated VOCs											
Carbon Tetrachloride	X		1	SW846 8260C	1	<1				4.4 µg/L	
1,2 Dichlorobenzene	X		1	SW846 8260C	1	<1				600 µg/L	---
1,3 Dichlorobenzene	X		1	SW846 8260C	1	<1				320 µg/L	---
1,4 Dichlorobenzene	X		1	SW846 8260C	1	<1				5.0 µg/L	---
Total dichlorobenzene	X		1	SW846 8260C	1	<1				763 µg/L in NH	---
1,1 Dichloroethane	X		1	SW846 8260C	1	<1				70 µg/L	---
1,2 Dichloroethane	X		1	SW846 8260C	1	<1				5.0 µg/L	---
1,1 Dichloroethylene	X		1	SW846 8260C	1	<1				3.2 µg/L	---
Ethylene Dibromide	X		1	SW846 8260C	0.5	<0.5				0.05 µg/L	---
Methylene Chloride	X		1	SW846 8260C	2	<2				4.6 µg/L	---
1,1,1 Trichloroethane	X		1	SW846 8260C	1	<1				200 µg/L	---
1,1,2 Trichloroethane	X		1	SW846 8260C	1	<1				5.0 µg/L	---
Trichloroethylene	X		1	SW846 8260C	1	<1				5.0 µg/L	---
Tetrachloroethylene	X		1	SW846 8260C	1	<1				5.0 µg/L	---
cis-1,2 Dichloroethylene	X		1	SW846 8260C	1	<1				70 µg/L	---
Vinyl Chloride	X		1	SW846 8260C	1	<1				2.0 µg/L	---
d. Non-Halogenated SVOCs											
Total Phthalates	X		1	SW846 8270D	5.10	<5.10				190 µg/L	
Diethylhexyl phthalate	X		1	SW846 8270D	5.10	<5.10				101 µg/L	
Total Group I PAHs	X		1	SW846 8270D	5.10	<5.10				1.0 µg/L	---
Benzo(a)anthracene	X		1	SW846 8270D	5.10	<5.10				As Total PAHs	
Benzo(a)pyrene	X		1	SW846 8270D	5.10	<5.10					
Benzo(b)fluoranthene	X		1	SW846 8270D	5.10	<5.10					
Benzo(k)fluoranthene	X		1	SW846 8270D	5.10	<5.10					
Chrysene	X		1	SW846 8270D	5.10	<5.10					
Dibenzo(a,h)anthracene	X		1	SW846 8270D	5.10	<5.10					
beno(1,2,3-cd)pyrene	X		1	SW846 8270D	5.10	<5.10					

[illegible]

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con-test®
ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

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

Client Aecom

Received By A.F Date 9/6/17 Time 1429

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

Were samples within Temperature? 2-6°C T By Gun # 1 Actual Temp - 2.2, 2.3
By Blank # Actual Temp -

Was Custody Seal Intact? N/A Were Samples Tampered with? N/A
Was COC Relinquished? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T
Did COC include all pertinent Information? Client T Analysis T Sampler Name F
Project F ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? N/A Who was notified? N/A
Are there Rushes? N/A Who was notified? N/A
Are there Short Holds? T Who was notified? David

Is there enough Volume? T

Is there Headspace where applicable? T MS/MSD? N/A
Proper Media/Containers Used? T Is splitting samples required? N/A
Were trip blanks received? T On COC? N/A

Do all samples have the proper pH? Acid T Base

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.	<u>10</u>	1 Liter Plastic	<u>2</u>	16 oz Amb.	
HCL-	<u>12</u>	500 mL Amb.	<u>2</u>	500 mL Plastic	<u>4</u>	8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	<u>4</u>	4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-	<u>8</u>	SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

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

Comments:

September 21, 2017

Mike Evans
AECOM - Providence, RI
10 Orms Street, Suite 405
Providence, RI 02904

Project Location: Sandisfield, MA
Client Job Number:
Project Number: 60536853
Laboratory Work Order Number: 17I0653

Enclosed are results of analyses for samples received by the laboratory on September 15, 2017. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Kerry K. McGee". The signature is written in a cursive, flowing style.

Kerry K. McGee
Project Manager

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AECOM - Providence, RI
10 Orms Street, Suite 405
Providence, RI 02904
ATTN: Mike Evans

REPORT DATE: 9/21/2017

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 60536853

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 1710653

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

PROJECT LOCATION: Sandisfield, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
HST-1	1710653-01	Waste Water		-	NY NELAP 10026/ MA M-NY044 +others
				EPA 1664B	
				EPA 200.7	
				EPA 200.8	
				EPA 245.1	
				EPA 300.0	NY11393/MA-MA1138/M A1110
				EPA 504.1	
				EPA 608	
				EPA 624	
				EPA 625	
				SM19-22 4500 NH3 C	MA M-MA-086/CT PH-0574/NY11148
				SM21-22 2540D	
				SM21-22 3500 Cr B	
				SM21-22 4500 CL G	
				SW-846 8270D	
				SW-846 9014	MA M-MA-086/CT PH-0574/NY11148
				Tri Chrome Calc.	
Trip Blank	1710653-02	Trip Blank Water		EPA 624	

CASE NARRATIVE SUMMARY

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

REVISED REPORT - 9/21/2017 - 608 re-extracted and reanalyzed, hardness ran on sample -17I0653-01.

REVISED REPORT - 9/19/2017 - For 17I0653-01 Cu, Fe, Pb, Ni & Zn were re-prepped and rerun per clients request.

For method 8270, only a select list of compounds was requested and reported.

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EPA 608**Qualifications:****L-07**

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:**Aroclor-1016 [2C]**

B186306-BS1

O-04

Sample fingerprint does not match standard exactly. Sample was quantitated against the closest matching standard.

Analyte & Samples(s) Qualified:**Aroclor-1242**

1710653-01[HST-1]

Aroclor-1242 [2C]

1710653-01[HST-1]

EPA 625**Qualifications:****L-04**

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:**2-Chloronaphthalene**

1710653-01[HST-1], B186300-BLK1, B186300-BS1, B186300-BSD1

Fluorene

1710653-01[HST-1], B186300-BLK1, B186300-BS1, B186300-BSD1

N-Nitrosodimethylamine

1710653-01[HST-1], B186300-BLK1, B186300-BS1, B186300-BSD1

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:**Phenanthrene**

B186300-BS1

Pyrene

B186300-BS1

V-04

Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria.

Analyte & Samples(s) Qualified:**4,6-Dinitro-2-methylphenol**

1710653-01[HST-1], B186300-BLK1, B186300-BS1, B186300-BSD1

Benzidine

1710653-01[HST-1], B186300-BLK1, B186300-BS1, B186300-BSD1

V-05

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

Analyte & Samples(s) Qualified:**Benzidine**

1710653-01[HST-1], B186300-BLK1, B186300-BS1, B186300-BSD1

V-19

Initial calibration did not meet method specifications. Compound was calibrated using linear regression with correlation coefficient <0.99.

Reduced precision and accuracy may be associated with reported result.

Analyte & Samples(s) Qualified:**2,4-Dinitrophenol**

1710653-01[HST-1], B186300-BLK1, B186300-BS1, B186300-BSD1

V-20

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:**2,4-Dinitrophenol**

1710653-01[HST-1], B186300-BLK1, B186300-BS1, B186300-BSD1

4,6-Dinitro-2-methylphenol

1710653-01[HST-1], B186300-BLK1, B186300-BS1, B186300-BSD1

SW-846 8270D**Qualifications:****B**

Analyte is found in the associated blank as well as in the sample.

Analyte & Samples(s) Qualified:**Bis(2-Ethylhexyl)phthalate**

1710653-01[HST-1], B186454-BLK1, B186454-BS1, B186454-BSD1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Lisa A. Worthington
Project Manager

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

Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710653

Date Received: 9/15/2017

Field Sample #: HST-1

Sampled: 9/14/2017 21:20

Sample ID: 1710653-01

Sample Matrix: Waste Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	19	50	4.9	µg/L	1	J	EPA 624	9/18/17	9/18/17 10:23	EEH
Acetone	21	50	4.9	µg/L	1	J	EPA 624	9/15/17	9/15/17 11:27	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.11	µg/L	1		EPA 624	9/18/17	9/18/17 10:23	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.11	µg/L	1		EPA 624	9/15/17	9/15/17 11:27	EEH
Benzene	ND	1.0	0.12	µg/L	1		EPA 624	9/18/17	9/18/17 10:23	EEH
Benzene	ND	1.0	0.12	µg/L	1		EPA 624	9/15/17	9/15/17 11:27	EEH
tert-Butyl Alcohol (TBA)	ND	20	2.2	µg/L	1		EPA 624	9/18/17	9/18/17 10:23	EEH
tert-Butyl Alcohol (TBA)	ND	20	2.2	µg/L	1		EPA 624	9/15/17	9/15/17 11:27	EEH
Carbon Tetrachloride	ND	2.0	0.25	µg/L	1		EPA 624	9/18/17	9/18/17 10:23	EEH
Carbon Tetrachloride	ND	2.0	0.25	µg/L	1		EPA 624	9/15/17	9/15/17 11:27	EEH
1,2-Dichlorobenzene	ND	2.0	0.17	µg/L	1		EPA 624	9/18/17	9/18/17 10:23	EEH
1,2-Dichlorobenzene	ND	2.0	0.17	µg/L	1		EPA 624	9/15/17	9/15/17 11:27	EEH
1,3-Dichlorobenzene	ND	2.0	0.17	µg/L	1		EPA 624	9/18/17	9/18/17 10:23	EEH
1,3-Dichlorobenzene	ND	2.0	0.17	µg/L	1		EPA 624	9/15/17	9/15/17 11:27	EEH
1,4-Dichlorobenzene	ND	2.0	0.15	µg/L	1		EPA 624	9/18/17	9/18/17 10:23	EEH
1,4-Dichlorobenzene	ND	2.0	0.15	µg/L	1		EPA 624	9/15/17	9/15/17 11:27	EEH
1,2-Dichloroethane	ND	2.0	0.19	µg/L	1		EPA 624	9/18/17	9/18/17 10:23	EEH
1,2-Dichloroethane	ND	2.0	0.19	µg/L	1		EPA 624	9/15/17	9/15/17 11:27	EEH
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		EPA 624	9/18/17	9/18/17 10:23	EEH
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		EPA 624	9/15/17	9/15/17 11:27	EEH
1,1-Dichloroethane	ND	2.0	0.16	µg/L	1		EPA 624	9/18/17	9/18/17 10:23	EEH
1,1-Dichloroethane	ND	2.0	0.16	µg/L	1		EPA 624	9/15/17	9/15/17 11:27	EEH
1,1-Dichloroethylene	ND	2.0	0.21	µg/L	1		EPA 624	9/18/17	9/18/17 10:23	EEH
1,1-Dichloroethylene	ND	2.0	0.21	µg/L	1		EPA 624	9/15/17	9/15/17 11:27	EEH
1,4-Dioxane	ND	50	26	µg/L	1		EPA 624	9/18/17	9/18/17 10:23	EEH
1,4-Dioxane	ND	50	26	µg/L	1		EPA 624	9/15/17	9/15/17 11:27	EEH
Ethylbenzene	0.48	2.0	0.13	µg/L	1	J	EPA 624	9/18/17	9/18/17 10:23	EEH
Ethylbenzene	0.46	2.0	0.13	µg/L	1	J	EPA 624	9/15/17	9/15/17 11:27	EEH
Methyl tert-Butyl Ether (MTBE)	ND	2.0	0.090	µg/L	1		EPA 624	9/18/17	9/18/17 10:23	EEH
Methyl tert-Butyl Ether (MTBE)	ND	2.0	0.090	µg/L	1		EPA 624	9/15/17	9/15/17 11:27	EEH
Methylene Chloride	ND	5.0	3.2	µg/L	1		EPA 624	9/18/17	9/18/17 10:23	EEH
Methylene Chloride	ND	5.0	3.2	µg/L	1		EPA 624	9/15/17	9/15/17 11:27	EEH
Tetrachloroethylene	9.4	2.0	0.27	µg/L	1		EPA 624	9/18/17	9/18/17 10:23	EEH
Tetrachloroethylene	9.1	2.0	0.27	µg/L	1		EPA 624	9/15/17	9/15/17 11:27	EEH
Toluene	0.52	1.0	0.17	µg/L	1	J	EPA 624	9/18/17	9/18/17 10:23	EEH
Toluene	0.50	1.0	0.17	µg/L	1	J	EPA 624	9/15/17	9/15/17 11:27	EEH
1,1,1-Trichloroethane	ND	2.0	0.13	µg/L	1		EPA 624	9/15/17	9/15/17 11:27	EEH
1,1,1-Trichloroethane	ND	2.0	0.13	µg/L	1		EPA 624	9/18/17	9/18/17 10:23	EEH
1,1,2-Trichloroethane	ND	2.0	0.24	µg/L	1		EPA 624	9/18/17	9/18/17 10:23	EEH
1,1,2-Trichloroethane	ND	2.0	0.24	µg/L	1		EPA 624	9/15/17	9/15/17 11:27	EEH
Trichloroethylene	ND	2.0	0.20	µg/L	1		EPA 624	9/18/17	9/18/17 10:23	EEH
Trichloroethylene	ND	2.0	0.20	µg/L	1		EPA 624	9/15/17	9/15/17 11:27	EEH
Vinyl Chloride	ND	2.0	0.13	µg/L	1		EPA 624	9/18/17	9/18/17 10:23	EEH
Vinyl Chloride	ND	2.0	0.13	µg/L	1		EPA 624	9/15/17	9/15/17 11:27	EEH

