December 24, 2019 (Revised January 22, 2020)

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

Re: Notice of Intent for Application of a Remediation General Permit
Former Alewife Automotive
395 Alewife Brook Parkway
Somerville, MA

Dear Ms. Little:

Mark A. Germano, LSP (MAG), on behalf of 395 ABP, LLC, (ABP) has prepared the enclosed Notice of Intent (NOI) for application of Remediation General Permit (RGP) for remediation/construction activities at the above referenced site, a former gas station. The property has been a gas station since 1932. In March 1992 a release of gasoline was discovered based on a failed tank test. MADEP assigned RTN 3-2770 to the site. Over the course of the next five years Sunoco remediated the site through various techniques including excavation and pump and treat. The site was "closed" in September 1997 with a Notice of Activity and Use Limitation (AUL) implemented because of residual contaminated soil under the pump island and canopy. The AUL deed restricted residential use of the property.

In 2018 395 ABP bought the property with plans to demolish the gas station, to excavate the contaminated soil, to terminate the AUL and to construct a residential condominium complex. The depth to groundwater is approximately 4-7 bgs. In order to excavate the contaminated soil and construct a partial basement the site has to be dewatered. A granular activated carbon system is on-site and has already been used however the glacial soils are too dense for on-site discharge. Therefore, to remediate the site our best option is to discharge treated groundwater into the municipal drainage system which discharges into the Alewife Brook located across the street from the site. Removal of the contaminated soil will achieve a level of "No Significant Risk" for the Site in order to terminate the AUL.

Groundwater Characterization

In preparation for groundwater dewatering activities, a representative groundwater sample was collected from the Frac Tank on December 9, 2019. The sample was submitted to NET labs of Warwick, RI for analysis of volatile organic compounds (VOCs) via EPA Methods 624 and 8260, polynuclear aromatic hydrocarbons (PAHs) and phenols via EPA Method 625 SIM, total PCBs via EPA Method 8082, total metals via EPA Method 200.7, Oil and Grease via EPA Method 1664A,

chloride via EPA Method 4500, ammonia via EPA Method 350.1, cyanide via EPA Method 335.4, ethanol via EPA method 8015 and total suspended solids via Standard Method 2540D. Groundwater temperature (35 degrees F) was recorded in the field.

In addition, a groundwater sample from a monitoring well located in the excavation was obtained prior to initiating construction. Volatile Petroleum Hydrocarbon (VPH), Extractable Petroleum Hydrocarbon (EPH), dissolved RCRA 8 Metals and VOC analyses was conducted on the sample. The results are attached the monitoring well is labelled MW-1. Also, the treatment system is set up and has operated with discharge to an on-site into trench. However the trench filled up quickly and water was unable to filter into the ground because the soils were too dense. These results are also attached. The effluent sample demonstrates the treatment system works effectively.

Receiving Water Characterization

Treated effluent will be discharged via a catch basin on Gordon Street adjacent to the site. Discharge of the catch basin will occur through the existing municipal drainage system into the Alewife Brook located across the street from the site. The City of Somerville has been notified of the planned discharge. Permission has been granted

This brook was sampled on December 9, 2019, at the outfall where the drainage system discharges to the brook. The surface water sample was submitted to NET Labs of Warwick, RIA for analysis of total metals via EPA Method 200.7, ammonia via EPA Method 350.1 and hardness via EPA Method 130.1. Receiving water analytical results are included as Attachment C. Temperature (40 degrees F) were collected in the field.

Alewife Brook is listed on the Massachusetts 303(d) list under Category 5 Waters – "Impairment caused by a pollutant – TMDL required."

Proposed Treatment System

A Design Flow treatment system discharge rate of 25 gallons per minute (gpm) was used to evaluate the applicable RGP discharge standards. Extracted water from the excavation activities will be initially pumped into one 21,000-gallon fractionation tanks.

Following settling, extracted groundwater will be treated by passage through (at minimum) 50- micron particle filters, and through two 500-pound liquid-phase reactive carbon vessels. Flow will be measured using an in-line flowmeter and totalizer prior to the discharge into the catch basin.

MAG anticipates that the dewatering system will operate from approximately January 1, 2020 through March 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.
- A review of the NHESP Priority Habitat Map was reviewed at MassGIS was reviewed indicating that there are no threatened, endangered, candidate species, or critical habitats in the proposed construction area
- 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 no results found. See attached MACRIS results page.
- A dilution factor was calculated to be 14.64 using Stream Stats to determine the 7Q10 mgd to be 0.759 ft3. using a maximum flow 25 gpm. This was confirmed by Catherine Vakalopoulos at MADEP. See Attachment E.

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 (339)793-3528. Sincerely,

Mark A. Germano, LSP

Mark Germano
President

Attachment A – RGP NOI Form
Attachment B – Figures
Figure 1 – Locus Plan
Figure 2 – Site Plan and Proposed Construction
Figure 3 – City of Somerville Drainage Layout
Figure 4 – Treatment System Schematic
Figure 5 – MassDEP Priority Resource Map
Attachment C – Laboratory Analytical Data
Attachment D – Massachusetts Cultural Resources in Vicinity of Site
Attachment E-Stream Characteristics, Dilution Factor Comfirmation

ATTACHMENT A
NOI FORM

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

A. General site information:

<table>
<tr><td rowspan="2">1. Name of site:
Former Alewife Automotive</td><td colspan="3">Site address: 395 Alewife Brook Parkway
Street:</td></tr>
<tr><td>City: Somerville</td><td>State: MA</td><td>Zip:</td></tr>
<tr><td rowspan="4">2. Site owner
395 ABP, LLC

Owner is (check one): ☐ Federal ☐ State/Tribal ☐ Private
☐ Other; if so, specify:</td><td colspan="3">Contact Person: Chris Cormier</td></tr>
<tr><td colspan="2">Telephone: 978-265-0444</td><td>Email: Condenlpconstruction@yahoo.com</td></tr>
<tr><td colspan="3">Mailing address: 324 Cmmonwelth Ave. Suite 4
Street:</td></tr>
<tr><td>City: Boston</td><td>State: MA</td><td>Zip: 02115</td></tr>
<tr><td rowspan="4">3. Site operator, if different than owner
Mark A. Germano, LSP</td><td colspan="3">Contact Person: Mark Germano</td></tr>
<tr><td colspan="2">Telephone: 339-793-3528</td><td>Email: mgermano916@gmail.com</td></tr>
<tr><td colspan="3">Mailing address: 15 Pinehurst Road
Street:</td></tr>
<tr><td>City: Marshfield</td><td>State: MA</td><td>Zip: 02050</td></tr>
<tr><td>4. NPDES permit number assigned by EPA:
NA

