

September 4, 2019

Ms. Shauna Little
U.S. Environmental Protection Agency
Office of Ecosystem Protection
EPA/OEP RGP Applications Coordinator
5 Post Office Square - Suite 100 (OEP06-01)
Boston, MA 02109-3912

Notice of Intent for Application of a Remediation General Permit Cumberland Farms, Inc. Property #MA1058 1455-1479 Fall River Avenue Seekonk, MA 02771

To Whom It May Concern:

Kleinfelder, on behalf of Cumberland Farms, Inc. (CFI), has prepared the enclosed Notice of Intent (NOI) for application of Remediation General Permit (RGP) for upcoming activities at Cumberland Farms, Inc. Property #MA1078, located at 1455-1479 Fall River Avenue, in Seekonk, Massachusetts. This NOI is for the discharge anticipated to be generated during temporary groundwater dewatering activities associated with the installation of two 20,000 gallon and one 10,000-gallon compartmentalized (gasoline/diesel) underground storage tanks (USTs), as well as the excavation required for the foundation of a 5,275 square foot building and installation of a fuel dispenser area with a canopy structure.

Groundwater Characterization

Depth to water at the site was gauged at depths ranging from approximately 7 to 8 feet below ground surface. In preparation for groundwater dewatering activities, a representative groundwater sample was collected on August 8, 2019. The sample was submitted to Con-Test Analytical Laboratory of East Longmeadow, MA for analysis of volatile organic compounds (VOCs) via EPA Methods 624, polynuclear aromatic hydrocarbons (PAHs) and phenols via EPA Method 625 SIM, total PCBs via EPA Method 608.3, total metals via EPA Method 200.7, 200.8 and 3500, Oil and Grease via EPA Method 1664A, chloride via EPA Method 300.0, total residual chlorine by EPA Method 4500, ammonia via EPA Method 4500-NH3, cyanide via EPA Method 4500-CN, and total suspended solids via Standard Method 2540D. Groundwater temperature (74.8 degrees F / 23.8 degrees C) and pH (5.9) were recorded in the field.

The groundwater sample collected during this sampling event indicated concentrations of total residual chlorine above the calculated WQBEL. Other analytes detected include chloride, total suspended solids and dissolved copper at concentrations below the Appendix III permissible discharge limits.

Laboratory analytical reports are included in Attachment C.



Receiving Water Characterization

Treated effluent will be discharged via a catch basin located on Warren Avenue. Discharge from the catch basin will occur through existing municipal storm sewer system into an unnamed wetland southwest of the site, located to the west of Warren Avenue. This area of wetland eventually discharges to Runnins River, farther to the west.

The owner of the public storm sewer system is being notified of the planned discharge. Permission is expected to be granted within approximately 2 weeks of the submittal of this application.

This area of wetland was sampled on August 8, 2019. The surface water sample was submitted to Con-Test Analytical Laboratory of East Longmeadow, MA for analysis of total metals and hardness via EPA Method 200.7, 200.8 and 3500, ammonia via EPA Method 4500-NH3. Receiving water analytical results are included as Attachment C. Temperature (58 degrees F / 14.44 degrees C) and pH (6.8) of the water in the wetland area were collected in the field.

Runnins River is listed on the Massachusetts 303(d) list under Category 5 Waters – "Waters requiring a TMDL." Impairment is listed for the following: Aquatic Macroinvertebrate Bioassessments, Escherichia coli, Fecal Coliform, Mercury in Fish Tissue, Nutrient / Eutrophication Biological Indicators, Dissolved Oxygen.

Proposed Treatment System

A Design Flow treatment system discharge rate of 150 gallons per minute (gpm) was used to evaluate the applicable RGP discharge standards. Extracted water from the excavation activities will be initially pumped into up to two 20,000-gallon fractionation tanks.

Following settling, extracted groundwater will be treated by passage through (at minimum) 50-micron particle filters, and through liquid-phase reactive carbon vessels. Flow will be measured using an in-line flowmeter and totalizer prior to the discharge into a catch basin and/or manhole connecting to the stormwater system on Warren Avenue.

Kleinfelder anticipates that the dewatering system will operate intermittently from approximately September, 2019 through July 2020. A Work Plan for the groundwater extraction and treatment systems satisfying the requirements of Section 2.5 of the RGP will be available at the Site prior to initiating dewatering activities. See Attachment B, Figure 4 for a Treatment System Schematic.

Notice of Intent

Preparation of this NOI has included a review of the literature pertaining to Areas of Critical Environmental Concern, (ACECs), the Endangered Species Act, and the National Historic Preservation Act:

- Review of the Massachusetts Geographic Information Systems MassDEP Priority Resources Map (Figure 5) in Attachment B shows the Site is not within an ACEC.
- An "informal consultation" with the Fish and Wildlife Service resulted in a consistency letter stating that any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the applicable regulations, the permit eligibility therefore meets "Criterion B". See Attachment E for a copy of the Fish and Wildlife Consistency Letter.



• This work will not affect historical properties that are listed by the United States Park Service or Massachusetts Cultural Resources. The Massachusetts Historical Commission's Massachusetts Cultural Resource Information System (MACRIS) listed 47 historic sites in Seekonk in the vicinity of Fall River Avenue and Warren Avenue. The closest is behind nearby property at 1495 Fall River Avenue, which is noted as an historic burial ground. Based on the nature of dewatering activity, it is unlikely that the discharge will affect this or any other federal or state-listed historical sites.

The proposed treatment system has been designed to reduce contaminants of concern below the applicable effluent limits. Effluent compliance monitoring will be conducted in compliance with the RGP. Additionally, the flow rate, pH, and temperature of the effluent will be monitoring in the field and recorded.

We appreciate your assistance in processing this Notice of Intent.

Should you have any questions regarding this correspondence, please do not hesitate to contact the undersigned at (617)497-7800.

Sincerely,

KLEINFELDER

Madeline Soule Staff Professional II Emily M. Straley Project Manager

Endy M. Study

cc: Mr. Matthew Young, Cumberland Farms, Inc. (file)

cc: Mr. David Cabral, Seekonk Department of Public Works (electronic)

cc: Cathy Vakalopoulos, Massachusetts Department of Environmental Protection, Surface

Water Discharge Permit Program, One Winter Street, 5th Floor, Boston, MA 02108

Attachment A – RGP NOI Form

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Attachment B – Figures

Figure 1 – Subject Property Location Map

Figure 2 – Site Plan and Proposed Construction

Figure 3 - NOI Figure

Figure 4 – Treatment System Schematic

Figure 5 – MassDEP Priority Resource Map

Attachment C – Laboratory Analytical Data

Attachment D - Fish and Wildlife Consistency Letter

Attachment E – Massachusetts Cultural Resources in Vicinity of Site

ATTACHMENT A RGP NOI Form

II. Suggested Format for the Remediation General Permit Notice of Intent (NOI)

A. General site information:

1. Name of site:	Site address:						
	Street:						
	City:		State:	Zip:			
2. Site owner	Contact Person:						
	Telephone:	Email:					
	Mailing address:						
	Street:						
Owner is (check one): ☐ Federal ☐ State/Tribal ☐ Private ☐ Other; if so, specify:	City:		State:	Zip:			
3. Site operator, if different than owner	Contact Person:						
	Telephone:	Email:					
	Mailing address:						
	Street:						
	City:		State:	Zip:			
4. NPDES permit number assigned by EPA:	5. Other regulatory program(s) that apply to the site (check all that apply):						
	☐ MA Chapter 21e; list RTN(s):	□ CERCL	LA				
NPDES permit is (check all that apply: \square RGP \square DGP \square CGP	☐ NH Groundwater Management Permit or	☐ UIC Program					
☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:	Groundwater Release Detection Permit:	□ POTW Pretreatment					
		☐ CWA Section 404					

В.	Receiving water information:	:
1 N	lame of receiving water(s).	

1. Name of receiving water(s):	Waterbody identification of receiving water	(s): Classific	cation of receiving water(s):					
Receiving water is (check any that apply): \Box Outstar	nding Resource Water □ Ocean Sanctuary □ territor	rial sea □ Wild and Scenic R	iver					
2. Has the operator attached a location map in accord	lance with the instructions in B, above? (check one)	: □ Yes □ No						
Are sensitive receptors present near the site? (check of If yes, specify:	one): □ Yes □ No							
3. Indicate if the receiving water(s) is listed in the Stapollutants indicated. Also, indicate if a final TMDL it 4.6 of the RGP.								
4. Indicate the seven day-ten-year low flow (7Q10) of the receiving water determined in accordance with the instructions in Appendix V for sites located in Massachusetts and Appendix VI for sites located in New Hampshire.								
5. Indicate the requested dilution factor for the calculaccordance with the instructions in Appendix V for s								
6. Has the operator received confirmation from the a If yes, indicate date confirmation received:	ppropriate State for the 7Q10and dilution factor indi	cated? (check one): ☐ Yes ☐	l No					
7. Has the operator attached a summary of receiving	water sampling results as required in Part 4.2 of the	RGP in accordance with the	instruction in Appendix VIII?					
(check one): ☐ Yes ☐ No								
C. Source water information:								
1. Source water(s) is (check any that apply):								
☐ Contaminated groundwater	☐ Contaminated surface water	☐ The receiving water	☐ Potable water; if so, indicate municipality or origin:					
Has the operator attached a summary of influent	Has the operator attached a summary of influent	☐ A surface water other						
sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one):	sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one):	than the receiving water; if so, indicate waterbody:	☐ Other; if so, specify:					
□ Yes □ No	□ Yes □ No							

2. Source water contaminants:						
a. For source waters that are contaminated groundwater or contaminated surface water, indicate are any contaminants present that are not included in	b. For a source water that is a surface water other than the receiving water, potable water or other, indicate any contaminants present at the maximum concentration in accordance					
the RGP? (check one): ☐ Yes ☐ No If yes, indicate the contaminant(s) and the maximum concentration present in accordance with the instructions in Appendix VIII.	? (check one): ☐ Yes ☐ No					
3. Has the source water been previously chlorinated or otherwise contains resid	dual chlorine? (check one): ☐ Yes ☐ No	9				
D. Discharge information		 detected. Water is groundwater and has not been chlorinated 				
1. The discharge(s) is a(n) (check any that apply): \Box Existing discharge \Box New	w discharge □ New source					
Outfall(s):	Outfall location(s): (Latitude, Lo.	ngitude)				
Discharges enter the receiving water(s) via (check any that apply): □ Direct di	ischarge to the receiving water Indirect	t discharge, if so, specify:				
☐ A private storm sewer system ☐ A municipal storm sewer system If the discharge enters the receiving water via a private or municipal storm sew	ver system:					
Has notification been provided to the owner of this system? (check one): \Box Ye	es □ No					
Has the operator has received permission from the owner to use such system for obtaining permission:	or discharges? (check one): ☐ Yes ☐ No	o, if so, explain, with an estimated timeframe for				
Has the operator attached a summary of any additional requirements the owner	r of this system has specified? (check one	e): Yes No				
Provide the expected start and end dates of discharge(s) (month/year):						
Indicate if the discharge is expected to occur over a duration of: \Box less than 1	2 months □ 12 months or more □ is an	emergency discharge				
Has the operator attached a site plan in accordance with the instructions in D, above? (check one): ☐ Yes ☐ No						

2. Activity Category: (check all that apply)	3. Contamination Type Category: (check all that apply)					
	a. If Activity Category I or II: (check all that apply)					
	 □ A. Inorganics □ B. Non-Halogenated Volatile Organic Compounds □ C. Halogenated Volatile Organic Compounds □ D. Non-Halogenated Semi-Volatile Organic Compounds □ E. Halogenated Semi-Volatile Organic Compounds □ F. Fuels Parameters 					
 □ I – Petroleum-Related Site Remediation □ II – Non-Petroleum-Related Site Remediation 	b. If Activity Category III, IV, V, VI, VII or VIII: (check either G or H)					
 □ III – Non-Petroleum-Related Site Remediation □ III – Contaminated Site Dewatering □ IV – Dewatering of Pipelines and Tanks □ V – Aquifer Pump Testing □ VI – Well Development/Rehabilitation □ VII – Collection Structure Dewatering/Remediation □ VIII – Dredge-Related Dewatering 	□ G. Sites with Known Contamination c. If Category III-G, IV-G, V-G, VI-G, VII-G or VIII-G: (check all that apply) □ A. Inorganics □ B. Non-Halogenated Volatile Organic Compounds □ C. Halogenated Volatile Organic Compounds □ D. Non-Halogenated Semi-Volatile Organic Compounds □ E. Halogenated Semi-Volatile Organic Compounds □ F. Fuels Parameters	□ H. Sites with Unknown Contamination d. If Category III-H, IV-H, V-H, VI-H, VII-H or VIII-H Contamination Type Categories A through F apply				

4. Influent and Effluent Characteristics

	Known	Known		_		Influent		Effluent Limitations	
Parameter	or believed absent	or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
A. Inorganics									
Ammonia								Report mg/L	
Chloride								Report µg/l	
Total Residual Chlorine								0.2 mg/L	
Total Suspended Solids								30 mg/L	
Antimony								206 μg/L	
Arsenic								104 μg/L	
Cadmium								10.2 μg/L	
Chromium III								323 μg/L	
Chromium VI								323 μg/L	
Copper								242 μg/L	
Iron								5,000 μg/L	
Lead								160 μg/L	
Mercury								0.739 μg/L	
Nickel								1,450 μg/L	
Selenium								235.8 μg/L	
Silver								35.1 μg/L	
Zinc								420 μg/L	
Cyanide								178 mg/L	
B. Non-Halogenated VOCs	3								
Total BTEX								100 μg/L	
Benzene								5.0 μg/L	
1,4 Dioxane								200 μg/L	
Acetone								7.97 mg/L	
Phenol								1,080 µg/L	

	Known	Known		_		Infl	luent	Effluent Lin	nitations
Parameter	or believed absent	or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
C. Halogenated VOCs									
Carbon Tetrachloride								4.4 μg/L	
1,2 Dichlorobenzene								600 μg/L	
1,3 Dichlorobenzene								320 µg/L	
1,4 Dichlorobenzene								5.0 μg/L	
Total dichlorobenzene								763 µg/L in NH	
1,1 Dichloroethane								70 μg/L	
1,2 Dichloroethane								5.0 μg/L	
1,1 Dichloroethylene								3.2 µg/L	
Ethylene Dibromide								0.05 μg/L	
Methylene Chloride								4.6 μg/L	
1,1,1 Trichloroethane								200 μg/L	
1,1,2 Trichloroethane								5.0 μg/L	
Trichloroethylene								5.0 μg/L	
Tetrachloroethylene								5.0 μg/L	
cis-1,2 Dichloroethylene								70 μg/L	
Vinyl Chloride								2.0 μg/L	
D. Non-Halogenated SVO	Cs	_							
Total Phthalates								190 μg/L	
Diethylhexyl phthalate								101 μg/L	
Total Group I PAHs								1.0 μg/L	
Benzo(a)anthracene								_	
Benzo(a)pyrene								_	
Benzo(b)fluoranthene								<u> </u>	
Benzo(k)fluoranthene								As Total PAHs	
Chrysene								_	
Dibenzo(a,h)anthracene								_	
Indeno(1,2,3-cd)pyrene									

	Known	Known				Inf	luent	Effluent Lin	nitations
Parameter	or believed absent	or or believed		Test method (#)	hod limit	Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
Total Group II PAHs								100 μg/L	
Naphthalene								20 μg/L	
E. Halogenated SVOCs									
Total PCBs								0.000064 µg/L	
Pentachlorophenol								1.0 μg/L	
	1			•					
F. Fuels Parameters Total Petroleum	<u> </u>	1	1	1		1 1		<u> </u>	
Hydrocarbons								5.0 mg/L	
Ethanol								Report mg/L	
Methyl-tert-Butyl Ether								70 μg/L	
tert-Butyl Alcohol								120 μg/L in MA 40 μg/L in NH	
tert-Amyl Methyl Ether								90 μg/L in MA 140 μg/L in NH	
Other (i.e., pH, temperatur	re, hardness,	salinity, LC	50, addition	al pollutar	ats present);	if so, specify:			

E. Treatment system information

1. Indicate the type(s) of treatment that will be applied to effluent prior to discharge: (check all that apply)					
□ Adsorption/Absorption □ Advanced Oxidation Processes □ Air Stripping □ Granulated Activated Carbon ("GAC")/Liquid Phase Carbon Adsorption					
☐ Ion Exchange ☐ Precipitation/Coagulation/Flocculation ☐ Separation/Filtration ☐ Other; if so, specify:					
2. Provide a written description of all treatment system(s) or processes that will be applied to the effluent prior to discharge.					
Identify each major treatment component (check any that apply):					
☐ Fractionation tanks☐ Equalization tank ☐ Oil/water separator ☐ Mechanical filter ☐ Media filter					
☐ Chemical feed tank ☐ Air stripping unit ☐ Bag filter ☐ Other; if so, specify:					
Indicate if either of the following will occur (check any that apply):					
□ Chlorination □ De-chlorination					
3. Provide the design flow capacity in gallons per minute (gpm) of the most limiting component.					
Indicate the most limiting component:					
Is use of a flow meter feasible? (check one): \square Yes \square No, if so, provide justification:					
Provide the proposed maximum effluent flow in gpm.					
Trovide the proposed maximum errident now in gpin.					
Provide the average effluent flow in gpm.					
If Activity Category IV applies, indicate the estimated total volume of water that will be discharged:					
4. Has the operator attached a schematic of flow in accordance with the instructions in E, above? (check one): ☐ Yes ☐ No					