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Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710653

Date Received: 9/15/2017

Field Sample #: HST-1

Sampled: 9/14/2017 21:20

Sample ID: 1710653-01

Sample Matrix: Waste Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
m+p Xylene	1.5	2.0	0.26	µg/L	1	J	EPA 624	9/18/17	9/18/17 10:23	EEH
m+p Xylene	1.5	2.0	0.26	µg/L	1	J	EPA 624	9/15/17	9/15/17 11:27	EEH
o-Xylene	0.62	2.0	0.13	µg/L	1	J	EPA 624	9/18/17	9/18/17 10:23	EEH
o-Xylene	0.69	2.0	0.13	µg/L	1	J	EPA 624	9/15/17	9/15/17 11:27	EEH
Surrogates	% Recovery		Recovery Limits		Flag/Qual					
1,2-Dichloroethane-d4	107		70-130				9/18/17 10:23			
1,2-Dichloroethane-d4	100		70-130				9/15/17 11:27			
Toluene-d8	102		70-130				9/18/17 10:23			
Toluene-d8	99.5		70-130				9/15/17 11:27			
4-Bromofluorobenzene	94.1		70-130				9/18/17 10:23			
4-Bromofluorobenzene	93.8		70-130				9/15/17 11:27			

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Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710653

Date Received: 9/15/2017

Field Sample #: HST-1

Sampled: 9/14/2017 21:20

Sample ID: 1710653-01

Sample Matrix: Waste Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzo(a)anthracene	ND	0.050	0.050	µg/L	1		SW-846 8270D	9/15/17	9/18/17 11:26	CJM
Benzo(a)pyrene	ND	0.10	0.10	µg/L	1		SW-846 8270D	9/15/17	9/18/17 11:26	CJM
Benzo(b)fluoranthene	ND	0.050	0.050	µg/L	1		SW-846 8270D	9/15/17	9/18/17 11:26	CJM
Benzo(k)fluoranthene	ND	0.20	0.20	µg/L	1		SW-846 8270D	9/15/17	9/18/17 11:26	CJM
Bis(2-Ethylhexyl)phthalate	1.4	1.0	0.10	µg/L	1	B	SW-846 8270D	9/15/17	9/18/17 11:26	CJM
Chrysene	ND	0.20	0.20	µg/L	1		SW-846 8270D	9/15/17	9/18/17 11:26	CJM
Dibenz(a,h)anthracene	ND	0.20	0.20	µg/L	1		SW-846 8270D	9/15/17	9/18/17 11:26	CJM
Indeno(1,2,3-cd)pyrene	ND	0.20	0.20	µg/L	1		SW-846 8270D	9/15/17	9/18/17 11:26	CJM
Pentachlorophenol	ND	1.0	0.34	µg/L	1		SW-846 8270D	9/15/17	9/18/17 11:26	CJM
Surrogates	% Recovery		Recovery Limits		Flag/Qual					
2-Fluorophenol	49.3		15-110							
Phenol-d6	36.6		15-110							
Nitrobenzene-d5	68.8		30-130							
2-Fluorobiphenyl	70.1		30-130							
2,4,6-Tribromophenol	69.0		15-110							
p-Terphenyl-d14	64.4		30-130							

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Project Location: Sandisfield, MA

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Date Received: 9/15/2017

Field Sample #: HST-1

Sampled: 9/14/2017 21:20

Sample ID: 1710653-01

Sample Matrix: Waste Water

Semivolatile Organic Compounds by - GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	5.0	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Acenaphthylene	ND	5.0	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Anthracene	ND	5.0	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Benzidine	ND	20	µg/L	1	V-04, V-05	EPA 625	9/15/17	9/15/17 19:07	BGL
Benzo(g,h,i)perylene	ND	5.0	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
4-Bromophenylphenylether	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Butylbenzylphthalate	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
4-Chloro-3-methylphenol	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Bis(2-chloroethyl)ether	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Bis(2-chloroisopropyl)ether	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
2-Chloronaphthalene	ND	10	µg/L	1	L-04	EPA 625	9/15/17	9/15/17 19:07	BGL
2-Chlorophenol	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
4-Chlorophenylphenylether	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Di-n-butylphthalate	19	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
1,3-Dichlorobenzene	ND	5.0	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
1,4-Dichlorobenzene	ND	5.0	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
1,2-Dichlorobenzene	ND	5.0	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
3,3-Dichlorobenzidine	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
2,4-Dichlorophenol	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Diethylphthalate	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
2,4-Dimethylphenol	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Dimethylphthalate	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
4,6-Dinitro-2-methylphenol	ND	10	µg/L	1	V-04, V-20	EPA 625	9/15/17	9/15/17 19:07	BGL
2,4-Dinitrophenol	ND	10	µg/L	1	V-19, V-20	EPA 625	9/15/17	9/15/17 19:07	BGL
2,4-Dinitrotoluene	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
2,6-Dinitrotoluene	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Di-n-octylphthalate	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
1,2-Diphenylhydrazine (as Azobenzene)	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Fluoranthene	ND	5.0	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Fluorene	ND	5.0	µg/L	1	L-04	EPA 625	9/15/17	9/15/17 19:07	BGL
Hexachlorobenzene	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Hexachlorobutadiene	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Hexachlorocyclopentadiene	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Hexachloroethane	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Isophorone	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Naphthalene	ND	5.0	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Nitrobenzene	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
2-Nitrophenol	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
4-Nitrophenol	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
N-Nitrosodimethylamine	ND	10	µg/L	1	L-04	EPA 625	9/15/17	9/15/17 19:07	BGL
N-Nitrosodiphenylamine	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
N-Nitrosodi-n-propylamine	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
2-Methylnaphthalene	ND	5.0	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL

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Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710653

Date Received: 9/15/2017

Field Sample #: HST-1

Sampled: 9/14/2017 21:20

Sample ID: 1710653-01

Sample Matrix: Waste Water

Semivolatile Organic Compounds by - GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Phenanthrene	ND	5.0	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
2-Methylphenol	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Phenol	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
3/4-Methylphenol	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Pyrene	ND	5.0	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
1,2,4-Trichlorobenzene	ND	5.0	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
2,4,6-Trichlorophenol	ND	10	µg/L	1		EPA 625	9/15/17	9/15/17 19:07	BGL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
2-Fluorophenol	35.1	15-110						9/15/17 19:07	
Phenol-d6	27.2	15-110						9/15/17 19:07	
Nitrobenzene-d5	55.5	30-130						9/15/17 19:07	
2-Fluorobiphenyl	59.4	30-130						9/15/17 19:07	
2,4,6-Tribromophenol	60.6	15-110						9/15/17 19:07	
p-Terphenyl-d14	60.9	30-130						9/15/17 19:07	

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Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710653

Date Received: 9/15/2017

Field Sample #: HST-1

Sampled: 9/14/2017 21:20

Sample ID: 1710653-01

Sample Matrix: Waste Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.10	0.057	µg/L	1		EPA 608	9/20/17	9/21/17 11:11	KAL
Aroclor-1016 [1]	ND	0.10	0.057	µg/L	1		EPA 608	9/15/17	9/16/17 13:41	KAL
Aroclor-1221 [1]	ND	0.10	0.062	µg/L	1		EPA 608	9/20/17	9/21/17 11:11	KAL
Aroclor-1221 [1]	ND	0.10	0.062	µg/L	1		EPA 608	9/15/17	9/16/17 13:41	KAL
Aroclor-1232 [1]	ND	0.10	0.038	µg/L	1		EPA 608	9/20/17	9/21/17 11:11	KAL
Aroclor-1232 [1]	ND	0.10	0.038	µg/L	1		EPA 608	9/15/17	9/16/17 13:41	KAL
Aroclor-1242 [1]	0.24	0.10	0.054	µg/L	1	O-04	EPA 608	9/15/17	9/16/17 13:41	KAL
Aroclor-1242 [2]	0.20	0.10	0.054	µg/L	1		EPA 608	9/20/17	9/21/17 11:11	KAL
Aroclor-1248 [1]	ND	0.10	0.064	µg/L	1		EPA 608	9/20/17	9/21/17 11:11	KAL
Aroclor-1248 [1]	ND	0.10	0.064	µg/L	1		EPA 608	9/15/17	9/16/17 13:41	KAL
Aroclor-1254 [1]	ND	0.10	0.071	µg/L	1		EPA 608	9/20/17	9/21/17 11:11	KAL
Aroclor-1254 [1]	ND	0.10	0.071	µg/L	1		EPA 608	9/15/17	9/16/17 13:41	KAL
Aroclor-1260 [1]	ND	0.10	0.073	µg/L	1		EPA 608	9/15/17	9/16/17 13:41	KAL
Aroclor-1260 [1]	ND	0.10	0.073	µg/L	1		EPA 608	9/20/17	9/21/17 11:11	KAL
Surrogates	% Recovery		Recovery Limits		Flag/Qual					
Decachlorobiphenyl [1]	59.3		30-150				9/21/17 11:11			
Decachlorobiphenyl [1]	85.0		30-150				9/16/17 13:41			
Decachlorobiphenyl [2]	92.6		30-150				9/16/17 13:41			
Decachlorobiphenyl [2]	68.6		30-150				9/21/17 11:11			
Tetrachloro-m-xylene [1]	83.4		30-150				9/21/17 11:11			
Tetrachloro-m-xylene [1]	82.8		30-150				9/16/17 13:41			
Tetrachloro-m-xylene [2]	82.2		30-150				9/16/17 13:41			
Tetrachloro-m-xylene [2]	85.2		30-150				9/21/17 11:11			

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Project Location: Sandisfield, MA

Sample Description:

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Date Received: 9/15/2017

Field Sample #: HST-1

Sampled: 9/14/2017 21:20

Sample ID: 1710653-01

Sample Matrix: Waste Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0		µg/L	1		EPA 200.8	9/15/17	9/15/17 18:40	WSD
Arsenic	ND	1.0		µg/L	1		EPA 200.8	9/15/17	9/15/17 18:40	WSD
Cadmium	ND	0.20		µg/L	1		EPA 200.8	9/15/17	9/15/17 18:40	WSD
Chromium	ND	10		µg/L	1		EPA 200.8	9/15/17	9/15/17 18:40	WSD
Chromium, Trivalent	ND	0.010		mg/L	1		Tri Chrome Calc.	9/15/17	9/16/17 12:16	WSD
Copper	3.5	1.0		µg/L	1		EPA 200.8	9/19/17	9/19/17 6:05	MJH
Copper	3.3	1.0		µg/L	1		EPA 200.8	9/15/17	9/15/17 18:40	WSD
Iron	1.9	0.050		mg/L	1		EPA 200.7	9/19/17	9/19/17 11:05	QNW
Iron	1.9	0.050		mg/L	1		EPA 200.7	9/15/17	9/16/17 13:10	AMP
Lead	0.69	0.50		µg/L	1		EPA 200.8	9/19/17	9/19/17 6:05	MJH
Lead	0.66	0.50		µg/L	1		EPA 200.8	9/15/17	9/15/17 18:40	WSD
Mercury	ND	0.00010		mg/L	1		EPA 245.1	9/15/17	9/15/17 12:38	TJK
Nickel	24	5.0		µg/L	1		EPA 200.8	9/19/17	9/19/17 6:05	MJH
Nickel	22	5.0		µg/L	1		EPA 200.8	9/15/17	9/15/17 18:40	WSD
Selenium	ND	5.0	2.1	µg/L	1		EPA 200.8	9/15/17	9/15/17 18:40	WSD
Silver	ND	0.20		µg/L	1		EPA 200.8	9/15/17	9/15/17 18:40	WSD
Zinc	630	200		µg/L	10		EPA 200.8	9/15/17	9/16/17 11:16	WSD
Zinc	570	40		µg/L	2		EPA 200.8	9/19/17	9/19/17 7:46	MJH
Hardness	22			mg/L	1		EPA 200.7	9/15/17	9/20/17 12:51	AMP

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Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710653