NPDES permit is (check all that apply: ☐ RGP ☐ DGP ☐ CGP
☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:</td><td colspan="3">5. Other regulatory program(s) that apply to the site (check all that apply):
☑ MA Chapter 21e; list RTN(s): 3-2770

☐ NH Groundwater Management Permit or Groundwater Release Detection Permit:

☐ CERCLA
☐ UIC Program
☐ POTW Pretreatment
☐ CWA Section 404</td></tr>
</table>

B. Receiving water information:

1. Name of receiving water(s):	Waterbody identification of receiving water(s):	Classification of receiving water(s):
Alewife Brook	MA71-04	Class B

Receiving water is (check any that apply): ☐ Outstanding Resource Water ☐ Ocean Sanctuary ☐ territorial sea ☐ Wild and Scenic River

2. Has the operator attached a location map in accordance with the instructions in B, above? (check one): ☑ Yes ☐ No

Are sensitive receptors present near the site? (check one): ☐ Yes ☑ No
If yes, specify:

TMDL-5

3. Indicate if the receiving water(s) is listed in the State's Integrated List of Waters (i.e., CWA Section 303(d)). Include which designated uses are impaired, and any pollutants indicated. Also, indicate if a final TMDL is available for any of the indicated pollutants. For more information, contact the appropriate State as noted in Part 4.6 of the RGP. Debris,copper, escherichia coli, scum, oil slicks, lead, diss oxygen, PCB in fish tissue, phosphorous, taste and odor

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.	0.759 ft3/sec
5. Indicate the requested dilution factor for the calculation of water quality-based effluent limitations (WQBELs) determined in accordance with the instructions in Appendix V for sites in Massachusetts and Appendix VI for sites in New Hampshire.	14.64

6. Has the operator received confirmation from the appropriate State for the 7Q10and dilution factor indicated? (check one): ☑ Yes ☐ No If yes, indicate date confirmation received: 1/22/20

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 sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): ☑ Yes ☐ No	Has the operator attached a summary of influent sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): ☐ Yes ☐ No	☐ A surface water other than the receiving water; if so, indicate waterbody:	☐ Other; if so, specify:

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 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.	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 with the instructions in Appendix VIII? (check one): ☑ Yes ☐ No
3. Has the source water been previously chlorinated or otherwise contains residual chlorine? (check one): ☐ Yes ☑ No	

D. Discharge information

1.The discharge(s) is a(n) (check any that apply): ☑ Existing discharge ☑ New discharge ☐ New source	
Outfall(s): Outfall to Alewife Brook Serial # 001	Outfall location(s): (Latitude, Longitude) 42.413070 Latitude -71.132386 Longitude
Discharges enter the receiving water(s) via (check any that apply): ☑ Direct discharge to the receiving water ☐ Indirect 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 sewer system: Has notification been provided to the owner of this system? (check one): ☑ Yes ☐ No Has the operator has received permission from the owner to use such system for discharges? (check one): ☑ Yes ☐ No, if so, explain, with an estimated timeframe for obtaining permission: Has the operator attached a summary of any additional requirements the owner of this system has specified? (check one): ☐ Yes ☑ No	
Provide the expected start and end dates of discharge(s) (month/year): 12/2019-4/2020 Indicate if the discharge is expected to occur over a duration of: ☑ less than 12 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	

<table>
<tr><td>2. Activity Category: (check all that apply)</td><td colspan="2">3. Contamination Type Category: (check all that apply)</td></tr>
<tr><td rowspan="5">☑ I – Petroleum-Related Site Remediation
☐ II – 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</td><td colspan="2">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</td></tr>
<tr><td colspan="2">b. If Activity Category III, IV, V, VI, VII or VIII: (check either G or H)</td></tr>
<tr><td>☐ G. Sites with Known Contamination</td><td>☐ H. Sites with Unknown Contamination</td></tr>
<tr><td>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</td><td>d. If Category III-H, IV-H, V-H, VI-H, VII-H or VIII-H Contamination Type Categories A through F apply</td></tr>
</table>

4. Influent and Effluent Characteristics

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
A. Inorganics									
Ammonia	x		2	E350.1	0.1			Report mg/L	---
Chloride		x	1	4500	25	324000		Report µg/l	---
Total Residual Chlorine		x	1	4500				0.2 mg/L	
Total Suspended Solids		x	1	2540	2	8000		30 mg/L	
Antimony		x	2	200.7	0.6	0.1		206 µg/L	
Arsenic		x	2	200.7/601	0.1	16.4		104 µg/L	
Cadmium		x	2	200.7/601	0.1	0.5		10.2 µg/L	
Chromium III		x	2	200.7/601	0.1	0.5		323 µg/L	
Chromium VI		x	2	200.7	0.1	0.491		323 µg/L	
Copper		x	2	200.7	1	5.0		242 µg/L	
Iron		x	1	200.7	0.1	3.0		5,000 µg/L	
Lead		x	2	200.7	0.1	1.3		160 µg/L	
Mercury	x		1	200.7/601	0.2			0.739 µg/L	
Nickel		x	1	200.7	1.0	3.0		1,450 µg/L	
Selenium	x		1	200.7	5.0			235.8 µg/L	
Silver	x		1	200.7	0.1			35.1 µg/L	
Zinc		x	2	200.7	0.1	1.3		420 µg/L	
Cyanide	x		1	335.4	.01			178 mg/L	
B. Non-Halogenated VOCs									
Total BTEX		x	1	624	1/10/20	13152		100 µg/L	---
Benzene		x	1	624	10	671		5.0 µg/L	---
1,4 Dioxane		x	1	624	500			200 µg/L	---
Acetone	X		1	624	5			7.97 mg/L	---
Phenol		X	1	624	2	6		1,080 µg/L	