F. Chemical and additive information

r. Chemical and additive information
1. Indicate the type(s) of chemical or additive that will be applied to effluent prior to discharge or that may otherwise be present in the discharge(s): (check all that apply)
□ Algaecides/biocides □ Antifoams □ Coagulants □ Corrosion/scale inhibitors □ Disinfectants □ Flocculants □ Neutralizing agents □ Oxidants □ Oxygen □
scavengers □ pH conditioners □ Bioremedial agents, including microbes □ Chlorine or chemicals containing chlorine □ Other; if so, specify:
2. Provide the following information for each chemical/additive, using attachments, if necessary:
a. Product name, chemical formula, and manufacturer of the chemical/additive; b. Purpose or use of the chemical/additive or remedial agent; c. Material Safety Data Sheet (MSDS) and Chemical Abstracts Service (CAS) Registry number for each chemical/additive; d. The frequency (hourly, daily, etc.), duration (hours, days), quantity (maximum and average), and method of application for the chemical/additive; e. Any material compatibility risks for storage and/or use including the control measures used to minimize such risks; and f. If available, the vendor's reported aquatic toxicity (NOAEL and/or LC50 in percent for aquatic organism(s)).
3. Has the operator attached an explanation which demonstrates that the addition of such chemicals/additives may be authorized under this general permit in accordance
with the instructions in F, above? (check one): \square Yes \square No; if no, has the operator attached data that demonstrates each of the 126 priority pollutants in CWA Section 307(a) and 40 CFR Part 423.15(j)(1) are non-detect in discharges with the addition of the proposed chemical/additive? (check one): \square Yes \square No \square N/A
G. Endangered Species Act eligibility determination
1. Indicate under which criterion the discharge(s) is eligible for coverage under this general permit:
□ FWS Criterion A : No endangered or threatened species or critical habitat are in proximity to the discharges or related activities or come in contact with the "action area".
□ FWS Criterion B : Formal or informal consultation with the FWS under section 7 of the ESA resulted in either a no jeopardy opinion (formal consultation) or a written concurrence by FWS on a finding that the discharges and related activities are "not likely to adversely affect" listed species or critical habitat (informal consultation). Has the operator completed consultation with FWS? (check one): □ Yes □ No; if no, is consultation underway? (check one): □
Yes □ No
□ FWS Criterion C : Using the best scientific and commercial data available, the effect of the discharges and related activities on listed species and critical habitat have been evaluated. Based on those evaluations, a determination is made by EPA, or by the operator and affirmed by EPA, that the discharges and related activities will have "no effect" on any federally threatened or endangered listed species or designated critical habitat under the jurisdiction of the
FWS. This determination was made by: (check one) \square the operator \square EPA \square Other; if so, specify:

□ NMFS Criterion : A determination made by EPA is affirmed by the operator that the discharges and related activities will have "no effect" or are "not likely to adversely affect" any federally threatened or endangered listed species or critical habitat under the jurisdiction of NMFS and will not result in any take of
listed species. Has the operator previously completed consultation with NMFS? (check one): ☐ Yes ☐ No
2. Has the operator attached supporting documentation of ESA eligibility in accordance with the instructions in Appendix I, and G, above? (check one): \square Yes \square No
Does the supporting documentation include any written concurrence or finding provided by the Services? (check one): ☐ Yes ☐ No; if yes, attach.
H. National Historic Preservation Act eligibility determination
1. Indicate under which criterion the discharge(s) is eligible for coverage under this general permit:
□ Criterion A : No historic properties are present. The discharges and discharge-related activities (e.g., BMPs) do not have the potential to cause effects on historic properties.
☐ Criterion B: Historic properties are present. Discharges and discharge related activities do not have the potential to cause effects on historic properties.
□ Criterion C : Historic properties are present. The discharges and discharge-related activities have the potential to have an effect or will have an adverse effect on historic properties.
2. Has the operator attached supporting documentation of NHPA eligibility in accordance with the instructions in H, above? (check one): ☐ Yes ☐ No
Does the supporting documentation include any written agreement with the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (TPHO), or
other tribal representative that outlines measures the operator will carry out to mitigate or prevent any adverse effects on historic properties? (check one): \Box Yes \Box No
I. Supplemental information
Describe any supplemental information being provided with the NOI. Include attachments if required or otherwise necessary.
Has the operator attached data, including any laboratory case narrative and chain of custody used to support the application? (check one): ☐ Yes ☐ No
Has the operator attached the certification requirement for the Best Management Practices Plan (BMPP)? (check one): ☐ Yes ☐ No

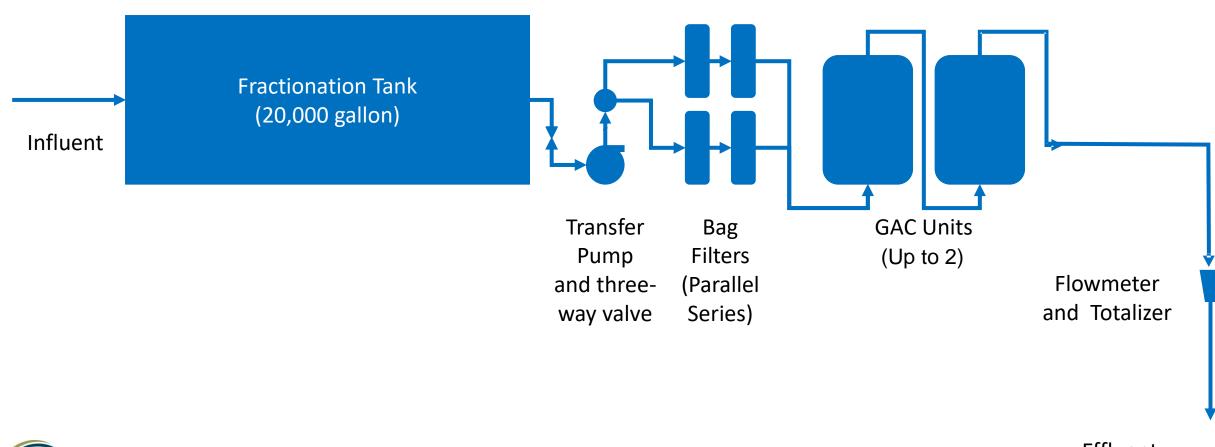
J. Certification requirement

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.							
BMPP certification statement:							
Notification provided to the appropriate State, including a copy of this NOI, if required.	Check one: Yes □	No □					
Notification provided to the municipality in which the discharge is located, including a copy of this NOI, if requested.	Check one: Yes □	No □					
Notification 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 NOI, if requested. Permission obtained from the owner of a private or municipal storm sewer system, if such system is used for site	Check one: Yes □	No □ NA □					
discharges. If yes, attach additional conditions. If no, attach explanation and timeframe for obtaining permission.	Check one: Yes □	No □ NA □					
Notification provided to the owner/operator of the area associated with activities covered by an additional discharge							
$permit(s). \ Additional \ discharge \ permit \ is \ (check \ one): \ \Box \ RGP \ \Box \ DGP \ \Box \ CGP \ \Box \ MSGP \ \ \Box \ Individual \ NPDES \ permit$	Check one: Yes □	No \square NA \square					
☐ Other; if so, specify:							
Signature: Matthew D. Young Day	te:						
Print Name and Title:							

ATTACHMENT B

Figures

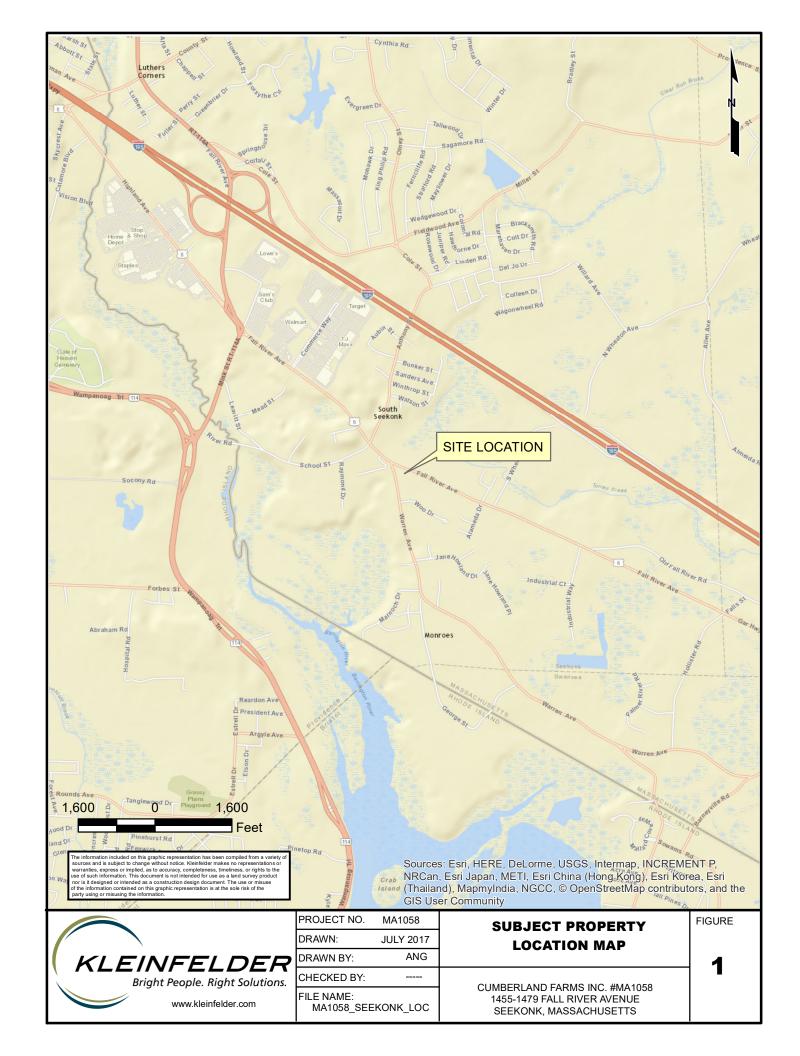
Figure 4 Proposed Treatment System Schematic

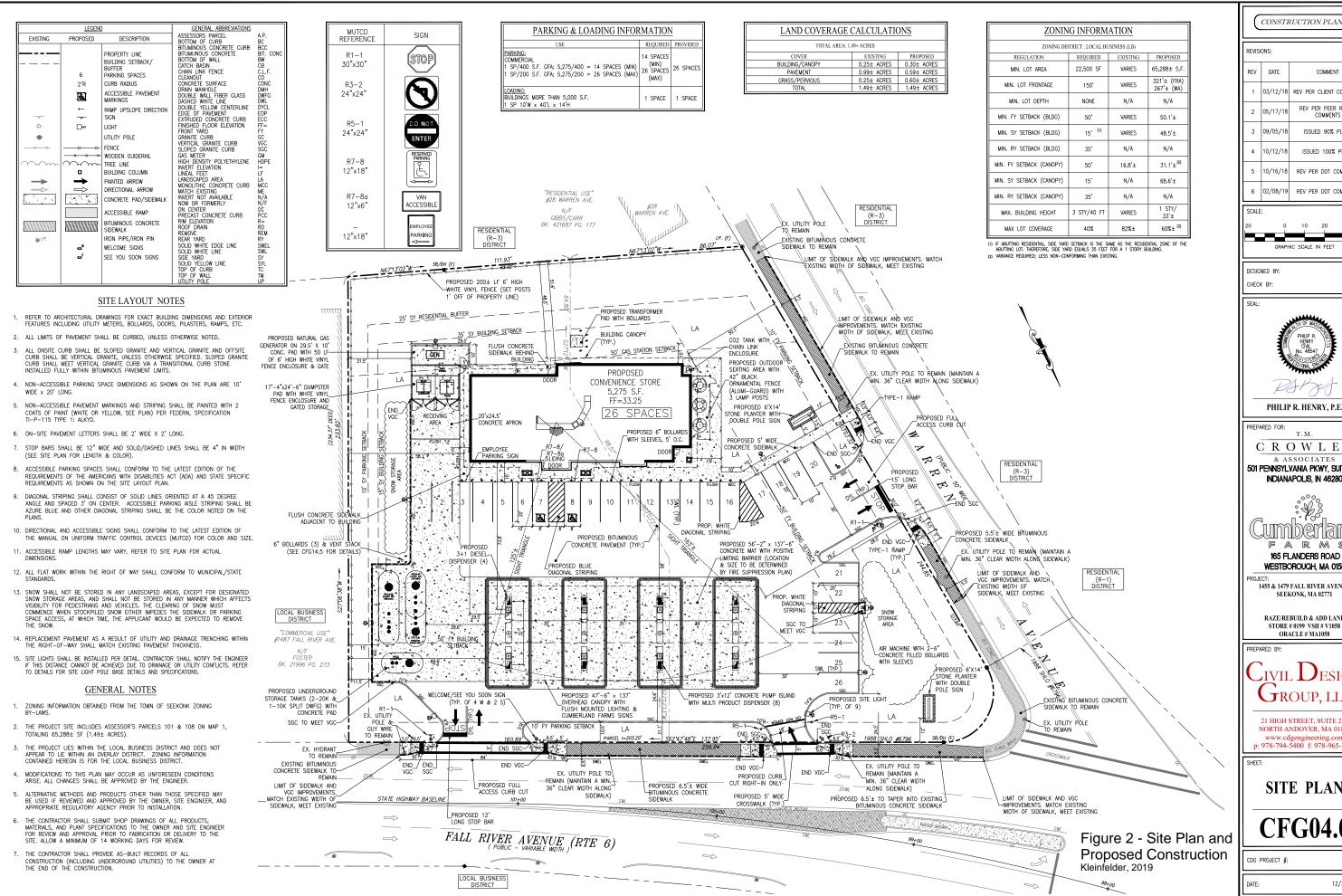




Effluent

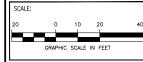
MassDEP - Bureau of Waste Site Cleanup Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii Site Information: 1455 FALL RIVER AVE SEEKONK, MA NAD83 UTM Meters: 4628681mN , 307454mE (Zone: 19) September 3, 2019 BUNKER STREET SANDERS AVENU 500 m 1000 ft Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail PWS Protection Areas: Zone II, IWPA, Zone A Hydrography: Open Water, PWS Reservoir, Tidal Flat Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct Wetlands: Freshwater, Saltwater, Cranberry Bog Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam FEMA 100yr Floodplain; Protected Open Space; ACEC _ Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential 🌉 🥦 Aquifers: Medium Yield, High Yield, EPA Sole Source..... Solid Waste Landfill; PWS: Com.GW,SW, Emerg., Non-Com. 🏻 😂 🧿 🤩 🔵 Non Potential Drinking Water Source Area: Medium, High (Yield)....





CONSTRUCTION PLANS

COMMENT 03/12/18 REV PER CLIENT COMMENTS REV PER PEER REVIEW ISSUED 90% PLANS ISSUED 100% PLANS REV PER DOT COMMENTS 6 02/08/19 REV PER DOT COMMENTS





CROWLEY & ASSOCIATES 501 PENNSYLVANIA PKWY, SUITE 160 INDIANAPOLIS, IN 46280



1455 & 1479 FALL RIVER AVENUE SEEKONK, MA 02771

RAZE/REBUILD & ADD LAND STORE # 0199 VSH # V1058 ORACLE # MA1058

CIVIL ${f D}$ ESIGN TROUP, LLC

> 21 HIGH STREET, SUITE 207 NORTH ANDOVER MA 01845 www.cdgengineering.com p: 978-794-5400 f: 978-965-3971

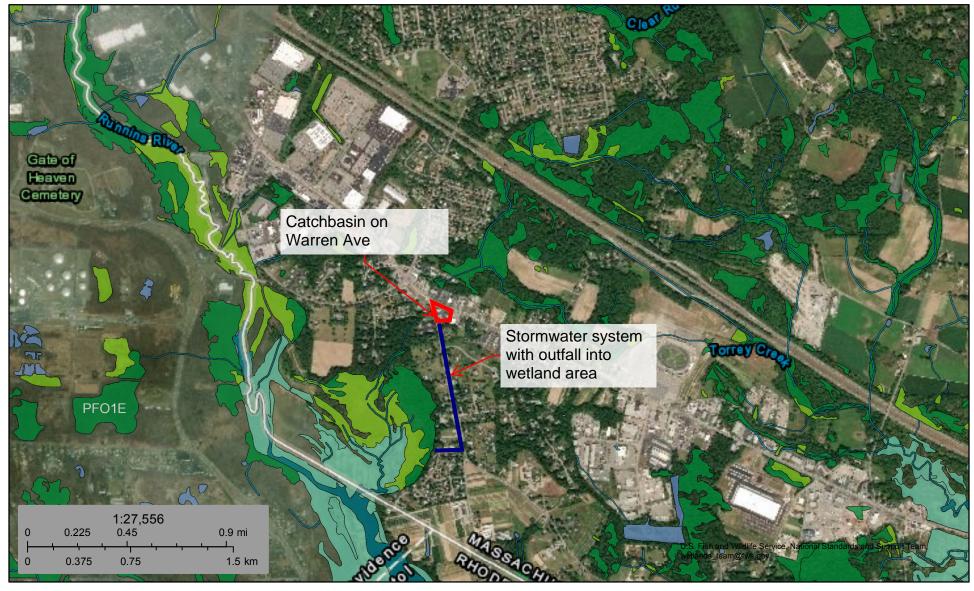
SITE PLAN

CFG04.0

17038 12/22/201

U.S. Fish and Wildlife Service **National Wetlands Inventory**

Figure 3 - NOI Figure



September 3, 2019

Wetlands

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Lake

Other

Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

ATTACHMENT C

Laboratory Analytical Data

August 20, 2019

Madeline Soule Kleinfelder - Cambridge, MA 1 Beacon Street, Suite 8100 Boston, MA 02108

Project Location: 1479 Fall River Ave., Seekonk, MA

Client Job Number: Project Number: [none]

Laboratory Work Order Number: 19H0483

Enclosed are results of analyses for samples received by the laboratory on August 8, 2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano Project Manager

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Kleinfelder - Cambridge, MA 1 Beacon Street, Suite 8100 Boston, MA 02108 ATTN: Madeline Soule

PURCHASE ORDER NUMBER:

REPORT DATE: 8/20/2019

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 19H0483

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

PROJECT LOCATION: 1479 Fall River Ave., Seekonk, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MW-301	19Н0483-01	Ground Water		121,4500CN-CE	MA M-MA-086/CT PH-0574/NY11148
				121,4500NH3-BH	MA M-MA-086/CT PH-0574/NY11148
				608.3	
				624.1	
				625.1	
				EPA 1664B	
				EPA 200.7	
				EPA 200.8	
				EPA 245.1	
				EPA 300.0	
				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	
				SM21-22 4500 CN E	MA M-MA-086/CT PH-0574/NY11148
				SW-846 8270D	
				Tri Chrome Calc.	