Date Received: 9/15/2017

Field Sample #: HST-1

Sampled: 9/14/2017 21:20

Sample ID: 1710653-01

Sample Matrix: Waste Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	ND	0.30	mg/L	1		SM19-22 4500 NH3 C	9/18/17	9/18/17 9:27	MMH
Chlorine, Residual	0.028	0.020	mg/L	1		SM21-22 4500 CL G	9/15/17	9/15/17 14:00	DJM
Hexavalent Chromium	ND	0.0040	mg/L	1		SM21-22 3500 Cr B	9/15/17	9/15/17 10:30	LL
Total Suspended Solids	ND	5.0	mg/L	1		SM21-22 2540D	9/15/17	9/15/17 11:44	LL
Silica Gel Treated HEM (SGT-HEM)	ND	1.6	mg/L	1		EPA 1664B	9/15/17	9/15/17 11:30	LL

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Project Location: Sandisfield, MA

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Field Sample #: HST-1

Sampled: 9/14/2017 21:20

Sample ID: 1710653-01

Sample Matrix: Waste Water

Drinking Water Organics EPA 504.1

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,2-Dibromoethane (EDB) (1)	ND	0.021	µg/L	1		EPA 504.1	9/15/17	9/15/17 13:06	TG
Surrogates	% Recovery	Recovery Limits			Flag/Qual				
1,3-Dibromopropane (1)	108	70-130						9/15/17 13:06	

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Project Location: Sandisfield, MA

Sample Description:

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Date Received: 9/15/2017

Field Sample #: HST-1

Sampled: 9/14/2017 21:20

Sample ID: 1710653-01

Sample Matrix: Waste Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	ND	0.075	mg/L	1		SM19-22 4500 NH3 C	9/15/17	0:00	AAL
Cyanide	ND	0.005	mg/L	1		SW-846 9014	9/15/17	0:00	AAL

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

Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710653

Date Received: 9/15/2017

Field Sample #: HST-1

Sampled: 9/14/2017 21:20

Sample ID: 1710653-01

Sample Matrix: Waste Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chloride	11.9	1	mg/L	1		EPA 300.0		9/15/17 0:00	EURO

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Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710653

Date Received: 9/15/2017

Field Sample #: HST-1

Sampled: 9/14/2017 21:20

Sample ID: 1710653-01

Sample Matrix: Waste Water

Ethanol: 1671A

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ethanol	ND	2000	µg/L	1		Ethanol: 1671A		9/16/17 0:00	TAL

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

Project Location: Sandisfield, MA

Sample Description:

Work Order: 1710653

Date Received: 9/15/2017

Field Sample #: Trip Blank

Sampled: 9/14/2017 00:00

Sample ID: 1710653-02

Sample Matrix: Trip Blank Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	4.9	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	0.11	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
Benzene	ND	1.0	0.12	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
tert-Butyl Alcohol (TBA)	ND	20	2.2	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
Carbon Tetrachloride	ND	2.0	0.25	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
1,2-Dichlorobenzene	ND	2.0	0.17	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
1,3-Dichlorobenzene	ND	2.0	0.17	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
1,4-Dichlorobenzene	ND	2.0	0.15	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
1,2-Dichloroethane	ND	2.0	0.19	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
cis-1,2-Dichloroethylene	ND	1.0	0.15	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
1,1-Dichloroethane	ND	2.0	0.16	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
1,1-Dichloroethylene	ND	2.0	0.21	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
1,4-Dioxane	ND	50	26	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
Ethylbenzene	ND	2.0	0.13	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
Methyl tert-Butyl Ether (MTBE)	ND	2.0	0.090	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
Methylene Chloride	ND	5.0	3.2	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
Tetrachloroethylene	ND	2.0	0.27	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
Toluene	ND	1.0	0.17	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
1,1,1-Trichloroethane	ND	2.0	0.13	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
1,1,2-Trichloroethane	ND	2.0	0.24	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
Trichloroethylene	ND	2.0	0.20	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
Vinyl Chloride	ND	2.0	0.13	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
m+p Xylene	ND	2.0	0.26	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH
o-Xylene	ND	2.0	0.13	µg/L	1		EPA 624	9/15/17	9/15/17 11:00	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	99.8	70-130	
Toluene-d8	100	70-130	
4-Bromofluorobenzene	96.6	70-130	

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Sample Extraction Data**EPA 1664B**

Lab Number [Field ID]	Batch	Initial [mL]	Date	
17I0653-01 [HST-1]	B186341	900	09/15/17	

Prep Method: EPA 200.7-EPA 200.7

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0653-01 [HST-1]	B186301	50.0	50.0	09/15/17

Prep Method: EPA 200.7-EPA 200.7

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0653-01RE1 [HST-1]	B186506	50.0	50.0	09/19/17

Prep Method: EPA 200.8-EPA 200.8

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0653-01 [HST-1]	B186302	50.0	50.0	09/15/17

Prep Method: EPA 200.8-EPA 200.8

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0653-01RE1 [HST-1]	B186507	50.0	50.0	09/19/17

Prep Method: EPA 245.1-EPA 245.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0653-01 [HST-1]	B186307	6.00	6.00	09/15/17

Prep Method: EPA 504 water-EPA 504.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0653-01 [HST-1]	B186304	33.6	35.0	09/15/17

Prep Method: SW-846 3510C-EPA 608

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0653-01 [HST-1]	B186306	1000	5.00	09/15/17

Prep Method: SW-846 3510C-EPA 608

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0653-01RE1 [HST-1]	B186668	1000	5.00	09/20/17

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Sample Extraction Data

Prep Method: SW-846 5030B-EPA 624

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0653-01 [HST-1]	B186283	5	5.00	09/15/17
17I0653-02 [Trip Blank]	B186283	5	5.00	09/15/17

Prep Method: SW-846 5030B-EPA 624

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0653-01RE1 [HST-1]	B186455	5	5.00	09/18/17

Prep Method: SW-846 3510C-EPA 625

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0653-01 [HST-1]	B186300	1000	1.00	09/15/17

SM19-22 4500 NH3 C

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0653-01 [HST-1]	B186432	100	100	09/18/17

SM21-22 2540D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0653-01 [HST-1]	B186337	100		09/15/17

SM21-22 3500 Cr B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0653-01 [HST-1]	B186335	50.0	50.0	09/15/17

SM21-22 4500 CL G

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0653-01 [HST-1]	B186347	100	100	09/15/17

Prep Method: SW-846 3510C-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0653-01 [HST-1]	B186454	1000	1.00	09/15/17

Prep Method: SW-846 3005A-Tri Chrome Calc.

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
17I0653-01 [HST-1]	B186303	1.00		09/15/17

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

QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B186283 - SW-846 5030B

Blank (B186283-BLK1)

Prepared & Analyzed: 09/15/17

Tetrahydrofuran	ND	2.0	µg/L				70-130		25	
Acetone	ND	50	µg/L							
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L							
Benzene	ND	1.0	µg/L							
tert-Butyl Alcohol (TBA)	ND	20	µg/L							
Carbon Tetrachloride	ND	2.0	µg/L							
1,2-Dichlorobenzene	ND	2.0	µg/L							
1,3-Dichlorobenzene	ND	2.0	µg/L							
1,4-Dichlorobenzene	ND	2.0	µg/L							
1,2-Dichloroethane	ND	2.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
1,1-Dichloroethane	ND	2.0	µg/L							
1,1-Dichloroethylene	ND	2.0	µg/L							
1,4-Dioxane	ND	50	µg/L							
Ethylbenzene	ND	2.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	2.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							
Tetrachloroethylene	ND	2.0	µg/L							
Toluene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	2.0	µg/L							
1,1,2-Trichloroethane	ND	2.0	µg/L							
Trichloroethylene	ND	2.0	µg/L							
Vinyl Chloride	ND	2.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	2.0	µg/L							
Surrogate: 1,2-Dichloroethane-d4	24.8		µg/L	25.0		99.1	70-130			
Surrogate: Toluene-d8	25.0		µg/L	25.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	23.7		µg/L	25.0		94.8	70-130			

LCS (B186283-BS1)

Prepared & Analyzed: 09/15/17

Tetrahydrofuran	8.91	2.0	µg/L	10.0		89.1	70-130		25	
Acetone	73.9	50	µg/L	100		73.9	70-160			†
tert-Amyl Methyl Ether (TAME)	10.2	0.50	µg/L	10.0		102	70-130			
Benzene	10.8	1.0	µg/L	10.0		108	37-151			
tert-Butyl Alcohol (TBA)	78.3	20	µg/L	100		78.3	40-160			†
Carbon Tetrachloride	10.6	2.0	µg/L	10.0		106	70-140			
1,2-Dichlorobenzene	11.2	2.0	µg/L	10.0		112	18-190			
1,3-Dichlorobenzene	10.9	2.0	µg/L	10.0		109	59-156			
1,4-Dichlorobenzene	10.2	2.0	µg/L	10.0		102	18-190			
1,2-Dichloroethane	9.31	2.0	µg/L	10.0		93.1	49-155			
cis-1,2-Dichloroethylene	10.7	1.0	µg/L	10.0		107	70-130			
1,1-Dichloroethane	11.4	2.0	µg/L	10.0		114	59-155			
1,1-Dichloroethylene	8.27	2.0	µg/L	10.0		82.7	20-234			
1,4-Dioxane	96.7	50	µg/L	100		96.7	40-130			†
Ethylbenzene	10.5	2.0	µg/L	10.0		105	37-162			
Methyl tert-Butyl Ether (MTBE)	10.9	2.0	µg/L	10.0		109	70-130			
Methylene Chloride	8.06	5.0	µg/L	10.0		80.6	50-221			
Tetrachloroethylene	10.8	2.0	µg/L	10.0		108	64-148			
Toluene	10.7	1.0	µg/L	10.0		107	47-150			
1,1,1-Trichloroethane	10.6	2.0	µg/L	10.0		106	52-162			
1,1,2-Trichloroethane	10.7	2.0	µg/L	10.0		107	52-150			
Trichloroethylene	10.7	2.0	µg/L	10.0		107	71-157			

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B186283 - SW-846 5030B

LCS (B186283-BS1)

Prepared & Analyzed: 09/15/17

Vinyl Chloride	3.17	2.0	µg/L	10.0		31.7	20-251			
m+p Xylene	21.3	2.0	µg/L	20.0		107	70-130			
o-Xylene	10.4	2.0	µg/L	10.0		104	70-130			
Surrogate: 1,2-Dichloroethane-d4	24.4		µg/L	25.0		97.5	70-130			
Surrogate: Toluene-d8	25.2		µg/L	25.0		101	70-130			
Surrogate: 4-Bromofluorobenzene	24.2		µg/L	25.0		96.6	70-130			

Batch B186455 - SW-846 5030B

Blank (B186455-BLK1)

Prepared & Analyzed: 09/18/17

Acetone	ND	50	µg/L							
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L							
Benzene	ND	1.0	µg/L							
tert-Butyl Alcohol (TBA)	ND	20	µg/L							
Carbon Tetrachloride	ND	2.0	µg/L							
1,2-Dichlorobenzene	ND	2.0	µg/L							
1,3-Dichlorobenzene	ND	2.0	µg/L							
1,4-Dichlorobenzene	ND	2.0	µg/L							
1,2-Dichloroethane	ND	2.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
1,1-Dichloroethane	ND	2.0	µg/L							
1,1-Dichloroethylene	ND	2.0	µg/L							
1,4-Dioxane	ND	50	µg/L							
Ethylbenzene	ND	2.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	2.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							
Tetrachloroethylene	ND	2.0	µg/L							
Toluene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	2.0	µg/L							
1,1,2-Trichloroethane	ND	2.0	µg/L							
Trichloroethylene	ND	2.0	µg/L							
Vinyl Chloride	ND	2.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	2.0	µg/L							
Surrogate: 1,2-Dichloroethane-d4	25.2		µg/L	25.0		101	70-130			
Surrogate: Toluene-d8	25.3		µg/L	25.0		101	70-130			
Surrogate: 4-Bromofluorobenzene	23.4		µg/L	25.0		93.8	70-130			

LCS (B186455-BS1)

Prepared & Analyzed: 09/18/17

Acetone	70.6	50	µg/L	100		70.6	70-160			†
tert-Amyl Methyl Ether (TAME)	10.4	0.50	µg/L	10.0		104	70-130			
Benzene	11.3	1.0	µg/L	10.0		113	37-151			
tert-Butyl Alcohol (TBA)	74.6	20	µg/L	100		74.6	40-160			†
Carbon Tetrachloride	11.4	2.0	µg/L	10.0		114	70-140			
1,2-Dichlorobenzene	11.7	2.0	µg/L	10.0		117	18-190			
1,3-Dichlorobenzene	11.5	2.0	µg/L	10.0		115	59-156			
1,4-Dichlorobenzene	10.6	2.0	µg/L	10.0		106	18-190			
1,2-Dichloroethane	9.60	2.0	µg/L	10.0		96.0	49-155			
cis-1,2-Dichloroethylene	11.4	1.0	µg/L	10.0		114	70-130			
1,1-Dichloroethane	12.1	2.0	µg/L	10.0		121	59-155			
1,1-Dichloroethylene	8.20	2.0	µg/L	10.0		82.0	20-234			
1,4-Dioxane	101	50	µg/L	100		101	40-130			†
Ethylbenzene	11.0	2.0	µg/L	10.0		110	37-162			