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
C. Halogenated VOCs									
Carbon Tetrachloride	X		1	624	10			4.4 µg/L	
1,2 Dichlorobenzene	X		1	624	1			600 µg/L	---
1,3 Dichlorobenzene	X		1	624	1			320 µg/L	---
1,4 Dichlorobenzene	X		1	624	1			5.0 µg/L	---
Total dichlorobenzene	X		1	624	1			763 µg/L in NH	---
1,1 Dichloroethane	X		1	624	1			70 µg/L	---
1,2 Dichloroethane	X		1	624	1			5.0 µg/L	---
1,1 Dichloroethylene		X	1	624				3.2 µg/L	---
Ethylene Dibromide		x	1	624				0.05 µg/L	---
Methylene Chloride	X		1	624	5			4.6 µg/L	---
1,1,1 Trichloroethane	X		1	624	1			200 µg/L	---
1,1,2 Trichloroethane	X		1	624	1			5.0 µg/L	---
Trichloroethylene	X		1	624	1			5.0 µg/L	---
Tetrachloroethylene	X		1	624	1			5.0 µg/L	
cis-1,2 Dichloroethylene	X		1	624	1			70 µg/L	---
Vinyl Chloride	X		1	624	1			2.0 µg/L	---
D. Non-Halogenated SVOCs									
Total Phthalates		X	1	625	2	3		190 µg/L	
Diethylhexyl phthalate		X	1	625	2			101 µg/L	
Total Group I PAHs		x	1	625	2			1.0 µg/L	---
Benzo(a)anthracene		X	1	625	2			As Total PAHs	
Benzo(a)pyrene		X	1	625	2				
Benzo(b)fluoranthene		X	1	625	2				
Benzo(k)fluoranthene		X	1	625	2				
Chrysene		X	1	625	1				
Dibenzo(a,h)anthracene		X	1	625	2				
Indeno(1,2,3-cd)pyrene		X	1	625	2				

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
Total Group II PAHs		X	1	625	2			100 µg/L	---
Naphthalene		X	1	625/8270	2	71		20 µg/L	---
E. Halogenated SVOCs									
Total PCBs	X		1	608	0.2			0.000064 µg/L	---
Pentachlorophenol		X	1	625	5			1.0 µg/L	---
F. Fuels Parameters									
Total Petroleum Hydrocarbons		X	1	8100	1000	3910		5.0 mg/L	---
Ethanol	X		1	8260	10			Report mg/L	---
Methyl-tert-Butyl Ether		X	1	624	5			70 µg/L	
tert-Butyl Alcohol	X		1	624	5			120 µg/L in MA 40 µg/L in NH	---
tert-Amyl Methyl Ether	X		1	6924	1			90 µg/L in MA 140 µg/L in NH	---
Other (i.e., pH, temperature, hardness, salinity, LC_{50}, additional pollutants present); if so, specify:									
pH			1			7.2			
Temperature			1			35 degrees F			
Hardness			1	200.7	.125	29.8			

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.

Water from excavation will be pumped into a Frac tank. The water in the Frac tank will be pumped through a bag filter and two 500 pound Granulated Activated Carbon cannisters in series before being dischrged into a catch basin which is connected to the City of Somerville's drainage system whch discharges into the Alewife Brook.

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: ~~TBD/Pump~~ Bag Filter, Size of Carbon Canisters Is use of a flow meter feasible? (check one): ☑ Yes ☐ No, if so, provide justification:	
Provide the proposed maximum effluent flow in gpm.	25 gpm
Provide the average effluent flow in gpm.	20 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

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): ☐ Yes ☐ 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): ☐ Yes ☐ No

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) ☐ the operator ☐ EPA ☐ 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): ☑ Yes ☐ No

per NHESP-2018

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): ☐ Yes ☑ 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

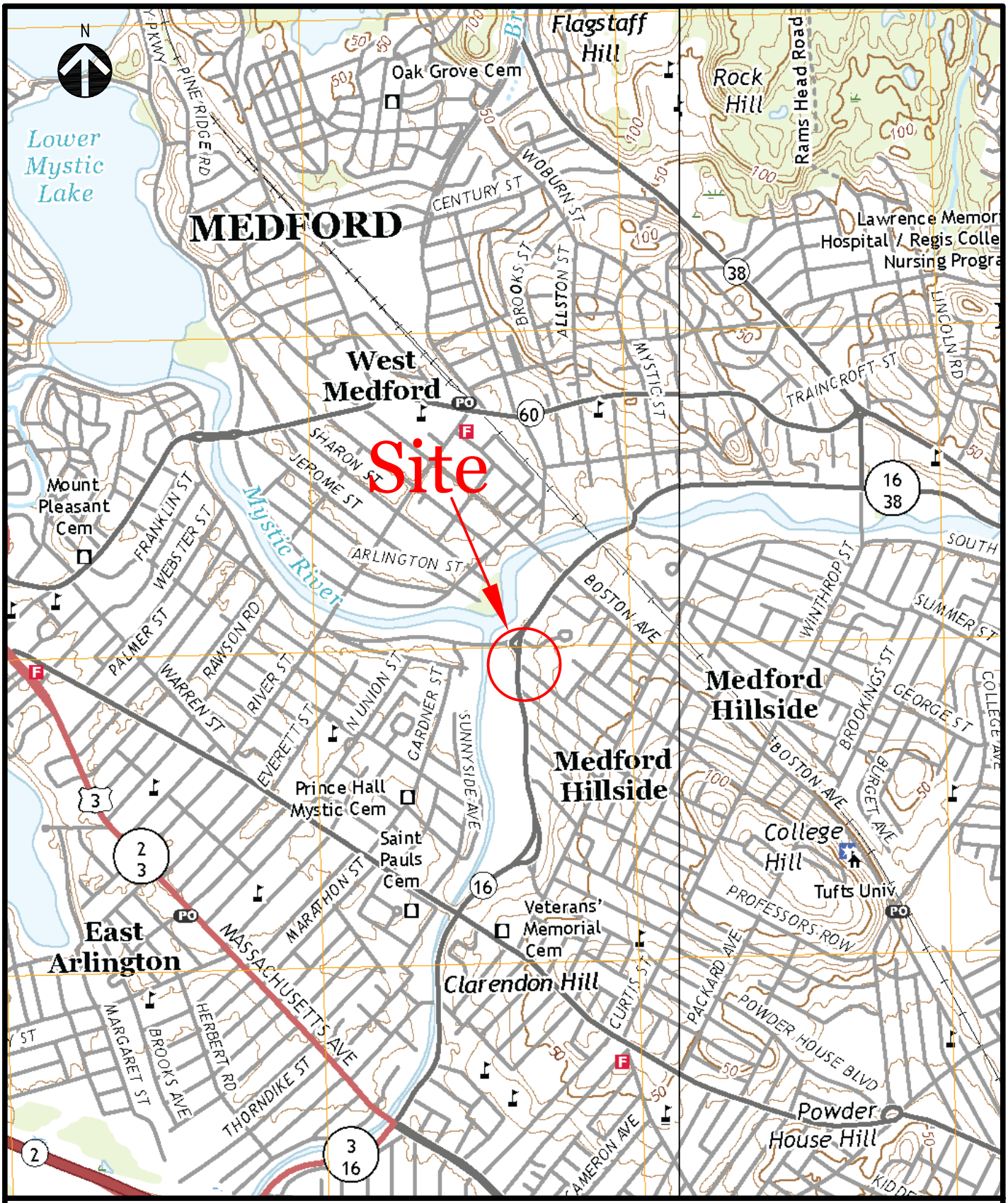
Has the operator attached the certification requirement for the Best Management Practices Plan (BMPP)? (check one): ☑ Yes ☐ No