CASE NARRATIVE SUMMARY

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



625.1

Qualifications:

V-04

Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated. Analyte & Samples(s) Qualified:

Benzidine

S039171-CCV1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:

Benzidine

S039171-CCV1

V-06

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

Analyte & Samples(s) Qualified:

Pentachlorophenol (SIM)

B238008-BLK1, B238008-BS1, B238008-BSD1, S039369-CCV1

V-35

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is

estimated.
Analyte & Samples(s) Qualified:

Benzidine

S039171-CCV1

Z-01a

This compound was calibrated using non-linear calibration.

Analyte & Samples(s) Qualified:

Pentachlorophenol (SIM)

19H0483-01[MW-301], B238008-BLK1, B238008-BS1, B238008-BSD1, S039323-CCV1, S039369-CCV1

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

B237683-BS1

R-04

Duplicate relative percent difference (RPD) is a less useful indicator of sample precision for sample results that are <5 times the reporting

Analyte & Samples(s) Qualified:

Copper

19H0483-01[MW-301], B238151-DUP1

EPA 300.0

Qualifications:

MS-19

Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

Analyte & Samples(s) Qualified:

Chloride

19H0483-01[MW-301], B237695-MS1

SM21-22 4500 CL G

Qualifications:



Z-01

SM 4500 test had calibration points outside of acceptable back-calculated recoveries. Reanalysis yielded similar results.

Analyte & Samples(s) Qualified:

Chlorine, Residual

19H0483-01[MW-301], B237631-BLK1, B237631-BS1, B237631-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
Technical Representative



Project Location: 1479 Fall River Ave., Seekonk, M Sample Description: Work Order: 19H0483

Date Received: 8/8/2019

Field Sample #: MW-301 Sampled: 8/8/2019 14:20

Sample ID: 19H0483-01
Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzene	<1.00	1.00	0.180	μg/L	1		624.1	8/9/19	8/9/19 9:57	MFF
Bromodichloromethane	<2.00	2.00	0.160	μg/L	1		624.1	8/9/19	8/9/19 9:57	MFF
Bromoform	< 2.00	2.00	0.460	μg/L	1		624.1	8/9/19	8/9/19 9:57	MFF
Bromomethane	< 2.00	2.00	0.780	μg/L	1		624.1	8/9/19	8/9/19 9:57	MFF
Carbon Tetrachloride	<2.00	2.00	0.110	μg/L	1		624.1	8/9/19	8/9/19 9:57	MFF
Chlorobenzene	<2.00	2.00	0.150	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
Chlorodibromomethane	<2.00	2.00	0.210	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
Chloroethane	<2.00	2.00	0.350	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
Chloroform	<2.00	2.00	0.170	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
Chloromethane	<2.00	2.00	0.450	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
1,2-Dichlorobenzene	< 2.00	2.00	0.160	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
1,3-Dichlorobenzene	< 2.00	2.00	0.120	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
1,4-Dichlorobenzene	< 2.00	2.00	0.130	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
1,2-Dichloroethane	< 2.00	2.00	0.410	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
1,1-Dichloroethane	< 2.00	2.00	0.160	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
1,1-Dichloroethylene	< 2.00	2.00	0.320	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
trans-1,2-Dichloroethylene	< 2.00	2.00	0.310	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
1,2-Dichloropropane	< 2.00	2.00	0.200	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
cis-1,3-Dichloropropene	< 2.00	2.00	0.130	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
trans-1,3-Dichloropropene	< 2.00	2.00	0.230	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
Ethanol	<50.0	50.0	27.9	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
Ethylbenzene	< 2.00	2.00	0.130	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
Methyl tert-Butyl Ether (MTBE)	< 2.00	2.00	0.250	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
Methylene Chloride	< 5.00	5.00	0.340	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
1,1,2,2-Tetrachloroethane	< 2.00	2.00	0.220	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
Tetrachloroethylene	< 2.00	2.00	0.180	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
Toluene	<1.00	1.00	0.140	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
1,1,1-Trichloroethane	< 2.00	2.00	0.200	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
1,1,2-Trichloroethane	< 2.00	2.00	0.160	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
Trichloroethylene	< 2.00	2.00	0.240	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
Trichlorofluoromethane (Freon 11)	< 2.00	2.00	0.330	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
Vinyl Chloride	< 2.00	2.00	0.450	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
m+p Xylene	< 2.00	2.00	0.300	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
o-Xylene	<2.00	2.00	0.170	$\mu g/L$	1		624.1	8/9/19	8/9/19 9:57	MFF
Surrogates		% Reco	very	Recovery Limits	3	Flag/Qual				
1,2-Dichloroethane-d4		105		70-130					8/9/19 9:57	



Project Location: 1479 Fall River Ave., Seekonk, M Sample Description: Work Order: 19H0483

Date Received: 8/8/2019

Field Sample #: MW-301 Sampled: 8/8/2019 14:20

Sample ID: 19H0483-01
Sample Matrix: Ground Water

			_						
							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Benzo(a)anthracene (SIM)	< 0.049	0.049	μg/L	1		625.1	8/13/19	8/19/19 11:48	CLA
Benzo(a)pyrene (SIM)	< 0.097	0.097	μg/L	1		625.1	8/13/19	8/19/19 11:48	CLA
Benzo(b)fluoranthene (SIM)	< 0.049	0.049	μg/L	1		625.1	8/13/19	8/19/19 11:48	CLA
Benzo(k)fluoranthene (SIM)	< 0.19	0.19	μg/L	1		625.1	8/13/19	8/19/19 11:48	CLA
Bis(2-ethylhexyl)phthalate (SIM)	< 0.97	0.97	μg/L	1		625.1	8/13/19	8/19/19 11:48	CLA
Chrysene (SIM)	< 0.19	0.19	μg/L	1		625.1	8/13/19	8/19/19 11:48	CLA
Dibenz(a,h)anthracene (SIM)	< 0.19	0.19	μg/L	1		625.1	8/13/19	8/19/19 11:48	CLA
Indeno(1,2,3-cd)pyrene (SIM)	< 0.19	0.19	μg/L	1		625.1	8/13/19	8/19/19 11:48	CLA
Pentachlorophenol (SIM)	< 0.97	0.97	μg/L	1	Z-01a	625.1	8/13/19	8/19/19 11:48	CLA
Surrogates		% Recovery	Recovery Limits	s	Flag/Qual				
2-Fluorophenol (SIM)		58.0	15-110					8/19/19 11:48	
Phenol-d6 (SIM)		44.3	15-110					8/19/19 11:48	
Nitrobenzene-d5 (SIM)		102	30-130					8/19/19 11:48	
2-Fluorobiphenyl (SIM)		69.9	30-130					8/19/19 11:48	
2,4,6-Tribromophenol (SIM)		106	15-110					8/19/19 11:48	
p-Terphenyl-d14 (SIM)		80.3	30-130					8/19/19 11:48	



Project Location: 1479 Fall River Ave., Seekonk, M Sample Description: Work Order: 19H0483

Date Received: 8/8/2019

Field Sample #: MW-301 Sampled: 8/8/2019 14:20

Sample ID: 19H0483-01
Sample Matrix: Ground Water

	~	omene organic cor	npounds by	00/1120				
						Date	Date/Time	
Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analys
<4.85	4.85	μg/L	1		625.1	8/13/19	8/16/19 14:26	BGL
<4.85	4.85	$\mu g/L$	1		625.1	8/13/19	8/16/19 14:26	BGL
<4.85	4.85	$\mu g/L$	1		625.1	8/13/19	8/16/19 14:26	BGL
<4.85	4.85	$\mu g/L$	1		625.1	8/13/19	8/16/19 14:26	BGL
<9.71	9.71	$\mu g/L$	1		625.1	8/13/19	8/16/19 14:26	BGL
<9.71	9.71	$\mu g/L$	1		625.1	8/13/19	8/16/19 14:26	BGL
<9.71	9.71	$\mu g/L$	1		625.1	8/13/19	8/16/19 14:26	BGL
<9.71	9.71	$\mu g/L$	1		625.1	8/13/19	8/16/19 14:26	BGL
<9.71	9.71	$\mu g/L$	1		625.1	8/13/19	8/16/19 14:26	BGL
<9.71	9.71	$\mu g/L$	1		625.1	8/13/19	8/16/19 14:26	BGL
<4.85	4.85	$\mu g/L$	1		625.1	8/13/19	8/16/19 14:26	BGL
<4.85	4.85	$\mu g/L$	1		625.1	8/13/19	8/16/19 14:26	BGL
<4.85	4.85	$\mu g/L$	1		625.1	8/13/19	8/16/19 14:26	BGL
<4.85	4.85	μg/L	1		625.1	8/13/19	8/16/19 14:26	BGL
<4.85	4.85	$\mu g/L$	1		625.1	8/13/19	8/16/19 14:26	BGL
	% Recovery	Recovery Limits	1	Flag/Qual				
	46.7	15-110					8/16/19 14:26	
	33.8	15-110					8/16/19 14:26	
	71.0	30-130					8/16/19 14:26	
	75.8	30-130					8/16/19 14:26	
	78.5	15-110					8/16/19 14:26	
	81.7	30-130					8/16/19 14:26	
	<4.85 <4.85 <4.85 <4.85 <4.85 <9.71 <9.71 <9.71 <9.71 <9.71 <4.85 <4.85 <4.85 <4.85	Results RL <4.85	Results RL Units <4.85	Results RL Units Dilution <4.85	<4.85	Results RL Units Dilution Flag/Qual Method <4.85	Results RL Units Dilution Flag/Qual Method Prepared <4.85	Results RL Units Dilution Flag/Qual Method Prepared Prepared Analyzed <4.85



Project Location: 1479 Fall River Ave., Seekonk, M Sample Description: Work Order: 19H0483

Date Received: 8/8/2019

Field Sample #: MW-301 Sampled: 8/8/2019 14:20

Sample ID: 19H0483-01
Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

								Date	Date/Time	
	Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
1,4-Dioxane		ND	0.19	μg/L	1		SW-846 8270D	8/13/19	8/16/19 14:15	CLA
	Surrogates		% Recovery	Recovery Limit	s	Flag/Qual				
1,4-Dioxane-d8			24.1	15-110					8/16/19 14:15	

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Project Location: 1479 Fall River Ave., Seekonk, M Sample Description: Work Order: 19H0483

Date Received: 8/8/2019

Field Sample #: MW-301 Sampled: 8/8/2019 14:20

Sample ID: 19H0483-01
Sample Matrix: Ground Water

Polych	larinatad	Rinhanyle	By GC/ECD

								Date	Date/Time	
Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Aroclor-1016 [1]	< 0.0971	0.0971	0.0893	$\mu g/L$	1		608.3	8/14/19	8/20/19 8:21	TG
Aroclor-1221 [1]	< 0.0971	0.0971	0.0782	$\mu g/L$	1		608.3	8/14/19	8/20/19 8:21	TG
Aroclor-1232 [1]	< 0.0971	0.0971	0.0966	$\mu g/L$	1		608.3	8/14/19	8/20/19 8:21	TG
Aroclor-1242 [1]	< 0.0971	0.0971	0.0840	$\mu g/L$	1		608.3	8/14/19	8/20/19 8:21	TG
Aroclor-1248 [1]	< 0.0971	0.0971	0.0922	$\mu g/L$	1		608.3	8/14/19	8/20/19 8:21	TG
Aroclor-1254 [1]	< 0.0971	0.0971	0.0510	$\mu g/L$	1		608.3	8/14/19	8/20/19 8:21	TG
Aroclor-1260 [1]	< 0.0971	0.0971	0.0951	$\mu g/L$	1		608.3	8/14/19	8/20/19 8:21	TG

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	75.7	30-150		8/20/19 8:21
Decachlorobiphenyl [2]	87.5	30-150		8/20/19 8:21
Tetrachloro-m-xylene [1]	64.6	30-150		8/20/19 8:21
Tetrachloro-m-xylene [2]	68.5	30-150		8/20/19 8:21



Project Location: 1479 Fall River Ave., Seekonk, M Sample Description: Work Order: 19H0483

Date Received: 8/8/2019

Field Sample #: MW-301 Sampled: 8/8/2019 14:20

Sample ID: 19H0483-01
Sample Matrix: Ground Water

Metals Analyses (Total)

								Date	Date/Time	
Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Antimony	ND	1.0		μg/L	1		EPA 200.8	8/9/19	8/12/19 12:35	МЈН
Arsenic	ND	0.80		$\mu g/L$	1		EPA 200.8	8/9/19	8/12/19 12:35	MJH
Cadmium	ND	0.20		$\mu g/L$	1		EPA 200.8	8/9/19	8/12/19 12:35	MJH
Chromium	ND	1.0		$\mu g/L$	1		EPA 200.8	8/9/19	8/12/19 12:35	MJH
Chromium, Trivalent	0.0			mg/L	1		Tri Chrome Calc.	8/9/19	8/12/19 13:10	MJH
Copper	ND	1.0		$\mu g/L$	1		EPA 200.8	8/9/19	8/12/19 12:35	MJH
Iron	ND	0.050		mg/L	1		EPA 200.7	8/10/19	8/12/19 15:48	MJH
Lead	ND	0.50		μg/L	1		EPA 200.8	8/9/19	8/12/19 12:35	MJH
Mercury	ND	0.00010		mg/L	1		EPA 245.1	8/9/19	8/9/19 12:48	AJL
Nickel	ND	5.0		μg/L	1		EPA 200.8	8/9/19	8/12/19 12:35	MJH
Selenium	ND	5.0	1.6	$\mu g/L$	1		EPA 200.8	8/9/19	8/12/19 12:35	MJH
Silver	ND	0.20		μg/L	1		EPA 200.8	8/9/19	8/12/19 12:35	MJH
Zinc	ND	10		μg/L	1		EPA 200.8	8/9/19	8/12/19 12:35	MJH
Hardness	25			mg/L	1		EPA 200.7	8/10/19	8/12/19 15:48	MJH



Project Location: 1479 Fall River Ave., Seekonk, M Sample Description: Work Order: 19H0483

Date Received: 8/8/2019

Field Sample #: MW-301 Sampled: 8/8/2019 14:20

Sample ID: 19H0483-01
Sample Matrix: Ground Water

Metals Analyses (Dissolved)

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	8/15/19	8/16/19 11:54	QNW
Arsenic	ND	0.80		μg/L	1		EPA 200.8	8/15/19	8/16/19 11:54	QNW
Cadmium	ND	0.20		μg/L	1		EPA 200.8	8/15/19	8/16/19 11:54	QNW
Chromium	ND	1.0		μg/L	1		EPA 200.8	8/15/19	8/16/19 11:54	QNW
Chromium, Trivalent	0.0			mg/L	1		Tri Chrome Calc.	8/15/19	8/16/19 11:54	QNW
Copper	1.4	1.0		μg/L	1	R-04	EPA 200.8	8/15/19	8/16/19 11:54	QNW
Iron	ND	0.050		mg/L	1		EPA 200.7	8/14/19	8/15/19 20:34	MJH
Lead	ND	0.50		μg/L	1		EPA 200.8	8/15/19	8/16/19 11:54	QNW
Mercury	ND	0.00010		mg/L	1		EPA 245.1	8/16/19	8/17/19 13:35	AJL
Nickel	ND	5.0		μg/L	1		EPA 200.8	8/15/19	8/16/19 11:54	QNW
Selenium	ND	5.0	1.6	μg/L	1		EPA 200.8	8/15/19	8/16/19 11:54	QNW
Silver	ND	0.20		μg/L	1		EPA 200.8	8/15/19	8/16/19 11:54	QNW
Zinc	ND	10		μg/L	1		EPA 200.8	8/15/19	8/16/19 11:54	QNW



Project Location: 1479 Fall River Ave., Seekonk, M Sample Description: Work Order: 19H0483