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B186455 - SW-846 5030B
LCS (B186455-BS1)

Prepared & Analyzed: 09/18/17

Methyl tert-Butyl Ether (MTBE)	11.5	2.0	µg/L	10.0		115	70-130			
Methylene Chloride	9.26	5.0	µg/L	10.0		92.6	50-221			
Tetrachloroethylene	11.0	2.0	µg/L	10.0		110	64-148			
Toluene	10.9	1.0	µg/L	10.0		109	47-150			
1,1,1-Trichloroethane	11.3	2.0	µg/L	10.0		113	52-162			
1,1,2-Trichloroethane	10.8	2.0	µg/L	10.0		108	52-150			
Trichloroethylene	10.9	2.0	µg/L	10.0		109	71-157			
Vinyl Chloride	3.22	2.0	µg/L	10.0		32.2	20-251			
m+p Xylene	22.3	2.0	µg/L	20.0		112	70-130			
o-Xylene	10.7	2.0	µg/L	10.0		107	70-130			
Surrogate: 1,2-Dichloroethane-d4	24.7		µg/L	25.0		98.8	70-130			
Surrogate: Toluene-d8	25.4		µg/L	25.0		102	70-130			
Surrogate: 4-Bromofluorobenzene	24.0		µg/L	25.0		95.9	70-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B186454 - SW-846 3510C										
Blank (B186454-BLK1)										
Prepared: 09/15/17 Analyzed: 09/18/17										
Benzo(a)anthracene	ND	0.050	µg/L							
Benzo(a)pyrene	ND	0.10	µg/L							
Benzo(b)fluoranthene	ND	0.050	µg/L							
Benzo(k)fluoranthene	ND	0.20	µg/L							
Bis(2-Ethylhexyl)phthalate	1.7	1.0	µg/L							B
Chrysene	ND	0.20	µg/L							
Dibenz(a,h)anthracene	ND	0.20	µg/L							
Indeno(1,2,3-cd)pyrene	ND	0.20	µg/L							
Pentachlorophenol	ND	1.0	µg/L							
Surrogate: 2-Fluorophenol	88.4		µg/L	200		44.2	15-110			
Surrogate: Phenol-d6	63.5		µg/L	200		31.7	15-110			
Surrogate: Nitrobenzene-d5	66.0		µg/L	100		66.0	30-130			
Surrogate: 2-Fluorobiphenyl	67.5		µg/L	100		67.5	30-130			
Surrogate: 2,4,6-Tribromophenol	142		µg/L	200		70.8	15-110			
Surrogate: p-Terphenyl-d14	65.4		µg/L	100		65.4	30-130			
LCS (B186454-BS1)										
Prepared: 09/15/17 Analyzed: 09/18/17										
Benzo(a)anthracene	89.4	1.2	µg/L	100		89.4	40-140			
Benzo(a)pyrene	94.0	2.5	µg/L	100		94.0	40-140			
Benzo(b)fluoranthene	93.5	1.2	µg/L	100		93.5	40-140			
Benzo(k)fluoranthene	90.4	5.0	µg/L	100		90.4	40-140			
Bis(2-Ethylhexyl)phthalate	90.5	25	µg/L	100		90.5	40-140			B
Chrysene	89.0	5.0	µg/L	100		89.0	40-140			
Dibenz(a,h)anthracene	92.3	5.0	µg/L	100		92.3	40-140			
Indeno(1,2,3-cd)pyrene	93.1	5.0	µg/L	100		93.1	40-140			
Pentachlorophenol	61.3	25	µg/L	100		61.3	30-130			
Surrogate: 2-Fluorophenol	104		µg/L	200		52.1	15-110			
Surrogate: Phenol-d6	86.9		µg/L	200		43.4	15-110			
Surrogate: Nitrobenzene-d5	87.8		µg/L	100		87.8	30-130			
Surrogate: 2-Fluorobiphenyl	87.9		µg/L	100		87.9	30-130			
Surrogate: 2,4,6-Tribromophenol	129		µg/L	200		64.3	15-110			
Surrogate: p-Terphenyl-d14	69.9		µg/L	100		69.9	30-130			
LCS Dup (B186454-BSD1)										
Prepared: 09/15/17 Analyzed: 09/18/17										
Benzo(a)anthracene	92.9	1.2	µg/L	100		92.9	40-140	3.90	20	
Benzo(a)pyrene	98.1	2.5	µg/L	100		98.1	40-140	4.29	20	
Benzo(b)fluoranthene	96.4	1.2	µg/L	100		96.4	40-140	3.03	20	
Benzo(k)fluoranthene	94.1	5.0	µg/L	100		94.1	40-140	4.04	20	
Bis(2-Ethylhexyl)phthalate	92.8	25	µg/L	100		92.8	40-140	2.51	20	B
Chrysene	92.6	5.0	µg/L	100		92.6	40-140	3.99	20	
Dibenz(a,h)anthracene	96.4	5.0	µg/L	100		96.4	40-140	4.35	20	
Indeno(1,2,3-cd)pyrene	97.2	5.0	µg/L	100		97.2	40-140	4.39	50	‡
Pentachlorophenol	65.8	25	µg/L	100		65.8	30-130	7.16	50	‡
Surrogate: 2-Fluorophenol	119		µg/L	200		59.7	15-110			
Surrogate: Phenol-d6	92.1		µg/L	200		46.0	15-110			
Surrogate: Nitrobenzene-d5	92.5		µg/L	100		92.5	30-130			
Surrogate: 2-Fluorobiphenyl	90.0		µg/L	100		90.0	30-130			
Surrogate: 2,4,6-Tribromophenol	142		µg/L	200		71.2	15-110			
Surrogate: p-Terphenyl-d14	73.2		µg/L	100		73.2	30-130			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B186300 - SW-846 3510C										
Blank (B186300-BLK1)				Prepared & Analyzed: 09/15/17						
Acenaphthene	ND	5.0	µg/L							
Acenaphthylene	ND	5.0	µg/L							
Anthracene	ND	5.0	µg/L							
Benzidine	ND	20	µg/L							V-04, V-05
Benzo(g,h,i)perylene	ND	5.0	µg/L							
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							
4-Chloro-3-methylphenol	ND	10	µg/L							
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-chloroisopropyl)ether	ND	10	µg/L							
2-Chloronaphthalene	ND	10	µg/L							L-04
2-Chlorophenol	ND	10	µg/L							
4-Chlorophenylphenylether	ND	10	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
1,3-Dichlorobenzene	ND	5.0	µg/L							
1,4-Dichlorobenzene	ND	5.0	µg/L							
1,2-Dichlorobenzene	ND	5.0	µg/L							
3,3-Dichlorobenzidine	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
4,6-Dinitro-2-methylphenol	ND	10	µg/L							V-04, V-20
2,4-Dinitrophenol	ND	10	µg/L							V-19, V-20
2,4-Dinitrotoluene	ND	10	µg/L							
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							
1,2-Diphenylhydrazine (as Azobenzene)	ND	10	µg/L							
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							
Fluoranthene	ND	5.0	µg/L							
Fluorene	ND	5.0	µg/L							L-04
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							
Hexachlorocyclopentadiene	ND	10	µg/L							
Hexachloroethane	ND	10	µg/L							
Isophorone	ND	10	µg/L							
Naphthalene	ND	5.0	µg/L							
Nitrobenzene	ND	10	µg/L							
2-Nitrophenol	ND	10	µg/L							
4-Nitrophenol	ND	10	µg/L							
N-Nitrosodimethylamine	ND	10	µg/L							L-04
N-Nitrosodiphenylamine	ND	10	µg/L							
N-Nitrosodi-n-propylamine	ND	10	µg/L							
2-Methylnaphthalene	ND	5.0	µg/L							
Phenanthrene	ND	5.0	µg/L							
2-Methylphenol	ND	10	µg/L							
Phenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Pyrene	ND	5.0	µg/L							
1,2,4-Trichlorobenzene	ND	5.0	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							
Surrogate: 2-Fluorophenol	79.0		µg/L	200		39.5	15-110			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B186300 - SW-846 3510C										
Blank (B186300-BLK1)										
Prepared & Analyzed: 09/15/17										
Surrogate: Phenol-d6	59.9		µg/L	200		30.0	15-110			
Surrogate: Nitrobenzene-d5	62.8		µg/L	100		62.8	30-130			
Surrogate: 2-Fluorobiphenyl	66.6		µg/L	100		66.6	30-130			
Surrogate: 2,4,6-Tribromophenol	141		µg/L	200		70.5	15-110			
Surrogate: p-Terphenyl-d14	77.6		µg/L	100		77.6	30-130			
LCS (B186300-BS1)										
Prepared & Analyzed: 09/15/17										
Acenaphthene	48.5	5.0	µg/L	100		48.5	47-145			
Acenaphthylene	46.1	5.0	µg/L	100		46.1	33-145			
Anthracene	50.0	5.0	µg/L	100		50.0	27-133			
Ben-zidine	107	20	µg/L	100		107	40-140			V-04, V-05
Benzo(g,h,i)perylene	47.6	5.0	µg/L	100		47.6	1-219			
4-Bromophenylphenylether	56.0	10	µg/L	100		56.0	53-127			
Butylbenzylphthalate	57.0	10	µg/L	100		57.0	1-152			
4-Chloro-3-methylphenol	54.3	10	µg/L	100		54.3	22-147			
Bis(2-chloroethyl)ether	53.7	10	µg/L	100		53.7	12-158			
Bis(2-chloroisopropyl)ether	53.8	10	µg/L	100		53.8	36-166			
2-Chloronaphthalene	48.3	10	µg/L	100		48.3 *	60-118			L-04
2-Chlorophenol	48.7	10	µg/L	100		48.7	23-134			
4-Chlorophenylphenylether	53.6	10	µg/L	100		53.6	25-158			
Di-n-butylphthalate	58.2	10	µg/L	100		58.2	1-118			
1,3-Dichlorobenzene	44.4	5.0	µg/L	100		44.4	1-172			
1,4-Dichlorobenzene	45.3	5.0	µg/L	100		45.3	20-124			
1,2-Dichlorobenzene	46.6	5.0	µg/L	100		46.6	32-129			
3,3-Dichlorobenzidine	85.1	10	µg/L	100		85.1	1-262			
2,4-Dichlorophenol	52.8	10	µg/L	100		52.8	39-135			
Diethylphthalate	54.4	10	µg/L	100		54.4	1-114			
2,4-Dimethylphenol	49.1	10	µg/L	100		49.1	32-119			
Dimethylphthalate	53.3	10	µg/L	100		53.3	1-112			
4,6-Dinitro-2-methylphenol	66.4	10	µg/L	100		66.4	1-181			V-04, V-20
2,4-Dinitrophenol	74.9	10	µg/L	100		74.9	1-191			V-19, V-20
2,4-Dinitrotoluene	64.0	10	µg/L	100		64.0	39-139			
2,6-Dinitrotoluene	65.2	10	µg/L	100		65.2	50-158			
Di-n-octylphthalate	60.8	10	µg/L	100		60.8	4-146			
1,2-Diphenylhydrazine (as Azobenzene)	53.3	10	µg/L	100		53.3	40-140			
Bis(2-Ethylhexyl)phthalate	60.4	10	µg/L	100		60.4	8-158			
Fluoranthene	52.2	5.0	µg/L	100		52.2	26-137			
Fluorene	47.7	5.0	µg/L	100		47.7 *	59-121			L-04
Hexachlorobenzene	53.6	10	µg/L	100		53.6	1-152			
Hexachlorobutadiene	48.1	10	µg/L	100		48.1	24-116			
Hexachlorocyclopentadiene	52.2	10	µg/L	100		52.2	40-140			
Hexachloroethane	46.6	10	µg/L	100		46.6	40-113			
Isophorone	57.0	10	µg/L	100		57.0	21-196			
Naphthalene	45.5	5.0	µg/L	100		45.5	21-133			
Nitrobenzene	51.1	10	µg/L	100		51.1	35-180			
2-Nitrophenol	55.2	10	µg/L	100		55.2	29-182			
4-Nitrophenol	34.7	10	µg/L	100		34.7	1-132			
N-Nitrosodimethylamine	32.4	10	µg/L	100		32.4 *	40-140			L-04
N-Nitrosodiphenylamine	62.8	10	µg/L	100		62.8	40-140			
N-Nitrosodi-n-propylamine	53.4	10	µg/L	100		53.4	1-230			
2-Methylnaphthalene	51.0	5.0	µg/L	100		51.0	40-140			
Phenanthrene	48.8	5.0	µg/L	100		48.8 *	54-120			L-07