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: I certify that a BMPP meeting the requirements of this general permit will be developed and implemented upon initiation of discharge	
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.	Check one: Yes ☑ No ☐ NA ☐
Permission obtained from the owner of a private or municipal storm sewer system, if such system is used for site 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): ☐ RGP ☐ DGP ☐ CGP ☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:	Check one: Yes ☐ No ☑ NA ☐
Signature: 	Date: December 20, 2019
Print Name and Title: Mark A. Germano, LSP	

ATTACHMENT B
FIGURES



MAG

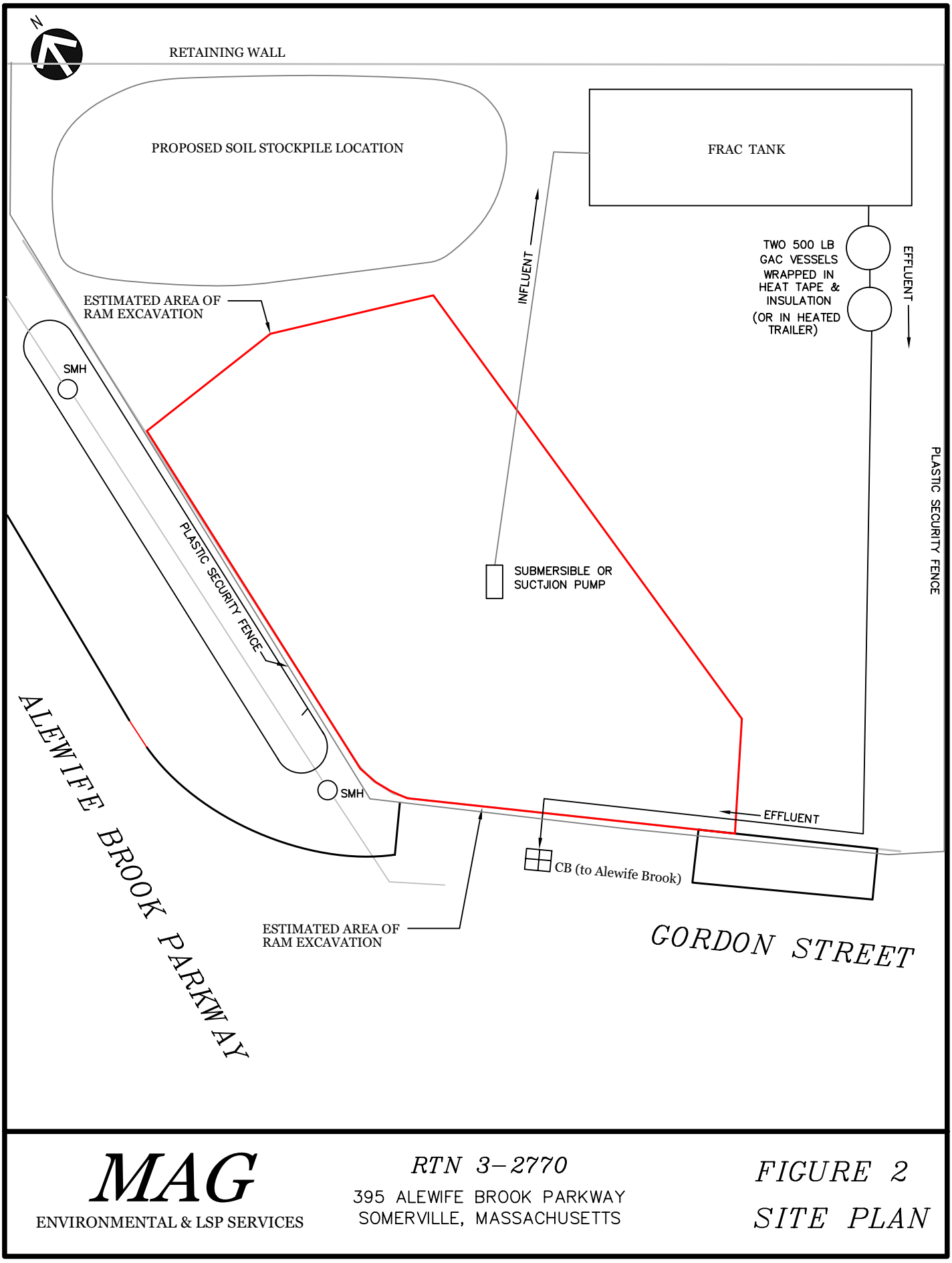
ENVIRONMENTAL & LSP SERVICES

RTN 3-2770

395 ALEWIFE BROOK PARKWAY
SOMERVILLE, MASSACHUSETTS

FIGURE 1

SITE LOCUS



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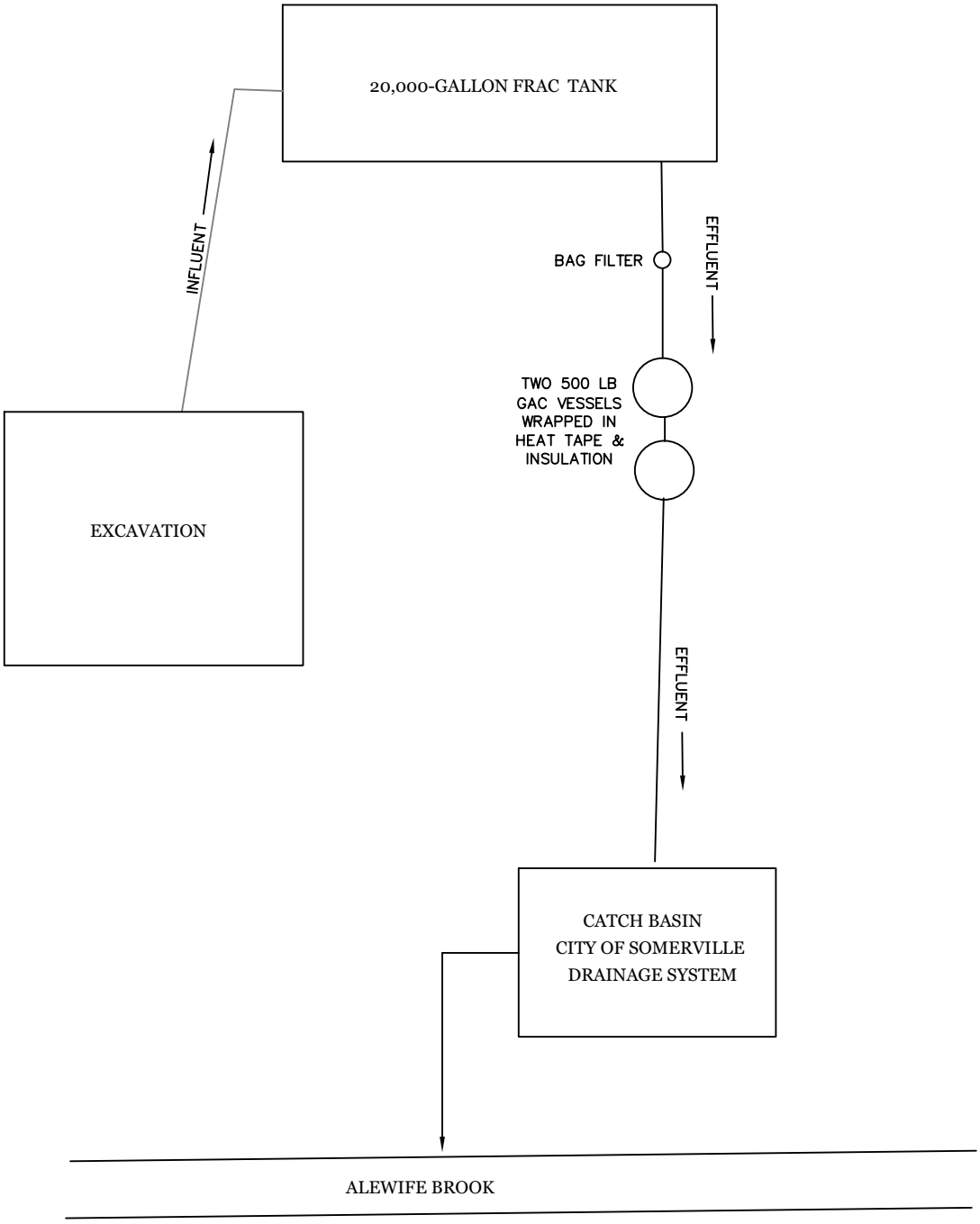
ENVIRONMENTAL & LSP SERVICES

RTN 3-2770

395 ALEWIFE BROOK PARKWAY
SOMERVILLE, MASSACHUSETTS

FIGURE 2

SITE PLAN



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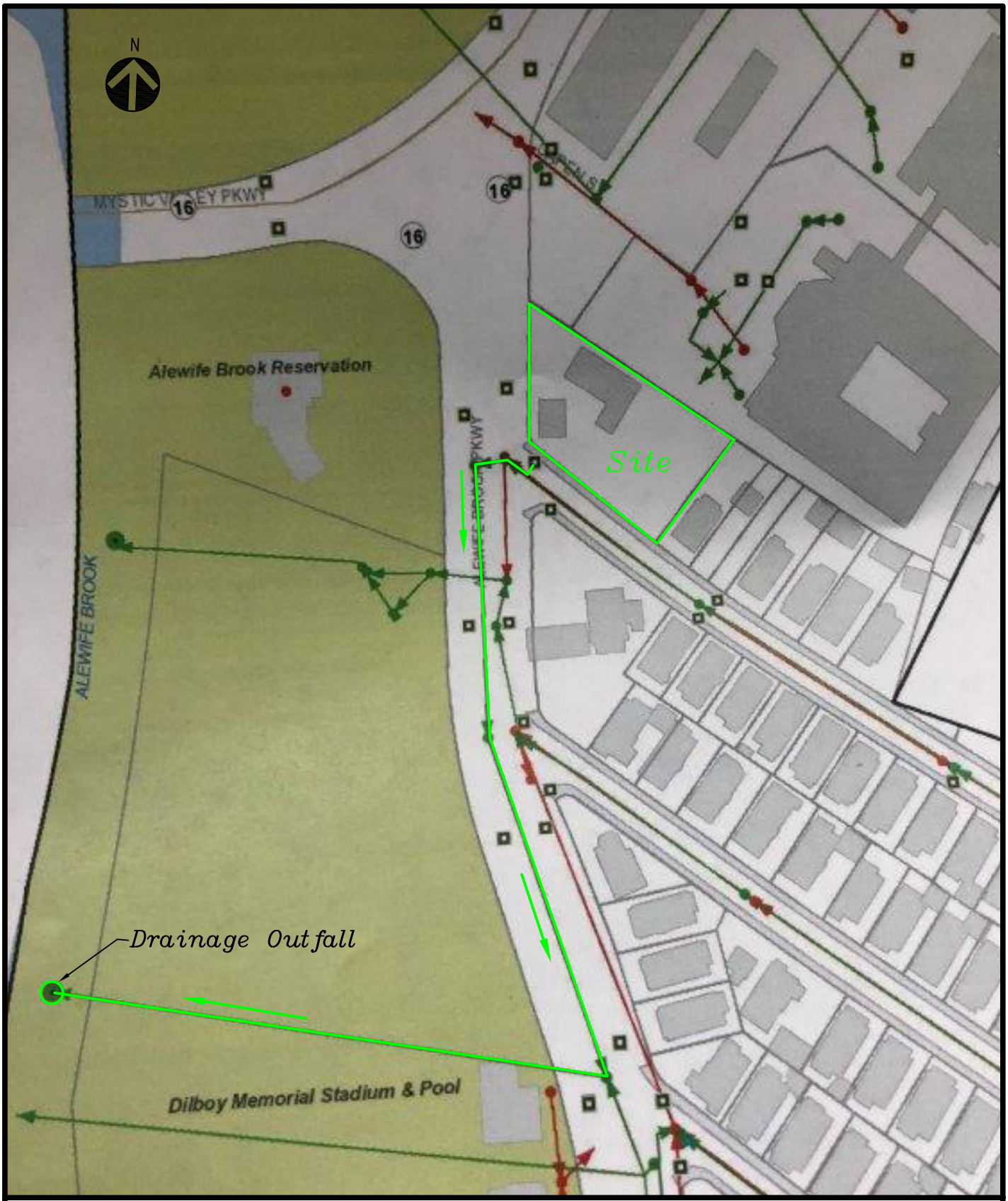
ENVIRONMENTAL & LSP SERVICES