Date Received: 8/8/2019

Field Sample #: MW-301 Sampled: 8/8/2019 14:20

Sample ID: 19H0483-01
Sample Matrix: Ground Water

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

								Date	Date/Time	
Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Chloride	110	5.0		mg/L	5	MS-19	EPA 300.0	8/9/19	8/10/19 21:49	MMH
Chlorine, Residual	0.026	0.020		mg/L	1	Z-01	SM21-22 4500 CL G	8/8/19	8/8/19 22:35	MJG
Hexavalent Chromium	ND	0.0040		mg/L	1		SM21-22 3500 Cr B	8/8/19	8/8/19 22:50	MJG
Total Suspended Solids	2.9	0.67		mg/L	1		SM21-22 2540D	8/12/19	8/12/19 12:30	LL
Silica Gel Treated HEM (SGT-HEM)	ND	1.6		mg/L	1		EPA 1664B	8/12/19	8/12/19 10:30	LL



Project Location: 1479 Fall River Ave., Seekonk, M Sample Description: Work Order: 19H0483

Date Received: 8/8/2019

Field Sample #: MW-301 Sampled: 8/8/2019 14:20

Sample ID: 19H0483-01
Sample Matrix: Ground Water

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

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Hexavalent Chromium	ND	0.0040	mg/L	1		SM21-22 3500 Cr B	8/8/19	8/8/19 22:50	MJG



Project Location: 1479 Fall River Ave., Seekonk, M Sample Description: Work Order: 19H0483

Date Received: 8/8/2019

Field Sample #: MW-301 Sampled: 8/8/2019 14:20

Sample ID: 19H0483-01
Sample Matrix: Ground Water

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

									Date	Date/Time	
	Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Ammonia as N		ND	0.075	0.024	mg/L	1		121,4500NH3-BH		8/12/19 22:13	SAL
Cyanide		ND	0.005	0.001	mg/L	1		121.4500CN-CE		8/12/19 10:44	SAL



Lab Number [Field ID]

19H0483-01 [MW-301]

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

Sample Extraction Data

Prep Method: SW-846 3510C-608.3					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
9H0483-01 [MW-301]	B238003	1030	5.00	08/14/19	
Prep Method: SW-846 5030B-624.1					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
19H0483-01 [MW-301]	B237607	5	5.00	08/09/19	
Prep Method: SW-846 3510C-625.1					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
19H0483-01 [MW-301]	B237908	1030	1.00	08/13/19	
Prep Method: SW-846 3510C-625.1					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
19H0483-01 [MW-301]	B238008	1030	1.00	08/13/19	
EPA 1664B					
Lab Number [Field ID]	Batch	Initial [mL]		Date	
9H0483-01 [MW-301]	B237765	900		08/12/19	
Prep Method: EPA 200.7-EPA 200.7					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
19H0483-01 [MW-301]	B237743	50.0	50.0	08/10/19	
19H0483-01 [MW-301]	B237743	50.0		08/10/19	
Prep Method: EPA 200.7 Dissolved-EPA 200.7					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
9H0483-01 [MW-301]	B238061	5.00	5.00	08/14/19	
Prep Method: EPA 200.8-EPA 200.8					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
19H0483-01 [MW-301]	B237683	50.0	50.0	08/09/19	

Batch

B238151

Initial [mL]

50.0

Final [mL]

50.0

Date 08/15/19



Sample Extraction Data

Prep Method:	EPA 245.	I-EPA 245.1
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19H0483-01 [MW-301]

Prep Method: EPA 245.1-EPA 245.1					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
19H0483-01 [MW-301]	B237636	6.00	6.00	08/09/19	
Prep Method: EPA 245.1 Dissolved-EPA 245.1					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
19H0483-01 [MW-301]	B238265	6.00	6.00	08/16/19	
Prep Method: EPA 300.0-EPA 300.0					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
19H0483-01 [MW-301]	B237695	10.0	10.0	08/09/19	
SM21-22 2540D					
Lab Number [Field ID]	Batch	Initial [mL]		Date	
19H0483-01 [MW-301]	B237771	750		08/12/19	
SM21-22 3500 Cr B					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
19H0483-01 [MW-301]	B237632	50.0	50.0	08/08/19	
SM21-22 3500 Cr B					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
19H0483-01 [MW-301]	B237633	50.0	50.0	08/08/19	
SM21-22 4500 CL G					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
19H0483-01 [MW-301]	B237631	100	100	08/08/19	
Prep Method: SW-846 3510C-SW-846 8270D					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
19H0483-01 [MW-301]	B237852	1040	1.00	08/13/19	
Prep Method: EPA 200.8-Tri Chrome Calc.					
Lab Number [Field ID]	Batch	Initial [mL]		Date	
					

B237683

50.0

08/09/19



Sample Extraction Data

$\label{eq:PrepMethod$

Lab Number [Field ID]	Batch	Initial [mL]	Date
19H0483-01 [MW-301]	B238151	50.0	08/15/19



QUALITY CONTROL

Spike

Source

%REC

RPD

Volatile Organic Compounds by GC/MS - Quality Control

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	%REC Limits	RPD	Limit	Notes
Satch B237607 - SW-846 5030B										
Blank (B237607-BLK1)				Prepared &	Analyzed: 08	/09/19				
cetone	ND	50.0	$\mu \text{g/L}$							
ert-Amyl Methyl Ether (TAME)	ND	0.500	$\mu g/L$							
Benzene	ND	1.00	μg/L							
ert-Butyl Alcohol (TBA)	ND	20.0	μg/L							
Carbon Tetrachloride	ND	2.00	$\mu g/L$							
,2-Dichlorobenzene	ND	2.00	μg/L							
,3-Dichlorobenzene	ND	2.00	μg/L							
,4-Dichlorobenzene	ND	2.00	μg/L							
,2-Dichloroethane	ND	2.00	μg/L							
is-1,2-Dichloroethylene	ND	1.00	μg/L							
1-Dichloroethane	ND	2.00	μg/L							
1-Dichloroethylene	ND	2.00	μg/L							
4-Dioxane	ND	50.0	μg/L							
thanol	ND	50.0	μg/L							
thylbenzene	ND	2.00	μg/L							
Methyl tert-Butyl Ether (MTBE)	ND	2.00	μg/L							
lethylene Chloride	ND	5.00	μg/L							
etrachloroethylene	ND	2.00	μg/L							
bluene	ND	1.00	μg/L							
1,1-Trichloroethane	ND	2.00	μg/L							
1,2-Trichloroethane	ND	2.00	μg/L							
richloroethylene	ND	2.00	μg/L							
inyl Chloride	ND	2.00	μg/L							
+p Xylene -Xylene	ND	2.00 2.00	μg/L μg/L							
urrogate: 1,2-Dichloroethane-d4	ND 26.1	2.00		25.0		104	70-130			
urrogate: 1,2-Dichloroethane-d4 urrogate: Toluene-d8	26.1 24.6		μg/L μg/L	25.0		98.5	70-130			
urrogate: 4-Bromofluorobenzene	24.0		μg/L μg/L	25.0		95.9	70-130			
_	27.0		μg/L				70 130			
CS (B237607-BS1)		50.0	/T		Analyzed: 08		70.160			
cetone	220	50.0	μg/L	200		108	70-160			
rt-Amyl Methyl Ether (TAME)	21	0.500	μg/L	20.0		103	70-130			
enzene	22	1.00	μg/L	20.0		109	65-135			
rt-Butyl Alcohol (TBA) arbon Tetrachloride	190	20.0	μg/L μg/I	200		95.7	40-160			
2-Dichlorobenzene	20	2.00 2.00	μg/L μg/I	20.0		101	70-130			
3-Dichlorobenzene	21	2.00	μg/L μg/I	20.0		107	65-135			
4-Dichlorobenzene	22	2.00	μg/L μg/I	20.0		108	70-130 65 135			
2-Dichloroethane	21	2.00	μg/L μg/I	20.0		105	65-135			
is-1,2-Dichloroethylene	22	1.00	μg/L μg/I	20.0		108	70-130			
1-Dichloroethane	22	2.00	μg/L μg/L	20.0 20.0		112 107	70-130 70-130			
1-Dichloroethylene	21 22	2.00	μg/L μg/L	20.0		111	50-150			
4-Dioxane	210	50.0	μg/L μg/L	20.0		106	40-130			
thanol	210	50.0	μg/L μg/L	200		100	40-150			
thylbenzene	21	2.00	μg/L μg/L	20.0		109	60-140			
lethyl tert-Butyl Ether (MTBE)	21	2.00	μg/L μg/L	20.0		100	70-130			
lethylene Chloride	21 22	5.00	μg/L μg/L	20.0		111	60-140			
etrachloroethylene	22	2.00	μg/L μg/L	20.0		109	70-130			
	22		μg/L μg/L	20.0		109	70-130			
oluene	າາ	1.00				100	,0150			
	22	1.00 2.00					70-130			
oluene ,1,1-Trichloroethane ,1,2-Trichloroethane	22 21 23	2.00 2.00	μg/L μg/L μg/L	20.0 20.0		106 113	70-130 70-130			



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
Batch B237607 - SW-846 5030B										
LCS (B237607-BS1)				Prepared &	Analyzed: 08	/09/19				
Vinyl Chloride	19	2.00	μg/L	20.0		95.2	5-195			
m+p Xylene	43	2.00	$\mu g/L$	40.0		108	70-130			
o-Xylene	22	2.00	$\mu g/L$	20.0		109	70-130			
Surrogate: 1,2-Dichloroethane-d4	25.6		μg/L	25.0		102	70-130			
Surrogate: Toluene-d8	25.0		$\mu g/L$	25.0		99.8	70-130			
Surrogate: 4-Bromofluorobenzene	24.7		$\mu g/L$	25.0		98.7	70-130			



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 B238008 - SW-846 3510C										
Blank (B238008-BLK1)				Prepared: 08	/13/19 Anal	yzed: 08/20/1	19			
Benzo(a)anthracene (SIM)	ND	0.050	μg/L							
Benzo(a)pyrene (SIM)	ND	0.10	$\mu g/L$							
Benzo(b)fluoranthene (SIM)	ND	0.050	$\mu g/L$							
Benzo(k)fluoranthene (SIM)	ND	0.20	$\mu g/L$							
Bis(2-ethylhexyl)phthalate (SIM)	ND	1.0	$\mu g/L$							
Chrysene (SIM)	ND	0.20	$\mu g/L$							
Dibenz(a,h)anthracene (SIM)	ND	0.20	$\mu g/L$							
Indeno(1,2,3-cd)pyrene (SIM)	ND	0.20	$\mu g/L$							
Pentachlorophenol (SIM)	ND	1.0	$\mu g/L$							V-06, Z-01a
Surrogate: 2-Fluorophenol (SIM)	124		μg/L	200		61.8	15-110			
Surrogate: Phenol-d6 (SIM)	97.2		μg/L	200		48.6	15-110			
Surrogate: Nitrobenzene-d5 (SIM)	105		μg/L	100		105	30-130			
Surrogate: 2-Fluorobiphenyl (SIM)	70.0		μg/L	100		70.0	30-130			
Surrogate: 2,4,6-Tribromophenol (SIM)	189		μg/L	200		94.6	15-110			
Surrogate: p-Terphenyl-d14 (SIM)	75.8		μg/L	100		75.8	30-130			
LCS (B238008-BS1)				Prepared: 08	/13/19 Anal	yzed: 08/20/1	19			
Benzo(a)anthracene (SIM)	51.1	1.0	μg/L	50.0	<u> </u>	102	33-143			
Benzo(a)pyrene (SIM)	56.5	2.0	μg/L	50.0		113	17-163			
Benzo(b)fluoranthene (SIM)	55.5	1.0	μg/L	50.0		111	24-159			
Benzo(k)fluoranthene (SIM)	54.6	4.0	μg/L	50.0		109	11-162			
Bis(2-ethylhexyl)phthalate (SIM)	56.5	20	μg/L	50.0		113	8-158			
Chrysene (SIM)	51.1	4.0	μg/L	50.0		102	17-168			
Dibenz(a,h)anthracene (SIM)	54.5	4.0	μg/L	50.0		109	10-227			
Indeno(1,2,3-cd)pyrene (SIM)	55.8	4.0	μg/L	50.0		112	10-227			
Pentachlorophenol (SIM)	65.9	20	μg/L	50.0		132	14-176			V-06, Z-01a
Surrogate: 2-Fluorophenol (SIM)	101		μg/L	200		50.6	15-110			
Surrogate: Phenol-d6 (SIM)	79.8		μg/L μg/L	200		39.9	15-110			
Surrogate: Nitrobenzene-d5 (SIM)				100			30-130			
- · · · ·	94.4 81.1		μg/L	100		94.4 81.1	30-130			
Surrogate: 2-Fluorobiphenyl (SIM) Surrogate: 2,4,6-Tribromophenol (SIM)	81.1 199		μg/L	200		99.5	15-110			
• • • • • • • • • • • • • • • • • • • •	80.0		μg/L	100		80.0	30-130			
Surrogate: p-Terphenyl-d14 (SIM)	80.0		μg/L							
LCS Dup (B238008-BSD1)				Prepared: 08	/13/19 Anal					
Benzo(a)anthracene (SIM)	48.0	1.0	μg/L	50.0		96.0	33-143	6.14	53	
Benzo(a)pyrene (SIM)	52.8	2.0	μg/L	50.0		106	17-163	6.73	72	
Benzo(b)fluoranthene (SIM)	52.3	1.0	μg/L	50.0		105	24-159	5.93	71	
Benzo(k)fluoranthene (SIM)	51.8	4.0	μg/L	50.0		104	11-162	5.26	63	
Bis(2-ethylhexyl)phthalate (SIM)	52.9	20	μg/L	50.0		106	8-158	6.55	82	
Chrysene (SIM)	48.2	4.0	μg/L	50.0		96.5	17-168	5.76	87	
Dibenz(a,h)anthracene (SIM)	50.9	4.0	μg/L	50.0		102	10-227	6.79	126	
Indeno(1,2,3-cd)pyrene (SIM)	52.3	4.0	μg/L	50.0		105	10-171	6.48	99	
Pentachlorophenol (SIM)	64.2	20	μg/L	50.0		128	14-176	2.71	86	V-06, Z-01a
Surrogate: 2-Fluorophenol (SIM)	106		μg/L	200		52.8	15-110			
Surrogate: Phenol-d6 (SIM)	81.5		$\mu g/L$	200		40.7	15-110			
Surrogate: Nitrobenzene-d5 (SIM)	91.0		μg/L	100		91.0	30-130			
Surrogate: 2-Fluorobiphenyl (SIM)	77.6		$\mu g/L$	100		77.6	30-130			
Surrogate: 2,4,6-Tribromophenol (SIM)	193		μg/L	200		96.5	15-110			
Surrogate: p-Terphenyl-d14 (SIM)	76.4		μg/L	100		76.4	30-130			



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 B237908 - SW-846 3510C										
Blank (B237908-BLK1)				Prepared: 08	3/13/19 Anal	yzed: 08/14/	19			
Acenaphthene	ND	5.00	$\mu g/L$							
Acenaphthylene	ND	5.00	$\mu g/L$							
Anthracene	ND	5.00	$\mu g/L$							
Benzo(g,h,i)perylene	ND	5.00	$\mu g/L$							
Butylbenzylphthalate	ND	10.0	$\mu g/L$							
Di-n-butylphthalate	ND	10.0	$\mu g/L$							
Diethylphthalate	ND	10.0	$\mu g/L$							
Dimethylphthalate	ND	10.0	$\mu g/L$							
Di-n-octylphthalate	ND	10.0	$\mu g/L$							
sis(2-Ethylhexyl)phthalate	ND	10.0	μg/L							
luoranthene	ND	5.00	$\mu g/L$							
luorene	ND	5.00	μg/L							
Naphthalene	ND	5.00	μg/L							
Phenanthrene	ND	5.00	μg/L							
yrene	ND	5.00	μg/L							
Surrogate: 2-Fluorophenol	119		μg/L	200		59.7	15-110			
surrogate: Phenol-d6	87.3		μg/L	200		43.6	15-110			
Surrogate: Nitrobenzene-d5	84.6		μg/L	100		84.6	30-130			
Surrogate: 2-Fluorobiphenyl	89.6		μg/L	100		89.6	30-130			
surrogate: 2,4,6-Tribromophenol	187		μg/L	200		93.5	15-110			
Surrogate: p-Terphenyl-d14	97.9		μg/L	100		97.9	30-130			
LCS (B237908-BS1)				Prepared: 08	3/13/19 Analy	yzed: 08/14/	19			
Acenaphthene	37.6	5.00	μg/L	50.0		75.1	47-145			
Acenaphthylene	37.1	5.00	μg/L	50.0		74.2	33-145			
Anthracene	39.6	5.00	μg/L	50.0		79.2	27-133			
Benzo(g,h,i)perylene	41.9	5.00	μg/L	50.0		83.9	10-219			
Butylbenzylphthalate	39.3	10.0	μg/L	50.0		78.6	10-152			
Di-n-butylphthalate	40.1	10.0	μg/L	50.0		80.3	10-120			
Diethylphthalate	38.8	10.0	μg/L	50.0		77.6	10-120			
Dimethylphthalate	38.5	10.0	μg/L	50.0		77.0	10-120			
Di-n-octylphthalate	40.5	10.0	μg/L	50.0		81.1	4-146			
Bis(2-Ethylhexyl)phthalate	39.3	10.0	μg/L	50.0		78.7	8-158			
luoranthene	40.4	5.00	μg/L	50.0		80.9	26-137			
Fluorene	39.3	5.00	μg/L	50.0		78.5	59-121			
Naphthalene	34.7	5.00	μg/L	50.0		69.4	21-133			
Phenanthrene	38.7	5.00	μg/L	50.0		77.4	54-120			
Pyrene	37.6	5.00	μg/L	50.0		75.2	52-120			
Surrogate: 2-Fluorophenol	112		μg/L	200		56.0	15-110			
Surrogate: Phenol-d6	83.2		μg/L μg/L	200		41.6	15-110			
Surrogate: Nitrobenzene-d5	78.9		μg/L μg/L	100		78.9	30-130			
Surrogate: 2-Fluorobiphenyl	82.5		μg/L μg/L	100		82.5	30-130			
Surrogate: 2,4,6-Tribromophenol	174		μg/L μg/L	200		86.9	15-110			
Surrogate: p-Terphenyl-d14	83.4		μg/L μg/L	100		83.4	30-130			