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B186300 - SW-846 3510C										
LCS (B186300-BS1)				Prepared & Analyzed: 09/15/17						
2-Methylphenol	48.0	10	µg/L	100		48.0	30-130			
Phenol	25.5	10	µg/L	100		25.5	5-112			
3/4-Methylphenol	46.3	10	µg/L	100		46.3	30-130			
Pyrene	48.4	5.0	µg/L	100		48.4 *	52-115			L-07
1,2,4-Trichlorobenzene	49.4	5.0	µg/L	100		49.4	44-142			
2,4,6-Trichlorophenol	53.8	10	µg/L	100		53.8	37-144			
Surrogate: 2-Fluorophenol	73.1		µg/L	200		36.5	15-110			
Surrogate: Phenol-d6	53.9		µg/L	200		27.0	15-110			
Surrogate: Nitrobenzene-d5	53.5		µg/L	100		53.5	30-130			
Surrogate: 2-Fluorobiphenyl	53.0		µg/L	100		53.0	30-130			
Surrogate: 2,4,6-Tribromophenol	127		µg/L	200		63.5	15-110			
Surrogate: p-Terphenyl-d14	56.2		µg/L	100		56.2	30-130			
LCS Dup (B186300-BSD1)				Prepared & Analyzed: 09/15/17						
Acenaphthene	56.9	5.0	µg/L	100		56.9	47-145	15.8		
Acenaphthylene	53.2	5.0	µg/L	100		53.2	33-145	14.3		
Anthracene	57.4	5.0	µg/L	100		57.4	27-133	14.0		
Benzidine	122	20	µg/L	100		122	40-140	13.2		V-04, V-05
Benzo(g,h,i)perylene	54.4	5.0	µg/L	100		54.4	1-219	13.5		
4-Bromophenylphenylether	65.1	10	µg/L	100		65.1	53-127	15.0		
Butylbenzylphthalate	63.1	10	µg/L	100		63.1	1-152	10.2		
4-Chloro-3-methylphenol	61.6	10	µg/L	100		61.6	22-147	12.6		
Bis(2-chloroethyl)ether	60.8	10	µg/L	100		60.8	12-158	12.3		
Bis(2-chloroisopropyl)ether	62.1	10	µg/L	100		62.1	36-166	14.3		
2-Chloronaphthalene	56.4	10	µg/L	100		56.4 *	60-118	15.6		L-04
2-Chlorophenol	56.3	10	µg/L	100		56.3	23-134	14.5		
4-Chlorophenylphenylether	61.8	10	µg/L	100		61.8	25-158	14.1		
Di-n-butylphthalate	66.8	10	µg/L	100		66.8	1-118	13.8		
1,3-Dichlorobenzene	53.8	5.0	µg/L	100		53.8	1-172	19.0		
1,4-Dichlorobenzene	54.4	5.0	µg/L	100		54.4	20-124	18.3		
1,2-Dichlorobenzene	55.0	5.0	µg/L	100		55.0	32-129	16.6		
3,3-Dichlorobenzidine	98.8	10	µg/L	100		98.8	1-262	14.9		
2,4-Dichlorophenol	61.9	10	µg/L	100		61.9	39-135	15.9		
Diethylphthalate	60.9	10	µg/L	100		60.9	1-114	11.3		
2,4-Dimethylphenol	57.0	10	µg/L	100		57.0	32-119	14.8		
Dimethylphthalate	60.9	10	µg/L	100		60.9	1-112	13.3		
4,6-Dinitro-2-methylphenol	80.6	10	µg/L	100		80.6	1-181	19.2		V-04, V-20
2,4-Dinitrophenol	87.9	10	µg/L	100		87.9	1-191	16.0		V-19, V-20
2,4-Dinitrotoluene	73.2	10	µg/L	100		73.2	39-139	13.3		
2,6-Dinitrotoluene	76.4	10	µg/L	100		76.4	50-158	15.7		
Di-n-octylphthalate	68.2	10	µg/L	100		68.2	4-146	11.5		
1,2-Diphenylhydrazine (as Azobenzene)	62.9	10	µg/L	100		62.9	40-140	16.5		
Bis(2-Ethylhexyl)phthalate	65.8	10	µg/L	100		65.8	8-158	8.58		
Fluoranthene	62.8	5.0	µg/L	100		62.8	26-137	18.6		
Fluorene	55.0	5.0	µg/L	100		55.0 *	59-121	14.1		L-04
Hexachlorobenzene	62.8	10	µg/L	100		62.8	1-152	15.8		
Hexachlorobutadiene	59.6	10	µg/L	100		59.6	24-116	21.4		
Hexachlorocyclopentadiene	65.1	10	µg/L	100		65.1	40-140	22.1		
Hexachloroethane	56.0	10	µg/L	100		56.0	40-113	18.2		
Isophorone	66.9	10	µg/L	100		66.9	21-196	15.9		
Naphthalene	53.9	5.0	µg/L	100		53.9	21-133	17.0		
Nitrobenzene	59.7	10	µg/L	100		59.7	35-180	15.6		

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B186300 - SW-846 3510C										
LCS Dup (B186300-BSD1)					Prepared & Analyzed: 09/15/17					
2-Nitrophenol	65.1	10	µg/L	100		65.1	29-182	16.5		
4-Nitrophenol	40.0	10	µg/L	100		40.0	1-132	14.3		
N-Nitrosodimethylamine	37.9	10	µg/L	100		37.9	* 40-140	15.7		L-04
N-Nitrosodiphenylamine	73.7	10	µg/L	100		73.7	40-140	16.0		
N-Nitrosodi-n-propylamine	60.2	10	µg/L	100		60.2	1-230	12.0		
2-Methylnaphthalene	58.8	5.0	µg/L	100		58.8	40-140	14.3	20	
Phenanthrene	56.0	5.0	µg/L	100		56.0	54-120	13.8		
2-Methylphenol	54.8	10	µg/L	100		54.8	30-130	13.3	20	
Phenol	29.3	10	µg/L	100		29.3	5-112	13.8		
3/4-Methylphenol	52.6	10	µg/L	100		52.6	30-130	12.9	20	
Pyrene	54.2	5.0	µg/L	100		54.2	52-115	11.2		
1,2,4-Trichlorobenzene	60.2	5.0	µg/L	100		60.2	44-142	19.7		
2,4,6-Trichlorophenol	62.7	10	µg/L	100		62.7	37-144	15.2		
Surrogate: 2-Fluorophenol	84.9		µg/L	200		42.4	15-110			
Surrogate: Phenol-d6	61.9		µg/L	200		30.9	15-110			
Surrogate: Nitrobenzene-d5	62.8		µg/L	100		62.8	30-130			
Surrogate: 2-Fluorobiphenyl	61.4		µg/L	100		61.4	30-130			
Surrogate: 2,4,6-Tribromophenol	142		µg/L	200		71.0	15-110			
Surrogate: p-Terphenyl-d14	61.8		µg/L	100		61.8	30-130			

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B186306 - SW-846 3510C

Blank (B186306-BLK1)

Prepared: 09/15/17 Analyzed: 09/16/17

Aroclor-1016	ND	0.10	µg/L							
Aroclor-1016 [2C]	ND	0.10	µg/L							
Aroclor-1221	ND	0.10	µg/L							
Aroclor-1221 [2C]	ND	0.10	µg/L							
Aroclor-1232	ND	0.10	µg/L							
Aroclor-1232 [2C]	ND	0.10	µg/L							
Aroclor-1242	ND	0.10	µg/L							
Aroclor-1242 [2C]	ND	0.10	µg/L							
Aroclor-1248	ND	0.10	µg/L							
Aroclor-1248 [2C]	ND	0.10	µg/L							
Aroclor-1254	ND	0.10	µg/L							
Aroclor-1254 [2C]	ND	0.10	µg/L							
Aroclor-1260	ND	0.10	µg/L							
Aroclor-1260 [2C]	ND	0.10	µg/L							

Surrogate: Decachlorobiphenyl	1.73		µg/L	2.00		86.5	30-150			
Surrogate: Decachlorobiphenyl [2C]	1.85		µg/L	2.00		92.5	30-150			
Surrogate: Tetrachloro-m-xylene	1.70		µg/L	2.00		84.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.69		µg/L	2.00		84.5	30-150			

LCS (B186306-BS1)

Prepared: 09/15/17 Analyzed: 09/16/17

Aroclor-1016	0.52	0.20	µg/L	0.500		104	50-114			
Aroclor-1016 [2C]	0.60	0.20	µg/L	0.500		120 *	50-114			L-07
Aroclor-1260	0.48	0.20	µg/L	0.500		96.7	8-127			
Aroclor-1260 [2C]	0.50	0.20	µg/L	0.500		99.7	8-127			
Surrogate: Decachlorobiphenyl	1.88		µg/L	2.00		93.9	30-150			
Surrogate: Decachlorobiphenyl [2C]	2.02		µg/L	2.00		101	30-150			
Surrogate: Tetrachloro-m-xylene	1.88		µg/L	2.00		94.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.87		µg/L	2.00		93.3	30-150			

LCS Dup (B186306-BSD1)

Prepared: 09/15/17 Analyzed: 09/16/17

Aroclor-1016	0.52	0.20	µg/L	0.500		105	50-114	0.437		
Aroclor-1016 [2C]	0.55	0.20	µg/L	0.500		109	50-114	9.10		
Aroclor-1260	0.47	0.20	µg/L	0.500		94.8	8-127	1.94		
Aroclor-1260 [2C]	0.45	0.20	µg/L	0.500		90.8	8-127	9.35		
Surrogate: Decachlorobiphenyl	1.78		µg/L	2.00		89.1	30-150			
Surrogate: Decachlorobiphenyl [2C]	1.93		µg/L	2.00		96.3	30-150			
Surrogate: Tetrachloro-m-xylene	1.83		µg/L	2.00		91.4	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.82		µg/L	2.00		91.2	30-150			

Batch B186668 - SW-846 3510C

Blank (B186668-BLK1)

Prepared: 09/20/17 Analyzed: 09/21/17

Aroclor-1016	ND	0.10	µg/L							
Aroclor-1016 [2C]	ND	0.10	µg/L							
Aroclor-1221	ND	0.10	µg/L							
Aroclor-1221 [2C]	ND	0.10	µg/L							
Aroclor-1232	ND	0.10	µg/L							
Aroclor-1232 [2C]	ND	0.10	µg/L							
Aroclor-1242	ND	0.10	µg/L							
Aroclor-1242 [2C]	ND	0.10	µg/L							
Aroclor-1248	ND	0.10	µg/L							
Aroclor-1248 [2C]	ND	0.10	µg/L							
Aroclor-1254	ND	0.10	µg/L							

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B186668 - SW-846 3510C

Blank (B186668-BLK1)

Prepared: 09/20/17 Analyzed: 09/21/17

Aroclor-1254 [2C]	ND	0.10	µg/L							
Aroclor-1260	ND	0.10	µg/L							
Aroclor-1260 [2C]	ND	0.10	µg/L							
Surrogate: Decachlorobiphenyl	1.90		µg/L	2.00		94.9	30-150			
Surrogate: Decachlorobiphenyl [2C]	2.15		µg/L	2.00		107	30-150			
Surrogate: Tetrachloro-m-xylene	1.93		µg/L	2.00		96.4	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.92		µg/L	2.00		96.2	30-150			

LCS (B186668-BS1)

Prepared: 09/20/17 Analyzed: 09/21/17

Aroclor-1016	0.51	0.20	µg/L	0.500		103	50-114			
Aroclor-1016 [2C]	0.52	0.20	µg/L	0.500		105	50-114			
Aroclor-1260	0.47	0.20	µg/L	0.500		93.8	8-127			
Aroclor-1260 [2C]	0.47	0.20	µg/L	0.500		94.1	8-127			
Surrogate: Decachlorobiphenyl	1.73		µg/L	2.00		86.5	30-150			
Surrogate: Decachlorobiphenyl [2C]	1.95		µg/L	2.00		97.3	30-150			
Surrogate: Tetrachloro-m-xylene	1.83		µg/L	2.00		91.4	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.82		µg/L	2.00		91.2	30-150			

LCS Dup (B186668-BSD1)

Prepared: 09/20/17 Analyzed: 09/21/17

Aroclor-1016	0.52	0.20	µg/L	0.500		103	50-114	0.301		
Aroclor-1016 [2C]	0.54	0.20	µg/L	0.500		108	50-114	3.01		
Aroclor-1260	0.48	0.20	µg/L	0.500		96.9	8-127	3.22		
Aroclor-1260 [2C]	0.48	0.20	µg/L	0.500		95.2	8-127	1.16		
Surrogate: Decachlorobiphenyl	1.72		µg/L	2.00		85.8	30-150			
Surrogate: Decachlorobiphenyl [2C]	1.95		µg/L	2.00		97.5	30-150			
Surrogate: Tetrachloro-m-xylene	1.82		µg/L	2.00		90.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.80		µg/L	2.00		90.2	30-150			