RTN 3-2770

395 ALEWIFE BROOK PARKWAY
SOMERVILLE, MASSACHUSETTS

FIGURE 3

GROUNDWATER TREATMENT SYSTEM FLOW CHART



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ENVIRONMENTAL & LSP SERVICES

RTN 3-2770
395 ALEWIFE BROOK PARKWAY
SOMERVILLE, MASSACHUSETTS

FIGURE 4
DRAINAGE PLAN

MassDEP - Bureau of Waste Site Cleanup

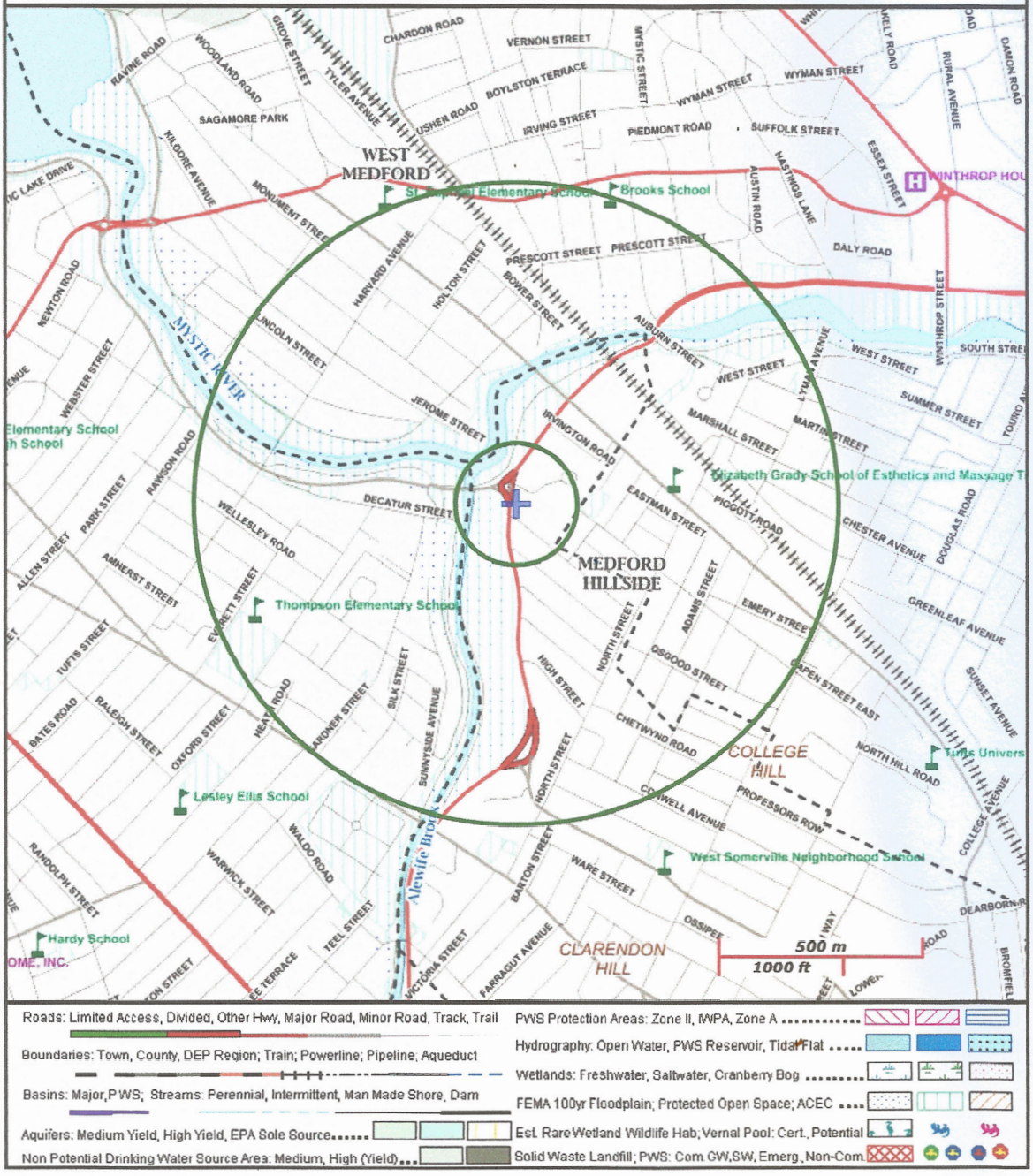
Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

Site Information:
ALEWIFE AUTOMOTIVE SALES AND SERVICE
395 ALEWIFE BROOK PARKWAY SOMERVILLE, MA
3-000002770

NAD83 UTM Meters:
4697971mN, 324660mE (Zone: 19)
August 24, 2018

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: http://www.mass.gov/mgis/.