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 B237908 - SW-846 3510C										
LCS Dup (B237908-BSD1)				Prepared: 08	/13/19 Analy	yzed: 08/14/1	9			
Acenaphthene	37.7	5.00	μg/L	50.0		75.3	47-145	0.319	48	
Acenaphthylene	37.6	5.00	$\mu g/L$	50.0		75.3	33-145	1.39	74	
Anthracene	39.1	5.00	μg/L	50.0		78.1	27-133	1.35	66	
Benzo(g,h,i)perylene	42.2	5.00	μg/L	50.0		84.3	10-219	0.523	97	
Butylbenzylphthalate	39.2	10.0	μg/L	50.0		78.4	10-152	0.229	60	
Di-n-butylphthalate	39.1	10.0	μg/L	50.0		78.2	10-120	2.65	47	
Diethylphthalate	39.8	10.0	μg/L	50.0		79.7	10-120	2.62	100	
Dimethylphthalate	38.9	10.0	μg/L	50.0		77.8	10-120	1.11	183	
Di-n-octylphthalate	40.5	10.0	μg/L	50.0		81.0	4-146	0.0740	69	
Bis(2-Ethylhexyl)phthalate	39.0	10.0	μg/L	50.0		78.1	8-158	0.766	82	
Fluoranthene	40.5	5.00	μg/L	50.0		81.1	26-137	0.272	66	
Fluorene	40.2	5.00	$\mu g/L$	50.0		80.5	59-121	2.47	38	
Naphthalene	34.8	5.00	$\mu g/L$	50.0		69.7	21-133	0.374	65	
Phenanthrene	38.9	5.00	μg/L	50.0		77.7	54-120	0.490	39	
Pyrene	39.2	5.00	$\mu g \! / \! L$	50.0		78.3	52-120	4.09	49	
Surrogate: 2-Fluorophenol	108		μg/L	200		53.9	15-110			
Surrogate: Phenol-d6	78.8		μg/L	200		39.4	15-110			
Surrogate: Nitrobenzene-d5	76.6		μg/L	100		76.6	30-130			
Surrogate: 2-Fluorobiphenyl	81.8		μg/L	100		81.8	30-130			
Surrogate: 2,4,6-Tribromophenol	180		μg/L	200		90.0	15-110			
Surrogate: p-Terphenyl-d14	85.5		μg/L	100		85.5	30-130			



QUALITY CONTROL

1,4-Dioxane by isotope dilution GC/MS - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B237852 - SW-846 3510C										
Blank (B237852-BLK1)				Prepared: 08	3/13/19 Anal	yzed: 08/16/	19			
1,4-Dioxane	ND	0.20	μg/L							
Surrogate: 1,4-Dioxane-d8	2.45		μg/L	10.0		24.5	15-110			
LCS (B237852-BS1)				Prepared: 08	3/13/19 Anal	yzed: 08/16/	19			
1,4-Dioxane	9.75	0.20	μg/L	10.0		97.5	40-140			
Surrogate: 1,4-Dioxane-d8	2.95		μg/L	10.0		29.5	15-110			
LCS Dup (B237852-BSD1)				Prepared: 08	3/13/19 Anal	yzed: 08/16/	19			
1,4-Dioxane	10.2	0.20	μg/L	10.0		102	40-140	4.16	30	
Surrogate: 1,4-Dioxane-d8	2.76		μg/L	10.0		27.6	15-110			



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 B238003 - SW-846 3510C										
Blank (B238003-BLK1)				Prepared: 08	3/14/19 Anal	yzed: 08/20/	19			
Aroclor-1016	ND	0.0400	μg/L							
Aroclor-1016 [2C]	ND	0.0400	$\mu g/L$							
Aroclor-1221	ND	0.0400	$\mu g/L$							
Aroclor-1221 [2C]	ND	0.0400	$\mu g/L$							
Aroclor-1232	ND	0.0400	$\mu g/L$							
Aroclor-1232 [2C]	ND	0.0400	$\mu g/L$							
Aroclor-1242	ND	0.0400	$\mu g/L$							
Aroclor-1242 [2C]	ND	0.0400	$\mu g/L$							
Aroclor-1248	ND	0.0400	$\mu g/L$							
Aroclor-1248 [2C]	ND	0.0400	$\mu g/L$							
Aroclor-1254	ND	0.0400	$\mu g/L$							
Aroclor-1254 [2C]	ND	0.0400	$\mu g/L$							
Aroclor-1260	ND	0.0400	$\mu g/L$							
Aroclor-1260 [2C]	ND	0.0400	μg/L							
Surrogate: Decachlorobiphenyl	0.168		μg/L	0.200		84.1	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.198		$\mu g/L$	0.200		98.9	30-150			
Surrogate: Tetrachloro-m-xylene	0.142		$\mu g/L$	0.200		71.0	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.153		$\mu g/L$	0.200		76.6	30-150			
LCS (B238003-BS1)				Prepared: 08	3/14/19 Anal	yzed: 08/20/	19			
Aroclor-1016	0.398	0.200	μg/L	0.500		79.5	50-140			
Aroclor-1016 [2C]	0.426	0.200	$\mu g/L$	0.500		85.2	50-140			
Aroclor-1260	0.374	0.200	$\mu g/L$	0.500		74.7	8-140			
Aroclor-1260 [2C]	0.393	0.200	$\mu g/L$	0.500		78.7	8-140			
Surrogate: Decachlorobiphenyl	1.52		μg/L	2.00		75.9	30-150			
Surrogate: Decachlorobiphenyl [2C]	1.75		$\mu g/L$	2.00		87.4	30-150			
Surrogate: Tetrachloro-m-xylene	1.26		$\mu g/L$	2.00		63.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.34		$\mu g/L$	2.00		66.8	30-150			
LCS Dup (B238003-BSD1)				Prepared: 08	3/14/19 Anal	yzed: 08/20/	19			
Aroclor-1016	0.404	0.200	μg/L	0.500		80.7	50-140	1.49		
Aroclor-1016 [2C]	0.399	0.200	μg/L	0.500		79.7	50-140	6.60		
Aroclor-1260	0.405	0.200	μg/L	0.500		81.0	8-140	8.01		
Aroclor-1260 [2C]	0.424	0.200	$\mu g/L$	0.500		84.9	8-140	7.61		
Surrogate: Decachlorobiphenyl	1.64		μg/L	2.00		82.1	30-150			
Surrogate: Decachlorobiphenyl [2C]	1.87		μg/L	2.00		93.4	30-150			
Surrogate: Tetrachloro-m-xylene	1.36		μg/L	2.00		67.9	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.40		μg/L	2.00		70.2	30-150			



QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Activation Act			Reporting		Spike	Source		%REC		RPD	
Part	Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
	Batch B237636 - EPA 245.1										
Propertice A.	Blank (B237636-BLK1)				Prepared &	Analyzed: 08	/09/19				
Personal Astanuly	Mercury	ND	0.00010	mg/L							
Properties As Abuly Properties A	LCS (B237636-BS1)				Prepared &	Analyzed: 08	/09/19				
Note	Mercury	0.00379	0.00010	mg/L	0.00400		94.8	85-115			
Notice 1940 Notice 194	LCS Dup (B237636-BSD1)				Prepared &	Analyzed: 08	/09/19				
No	Mercury	0.00383	0.00010	mg/L	0.00400		95.8	85-115	1.06	20	
No	Dunlicate (B237636-DUP1)	Sou	rce: 19H0483_	.01	Prepared &	Analyzed: 08	/09/19				
Secretary Secr					. Toparea &				NC	30	
Mercary 0,00368 0,00010 mg/L 0,00400 ND 92.0 75-125 1					D 1.0				-	-	
Prepared: 08/09/19 Analyzed: 08/12/19 Analyze								75_125			
Prepared: 08/09/19 Analyzed: 08/12/19 Section 1971 Section	,,,,,,,,,,	0.00368	0.00010	mg/L	0.00400	NL	94.U	13-123			
Nimony ND 1.0 µg/L Assenic ND 0.80 µg/L ND 0.80 106 Sal15 Assenic ND 0.80 µg/L ND 0.80 106 Sal15 ND 0.80	Batch B237683 - EPA 200.8										
Assenic ND 0.80 µg/L Cadmium ND 0.20 µg/L Cadmium ND 0.50 µg/L Capper ND 1.0 µg/L Capper ND 0.50 µg/L Cadmium 100 100 µg/L Cadmium 100 µg/L Cadmium 100 100 µg/L Cadmium 100 µg/L Cadmium 100 100 µg/L Cadmium 100 µ	Blank (B237683-BLK1)				Prepared: 08	3/09/19 Anal	yzed: 08/12/	19			
Cadmium		ND									
Chromium ND		ND									
Copper		ND									
ND											
No.											
Selenium ND S.0 µg/L Selenium ND 0.20 µg/L											
Silver ND 0.20 mg/L											
Prepared: 08/09/19 Analyzed: 08/12/19 Analyze											
Case											
Arsenic 537 8.0 \(\mu_g/L\) 500 106 85-115 Arsenic 537 8.0 \(\mu_g/L\) 500 107 85-115 Arsenic 537 8.0 \(\mu_g/L\) 500 103 85-115 Chromium 516 10 \(\mu_g/L\) 500 103 85-115 Chromium 516 10 \(\mu_g/L\) 500 103 85-115 Chromium 516 100 \(\mu_g/L\) 500 103 85-115 Chromium 516 525 5.0 \(\mu_g/L\) 500 103 85-115 Chromium 516 524 5.0 \(\mu_g/L\) 500 105 85-115 Chromium 516 524 5.0 \(\mu_g/L\) 500 105 85-115 Chromium 554 5.0 \(\mu_g/L\) 500 105 85-115 Chromium 554 5.0 \(\mu_g/L\) 500 111 85-115 Chromium 554 5.0 \(\mu_g/L\) 500 111 85-115 Chromium 554 5.0 \(\mu_g/L\) 500 84.5 85-115 Chromium 554 5.0 \(\mu_g/L\) 500 107 85-115 Chromium 537 10 \(\mu_g/L\) 500 107 85-115 1.65 20 Chromium 534 2.0 \(\mu_g/L\) 500 108 85-115 Chromium 534 2.0 \(\mu_g/L\) 500 107 85-115 1.90 20 Chromium 517 10 \(\mu_g/L\) 500 103 85-115 0.223 20 Chromium 517 10 \(\mu_g/L\) 500 103 85-115 1.023 20 Chromium 517 10 \(\mu_g/L\) 500 103 85-115 1.023 20 Chromium 517 10 \(\mu_g/L\) 500 104 85-115 0.223 20 Chromium 517 10 \(\mu_g/L\) 500 104 85-115 0.201 20 Chromium 517 10 \(\mu_g/L\) 500 104 85-115 0.202 20 Chromium 517 10 \(\mu_g/L\) 500 104 85-115 0.201 20 Chromium 517 10 \(\mu_g/L\) 500 104 85-115 0.201 20 Chromium 517 10 \(\mu_g/L\) 500 104 85-115 0.201 20 Chromium 517 10 \(\mu_g/L\) 500 104 85-115 0.202 20 Chromium 517 10 \(\mu_g/L\) 500 104 85-115 0.201 20 Chromium 517 5.0 \(\mu_g/L\) 500 104 85-115 0.201 20 Chromium 517 5.0 \(\mu_g/L\) 500 104 85-115 0.201 20 Chromium 556 5.0 \(\mu_g/L\) 500 104 85-115 0.261 20 Chromium 556 5.0 \(\mu_g/L\) 500 101 11 85-115 0.261 20 Chromium 556 5.0 \(\mu_g/L\) 500 101 11 85-115 0.261 20 Chromium 556 5.0 \(\mu_g/L\) 500 101 11 85-115 0.261 20		ND	10	μg/L							
Arsenic S37 8.0 µg/L 500 107 85-115 Cadmium 524 2.0 µg/L 500 105 85-115 Cadmium 524 2.0 µg/L 500 105 85-115 Cadmium 524 2.0 µg/L 500 103 85-115 Cadmium 516 10 µg/L 500 103 85-115 Cadmium 516 100 µg/L 500 103 85-115 Cadmium 516 525 5.0 µg/L 500 105 85-115 Cadmium 554 50 µg/L 500 105 85-115 Cadmium 554 500 µg/L 500 105 85-115 Cadmium 554 500 µg/L 500 105 85-115 Cadmium 554 500 µg/L 500 107 85-115 Cadmium 554 500 107 85-115 1.65 20 Cadmium 534 2.0 µg/L 500 108 85-115 1.65 20 Cadmium 534 2.0 µg/L 500 108 85-115 1.090 20 Cadmium 517 10 µg/L 500 103 85-115 1.00 20 Cadmium 517 10 µg/L 500 103 85-115 1.00 20 Cadmium 517 10 µg/L 500 103 85-115 1.00 20 Cadmium 517 10 µg/L 500 104 85-115 1.00 20 Cadmium 517 10 µg/L 500 104 85-115 1.00 20 Cadmium 517 10 µg/L 500 104 85-115 1.00 20 Cadmium 517 10 µg/L 500 104 85-115 1.00 20 Cadmium 517 10 µg/L 500 104 85-115 1.00 20 Cadmium 517 100 µg/L 500 104 85-115 1.00 20 Cadmium 517 100 µg/L 500 104 85-115 1.00 20 Cadmium 517 100 µg/L 500 104 85-115 1.00 20 Cadmium 517 100 µg/L 500 104 85-115 1.00 20 Cadmium 517 100 µg/L 500 104 85-115 1.00 20 Cadmium 517 100 µg/L 500 104 85-115 1.00 20 Cadmium 517 100 µg/L 500 104 85-115 1.00 20 Cadmium 517 100 µg/L 500 104 85-115 1.00 20 Cadmium 517 100 µg/L 500 104 85-115 1.00 20 Cadmium 518 100 104 85-115 100 104 85-115 100 104 85-115 100 104 85-115 100 104 85-115 100 104 85-115 100 104 85-115 100 104 85-115 100 104 85-115 100 104 85-115 100 104 85-115 100 104 85-1	LCS (B237683-BS1)		10	/7		3/09/19 Anal					
Cadmium 524 2.0 µg/L 500 105 85-115 Chromium 516 10 µg/L 500 103 85-115 Copper 1030 10 µg/L 1000 103 85-115 Copper 1030 10 µg/L 500 105 85-115 Vickel 524 50 µg/L 500 105 85-115 Selenium 554 50 µg/L 500 111 85-115 Selenium 1090 100 µg/L 500 84.5 85-115 L-07 Line 1090 100 µg/L 500 84.5 85-115 L-07 Line 1090 100 µg/L 500 107 85-115 1.65 20 LCS Dup (B237683-BSD1) 237 10 µg/L 500 107 85-115 1.65 20 Arsenic 542 8.0 µg/L 500 107 85-115											
Chromium S16 10											
Copper 1030 10 µg/L 1000 103 85-115 Lead 525 5.0 µg/L 500 105 85-115 Nickel 524 50 µg/L 500 105 85-115 Selenium 554 50 µg/L 500 84.5 * 85-115 Silver 423 2.0 µg/L 500 84.5 * 85-115 L-07 Line 1090 100 µg/L 500 84.5 * 85-115 L-07 Line 1090 100 µg/L 500 84.5 * 85-115 L-07 Line 1090 100 µg/L 500 107 85-115 1.65 20 Artimony 537 10 µg/L 500 107 85-115 1.65 20 Artimony 534 2.0 µg/L 500 107 85-115 1.90 20 Cadmium 517 10 µg/L 50											
Selenium Silver											
Side											
Selenium S54 50											
Carbon C											
Zine 1090 100 μg/L 1000 109 85-115 Prepared: 08/09/19 Analyzed: 08/12/19 Antimony 537 10 μg/L 500 107 85-115 1.65 20 Arsenic 542 8.0 μg/L 500 108 85-115 0.996 20 Cadmium 534 2.0 μg/L 500 107 85-115 1.90 20 Chromium 517 10 μg/L 500 103 85-115 0.223 20 Copper 1040 10 μg/L 1000 104 85-115 0.571 20 Lead 535 5.0 μg/L 500 107 85-115 1.90 20 Vickel 522 50 μg/L 500 104 85-115 0.412 20 Selenium 556 50 μg/L 500 111 85-115 0.261 20 Silver 493											L-07
Antimony 537 10 µg/L 500 107 85-115 1.65 20 Arsenic 542 8.0 µg/L 500 108 85-115 0.996 20 Cadmium 534 2.0 µg/L 500 107 85-115 1.90 20 Chromium 517 10 µg/L 500 103 85-115 0.223 20 Copper 1040 10 µg/L 1000 104 85-115 0.571 20 Cead 535 5.0 µg/L 500 107 85-115 1.90 20 Nickel 522 50 µg/L 500 107 85-115 1.90 20 Silver 493 2.0 µg/L 500 111 85-115 0.412 20 Silver 500 98.6 85-115 15.3 20											,
Antimony 537 10 µg/L 500 107 85-115 1.65 20 Arsenic 542 8.0 µg/L 500 108 85-115 0.996 20 Cadmium 534 2.0 µg/L 500 107 85-115 1.90 20 Chromium 517 10 µg/L 500 103 85-115 0.223 20 Copper 1040 10 µg/L 1000 104 85-115 0.571 20 Cead 535 5.0 µg/L 500 107 85-115 1.90 20 Nickel 522 50 µg/L 500 107 85-115 1.90 20 Silver 493 2.0 µg/L 500 111 85-115 0.412 20 Silver 500 98.6 85-115 15.3 20	LCS Dup (B237683-BSD1)				Prepared: 08	3/09/19 Anal	vzed: 08/12/	19			
Arsenic S42 8.0 $\mu g/L$ 500 108 85-115 0.996 20 Cadmium 534 2.0 $\mu g/L$ 500 107 85-115 1.90 20 Chromium 517 10 $\mu g/L$ 500 103 85-115 0.223 20 Chromium 1040 10 $\mu g/L$ 1000 104 85-115 0.571 20 Cadmium 535 5.0 $\mu g/L$ 500 107 85-115 1.90 20 Nickel 522 50 $\mu g/L$ 500 107 85-115 1.90 20 Selenium 556 50 $\mu g/L$ 500 104 85-115 0.412 20 Selenium 556 50 $\mu g/L$ 500 111 85-115 0.261 20 Silver 493 2.0 $\mu g/L$ 500 98.6 85-115 15.3 20	Antimony	537	10	μg/L					1.65	20	
Cadmium 534 2.0 $\mu g/L$ 500 107 85-115 1.90 20 Chromium 517 10 $\mu g/L$ 500 103 85-115 0.223 20 Copper 1040 10 $\mu g/L$ 1000 104 85-115 0.571 20 Lead 535 5.0 $\mu g/L$ 500 107 85-115 1.90 20 Nickel 522 50 $\mu g/L$ 500 104 85-115 0.412 20 Selenium 556 50 $\mu g/L$ 500 111 85-115 0.261 20 Silver 493 2.0 $\mu g/L$ 500 98.6 85-115 15.3 20	Arsenic										
Chromium 517 10 $\mu g/L$ 500 103 85-115 0.223 20 Copper 1040 10 $\mu g/L$ 1000 104 85-115 0.571 20 Lead 535 5.0 $\mu g/L$ 500 107 85-115 1.90 20 Nickel 522 50 $\mu g/L$ 500 104 85-115 0.412 20 Selenium 556 50 $\mu g/L$ 500 111 85-115 0.261 20 Silver 493 2.0 $\mu g/L$ 500 98.6 85-115 15.3 20											
Copper 1040 10 $\mu g/L$ 1000 104 85-115 0.571 20 Lead 535 5.0 $\mu g/L$ 500 107 85-115 1.90 20 Nickel 522 50 $\mu g/L$ 500 104 85-115 0.412 20 Selenium 556 50 $\mu g/L$ 500 111 85-115 0.261 20 Silver 493 2.0 $\mu g/L$ 500 98.6 85-115 15.3 20	Chromium										
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Copper		10				104			20	
Nickel 522 50 $\mu g/L$ 500 104 85-115 0.412 20 Selenium 556 50 $\mu g/L$ 500 111 85-115 0.261 20 Silver 493 2.0 $\mu g/L$ 500 98.6 85-115 15.3 20	Lead		5.0				107				
Selenium 556 50 μg/L 500 111 85-115 0.261 20 Silver 493 2.0 μg/L 500 98.6 85-115 15.3 20	Nickel		50		500		104	85-115	0.412	20	
	Selenium		50	$\mu g/L$	500		111	85-115	0.261	20	
Tine 1100 100 $\mu g/L$ 1000 110 $85-115$ 0.839 20	lilver	493	2.0	$\mu g/L$	500		98.6	85-115	15.3	20	
	Zine	1100	100	$\mu g/L$	1000		110	85-115	0.839	20	



QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B237743 - EPA 200.7										
Blank (B237743-BLK1)				Prepared: 08	/10/19 Anal	yzed: 08/12/1	9			
Iron	ND	0.050	mg/L							
LCS (B237743-BS1)				Prepared: 08	/10/19 Anal	yzed: 08/12/1	9			
Iron	4.23	0.050	mg/L	4.00		106	85-115			
LCS Dup (B237743-BSD1)				Prepared: 08	/10/19 Analy	yzed: 08/12/1	9			
Iron	4.11	0.050	mg/L	4.00		103	85-115	2.94	20	



QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B238061 - EPA 200.7 Dissolved										
Blank (B238061-BLK1)				Prepared: 08	3/14/19 Analy	vzed: 08/15/	19			
Iron	ND	0.050	mg/L	p		,				
L CC (B3399/1 BC1)				D 00)/1.4/10 A1-	J. 00/1 <i>E</i> /	10			
LCS (B238061-BS1) Iron	2.05	0.050	mg/L	4.00	3/14/19 Analy	98.9				
HOII	3.95	0.030	mg/L	4.00		98.9	85-115			
Duplicate (B238061-DUP1)	Sou	rce: 19H0483-	01	Prepared: 08	8/14/19 Analy	yzed: 08/15/	19			
Iron	ND	0.050	mg/L		ND)		NC	20	
Matrix Spike (B238061-MS1)	Sou	rce: 19H0483-	01	Prepared: 08	3/14/19 Analy	yzed: 08/15/	19			
Iron	17.7	0.051	mg/L	16.3	ND	109	70-130			
Batch B238151 - EPA 200.8 Dissolved										
Blank (B238151-BLK1)				Prepared: 08	3/15/19 Analy	yzed: 08/16/	19			
Antimony	ND	1.0	μg/L							
Arsenic	ND	0.80	μg/L							
Cadmium	ND	0.20	μg/L							
Chromium	ND	1.0	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	10	μg/L							
LCS (B238151-BS1)				Prepared: 08	3/15/19 Analy	yzed: 08/16/	19			
Antimony	506	10	$\mu g\!/\!L$	500		101	85-115			
Arsenic	520	8.0	μg/L	500		104	85-115			
Cadmium	509	2.0	μg/L	500		102	85-115			
Chromium	508	10	μg/L	500		102	85-115			
Copper	1010	10	μg/L	1000		101	85-115			
Lead	509	5.0	μg/L	500		102	85-115			
Nickel Salanium	510	50 50	μg/L	500		102	85-115			
Selenium Silver	530	50 2.0	μg/L μg/L	500		106	85-115 85-115			
Zinc	500 1060	100	μg/L μg/L	500 1000		100 106	85-115 85-115			
	1000	100	r-8-2		2/15/10 Am-1-					
LCS Dup (B238151-BSD1)		10	= /T		8/15/19 Analy			0.200	20	
Antimony Arsenic	508	10 8.0	μg/L μg/I	500		102	85-115	0.288	20	
Cadmium	520	8.0 2.0	μg/L μg/I	500		104	85-115 85-115	0.0686	20	
Chromium	510	10	μg/L μg/L	500 500		102 102	85-115 85-115	0.278 0.117	20 20	
Copper	508	10	μg/L μg/L	1000		102	85-115 85-115	0.117	20	
Lead	1010 507	5.0	μg/L μg/L	500		101	85-115	0.436	20	
Nickel	507	50	μg/L μg/L	500		101	85-115	0.738	20	
Selenium	531	50	μg/L	500		106	85-115	0.738	20	
		2.0	μg/L	500		100	85-115	0.515	20	
Silver	502			200		100	רוו-כא	0.515	20	



QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B238151 - EPA 200.8 Dissolved										
Duplicate (B238151-DUP1)	Sou	rce: 19H0483-	01	Prepared: 08	3/15/19 Analy	zed: 08/16/	19			
Antimony	ND	1.0	μg/L		ND			NC	20	
Arsenic	ND	0.80	$\mu g\!/\!L$		ND			NC	20	
Cadmium	ND	0.20	$\mu g\!/\!L$		ND			NC	20	
Chromium	ND	1.0	$\mu g\!/\!L$		ND			NC	20	
Copper	1.06	1.0	$\mu g\!/\!L$		1.40			28.0	* 20	R-04
Lead	ND	0.50	μg/L		ND			NC	20	
Nickel	ND	5.0	$\mu g\!/\!L$		ND			NC	20	
Selenium	ND	5.0	μg/L		ND			NC	20	
Silver	ND	0.20	$\mu \text{g/L}$		ND			NC	20	
Zinc	ND	10	$\mu g/L$		ND			NC	20	
Matrix Spike (B238151-MS1)	Sou	rce: 19H0483-	01	Prepared: 08	3/15/19 Analy	zed: 08/16/	19			
Antimony	524	10	μg/L	500	ND	105	70-130			
Arsenic	539	8.0	$\mu \text{g/L}$	500	ND	108	70-130			
Cadmium	520	2.0	$\mu \text{g/L}$	500	ND	104	70-130			
Chromium	515	10	μg/L	500	ND	103	70-130			
Copper	1030	10	$\mu \text{g/L}$	1000	ND	103	70-130			
Lead	521	5.0	μg/L	500	ND	104	70-130			
Nickel	515	50	$\mu g\!/\!L$	500	ND	103	70-130			
Selenium	546	50	$\mu g\!/\!L$	500	ND	109	70-130			
Silver	511	2.0	$\mu g\!/\!L$	500	ND	102	70-130			
Zinc	1080	100	$\mu g/L$	1000	ND	108	70-130			
Batch B238265 - EPA 245.1 Dissolved										
Blank (B238265-BLK1)				Prepared: 08	3/16/19 Analy	zed: 08/17/	19			
Mercury	ND	0.00010	mg/L							
LCS (B238265-BS1)				Prepared: 08	3/16/19 Anal	zed: 08/17/	19			
Mercury	0.00371	0.00010	mg/L	0.00400		92.7	85-115			
LCS Dup (B238265-BSD1)				Prepared: 08	3/16/19 Anal	zed: 08/17/	19			
Mercury	0.00374	0.00010	mg/L	0.00400		93.6	85-115	0.986	20	
Duplicate (B238265-DUP1)	Sou	rce: 19H0483-	01	Prepared: 08	3/16/19 Analy	zed: 08/17/	19			
Mercury	ND	0.00010	mg/L		ND			NC	30	
Matrix Spike (B238265-MS1)	Sou	rce: 19H0483-	01	Prepared: 08	3/16/19 Analy	zed: 08/17/	19			
Mercury	0.00378	0.00010	mg/L	0.00400	ND	94.5	70-130			



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 B237631 - SM21-22 4500 CL G										
Blank (B237631-BLK1)				Prepared &	Analyzed: 08	/08/19				
Chlorine, Residual	ND	0.020	mg/L							Z-01
LCS (B237631-BS1)				Prepared &	Analyzed: 08	/08/19				
Chlorine, Residual	1.5	0.020	mg/L	1.29		119	66.3-134			Z-01
LCS Dup (B237631-BSD1)				Prepared &	Analyzed: 08	/08/19				
Chlorine, Residual	1.5	0.020	mg/L	1.29		119	66.3-134	0.287	9.96	Z-01
Batch B237632 - SM21-22 3500 Cr B										
Blank (B237632-BLK1)				Prepared &	Analyzed: 08	/08/19				
Hexavalent Chromium	ND	0.0040	mg/L							
LCS (B237632-BS1)				Prepared &	Analyzed: 08	/08/19				
Hexavalent Chromium	0.11	0.0040	mg/L	0.100		108	83.9-121			
LCS Dup (B237632-BSD1)				Prepared &	Analyzed: 08	/08/19				
Hexavalent Chromium	0.11	0.0040	mg/L	0.100	<u> </u>	108	83.9-121	0.00	10	
Batch B237695 - EPA 300.0										
Blank (B237695-BLK1)				Prepared: 08	3/09/19 Anal	yzed: 08/10	/19			
Chloride	ND	1.0	mg/L							
LCS (B237695-BS1)				Prepared: 08	3/09/19 Anal	yzed: 08/10/	/19			
Chloride	4.5	1.0	mg/L	5.00		90.2	90-110			
LCS Dup (B237695-BSD1)				Prepared: 08	3/09/19 Anal	yzed: 08/10	/19			
Chloride	4.5	1.0	mg/L	5.00		90.2	90-110	0.0687	20	
Duplicate (B237695-DUP1)	Sour	ce: 19H0483-	01	Prepared: 08	3/09/19 Anal	yzed: 08/10	/19			
Chloride	110	5.0	mg/L		110)		0.0870	20	
Matrix Spike (B237695-MS1)	Sour	се: 19Н0483-	01	Prepared: 08	3/09/19 Anal	yzed: 08/10	/19			
Chloride	190	5.0	mg/L	50.0	110	162	× 80-120			MS-19
Batch B237765 - EPA 1664B										
Blank (B237765-BLK1)				Prepared &	Analyzed: 08	/12/19				
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L	-	-					



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 B237765 - EPA 1664B		·								
LCS (B237765-BS1)				Prepared &	Analyzed: 08	/12/19				
Silica Gel Treated HEM (SGT-HEM)	12		mg/L	10.0		116	64-132			
MRL Check (B237765-MRL1)				Prepared &	Analyzed: 08	/12/19				
Silica Gel Treated HEM (SGT-HEM)	1.20	1.4	mg/L	1.40		85.6	0-200			
Matrix Spike (B237765-MS1)	Sou	rce: 19H0483-	01	Prepared &	Analyzed: 08	/12/19				
Silica Gel Treated HEM (SGT-HEM)	130	14	mg/L	100	NE	132	64-132			
Batch B237771 - SM21-22 2540D										
Blank (B237771-BLK1)				Prepared &	Analyzed: 08	/12/19				
Total Suspended Solids	ND	2.5	mg/L							
LCS (B237771-BS1)				Prepared &	Analyzed: 08	/12/19				
Total Suspended Solids	216	10	mg/L	200		108	57.6-118			



QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B237633 - SM21-22 3500 Cr B										
Blank (B237633-BLK1)				Prepared & A	Analyzed: 08	/08/19				
Hexavalent Chromium	ND	0.0040	mg/L							
LCS (B237633-BS1)				Prepared & A	Analyzed: 08	/08/19				
Hexavalent Chromium	0.11	0.0040	mg/L	0.100		108	83.9-121			
LCS Dup (B237633-BSD1)				Prepared & A	Analyzed: 08	/08/19				
Hexavalent Chromium	0.11	0.0040	mg/L	0.100		108	83.9-121	0.00	10	



IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

LCS	

608.3

Lab Sample ID:	B238003-BS1		Date(s) Analyzed:	08/20/2019	08/20/2019	
Instrument ID (1):	ECD4	-	Instrument ID (2):	ECD4		
GC Column (1):	ID:	(mm)	GC Column (2):		ID: (mn	n

ANALYTE	COL	RT	RT WI	NDOW	CONCENTRATION	%RPD
7.10.12172	OOL	111	FROM	TO	OONOLIVITUUTION	70111 D
Aroclor-1016	1	0.000	0.000	0.000	0.398	
	2	0.000	0.000	0.000	0.426	6.3
Aroclor-1260	1	0.000	0.000	0.000	0.374	
	2	0.000	0.000	0.000	0.393	6.0



IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

LCS Dup

608.3

Lab Sample ID:	B238003-BSD1		Date(s) Analyzed:	08/20/2019	08/20/201	0/2019	
Instrument ID (1):	ECD4		Instrument ID (2):	ECD4			
GC Column (1):	ID:	(mm)	GC Column (2):		ID:	(mm	

ANALYTE	COL	RT	RT WI	NDOW	CONCENTRATION	%RPD	
7.10.12112	002		FROM	TO	00110211111111111111		
Aroclor-1016	1	0.000	0.000	0.000	0.404		
	2	0.000	0.000	0.000	0.399	0.3	
Aroclor-1260	1	0.000	0.000	0.000	0.405		
	2	0.000	0.000	0.000	0.424	3.4	



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 is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
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.
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.
MS-19	Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.
R-04	Duplicate relative percent difference (RPD) is a less useful indicator of sample precision for sample results that are <5 times the reporting limit (RL).
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-06	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.
V-35	Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.
Z-01	SM 4500 test had calibration points outside of acceptable back-calculated recoveries. Reanalysis yielded similar results.
Z-01a	This compound was calibrated using non-linear calibration.



CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
608.3 in Water	
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
624.1 in Water	
Benzene	CT,NY,MA,NH,RI,NC,ME,VA
Bromodichloromethane	CT,NY,MA,NH,RI,NC,ME,VA
Bromoform	CT,NY,MA,NH,RI,NC,ME,VA
Bromomethane	CT,NY,MA,NH,RI,NC,ME,VA
Carbon Tetrachloride	CT,NY,MA,NH,RI,NC,ME,VA
Chlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
Chlorodibromomethane	CT,NY,MA,NH,RI,NC,ME,VA
Chloroethane	CT,NY,MA,NH,RI,NC,ME,VA
Chloroform	CT,NY,MA,NH,RI,NC,ME,VA
Chloromethane	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,3-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,4-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1-Dichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1-Dichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
trans-1,2-Dichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichloropropane	CT,NY,MA,NH,RI,NC,ME,VA
cis-1,3-Dichloropropene	CT,NY,MA,NH,RI,NC,ME,VA
1,4-Dioxane	MA
trans-1,3-Dichloropropene	CT,NY,MA,NH,RI,NC,ME,VA
Ethanol	NY,MA,NH
Ethylbenzene	CT,NY,MA,NH,RI,NC,ME,VA
Methyl tert-Butyl Ether (MTBE)	NY,MA,NH,NC
Methylene Chloride	CT,NY,MA,NH,RI,NC,ME,VA
Naphthalene	NY,MA,NC
1,1,2,2-Tetrachloroethane	CT,NY,MA,NH,RI,NC,ME,VA
Tetrachloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
Toluene	CT,NY,MA,NH,RI,NC,ME,VA
1,1,1-Trichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1,2-Trichloroethane	CT,NY,MA,NH,RI,NC,ME,VA



CERTIFICATIONS

Certified Analyses included in this Report

Chromium

Chromium

Copper

Copper Lead

Lead Nickel

Analyte	Certifications	
624.1 in Water	Certifications	
	OT NEW AND AND A STATE OF THE S	
Trichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA	
Trichlorofluoromethane (Freon 11)	CT,NY,MA,NH,RI,NC,ME,VA	
Vinyl Chloride	CT,NY,MA,NH,RI,NC,ME,VA	
m+p Xylene	CT,NY,MA,NH,RI,NC	
o-Xylene	CT,NY,MA,NH,RI,NC	
625.1 in Water		
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	
Benzo(g,h,i)perylene	CT,MA,NH,NY,NC,RI,ME,VA	
Butylbenzylphthalate	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	
Diethylphthalate	CT,MA,NH,NY,NC,RI,ME,VA	
Dimethylphthalate	CT,MA,NH,NY,NC,RI,ME,VA	
Di-n-octylphthalate	CT,MA,NH,NY,NC,RI,ME,VA	
Bis(2-Ethylhexyl)phthalate	CT,MA,NH,NY,NC,RI,ME,VA	
Fluoranthene	CT,MA,NH,NY,NC,RI,ME,VA	
Fluorene	CT,MA,NH,NY,NC,RI,ME,VA	
Naphthalene	CT,MA,NH,NY,NC,RI,ME,VA	
Phenanthrene	CT,MA,NH,NY,NC,RI,ME,VA	
Pyrene	CT,MA,NH,NY,NC,RI,ME,VA	
2-Fluorophenol	NC	
2-Fluorophenol	NC,VA	
Phenol-d6	VA	
Nitrobenzene-d5	VA	
EPA 200.7 in Water		
Iron	CT,MA,NH,NY,RI,NC,ME,VA	
Iron	CT,MA,NH,NY,RI,NC,ME,VA	
Hardness	CT,MA,NH,NY,RI,VA	
EPA 200.8 in Water		
Antimony	CT,MA,NH,NY,RI,NC,ME,VA	
Antimony	CT,MA,NH,NY,RI,NC,ME,VA	
Arsenic	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	
Cadmium	CT,MA,NH,NY,RI,NC,ME,VA	
Catalitum	Q1,11111,1111,1111,110,111111,111	

CT,MA,NH,NY,RI,NC,ME,VA

CT,MA,NH,NY,RI,NC,ME,VA

CT,MA,NH,NY,RI,NC,ME,VA CT,MA,NH,NY,RI,NC,ME,VA

CT,MA,NH,NY,RI,NC,ME,VA CT,MA,NH,NY,RI,NC,ME,VA

CT,MA,NH,NY,RI,NC,ME,VA



CERTIFICATIONS

Certified Analyses included in this Report

1,4-Dioxane

Analyte	Certifications
EPA 200.8 in Water	
Nickel	CT,MA,NH,NY,RI,NC,ME,VA
Selenium	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
Silver	CT,MA,NH,NY,RI,NC,ME,VA
Zinc	CT,MA,NH,RI,NY,NC,ME,VA
Zinc	CT,MA,NH,NY,RI,NC,ME,VA
EPA 245.1 in Water	
Mercury	CT,MA,NH,RI,NY,NC,ME,VA
Mercury	CT,MA,NH,RI,NY,NC,ME,VA
EPA 300.0 in Water	
Chloride	NC,NY,MA,VA,ME,NH,CT,RI
SM19-22 4500 NH3 C in Water	
Ammonia as N	NY,MA,CT,RI,VA,NC,ME
SM21-22 2540D in Water	
Total Suspended Solids	CT,MA,NH,NY,RI,NC,ME,VA
SM21-22 3500 Cr B in Water	
Hexavalent Chromium	NY,CT,NH,RI,ME,VA,NC
Hexavalent Chromium	NY,CT,NH,RI,ME,VA,NC
SM21-22 4500 CL G in Water	
Chlorine, Residual	CT,MA,RI,ME
SM21-22 4500 CN E in Water	
Cyanide	CT,MA,NH,NY,RI,NC,ME,VA
SW-846 8270D in Water	

NY



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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	03/1/2020
MA	Massachusetts DEP	M-MA100	06/30/2020
CT	Connecticut Department of Publile Health	PH-0567	09/30/2019
NY	New York State Department of Health	10899 NELAP	04/1/2020
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2020
RI	Rhode Island Department of Health	LAO00112	12/30/2019
NC	North Carolina Div. of Water Quality	652	12/31/2019
NJ	New Jersey DEP	MA007 NELAP	06/30/2020
FL	Florida Department of Health	E871027 NELAP	06/30/2020
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2020
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2019
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2019
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2020
NC-DW	North Carolina Department of Health	25703	07/31/2020
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2020

Non Soxhlet

Soxhlet

Chromatogram

WRTA

MWRA School MBTA

Municipality

Federal

Date/Time:

d by: (signature) 6,2.9

Brownfield

AIHA-LAP,LLC

http://www.contestlabs.com

Doc # 381 Rev 1_03242017

CHAIN OF CUSTODY RECORD

² Preservation Code 1 # of Containers East Longmeadow, MA 01028 39 Spruce Street s/z रेल्यास्त्रका गाम्याकामध्याप्रयोगि Rush-Approval Required 10-Day > Jue Date: 7-Day Phone: 413-525-2332 19 140482 One Beacon St, Suite 8100, Boston, MA 02108 Email: info@contestlabs.com Kleinfelder Fax: 413-525-6405 CON-LEST

Order of Mountainers Same ² Preservation Codes: X = Sodium Hydroxide DW = Drinking Water B = Sodium Bisulfate GW = Ground Water S = Summa Canister Dissolved Mevells Ser WW = Waste Water ³ Container Codes: O = Other (please define) O = Other (please O = Other (please A = Amber Glass S = Sulfuric Acid PCB ONL) Field Filtered O Field Filtered Matrix Codes N = Nitric Acid = Tedlar Bag Lab to Filter Lab to Filter M = Methanol 3 Container Code S = Soil SL = Sludge SOL = Solid ST = Sterile Thiosulfate = Sodium P = Plastic G = Glass V = Vial H=HCL define) = |ced A = AIr Cyanide via 335.4 Please use the following codes to indicate possible sample concentration ANALYTICAL LABORATORY MIZ OYZ8 BIY SIBXOID-P. www.contestiabs.com H - High; M - Medium; L - Low; C - Clean; U - Unknown REGUESTED Fotal PCBs 608 within the Conc Code column above: **MIS & SA Biv slonerig B sHA9 Other JSEPA VOCs via 624* + ethanol NALIYSIS ***C.00S aiv slat9M leto Total Suspended Solids via SM25400 3 bns 2 12-002 MA MCP Required MCP Certification Form Required CT RCP Required RCP Certification Form Required Chloride-300.0; Total Residual Chlorine-MA State DW Required Ammonia via method 350.1; Hardness via 200.7 Special Requirements Email To: msoule@kleinfelder.com; estraley Code Code 5 Matrix Code ₹ # QISMd 3-Day 4-Day EXCEL CLP Like Data Pkg Required: Grab Composite [3] Nederlin Minit Reguldentent Rhode Island DEM PDF Government Date/Time Ending 61/3/8 Fax To #: Format: Other: Day -Day "Total Phthalates, Diethylhexyl phthalate, Group I and II PAHs, Napthalene, phenol, pentachlorophenol ""5b, As, Cd, Cr3, Cr6, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn. Hg by 245.1, Cr6 via 3500 remediation goveral permit Project Entity Beginning Date/Time Other 6486 3 1479 Fall River Ave, Seekonk, MA Andy Baylis Date/Time: 1755 8/8/19 - 1/010 Dayed Vine (96% 20180921.007A 617-497-7800 Client Sample ID / Description Emily Straley CF! Seekonk **Emily Straley** 20190730 Comments: * Report full RGP list. 2 unpreserved voa vials included as TB 6-8-9 62-8-8 Date/Time: Date/Time: Jate/Time: MIM-30 NPOES Con-Test Quote Name/Number: Relinquished by: (signature) Refinquished by: (signature たAF EPA Work Order# Received by: (signat Invoice Recipient: Company Nemes Project Location Project Manager: Project Number: Project Name sampled By: Address: Phone: Page 42 of 43

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples_____



Doc# 277 Rev 5 2017

Login		ceipt Checklist -						ny False	dalahatakahahahatahahatahaha
		nent will be brou	ght to the a	tention of	the Client	- State Tru	e or False		
Client	cleint	elder							
Recei	ved By	y		Date	8/8/19		Time	19:15	
	he samples	In Cooler	T	No Cooler		On Ice	T	No Ice	
rece	ived?	Direct from Sam	oling	•		Ambient		 Melted Ice 	
Moro com	ples within	·	By Gun#	Ч			1p - 2.6		
	ure? 2-6°C	T	By Blank #			Actual Tem			•
•	s Custody S	eal Intact?	NIH	We	re Sample:	s Tampered		NIA	
	s COC Relir		7			ree With Sa		T	
		eaking/loose caps	on any sam		<u>r</u> -				
	nk/ Legible?		,		noles recei	ved within h	olding time?	7	
Did COC	_	Client	7	Analysis			er Name	_	
pertinent In	formation?	Project	T	ID's	+		Dates/Times	3 	
Are Sample	e labels filled	d out and legible?	下	-	—			L	
-	ab to Filters?				Who was	notified?			
Are there Ri	ushes?		F			notified?			
Are there St	nort Holds?		1			notified?	Miranda		
s there eno	ugh Volume	?					7-11-12-5		
s there Hea	dspace whe	ere applicable?	1=		MS/MSD?	F			
	ia/Container		+			samples rec	uired?	F	
-	anks receive		F		On COC?	ſ.	,		
o all samp	les have the	proper pH?			TLZ		Base	T712	
/ials	#	Containers:	4 1			#			£ 1
Jnp-		1 Liter Amb.	8⁄	1 Liter F	Plastic	3	16 oz	z Amb.	
ICL-	3	500 mL Amb.		500 mL				nb/Clear	
/leoh-		250 mL Amb.		250 mL		6		nb/Clear	
Bisulfate-		Flashpoint		Col./Ba	cteria		**************************************	nb/Clear	
) -		Other Glass	2	Other F	lastic		En	core	· · · · · · · · · · · · · · · · · · ·
hiosulfate-		SOC Kit		Plastic	Bag		Frozen:		
Sulfuric-		Perchlorate		Ziplo	ck				
and the second				Unused N	ledia		and the second second		
			* # *	a taken		4			ne er er 🍎 er er er
Jnp-	And place in the contract of t	1 Liter Amb.		1 Liter F	Plastic	Priore management.	16 oz	Amb.	
ICL-		500 mL Amb.		500 mL l	Plastic			nb/Clear	
leoh-		250 mL Amb.		250 mL l	Plastic		4oz Am	nb/Clear	
				Flachr	oint		2oz Am	nb/Clear	
isulfate-		Col./Bacteria							
) -		Other Plastic		Other C	Blass			core	
l- hiosulfate-		Other Plastic SOC Kit		Other C Plastic	Blass Bag		End Frozen:	core	
l- hiosulfate- ulfuric-		Other Plastic		Other C	Blass Bag			core <u>l</u>	
l- hiosulfate-		Other Plastic SOC Kit		Other C Plastic	Blass Bag			core	
l- hiosulfate- ulfuric-		Other Plastic SOC Kit		Other C Plastic	Blass Bag			core	
l- hiosulfate- ulfuric-		Other Plastic SOC Kit		Other C Plastic	Blass Bag			core	
l- hiosulfate- ulfuric-		Other Plastic SOC Kit		Other C Plastic	Blass Bag			core	
l- hiosulfate- ulfuric-		Other Plastic SOC Kit		Other C Plastic	Blass Bag			core	
l- hiosulfate- ulfuric-		Other Plastic SOC Kit		Other C Plastic	Blass Bag			core	
l- hiosulfate- ulfuric-		Other Plastic SOC Kit		Other C Plastic	Blass Bag			core	
l- hiosulfate- ulfuric-		Other Plastic SOC Kit		Other C Plastic	Blass Bag			core	



August 20, 2019

Madeline Soule Kleinfelder - Cambridge, MA 1 Beacon Street, Suite 8100 Boston, MA 02108

Project Location: 1479 Fall River Ave., Seekonk, MA

Client Job Number: Project Number: [none]

Laboratory Work Order Number: 19H0485

Enclosed are results of analyses for samples received by the laboratory on August 8, 2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano Project Manager

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Kleinfelder - Cambridge, MA 1 Beacon Street, Suite 8100 Boston, MA 02108 ATTN: Madeline Soule

REPORT DATE: 8/20/2019

PURCHASE ORDER NUMBER:

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 19H0485

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

PROJECT LOCATION: 1479 Fall River Ave., Seekonk, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Receiving_Water	19H0485-01	Surface Water		121,4500NH3-BH	MA M-MA-086/CT PH-0574/NY11148
				EPA 200.7	
				EPA 200.8	
				EPA 245.1	
				SM19-22 4500 NH3 C	MA M-MA-086/CT PH-0574/NY11148
				SM21-22 3500 Cr B	
				Tri Chrome Calc.	



CASE NARRATIVE SUMMARY

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

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:

B237683-BS1

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. Lua Warrlengton

Technical Representative



Project Location: 1479 Fall River Ave., Seekonk, M Sample Description: Work Order: 19H0485

Date Received: 8/8/2019

Field Sample #: Receiving_Water Sampled: 8/8/2019 16:00

Sample ID: 19H0485-01
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	8/9/19	8/12/19 12:47	МЈН
Arsenic	33	0.80		μg/L	1		EPA 200.8	8/9/19	8/12/19 12:47	MJH
Cadmium	2.3	0.20		$\mu g/L$	1		EPA 200.8	8/9/19	8/12/19 12:47	MJH
Chromium	9.7	1.0		$\mu g/L$	1		EPA 200.8	8/9/19	8/12/19 12:47	MJH
Chromium, Trivalent	0.0097			mg/L	1		Tri Chrome Calc.	8/9/19	8/12/19 13:10	MJH
Copper	73	1.0		μg/L	1		EPA 200.8	8/9/19	8/12/19 12:47	MJH
Iron	590	0.050		mg/L	1		EPA 200.7	8/10/19	8/12/19 16:02	MJH
Lead	220	0.50		μg/L	1		EPA 200.8	8/9/19	8/12/19 12:47	MJH
Mercury	0.00049	0.00010		mg/L	1		EPA 245.1	8/9/19	8/9/19 12:51	AJL
Nickel	21	5.0		μg/L	1		EPA 200.8	8/9/19	8/12/19 12:47	MJH
Selenium	2.2	5.0	1.6	μg/L	1	J	EPA 200.8	8/9/19	8/12/19 12:47	MJH
Silver	ND	0.20		μg/L	1		EPA 200.8	8/9/19	8/12/19 12:47	MJH
Zinc	220	10		μg/L	1		EPA 200.8	8/9/19	8/12/19 12:47	MJH
Hardness	450			mg/L	1		EPA 200.7	8/10/19	8/12/19 16:02	MJH



Project Location: 1479 Fall River Ave., Seekonk, M Sample Description: Work Order: 19H0485

Date Received: 8/8/2019

Field Sample #: Receiving_Water Sampled: 8/8/2019 16:00

Sample ID: 19H0485-01
Sample Matrix: Surface Water

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

								Date	Date/Time	
Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Hexavalent Chromium	ND	0.0040		mg/L	1		SM21-22 3500 Cr B	8/8/19	8/8/19 22:50	MJG



Project Location: 1479 Fall River Ave., Seekonk, M Sample Description: Work Order: 19H0485

Date Received: 8/8/2019

Field Sample #: Receiving_Water Sampled: 8/8/2019 16:00

Sample ID: 19H0485-01
Sample Matrix: Surface Water

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

								Date	Date/Time	
Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Ammonia as N	1.07	0.375	0.12	mg/L	5		121,4500NH3-BH		8/16/19 21:35	AAL



Sample Extraction Data

Prep Method: EPA 200.7-EPA 200.7

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
19H0485-01 [Receiving_Water]	B237743	50.0	50.0	08/10/19
19H0485-01 [Receiving_Water]	B237743	50.0		08/10/19

Prep Method: EPA 200.8-EPA 200.8

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
19H0485-01 [Receiving_Water]	B237683	50.0	50.0	08/09/19

Prep Method: EPA 245.1-EPA 245.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
19H0485-01 [Receiving_Water]	B237636	6.00	6.00	08/09/19

SM21-22 3500 Cr B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
19H0485-01 [Receiving_Water]	B237632	50.0	50.0	08/08/19

Prep Method: EPA 200.8-Tri Chrome Calc.