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QUALITY CONTROL
Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B186301 - EPA 200.7										
Blank (B186301-BLK1)				Prepared: 09/15/17 Analyzed: 09/16/17						
Iron	ND	0.050	mg/L							
LCS (B186301-BS1)				Prepared: 09/15/17 Analyzed: 09/16/17						
Iron	4.28	0.050	mg/L	4.00		107	85-115			
LCS Dup (B186301-BSD1)				Prepared: 09/15/17 Analyzed: 09/16/17						
Iron	4.22	0.050	mg/L	4.00		105	85-115	1.35	20	
Duplicate (B186301-DUP1)				Source: 1710653-01		Prepared: 09/15/17 Analyzed: 09/16/17				
Iron	1.88	0.050	mg/L		1.87			0.287	20	
Matrix Spike (B186301-MS1)				Source: 1710653-01		Prepared: 09/15/17 Analyzed: 09/16/17				
Iron	6.07	0.050	mg/L	4.00	1.87	105	70-130			
Batch B186302 - EPA 200.8										
Blank (B186302-BLK1)				Prepared & Analyzed: 09/15/17						
Antimony	ND	1.0	µg/L							
Arsenic	ND	1.0	µg/L							
Cadmium	ND	0.20	µg/L							
Chromium	ND	10	µg/L							
Copper	ND	1.0	µg/L							
Lead	ND	0.50	µg/L							
Nickel	ND	5.0	µg/L							
Selenium	ND	5.0	µg/L							
Silver	ND	0.20	µg/L							
Zinc	ND	20	µg/L							
LCS (B186302-BS1)				Prepared & Analyzed: 09/15/17						
Antimony	489	10	µg/L	500		97.7	85-115			
Arsenic	488	10	µg/L	500		97.7	85-115			
Cadmium	474	2.0	µg/L	500		94.7	85-115			
Chromium	502	100	µg/L	500		100	85-115			
Copper	959	10	µg/L	1000		95.9	85-115			
Lead	495	5.0	µg/L	500		99.1	85-115			
Nickel	481	50	µg/L	500		96.1	85-115			
Selenium	476	50	µg/L	500		95.1	85-115			
Silver	489	2.0	µg/L	500		97.7	85-115			
Zinc	965	200	µg/L	1000		96.5	85-115			
LCS Dup (B186302-BSD1)				Prepared & Analyzed: 09/15/17						
Antimony	487	10	µg/L	500		97.4	85-115	0.309	20	
Arsenic	484	10	µg/L	500		96.8	85-115	0.868	20	
Cadmium	475	2.0	µg/L	500		95.1	85-115	0.353	20	
Chromium	498	100	µg/L	500		99.7	85-115	0.636	20	
Copper	948	10	µg/L	1000		94.8	85-115	1.09	20	
Lead	489	5.0	µg/L	500		97.9	85-115	1.21	20	
Nickel	481	50	µg/L	500		96.1	85-115	0.00495	20	
Selenium	472	50	µg/L	500		94.5	85-115	0.682	20	
Silver	487	2.0	µg/L	500		97.5	85-115	0.282	20	
Zinc	955	200	µg/L	1000		95.5	85-115	0.997	20	

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QUALITY CONTROL
Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B186302 - EPA 200.8

Duplicate (B186302-DUP1)		Source: 1710653-01			Prepared & Analyzed: 09/15/17					
Antimony	ND	1.0	µg/L		ND			NC	20	
Arsenic	ND	1.0	µg/L		ND			NC	20	
Cadmium	ND	0.20	µg/L		ND			NC	20	
Chromium	ND	10	µg/L		ND			NC	20	
Copper	3.32	1.0	µg/L		3.27			1.36	20	
Lead	0.676	0.50	µg/L		0.663			2.01	20	
Nickel	22.2	5.0	µg/L		22.3			0.299	20	
Selenium	ND	5.0	µg/L		ND			NC	20	
Silver	ND	0.20	µg/L		ND			NC	20	
Zinc	569	200	µg/L		628			9.98	20	

Matrix Spike (B186302-MS1)		Source: 1710653-01			Prepared & Analyzed: 09/15/17					
Antimony	492	10	µg/L	500	ND	98.4	70-130			
Arsenic	485	10	µg/L	500	ND	96.9	70-130			
Cadmium	474	2.0	µg/L	500	ND	94.7	70-130			
Chromium	499	100	µg/L	500	ND	99.8	70-130			
Copper	950	10	µg/L	1000	ND	95.0	70-130			
Lead	494	5.0	µg/L	500	ND	98.7	70-130			
Nickel	502	50	µg/L	500	22.3	95.9	70-130			
Selenium	471	50	µg/L	500	ND	94.1	70-130			
Silver	492	2.0	µg/L	500	ND	98.5	70-130			
Zinc	1510	200	µg/L	1000	628	87.9	70-130			

Batch B186307 - EPA 245.1

Blank (B186307-BLK1)		Prepared & Analyzed: 09/15/17								
Mercury	ND	0.00010	mg/L							
LCS (B186307-BS1)		Prepared & Analyzed: 09/15/17								
Mercury	0.00187	0.00010	mg/L	0.00200		93.6	85-115			
LCS Dup (B186307-BSD1)		Prepared & Analyzed: 09/15/17								
Mercury	0.00194	0.00010	mg/L	0.00200		97.1	85-115	3.63	20	

Batch B186506 - EPA 200.7

Blank (B186506-BLK1)		Prepared & Analyzed: 09/19/17								
Iron	ND	0.050	mg/L							
LCS (B186506-BS1)		Prepared & Analyzed: 09/19/17								
Iron	4.12	0.050	mg/L	4.00		103	85-115			

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QUALITY CONTROL
Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B186506 - EPA 200.7										
LCS Dup (B186506-BSD1)				Prepared & Analyzed: 09/19/17						
Iron	4.08	0.050	mg/L	4.00		102	85-115	1.15	20	
Batch B186507 - EPA 200.8										
Blank (B186507-BLK1)				Prepared & Analyzed: 09/19/17						
Lead	ND	0.50	µg/L							
Nickel	ND	5.0	µg/L							
Zinc	ND	20	µg/L							
LCS (B186507-BS1)				Prepared & Analyzed: 09/19/17						
Lead	510	5.0	µg/L	500		102	85-115			
Nickel	488	50	µg/L	500		97.6	85-115			
Zinc	1080	200	µg/L	1000		108	85-115			
LCS Dup (B186507-BSD1)				Prepared & Analyzed: 09/19/17						
Lead	526	5.0	µg/L	500		105	85-115	3.14	20	
Nickel	503	50	µg/L	500		101	85-115	3.06	20	
Zinc	1100	200	µg/L	1000		110	85-115	2.28	20	

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B186335 - SM21-22 3500 Cr B										
Blank (B186335-BLK1)				Prepared & Analyzed: 09/15/17						
Hexavalent Chromium	ND	0.0040	mg/L							
LCS (B186335-BS1)				Prepared & Analyzed: 09/15/17						
Hexavalent Chromium	0.098	0.0040	mg/L	0.100		97.8	86.6-115			
LCS Dup (B186335-BSD1)				Prepared & Analyzed: 09/15/17						
Hexavalent Chromium	0.10	0.0040	mg/L	0.100		100	86.6-115	2.47	6.61	
Matrix Spike (B186335-MS1)				Source: 1710653-01		Prepared & Analyzed: 09/15/17				
Hexavalent Chromium	0.10	0.0040	mg/L	0.100	ND	101	23.5-142			
Matrix Spike Dup (B186335-MSD1)				Source: 1710653-01		Prepared & Analyzed: 09/15/17				
Hexavalent Chromium	0.10	0.0040	mg/L	0.100	ND	100	23.5-142	1.21	7.59	
Batch B186337 - SM21-22 2540D										
Blank (B186337-BLK1)				Prepared & Analyzed: 09/15/17						
Total Suspended Solids	ND	2.5	mg/L							
LCS (B186337-BS1)				Prepared & Analyzed: 09/15/17						
Total Suspended Solids	198	10	mg/L	200		99.0	66.7-117			
Duplicate (B186337-DUP1)				Source: 1710653-01		Prepared & Analyzed: 09/15/17				
Total Suspended Solids	ND	5.0	mg/L		ND			NC	5	
Batch B186341 - EPA 1664B										
Blank (B186341-BLK1)				Prepared & Analyzed: 09/15/17						
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L							
LCS (B186341-BS1)				Prepared & Analyzed: 09/15/17						
Silica Gel Treated HEM (SGT-HEM)	9.9		mg/L	10.0		99.0	64-132			
Duplicate (B186341-DUP1)				Source: 1710653-01		Prepared & Analyzed: 09/15/17				
Silica Gel Treated HEM (SGT-HEM)	ND	1.6	mg/L		ND			NC	18	
Matrix Spike (B186341-MS1)				Source: 1710653-01		Prepared & Analyzed: 09/15/17				
Silica Gel Treated HEM (SGT-HEM)	91	14	mg/L	100	ND	91.0	64-132			
Batch B186347 - SM21-22 4500 CL G										
Blank (B186347-BLK1)				Prepared & Analyzed: 09/15/17						
Chlorine, Residual	ND	0.020	mg/L							

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B186347 - SM21-22 4500 CL G										
LCS (B186347-BS1)				Prepared & Analyzed: 09/15/17						
Chlorine, Residual	1.4	0.020	mg/L	1.30		109	82.5-130			
LCS Dup (B186347-BSD1)				Prepared & Analyzed: 09/15/17						
Chlorine, Residual	1.4	0.020	mg/L	1.30		108	82.5-130	1.17	6.2	
Duplicate (B186347-DUP1)				Source: 1710653-01			Prepared & Analyzed: 09/15/17			
Chlorine, Residual	0.032	0.020	mg/L		0.028			13.7	44.8	
Matrix Spike (B186347-MS1)				Source: 1710653-01			Prepared & Analyzed: 09/15/17			
Chlorine, Residual	0.61	0.020	mg/L	1.00	0.028	58.1	10-182			
Batch B186432 - SM19-22 4500 NH3 C										
Blank (B186432-BLK1)				Prepared & Analyzed: 09/18/17						
Ammonia as N	ND	0.30	mg/L							
LCS (B186432-BS1)				Prepared & Analyzed: 09/18/17						
Ammonia as N	5.2	0.30	mg/L	5.00		104	85.2-110			
LCS Dup (B186432-BSD1)				Prepared & Analyzed: 09/18/17						
Ammonia as N	5.2	0.30	mg/L	5.00		104	85.2-110	0.00	8.64	

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QUALITY CONTROL
Drinking Water Organics EPA 504.1 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B186304 - EPA 504 water										
Blank (B186304-BLK1)				Prepared & Analyzed: 09/15/17						
1,2-Dibromoethane (EDB)	ND	0.021	µg/L							
1,2-Dibromoethane (EDB) [2C]	ND	0.021	µg/L							
LCS (B186304-BS1)				Prepared & Analyzed: 09/15/17						
1,2-Dibromoethane (EDB)	0.157	0.021	µg/L	0.180		86.9	70-130			
1,2-Dibromoethane (EDB) [2C]	0.163	0.021	µg/L	0.180		90.3	70-130			
LCS Dup (B186304-BSD1)				Prepared & Analyzed: 09/15/17						
1,2-Dibromoethane (EDB)	0.184	0.021	µg/L	0.184		100	70-130	16.0		
1,2-Dibromoethane (EDB) [2C]	0.180	0.021	µg/L	0.184		97.7	70-130	9.86		

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

EPA 608

HST-1

Lab Sample ID: 17I0653-01 Date(s) Analyzed: 09/16/2017 09/16/2017

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1242	1	0.000	0.000	0.000	0.24	
	2	0.000	0.000	0.000	0.21	13.3

**IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES***EPA 608***HST-1**Lab Sample ID: 17I0653-01RE1 Date(s) Analyzed: 09/21/2017 09/21/2017

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1242	1	0.000	0.000	0.000	0.15	
	2	0.000	0.000	0.000	0.20	28.6