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail
Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct
Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam
Aquifers: Medium Yield, High Yield, EPA Sole Source
Non Potential Drinking Water Source Area: Medium, High (Yield)
PWS Protection Areas: Zone II, IWPA, Zone A
Hydrography: Open Water, PWS Reservoir, Tidal Flat
Wetlands: Freshwater, Saltwater, Cranberry Bog
FEMA 100yr Floodplain; Protected Open Space; ACEC
Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential
Solid Waste Landfill; PWS: Com GW, SW, Emerg, Non-Com

ATTACHMENT C
LABORATORY ANALYTICAL REPORTS

New England Testing Laboratory, Inc.
(401) 353-3420

REPORT OF ANALYTICAL RESULTS

NETLAB Work Order Number: 9K08006
Client Project: 395 Alewife Brook Parkway

Report Date: 14-November-2019

Prepared for:

Mark A Germano
Mark A. Germano, LSP
15 Pinehurst Rd
Marshfield, MA 02050

Richard Warila, Laboratory Director
New England Testing Laboratory, Inc.
59 Greenhill Street
West Warwick, RI 02893
rich.warila@newenglandtesting.com

Samples Submitted :

The samples listed below were submitted to New England Testing Laboratory on 11/08/19. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is 9K08006. Custody records are included in this report.

Lab ID	Sample	Matrix	Date Sampled	Date Received
9K08006-01	S1	Soil	11/06/2019	11/08/2019
9K08006-02	S2	Soil	11/06/2019	11/08/2019
9K08006-03	S3	Soil	11/06/2019	11/08/2019
9K08006-04	S4	Soil	11/06/2019	11/08/2019
9K08006-05	S5	Soil	11/06/2019	11/08/2019
9K08006-06	S6	Soil	11/06/2019	11/08/2019
9K08006-07	MW-1	Water	11/06/2019	11/08/2019

Request for Analysis

At the client's request, the analyses presented in the following table were performed on the samples submitted.

MW-1 (Lab Number: 9K08006-07)

Analysis	Method
Dissolved Arsenic	EPA 6010C
Dissolved Barium	EPA 6010C
Dissolved Cadmium	EPA 6010C
Dissolved Chromium	EPA 6010C
Dissolved Lead	EPA 6010C
Dissolved Mercury	EPA 7470A
Dissolved Selenium	EPA 6010C
Dissolved Silver	EPA 6010C
MADEP EPH	MADEP EPH
MADEP VPH	MADEP VPH
Volatile Organic Compounds	EPA 8260C

S1 (Lab Number: 9K08006-01)

Analysis	Method
MADEP VPH	MADEP VPH

S2 (Lab Number: 9K08006-02)

Analysis	Method
MADEP VPH	MADEP VPH

S3 (Lab Number: 9K08006-03)

Analysis	Method
MADEP VPH	MADEP VPH

S4 (Lab Number: 9K08006-04)

Analysis	Method
MADEP VPH	MADEP VPH

S5 (Lab Number: 9K08006-05)

Analysis	Method
MADEP VPH	MADEP VPH

S6 (Lab Number: 9K08006-06)

Analysis	Method
MADEP VPH	MADEP VPH

Method References

Method for the Determination of Extractable Petroleum Hydrocarbons, Rev. 1.1, Massachusetts Department of Environmental Protection, 2004

Method for the Determination of Volatile Petroleum Hydrocarbons, Rev. 2.1, Massachusetts Department of Environmental Protection, 2018

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, USEPA

Case Narrative

Sample Receipt:

The samples associated with this work order were received in appropriately cooled and preserved containers. The chain of custody was adequately completed and corresponded to the samples submitted.

Exceptions: None

Analysis:

All samples were prepared and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control requirements and allowances.

VPH: Sample "S2" was reported with surrogate recoveries outside of the method recommended QC limits due to sample matrix interferences.

No non-preserved jars were provided for % solids correction. Per the client, the samples had similar field profiles. These field profiles were shared by samples submitted from the same site under work order 9K11019. The average of the % solids of samples 9K11019-05 through 9K11019-08 was applied to all soil samples in this work order at client request.

Results: Dissolved Metals

Sample: MW-1

Lab Number: 9K08006-07 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Arsenic	ND		0.010	mg/L	11/13/19	11/13/19
Barium	**0.045**		0.005	mg/L	11/13/19	11/13/19
Cadmium	ND		0.005	mg/L	11/13/19	11/13/19
Chromium	ND		0.005	mg/L	11/13/19	11/13/19
Lead	ND		0.005	mg/L	11/13/19	11/13/19
Mercury	ND		0.0002	mg/L	11/12/19	11/12/19
Selenium	ND		0.010	mg/L	11/13/19	11/13/19
Silver	ND		0.005	mg/L	11/13/19	11/13/19