Lab Number [Field ID]	Batch	Initial [mL]	Date
19H0485-01 [Receiving_Water]	B237683	50.0	08/09/19



QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B237636 - EPA 245.1										
Blank (B237636-BLK1)				Prepared &	Analyzed: 08	3/09/19				
Mercury	ND	0.00010	mg/L							
LCS (B237636-BS1)				Prepared & A	Analyzed: 08	3/09/19				
Mercury	0.00379	0.00010	mg/L	0.00400	,	94.8	85-115			
LOG D. (DANESAS DODA)				D 10	. 1 100	1/00/10				
LCS Dup (B237636-BSD1)	0.00202	0.00010	ma/I	Prepared & A	Anaiyzed: 08		05 115	1.06	20	
Mercury	0.00383	0.00010	mg/L	0.00400		95.8	85-115	1.06	20	
Batch B237683 - EPA 200.8										
Blank (B237683-BLK1)				Prepared: 08	/09/19 Anal	yzed: 08/12/1	19			
Antimony	ND	1.0	μg/L							
Arsenic	ND	0.80	μg/L							
Cadmium	ND	0.20	$\mu g\!/\!L$							
Chromium	ND	1.0	μg/L							
Copper	ND	1.0	$\mu g/L$							
ead	ND	0.50	μg/L							
lickel	ND	5.0	μg/L							
elenium	ND	5.0	μg/L							
Silver	ND	0.20	$\mu g/L$							
linc	ND	10	μg/L							
CS (B237683-BS1)				Prepared: 08	/09/19 Anal	yzed: 08/12/1	19			
Antimony	529	10	μg/L	500		106	85-115			
Arsenic	537	8.0	μg/L	500		107	85-115			
Cadmium	524	2.0	μg/L	500		105	85-115			
Chromium	516	10	μg/L	500		103	85-115			
Copper	1030	10	μg/L	1000		103	85-115			
Lead	525	5.0	μg/L	500		105	85-115			
Nickel	524	50	μg/L	500		105	85-115			
Selenium	554	50	μg/L	500		111	85-115			
Silver	423	2.0	μg/L	500		84.5 *	85-115			L-07
Zinc	1090	100	μg/L	1000		109	85-115			,,
.CS Dup (B237683-BSD1)				Prepared: 08	/09/19 Anal	yzed: 08/12/1	19			
Antimony	537	10	μg/L	500		107	85-115	1.65	20	
Arsenic	542	8.0	$\mu g/L$	500		108	85-115	0.996	20	
Cadmium	534	2.0	$\mu g/L$	500		107	85-115	1.90	20	
Chromium	517	10	μg/L	500		103	85-115	0.223	20	
Copper	1040	10	$\mu g/L$	1000		104	85-115	0.571	20	
Lead	535	5.0	$\mu g/L$	500		107	85-115	1.90	20	
Nickel	522	50	μg/L	500		104	85-115	0.412	20	
Selenium	556	50	μg/L	500		111	85-115	0.261	20	
Silver	493	2.0	μg/L	500		98.6	85-115	15.3	20	



QUALITY CONTROL

Metals Analyses (Total) - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B237743 - EPA 200.7										
Blank (B237743-BLK1)				Prepared: 08	/10/19 Analy	yzed: 08/12/1	9			
Iron	ND	0.050	mg/L							
LCS (B237743-BS1)				Prepared: 08	/10/19 Analy	yzed: 08/12/1	9			
Iron	4.23	0.050	mg/L	4.00		106	85-115			
LCS Dup (B237743-BSD1)				Prepared: 08	/10/19 Analy	yzed: 08/12/1	9			
Iron	4.11	0.050	mg/L	4.00		103	85-115	2.94	20	



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 B237632 - SM21-22 3500 Cr B										
Blank (B237632-BLK1)				Prepared & A	Analyzed: 08	/08/19				
Hexavalent Chromium	ND	0.0040	mg/L							
LCS (B237632-BS1)				Prepared & A	Analyzed: 08	/08/19				
Hexavalent Chromium	0.11	0.0040	mg/L	0.100		108	83.9-121			
LCS Dup (B237632-BSD1)				Prepared & A	Analyzed: 08	/08/19				
Hexavalent Chromium	0.11	0.0040	mg/L	0.100		108	83.9-121	0.00	10	



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 is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
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.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
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.



CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications	
EPA 200.7 in Water		
Iron	CT,MA,NH,NY,RI,NC,ME,VA	
Hardness	CT,MA,NH,NY,RI,VA	
EPA 200.8 in Water		
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	
EPA 245.1 in Water		
Mercury	CT,MA,NH,RI,NY,NC,ME,VA	
SM19-22 4500 NH3 C in Water		
Ammonia as N	NY,MA,CT,RI,VA,NC,ME	

SM21-22 3500 Cr B in Water

Hexavalent Chromium NY,CT,NH,RI,ME,VA,NC

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2005	100033	03/1/2020
MA	Massachusetts DEP	M-MA100	06/30/2020
CT	Connecticut Department of Publile Health	PH-0567	09/30/2019
NY	New York State Department of Health	10899 NELAP	04/1/2020
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2020
RI	Rhode Island Department of Health	LAO00112	12/30/2019
NC	North Carolina Div. of Water Quality	652	12/31/2019
NJ	New Jersey DEP	MA007 NELAP	06/30/2020
FL	Florida Department of Health	E871027 NELAP	06/30/2020
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2020
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2019
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2019
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2020
NC-DW	North Carolina Department of Health	25703	07/31/2020
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2020

कीर्वात्र्यात्र्याव्याव्याव्याः त्र्यात्र्यात्र् ² Preservation Codes: X = Sodium Hydroxide DW = Drinking Water B = Sodium Bisulfate GW = Ground Water S = Summa Canister WW = Waste Water ³ Container Codes: O = Other (please O = Other (please O = Other (please A = Amber Glass Non Soxhlet Sulfuric Acid PCB ONLY ² Preservation Code Soxhlet O Field Filtered T = Tedlar Bag O Field Filtered Matrix Codes N = Nitric Acid O Lab to Filter O Lab to Filter M = Methanol Container Code S = Soil SL = Sludge SOL = Solid ST = Sterile T = Sodium Thiosulfate # of Containers P = Plastic G = Glass Page 1 of 1 ۷ = Vial 무무 define) = Ced A = Air define) Please use the following codes to indicate possible sample concentration NELAC and Allak-LAP, LLC Accredited www.contestiabs.com Chromatogram AIHA-LAP, LLC East Longmeadow, MA 01028 H - High; M - Medium; L - Low; C - Clean; U - Unknown NALYSIS REQUESTED within the Conc Code column above: Other WRTA \ \ Total Metals via 200.7*** MCP Certification Form Required RCP Certification Form Required MA MCP Required CT RCP Required MWRA MA State DW Required School MBTA Special Requirements via method 350.1; Email To: msoule@kleinfelder.com; estraley Code 5 Surface Matrix Code (equested Turnaround Tim O A Wah Approvali Require Municipality Brownfield # QISMd 10-Day प्रकार श्रेडी प्रकार 3-Day 4-Day EXCEL
 Grab CLP Like Data Pkg Required: Composite Detection unit Requirements Rhode Island DEM PDF > Government Oue Date: Ending | Date/Time 8/s//g Fax To #: ormat: Federal Other: 7-Day Day Day EPA NPDES ramediation general permit Phone: 413-525-2332 19 14 0485 Project Entity BeginMigh Date/Time Other One Beacon St, Suite 8100, Boston, MA 02108 617378 シュー Comments: ***5b, As, Cd, Cr3, Cr6, Cu, Fe, Pb, Hg, Ni, Se, Ag, Zn. Hg by 245.1, Cr6 via 3500 1479 Fall River Ave, Seekonk, MA Email: info@contestlabs.com 6/8/19 - 1610 Date/Time: 61.5151/8/8 Inte: FASS Andr Baylis 20180921.007A Client Sample ID / Description 617-497-7800 **Emily Straley Emily Straley** CFI Seekonk Date/Tipne: / Kleinfelder 20190730 Receiving-Water Fax: 413-525-6405 61-3-8 -8-19 Date/Time: Date/Time: Sampled By: Catic Cross Con-Test Quote Name/Number: CON-LEST Relinguished by: (signature) ived by: (signature) スイア Work Order# Invoice Recipient: Company Names Project Manager; Project Location: Project Number: Project terries Received by: Z Address: Phone: Page 14 of 15

39 Spruce Street

Doc # 381 Rev 1_03242017

http://www.contestlabs.com

CHAIN OF CUSTODY RECORD

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples_____



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 _	leinf	elder							
Received	Ву	M		Date	8/8/19		Time	19:19	
How were the s	•	In Cooler	<u> </u>	No Cooler		On Ice	T	No Ice	
received	?	Direct from Samp	oling			Ambient		Melted Ice	
Were samples	within	_	By Gun#	4		Actual Ten	np - 4.6		<u> </u>
Temperature?		j	By Blank #			Actual Ten	םר -		-
	-	eal Intact?	NH	We	re Sample	s Tampered		NIH	-
		quished?		Does	s Chain Ag	ree With Sa	mples?	T	•
Are there t	broken/k	eaking/loose caps	on any sam		<u> </u>			,	•
Is COC in ink/ L					nples rece		olding time?		
Did COC inclu		Client		Analysis			ler Name		•
pertinent Inform		Project		ID's	<u>T</u>	Collection	Dates/Times	3	•
		out and legible?	<u> </u>						•
Are there Lab to		•	<u> </u>		Who wa	s notified?			
Are there Rushe					Who wa	s notified?			
Are there Short I	-		<u> </u>		Who wa	s notified?			•
Is there enough									
Is there Headspa			N/A		MS/MSD?	<u> </u>	_	_	
Proper Media/Co		_	<u> </u>			samples red	quired?	F	
Were trip blanks			F		On COC?	<u>F</u>	_		
Do all samples h	ave the	proper pH?		Acid _	762	-	Base		
Vials	#	Containers:	#			#			#
Unp- HCL-		1 Liter Amb.		1 Liter F			16 oz	Amb.	
Meoh-		500 mL Amb.		500 mL			8oz An	nb/Clear	
Bisulfate-		250 mL Amb.		250 mL		2		nb/Clear	
DI-		Flashpoint Other Class		Col./Ba				nb/Clear	
Thiosulfate-		Other Glass SOC Kit		Other F				core	
Sulfuric-		Perchlorate		Plastic			Frozen:		
Janano		r elcillorate		Ziplo					
/ials	.	Containers:		Unused N	ledia				
Jnp-		1 Liter Amb.	**	1 Liter F	Nootio	#	10		# **
ICL-		500 mL Amb.		500 mL l			16 oz	******	
vleoh-		250 mL Amb.		250 mL i				b/Clear	
Bisulfate-		Col./Bacteria		Flashp				b/Clear	
01-		Other Plastic		Other C				b/Clear	*
hiosulfate-		SOC Kit		Plastic			Enc Frozen:	ore	
Sulfuric-		Perchlorate		Ziplo			I IUZ C II.		
Comments:				ZIDIO	OIL I				
									

ATTACHMENT D

Fish and Wildlife Consistency Letter



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New England Ecological Services Field Office 70 Commercial Street, Suite 300 Concord, NH 03301-5094 Phone: (603) 223-2541 Fax: (603) 223-0104

http://www.fws.gov/newengland



IPaC Record Locator: 069-18133152 September 04, 2019

Subject: Consistency letter for the 'CFI Seekonk' project indicating that any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Dear Madeline Soule:

The U.S. Fish and Wildlife Service (Service) received on September 04, 2019 your effects determination for the 'CFI Seekonk' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. You indicated that no Federal agencies are involved in funding or authorizing this Action. This IPaC key assists users in determining whether a non-Federal action may cause "take" of the northern long-eared bat that is prohibited under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Please report to our office any changes to the information about the Action that you entered into IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation.

If your Action proceeds as described and no additional information about the Action's effects on species protected under the ESA becomes available, no further coordination with the Service is required with respect to the northern long-eared bat.

[1] Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

CFI Seekonk

2. Description

The following description was provided for the project 'CFI Seekonk':

Raze of onsite structures and construction of new convenience store and service station. Dewatering only covered by this project, dewatering expected from area of new underground storage tanks.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/41.78668804266135N71.31708541617266W



Determination Key Result

This non-Federal Action may affect the northern long-eared bat; however, any take of this species that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o).

Determination Key Description: Northern Long-eared Bat 4(d) RuleThis key was last updated in IPaC on **May 15, 2017**. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for non-Federal actions is to assist determinations as to whether proposed actions are excepted from take prohibitions under the northern long-eared bat 4(d) rule.

If a non-Federal action may cause prohibited take of northern long-eared bats or other ESA-listed animal species, we recommend that you coordinate with the Service.

Determination Key Result

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Qualification Interview

- 1. Is the action authorized, funded, or being carried out by a Federal agency? *No*
- 2. Will your activity purposefully **Take** northern long-eared bats? *No*
- Is the project action area located wholly outside the White-nose Syndrome Zone?
 Automatically answered
 No
- 4. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases is available at www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html.

Yes

5. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

No

6. Will the action involve Tree Removal?

No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

Estimated total acres of forest conversion:
 If known, estimated acres of forest conversion from April 1 to October 31
 If known, estimated acres of forest conversion from June 1 to July 31

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

- 4. Estimated total acres of timber harvest
- 0
- 5. If known, estimated acres of timber harvest from April 1 to October 31 θ
- 6. If known, estimated acres of timber harvest from June 1 to July 31 θ

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

7. Estimated total acres of prescribed fire

0

0

- 8. If known, estimated acres of prescribed fire from April 1 to October 31
- 9. If known, estimated acres of prescribed fire from June 1 to July 31 0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)? θ

ATTACHMENT E

Massachusetts Cultural Resources in Vicinity of Site

Massachusetts Cultural Resource Information System MACRIS

MACRIS Search Results

Search Criteria: Town(s): Seekonk; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
SEE.8	Siravo, Martin R. Fruit Stand	Fall River Ave	Seekonk	1954
SEE.49	Seekonk Congregational Church	Fall River Ave	Seekonk	r 1923
SEE.902	Seekonk Speedway	Fall River Ave	Seekonk	1946
SEE.116	•	15 Fall River Ave	Seekonk	1740
SEE.113	Sweetland, C. S. House	283 Fall River Ave	Seekonk	c 1880
SEE.114		313 Fall River Ave	Seekonk	c 1880
SEE.60	Martin House	379 Fall River Ave	Seekonk	c 1840
SEE.61	Martin, C. House	380 Fall River Ave	Seekonk	c 1840
SEE.56	Bowen, J. Grist Mill	390 Fall River Ave	Seekonk	1738
SEE.58	Martin, Joseph House	391 Fall River Ave	Seekonk	1902
SEE.59	Chaffee, Dexter Blacksmith Shop	393 Fall River Ave	Seekonk	1840
SEE.62	Martin, C. Barn	394 Fall River Ave	Seekonk	c 1880
SEE.112	Smart Memorial Library	536 Fall River Ave	Seekonk	c 1920
SEE.111		544 Fall River Ave	Seekonk	c 1880
SEE.110		550 Fall River Ave	Seekonk	c 1930
SEE.54	Handy, G. R. House	591 Fall River Ave	Seekonk	c 1890
SEE.55		592 Fall River Ave	Seekonk	c 1900
SEE.53	Handy - Nickel House	595 Fall River Ave	Seekonk	c 1900
SEE.52	Handy - Nickel House	597 Fall River Ave	Seekonk	c 1900
SEE.51	Handy - Nickel House	599 Fall River Ave	Seekonk	c 1912
SEE.50		601 Fall River Ave	Seekonk	c 1910
SEE.48		602 Fall River Ave	Seekonk	c 1890
SEE.47	Short, S. House	608 Fall River Ave	Seekonk	c 1865
SEE.46	Mason, Rachel House	618 Fall River Ave	Seekonk	c 1840
SEE.40	Bowen, C. House	627 Fall River Ave	Seekonk	c 1830
SEE.39		632 Fall River Ave	Seekonk	c 1860
SEE.38	Luther, G. Store	635 Fall River Ave	Seekonk	c 1860
SEE.37	Medbury, A. N. Building	640 Fall River Ave	Seekonk	c 1860
SEE.36		651 Fall River Ave	Seekonk	c 1920
SEE.35		659 Fall River Ave	Seekonk	c 1870
SEE.34	Fuller, Levi House	660 Fall River Ave	Seekonk	c 1840
SEE.33	Pond - Peck House	663 Fall River Ave	Seekonk	c 1870
SEE.32	Armington House	671 Fall River Ave	Seekonk	c 1870
SEE.22	Hoyl House	1104 Fall River Ave	Seekonk	c 1880
SEE.17	Gregory, J Allen, E. House	1388 Fall River Ave	Seekonk	
SEE.801	Handy Burial Ground	1495 Fall River Ave	Seekonk	1845
SEE.16	Borden, I. House	1527 Fall River Ave	Seekonk	
SEE.15	Brown, M. E. House	1530 Fall River Ave	Seekonk	
SEE.13	Wood, Calvin House	1636 Fall River Ave	Seekonk	
SEE.12		1692 Fall River Ave	Seekonk	
SEE.11	Golden Bucket Restaurant	1735 Fall River Ave	Seekonk	
SEE.6		9 Warren Ave	Seekonk	c 1920
SEE.5	Handy, William House	74 Warren Ave	Seekonk	
SEE.4	Munroe, Capt. Jonathan House	205 Warren Ave	Seekonk	
SEE.3	Grant, Joseph House	352 Warren Ave	Seekonk	
SEE.2		363 Warren Ave	Seekonk	
SEE.1		376 Warren Ave	Seekonk	c 1860