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit
DL	Method Detection Limit
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
B	Analyte is found in the associated blank as well as in the sample.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
O-04	Sample fingerprint does not match standard exactly. Sample was quantitated against the closest matching standard.
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria.
V-05	Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.
V-19	Initial calibration did not meet method specifications. Compound was calibrated using linear regression with correlation coefficient <0.99. Reduced precision and accuracy may be associated with reported result.
V-20	Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>EPA 200.7 in Water</i>	
Iron	CT,MA,NH,NY,RI,NC,ME,VA
Hardness	CT,MA,NH,NY,RI,VA
<i>EPA 200.8 in Water</i>	
Antimony	CT,MA,NH,NY,RI,NC,ME,VA
Arsenic	CT,MA,NH,NY,RI,NC,ME,VA
Cadmium	CT,MA,NH,NY,RI,NC,ME,VA
Chromium	CT,MA,NH,NY,RI,NC,ME,VA
Copper	CT,MA,NH,NY,RI,NC,ME,VA
Lead	CT,MA,NH,NY,RI,NC,ME,VA
Nickel	CT,MA,NH,NY,RI,NC,ME,VA
Selenium	CT,MA,NH,NY,RI,NC,ME,VA
Silver	CT,MA,NH,NY,RI,NC,ME,VA
Zinc	CT,MA,NH,NY,RI,NC,ME,VA
<i>EPA 245.1 in Water</i>	
Mercury	CT,MA,NH,RI,NY,NC,ME,VA
<i>EPA 300.0 in Water</i>	
Chloride	NC,NY,MA,VA,ME,NH,CT,RI
<i>EPA 608 in Water</i>	
Aroclor-1016	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1016 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1221	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1221 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1232	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1232 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1242	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1242 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1248	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1248 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1254	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1254 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1260	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1260 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
<i>EPA 624 in Water</i>	
Acetone	NH,NY
Benzene	CT,MA,NH,NY,RI,NC,ME,VA
Carbon Tetrachloride	CT,MA,NH,NY,RI,NC,ME,VA
1,2-Dichlorobenzene	CT,MA,NH,NY,RI,NC,ME,VA
1,3-Dichlorobenzene	CT,MA,NH,NY,RI,NC,ME,VA
1,4-Dichlorobenzene	CT,MA,NH,NY,RI,NC,ME,VA
1,2-Dichloroethane	CT,MA,NH,NY,RI,NC,ME,VA
1,1-Dichloroethane	CT,MA,NH,NY,RI,NC,ME,VA
1,1-Dichloroethylene	CT,MA,NH,NY,RI,NC,ME,VA
Ethylbenzene	CT,MA,NH,NY,RI,NC,ME,VA
Methyl tert-Butyl Ether (MTBE)	NH,NY,NC
Methylene Chloride	CT,MA,NH,NY,RI,NC,ME,VA

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>EPA 624 in Water</i>	
Naphthalene	NC
Tetrachloroethylene	CT,MA,NH,NY,RI,NC,ME,VA
Toluene	CT,MA,NH,NY,RI,NC,ME,VA
1,2,4-Trichlorobenzene	NC
1,1,1-Trichloroethane	CT,MA,NH,NY,RI,NC,ME,VA
1,1,2-Trichloroethane	CT,MA,NH,NY,RI,NC,ME,VA
Trichloroethylene	CT,MA,NH,NY,RI,NC,ME,VA
Vinyl Chloride	CT,MA,NH,NY,RI,NC,ME,VA
m+p Xylene	CT,MA,NH,NY,RI,NC,VA
o-Xylene	CT,MA,NH,NY,RI,NC,VA
<i>EPA 625 in Water</i>	
Acenaphthene	CT,MA,NH,NY,NC,RI,ME,VA
Acenaphthylene	CT,MA,NH,NY,NC,RI,ME,VA
Anthracene	CT,MA,NH,NY,NC,RI,ME,VA
Benzidine	CT,MA,NH,NY,NC,RI,ME,VA
Benzo(a)anthracene	CT,MA,NH,NY,NC,RI,ME,VA
Benzo(a)pyrene	CT,MA,NH,NY,NC,RI,ME,VA
Benzo(b)fluoranthene	CT,MA,NH,NY,NC,RI,ME,VA
Benzo(g,h,i)perylene	CT,MA,NH,NY,NC,RI,ME,VA
Benzo(k)fluoranthene	CT,MA,NH,NY,NC,RI,ME,VA
4-Bromophenylphenylether	CT,MA,NH,NY,NC,RI,ME,VA
Butylbenzylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
4-Chloro-3-methylphenol	CT,MA,NH,NY,NC,RI,VA
Bis(2-chloroethyl)ether	CT,MA,NH,NY,NC,RI,ME,VA
Bis(2-chloroisopropyl)ether	CT,MA,NH,NY,NC,RI,ME,VA
2-Chloronaphthalene	CT,MA,NH,NY,NC,RI,ME,VA
2-Chlorophenol	CT,MA,NH,NY,NC,RI,ME,VA
4-Chlorophenylphenylether	CT,MA,NH,NY,NC,RI,ME,VA
Chrysene	CT,MA,NH,NY,NC,RI,ME,VA
Dibenz(a,h)anthracene	CT,MA,NH,NY,NC,RI,ME,VA
Di-n-butylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
1,3-Dichlorobenzene	MA,NC
1,4-Dichlorobenzene	MA,NC
1,2-Dichlorobenzene	MA,NC
3,3-Dichlorobenzidine	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dichlorophenol	CT,MA,NH,NY,NC,RI,ME,VA
Diethylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dimethylphenol	CT,MA,NH,NY,NC,RI,ME,VA
Dimethylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
4,6-Dinitro-2-methylphenol	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dinitrophenol	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dinitrotoluene	CT,MA,NH,NY,NC,RI,ME,VA
2,6-Dinitrotoluene	CT,MA,NH,NY,NC,RI,ME,VA
Di-n-octylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
1,2-Diphenylhydrazine (as Azobenzene)	NC
Bis(2-Ethylhexyl)phthalate	CT,MA,NH,NY,NC,RI,ME,VA

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>EPA 625 in Water</i>	
Fluoranthene	CT,MA,NH,NY,NC,RI,ME,VA
Fluorene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachlorobenzene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachlorobutadiene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachlorocyclopentadiene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachloroethane	CT,MA,NH,NY,NC,RI,ME,VA
Indeno(1,2,3-cd)pyrene	CT,MA,NH,NY,NC,RI,ME,VA
Isophorone	CT,MA,NH,NY,NC,RI,ME,VA
Naphthalene	CT,MA,NH,NY,NC,RI,ME,VA
Nitrobenzene	CT,MA,NH,NY,NC,RI,ME,VA
2-Nitrophenol	CT,MA,NH,NY,NC,RI,ME,VA
4-Nitrophenol	CT,MA,NH,NY,NC,RI,ME,VA
N-Nitrosodimethylamine	CT,MA,NH,NY,NC,RI,ME,VA
N-Nitrosodiphenylamine	CT,MA,NH,NY,NC,RI,ME,VA
N-Nitrosodi-n-propylamine	CT,MA,NH,NY,NC,RI,ME,VA
Pentachlorophenol	CT,MA,NH,NY,NC,RI,ME,VA
2-Methylnaphthalene	NC
Phenanthrene	CT,MA,NH,NY,NC,RI,ME,VA
2-Methylphenol	NY,NC
Phenol	CT,MA,NH,NY,NC,RI,ME,VA
3/4-Methylphenol	NY,NC
Pyrene	CT,MA,NH,NY,NC,RI,ME,VA
1,2,4-Trichlorobenzene	CT,MA,NH,NY,NC,RI,ME,VA
2,4,6-Trichlorophenol	CT,MA,NH,NY,NC,RI,ME,VA
2-Fluorophenol	NC
<i>SM19-22 4500 NH3 C in Water</i>	
Ammonia as N	NY,MA,CT,RI,VA,NC,ME
<i>SM21-22 2540D in Water</i>	
Total Suspended Solids	CT,MA,NH,NY,RI,NC,ME,VA
<i>SM21-22 3500 Cr B in Water</i>	
Hexavalent Chromium	NY,CT,NH,RI,ME,VA,NC
<i>SM21-22 4500 CL G in Water</i>	
Chlorine, Residual	CT,MA,RI,ME
<i>SW-846 8270D in Water</i>	
Acenaphthene	CT,NY,NC,ME,NH,VA,NJ
Acenaphthylene	CT,NY,NC,ME,NH,VA,NJ
Anthracene	CT,NY,NC,ME,NH,VA,NJ
Benzidine	CT,NY,NC,ME,NH,VA,NJ
Benzo(a)anthracene	CT,NY,NC,ME,NH,VA,NJ
Benzo(a)pyrene	CT,NY,NC,ME,NH,VA,NJ
Benzo(b)fluoranthene	CT,NY,NC,ME,NH,VA,NJ
Benzo(g,h,i)perylene	CT,NY,NC,ME,NH,VA,NJ
Benzo(k)fluoranthene	CT,NY,NC,ME,NH,VA,NJ
Bis(2-chloroethyl)ether	CT,NY,NC,ME,NH,VA,NJ
Bis(2-chloroisopropyl)ether	CT,NY,NC,ME,NH,VA,NJ

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8270D in Water</i>	
Bis(2-Ethylhexyl)phthalate	CT,NY,NC,ME,NH,VA,NJ
4-Bromophenylphenylether	CT,NY,NC,ME,NH,VA,NJ
Butylbenzylphthalate	CT,NY,NC,ME,NH,VA,NJ
4-Chloro-3-methylphenol	CT,NY,NC,ME,NH,VA,NJ
2-Chloronaphthalene	CT,NY,NC,ME,NH,VA,NJ
2-Chlorophenol	CT,NY,NC,ME,NH,VA,NJ
4-Chlorophenylphenylether	CT,NY,NC,ME,NH,VA,NJ
Chrysene	CT,NY,NC,ME,NH,VA,NJ
Dibenz(a,h)anthracene	CT,NY,NC,ME,NH,VA,NJ
Di-n-butylphthalate	CT,NY,NC,ME,NH,VA,NJ
1,2-Dichlorobenzene	CT,NY,NC,ME,NH,VA,NJ
1,3-Dichlorobenzene	CT,NY,NC,ME,NH,VA,NJ
1,4-Dichlorobenzene	CT,NY,NC,ME,NH,VA,NJ
3,3-Dichlorobenzidine	CT,NY,NC,ME,NH,VA,NJ
2,4-Dichlorophenol	CT,NY,NC,ME,NH,VA,NJ
Diethylphthalate	CT,NY,NC,ME,NH,VA,NJ
2,4-Dimethylphenol	CT,NY,NC,ME,NH,VA,NJ
Dimethylphthalate	CT,NY,NC,ME,NH,VA,NJ
4,6-Dinitro-2-methylphenol	CT,NY,NC,ME,NH,VA,NJ
2,4-Dinitrophenol	CT,NY,NC,ME,NH,VA,NJ
2,4-Dinitrotoluene	CT,NY,NC,ME,NH,VA,NJ
2,6-Dinitrotoluene	CT,NY,NC,ME,NH,VA,NJ
Di-n-octylphthalate	CT,NY,NC,ME,NH,VA,NJ
1,2-Diphenylhydrazine (as Azobenzene)	NY,NC,ME
Fluoranthene	CT,NY,NC,ME,NH,VA,NJ
Fluorene	NY,NC,ME,NH,VA,NJ
Hexachlorobenzene	CT,NY,NC,ME,NH,VA,NJ
Hexachlorobutadiene	CT,NY,NC,ME,NH,VA,NJ
Hexachlorocyclopentadiene	CT,NY,NC,ME,NH,VA,NJ
Hexachloroethane	CT,NY,NC,ME,NH,VA,NJ
Indeno(1,2,3-cd)pyrene	CT,NY,NC,ME,NH,VA,NJ
Isophorone	CT,NY,NC,ME,NH,VA,NJ
2-Methylnaphthalene	CT,NY,NC,ME,NH,VA,NJ
2-Methylphenol	CT,NY,NC,NH,VA,NJ
3/4-Methylphenol	CT,NY,NC,NH,VA,NJ
Naphthalene	CT,NY,NC,ME,NH,VA,NJ
Nitrobenzene	CT,NY,NC,ME,NH,VA,NJ
2-Nitrophenol	CT,NY,NC,ME,NH,VA,NJ
4-Nitrophenol	CT,NY,NC,ME,NH,VA,NJ
N-Nitrosodimethylamine	CT,NY,NC,ME,NH,VA,NJ
N-Nitrosodiphenylamine	CT,NY,NC,ME,NH,VA,NJ
N-Nitrosodi-n-propylamine	CT,NY,NC,ME,NH,VA,NJ
Pentachlorophenol	CT,NY,NC,ME,NH,VA,NJ
Phenanthrene	CT,NY,NC,ME,NH,VA,NJ
Phenol	CT,NY,NC,ME,NH,VA,NJ
Pyrene	CT,NY,NC,ME,NH,VA,NJ
1,2,4-Trichlorobenzene	CT,NY,NC,ME,NH,VA,NJ

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270D in Water	
2,4,6-Trichlorophenol	CT,NY,NC,ME,NH,VA,NJ
2-Fluorophenol	NC,VA
Phenol-d6	VA
Nitrobenzene-d5	VA

SW-846 9014 in Water

Cyanide	NY,CT,NH,NC,ME,VA
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The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	02/1/2018
MA	Massachusetts DEP	M-MA100	06/30/2018
CT	Connecticut Department of Public Health	PH-0567	09/30/2017
NY	New York State Department of Health	10899 NELAP	04/1/2018
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2018
RI	Rhode Island Department of Health	LAO00112	12/30/2017
NC	North Carolina Div. of Water Quality	652	12/31/2017
NJ	New Jersey DEP	MA007 NELAP	06/30/2018
FL	Florida Department of Health	E871027 NELAP	06/30/2018
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2018
ME	State of Maine	2011028	06/9/2019
VA	Commonwealth of Virginia	460217	12/14/2017
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2017
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2018
NC-DW	North Carolina Department of Health	25703	07/31/2018

Parameter	Chemical Abstracts Service (CAS) Number(s)	Inorganic Test Methods				Notes
		ICP/AES ¹ 200.7	ICP/MS ² 200.8	GFAA ³ 200.9	Other	
a. Inorganics						
Ammonia					SM ⁴ 4500 B and D (0.1 mg/L) 350.1 (0.01 mg/L)	
Chloride	16887006				300.0, SM ⁴ 4110 B (0.1 mg/L)	
Total Residual Chlorine	7782-50-5				SM ⁴ 4500-Cl D (200 µg/L) SM ⁴ 4500-Cl G (50 µg/L) SM ⁴ 4500-Cl E	
Total Suspended Solids					160.2 SM ⁴ 2540D (5 mg/L)	
Antimony	7440360	20 µg/L	0.5 µg/L	3 µg/L		200
Arsenic	7440382	20 µg/L	1 µg/L	3 µg/L		206.5
Cadmium	7440439	10 µg/L	0.2 µg/L	0.5 µg/L		200
Chromium III	7440473	20 µg/L	1 µg/L	1 µg/L		200
Chromium VI	18540299				7196 A (10 µg/L) 218.6, 1636 (1 µg/L)	
Copper	7440508	20 µg/L	0.2 µg/L	3 µg/L		200
Iron	7439896	40 µg/L	55 µg/L			200
Lead	7439921	20 µg/L	0.2 µg/L	3 µg/L		200
Mercury	7439976				245.1, 7470 A (0.2 µg/L) 245.7, 1631 (0.001 µg/L)	3112 B
Nickel	7440020	20 µg/L	0.2 µg/L	5 µg/L		200
Selenium	7782492	40 µg/L	1 µg/L	5 µg/L		200
Silver	7440224	10 µg/L	0.2 µg/L	5 µg/L		200
Zinc	7440666	15 µg/L	2 µg/L			200
Cyanide	57125				335.4 (5 µg/L)	4500-CN OIA-1677 (5 µg/L)

Parameter	CAS Number(s)	Organic Test Methods				
		GC ⁵	GC/MS ⁶	HPLC ⁷	State Methods ⁸	Other ⁹
b. Non-Halogenated Volatile Organic Compounds						
Total BTEX	71-43-2 + 108-88-3 + 100-41-4 + 106-42-3 + 95-47-6 + 1330-20-7	602 (0.5 µg/L)	624 (1-2 µg/L) 1624 (2-4 µg/L)		MA VPH (5 µg/L)	8260 (2 µg/L) 524.2 (0.5 µg/L)
Benzene	71-43-2	602 (0.5 µg/L)	624, 1624 (2 µg/L)		MA VPH (5 µg/L)	8260 (2 µg/L) 524.2 (0.5 µg/L)
1,4 Dioxane	123-91-1		1624 (50 µg/L)			8260 (5 µg/L) 522 (0.1 µg/L)
Acetone	67-64-1		1624 (50 µg/L)			8260 (50 µg/L) 524.2 (10 µg/L)
Phenol	108-95-2		625 (2.5 µg/L)			8270 (5 µg/L) 420.1, 420.2 (2 µg/L) 420.4 (50 µg/L)
c. Halogenated Volatile Organic Compounds						
Carbon Tetrachloride	56-23-5	601 (0.5 µg/L)	624 (1 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)
1,2 Dichlorobenzene	95-50-1	601, 602 (0.5 µg/L)	624 (2.5 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)
1,3 Dichlorobenzene	541-73-1	601, 602 (0.5 µg/L)	624 (2.5 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)
1,4 Dichlorobenzene	106-46-7	601, 602 (0.5 µg/L)	624 (2.5 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)
Total dichlorobenzene	95-50-1 + 541-73-1 + 106-46-7	601, 602 (0.5 µg/L)	624 (2.5 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)
1,1 Dichloroethane	75-34-3	601 (0.5 µg/L)	624 (1 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)

Parameter	CAS Number(s)	Organic Test Methods				
		GC ⁵	GC/MS ⁶	HPLC ⁷	State Methods ⁸	Other ⁹
1,2 Dichloroethane	107-06-2	601 (0.5 µg/L)	624 (1 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)
1,1 Dichloroethylene	75-35-4	601 (0.5 µg/L)	624 (1 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)
Ethylene Dibromide ¹⁷	106-93-4	8011, 504.1 (0.01 µg/L) 618 (1 µg/L)	SIM ¹⁰ (0.1 µg/L)			524.2 (1 µg/L) 8260 (10 µg/L)
Methylene Chloride	75-09-2	601 (0.5 µg/L)	624 (1 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)
1,1,1 Trichloroethane	71-55-6	601 (0.5 µg/L)	624 (1 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)
1,1,2 Trichloroethane	79-00-5	601 (0.5 µg/L)	624 (1 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)
Trichloroethylene	79-01-6	601 (0.5 µg/L)	624 (1 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)
Tetrachloroethylene	127-18-4	601 (0.5 µg/L)	624 (1 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)
cis-1,2 Dichloroethylene	156-59-2	601 (0.5 µg/L)	624 (1 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)
Vinyl Chloride	75-01-4	601 (0.5 µg/L)	624 (1 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)
d. Non-Halogenated Semi-Volatile Organic Compounds						
Total Phthalates	85-68-7 + 84-742 + 117-84-0 + 84-66-2 + 131-11-3 + 117-81-7	606 (10 µg/L)	625 (2.5 µg/L) 1625 (5 µg/L)			8270 (5 µg/L) 525.2 (0.5 µg/L)
Diethylhexyl phthalate	117-81-7	606 (10 µg/L)	625 (2.5 µg/L) 1625 (5 µg/L)			8270 (5 µg/L) 525.2 (0.5 µg/L)

Parameter	CAS Number(s)	Organic Test Methods				
		GC ⁵	GC/MS ⁶	HPLC ⁷	State Methods ⁸	Other ⁹
Total Group I Polycyclic Aromatic Hydrocarbons	56-55-3 + 50-32-8 + 205-99-2 + 207-08-9 + 218-01-9 + 53-70-3 + 193-39-5	610 (5 µg/L)	625 (0.5 µg/L) 1625 (10-20 µg/L)	610 (0.5-2 µg/L)	MA EPH (5 µg/L)	8270 (5 µg/L) SIM ¹⁰ (0.1 µg/L) 525.2 (0.5 µg/L)
Benzo(a)anthracene	56-55-3	610 (5 µg/L)	625 (0.5 µg/L)	610 (2 µg/L)	MA EPH (5 µg/L)	8270 (5 µg/L) SIM ¹⁰ (0.1 µg/L) 525.2 (0.5 µg/L)
Benzo(a)pyrene	50-32-8	610 (5 µg/L)	625 (0.5 µg/L)	610 (2 µg/L)	MA EPH (5 µg/L)	8270 (5 µg/L) SIM ¹⁰ (0.1 µg/L) 525.2 (0.5 µg/L)
Benzo(b)fluoranthene	205-99-2	610 (5 µg/L)	625 (0.5 µg/L)	610 (2 µg/L)	MA EPH (5 µg/L)	8270 (5 µg/L) SIM ¹⁰ (0.1 µg/L) 525.2 (0.5 µg/L)
Benzo(k)fluoranthene	207-08-9	610 (5 µg/L)	625 (0.5 µg/L)	610 (2 µg/L)	MA EPH (5 µg/L)	8270 (5 µg/L) SIM ¹⁰ (0.1 µg/L) 525.2 (0.5 µg/L)
Chrysene	218-01-9	610 (5 µg/L)	625 (0.5 µg/L)	610 (2 µg/L)	MA EPH (5 µg/L)	8270 (5 µg/L) SIM ¹⁰ (0.1 µg/L) 525.2 (0.5 µg/L)
Dibenzo(a,h)anthracene	53-70-3	610 (5 µg/L)	625 (0.5 µg/L)	610 (2 µg/L)	MA EPH (5 µg/L)	8270 (5 µg/L) SIM ¹⁰ (0.1 µg/L) 525.2 (0.5 µg/L)
Indeno(1,2,3-cd)pyrene	193-39-5	610 (5 µg/L)	625 (0.5 µg/L)	610 (0.5 µg/L)	MA EPH (5 µg/L)	8270 (5 µg/L) SIM ¹⁰ (0.1 µg/L) 525.2 (0.5 µg/L)

Test Methods and Minimum Levels

Test methods found in 40 CFR §136 are required for all analyses of parameters under this general permit unless other test methods are explicitly required or allowed in this general permit.¹ All analyses of parameters under this general permit must comply with the *National Pollutant Discharge Elimination System (NPDES): Use of Sufficiently Sensitive Test Methods for Permit Applications and Reporting* rule.² Only sufficiently sensitive test methods may be used for analyses of parameters under this general permit. A test method is sufficiently sensitive where:³

1. The method minimum level (ML) is at or below the level of the applicable water quality criterion or permit limitation for the measured pollutant or pollutant parameter;
2. In the case of NOIs, the ML is above the applicable water quality criterion, but the amount of the pollutant or pollutant parameter in a site's discharge is high enough that the method detects and quantifies the level of the pollutant or parameter in the discharge; or
3. The method has the lowest ML of the EPA-approved analytical methods.

For the purposes of the RGP, the ML is the lowest level at which the laboratory analytical testing method provides a detectable concentration of the target analyte in a sample.⁴ The ML represents the lowest concentration at which the concentration of a parameter can be measured with a known level of confidence. The MLs specified in this appendix may be:

1. Published in a method;
2. Concentrations equivalent to the lowest acceptable calibration point used by a laboratory;
3. Calculated by multiplying the method detection limit (MDL) in a method, the MDL determined by a lab,⁵ or an interim ML (IML) by a multiplying factor; or
4. An IML, based on the actual performance for a test method at EPA's New England Regional Laboratory.

The detection limit (DL) for all parameters in this general permit must be equal to or less than the ML required for that parameter. When a sample is analyzed for a parameter, but the parameter is not detected ("non-detect"), operators must report the non-detect using the data qualifier signifying less than the DL achieved for that parameter (e.g., <2 µg/L, if the DL reported for the parameter is 2 µg/L). For the purposes of the RGP, the DL is the lowest concentration that can be reliably measured within specified limits of precision and accuracy for a specific laboratory analytical method during routine laboratory operating conditions (i.e., the level above which a value is reported for an analyte, and the level below which an analyte is reported as non-detect).

For parameters included in the RGP that are limited below the MLs specified, an operator will be in compliance with the test method and ML requirements for a parameter if the sample result is below the compliance level specified in Part 2.1.1 of the RGP for that parameter.

¹ Test methods approved under CWA §304(h), including approved alternative test procedures and allowable method modifications. See 40 CFR Part 136.5 and 136.6.

² Federal Register, Vol. 79, No. 160, Tuesday, August 19, 2014; FR Doc. 2014-19557.

³ 40 CFR §122.21(e)(3), 40 CFR §122.44(i)(1)(iv) and 40 CFR §136.1.

⁴ EPA is considering related terms to be synonymous, which include, but are not limited to: "quantitation limit," "reporting limit," and "level of quantitation".

⁵ The MDL is determined using the procedure at 40 CFR Part 136, appendix B, defined as the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.

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ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

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

Client AECOM

Received By PB Date 9-15-17 Time 7:05

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

Were samples within Temperature? 2-6°C T By Gun # 1 Actual Temp - 3.1
By Blank # Actual Temp -

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T
Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? T Who was notified?

Are there Rushes? T Who was notified? Lucy, Suzanne

Are there Short Holds? T Who was notified? Lucy

Is there enough Volume? T

Is there Headspace where applicable? F

Proper Media/Containers Used? T

Were trip blanks received? T

Do all samples have the proper pH? T Acid T Base

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.	<u>8</u>	1 Liter Plastic	<u>1</u>	16 oz Amb.	
HCL-	<u>6</u>	500 mL Amb.		500 mL Plastic	<u>2</u>	8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	<u>2</u>	4oz Amb/Clear	
Bisulfate-		Col./Bacteria		Flashpoint		2oz Amb/Clear	
DI-		Other Plastic		Other Glass		Encore	
Thiosulfate-	<u>4</u>	SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

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

Comments:

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\092117\
Data File : J0921014.D
Signal(s) : Signal #1: ECD1A.ch Signal #2: ECD2B.ch
Acq On : 21 Sep 2017 11:11 am
Operator : JMB
Sample : 17I0653-01RE1@TBA Inst : ECD10
Misc :
ALS Vial : 14 Sample Multiplier: 1

Integration File signal 1: F-1242.E
Integration File signal 2: B-1242.E
Quant Time: Sep 21 11:53:57 2017
Quant Method : C:\msdchem\1\methods\PCB Methods\10-1242-092117.M
Quant Title : 1242 09/06/17 08/24/17 ICAL 1700299
QLast Update : Thu Sep 07 11:24:13 2017
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. :
Signal #1 Phase : Signal #2 Phase:
Signal #1 Info : Signal #2 Info :