Results: Volatile Organic Compounds

Sample: MW-1

Lab Number: 9K08006-07 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Acetone	ND		5	ug/l	11/11/19	11/11/19
Benzene	**20**		1	ug/l	11/11/19	11/11/19
Bromobenzene	ND		1	ug/l	11/11/19	11/11/19
Bromochloromethane	ND		1	ug/l	11/11/19	11/11/19
Bromodichloromethane	ND		1	ug/l	11/11/19	11/11/19
Bromoform	ND		1	ug/l	11/11/19	11/11/19
Bromomethane	ND		1	ug/l	11/11/19	11/11/19
2-Butanone	ND		5	ug/l	11/11/19	11/11/19
tert-Butyl alcohol	ND		5	ug/l	11/11/19	11/11/19
sec-Butylbenzene	**5**		1	ug/l	11/11/19	11/11/19
n-Butylbenzene	**6**		1	ug/l	11/11/19	11/11/19
tert-Butylbenzene	ND		1	ug/l	11/11/19	11/11/19
Methyl t-butyl ether (MTBE)	ND		1	ug/l	11/11/19	11/11/19
Carbon Disulfide	ND		1	ug/l	11/11/19	11/11/19
Carbon Tetrachloride	ND		1	ug/l	11/11/19	11/11/19
Chlorobenzene	ND		1	ug/l	11/11/19	11/11/19
Chloroethane	ND		1	ug/l	11/11/19	11/11/19
Chloroform	ND		1	ug/l	11/11/19	11/11/19
Chloromethane	ND		1	ug/l	11/11/19	11/11/19
4-Chlorotoluene	ND		1	ug/l	11/11/19	11/11/19
2-Chlorotoluene	ND		1	ug/l	11/11/19	11/11/19
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	ug/l	11/11/19	11/11/19
Dibromochloromethane	ND		1	ug/l	11/11/19	11/11/19
1,2-Dibromoethane (EDB)	ND		1	ug/l	11/11/19	11/11/19
Dibromomethane	ND		1	ug/l	11/11/19	11/11/19
1,2-Dichlorobenzene	ND		1	ug/l	11/11/19	11/11/19
1,3-Dichlorobenzene	ND		1	ug/l	11/11/19	11/11/19
1,4-Dichlorobenzene	ND		1	ug/l	11/11/19	11/11/19
1,1-Dichloroethane	ND		1	ug/l	11/11/19	11/11/19
1,2-Dichloroethane	ND		1	ug/l	11/11/19	11/11/19
trans-1,2-Dichloroethene	ND		1	ug/l	11/11/19	11/11/19
cis-1,2-Dichloroethene	ND		1	ug/l	11/11/19	11/11/19
1,1-Dichloroethene	ND		1	ug/l	11/11/19	11/11/19
1,2-Dichloropropane	ND		1	ug/l	11/11/19	11/11/19
2,2-Dichloropropane	ND		1	ug/l	11/11/19	11/11/19
cis-1,3-Dichloropropene	ND		1	ug/l	11/11/19	11/11/19
trans-1,3-Dichloropropene	ND		1	ug/l	11/11/19	11/11/19
1,1-Dichloropropene	ND		1	ug/l	11/11/19	11/11/19
1,3-Dichloropropene (cis + trans)	ND		2	ug/l	11/11/19	11/11/19
Diethyl ether	ND		5	ug/l	11/11/19	11/11/19
1,4-Dioxane	ND		500	ug/l	11/11/19	11/11/19
Ethylbenzene	**127**		1	ug/l	11/11/19	11/11/19
Hexachlorobutadiene	ND		1	ug/l	11/11/19	11/11/19
2-Hexanone	ND		5	ug/l	11/11/19	11/11/19
Isopropylbenzene	**44**		1	ug/l	11/11/19	11/11/19

Results: Volatile Organic Compounds (Continued)

Sample: MW-1 (Continued)

Lab Number: 9K08006-07 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
p-Isopropyltoluene	ND		1	ug/l	11/11/19	11/11/19
Methylene Chloride	ND		1	ug/l	11/11/19	11/11/19
4-Methyl-2-pentanone	ND		5	ug/l	11/11/19	11/11/19
Naphthalene	**27**		1	ug/l	11/11/19	11/11/19
n-Propylbenzene	**129**		1	ug/l	11/11/19	11/11/19
Styrene	ND		1	ug/l	11/11/19	11/11/19
1,1,1,2-Tetrachloroethane	ND		1	ug/l	11/11/19	11/11/19
Tetrachloroethene	ND		1	ug/l	11/11/19	11/11/19
Tetrahydrofuran	ND		5	ug/l	11/11/19	11/11/19
Toluene	**18**		1	ug/l	11/11/19	11/11/19
1,2,4-Trichlorobenzene	ND		1	ug/l	11/11/19	11/11/19
1,2,3-Trichlorobenzene	ND		1	ug/l	11/11/19	11/11/19
1,1,2-Trichloroethane	ND		1	ug/l	11/11/19	11/11/19
1,1,1-Trichloroethane	ND		1	ug/l	11/11/19	11/11/19
Trichloroethene	ND		1	ug/l	11/11/19	11/11/19
1,2,3-Trichloropropane	ND		1	ug/l	11/11/19	11/11/19
1,3,5-Trimethylbenzene	**11**		1	ug/l	11/11/19	11/11/19
1,2,4-Trimethylbenzene	**40**		1	ug/l	11/11/19	11/11/19
Vinyl Chloride	ND		1	ug/l	11/11/19	11/11/19
o-Xylene	**10**		1	ug/l	11/11/19	11/11/19
m&p-Xylene	**217**		2	ug/l	11/11/19	11/11/19
Total xylenes	**227**		2	ug/l	11/11/19	11/11/19
1,1,2,2-Tetrachloroethane	ND		1	ug/l	11/11/19	11/11/19
tert-Amyl methyl ether	ND		1	ug/l	11/11/19	11/11/19
1,3-Dichloropropane	ND		1	ug/l	11/11/19	11/11/19
Ethyl tert-butyl ether	ND		1	ug/l	11/11/19	11/11/19
Diisopropyl ether	ND		1	ug/l	11/11/19	11/11/19
Trichlorofluoromethane	ND		1	ug/l	11/11/19	11/11/19
Dichlorodifluoromethane	ND		1	ug/l	11/11/19	11/11/19

Surrogate(s)	Recovery%	Limits		
4-Bromofluorobenzene	*100%*	*70-130*	11/11/19	11/11/19
1,2-Dichloroethane-d4	*80.9%*	*70-130*	11/11/19	11/11/19
Toluene-d8	*95.9%*	*70-130*	11/11/19	11/11/19

Volatile Petroleum Hydrocarbons
Sample: S1 (9K08006-01)

SAMPLE INFORMATION

Matrix	Soil		
Containers	Satisfactory		
Sample Preservation	Aqueous	NA	
	Soil or Sediment	Preserved with methanol and/or in an air-tight container	ml methanol per gram soil: 1:1 +/- 25%
		Methanol preserved (covering sample)	
		Received in air-tight container	
Temperature	Received on Ice Received at: 4+/-2 C°		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH-18-2.1			Client ID		S1	
Method for Target Analytes: MADEP VPH-18-2.1			Lab ID		9K08006-01	
VPH Surrogate Standards:			Date Collected		11/06/19	
PID: 2,5-Dibromotoluene			Date Received		11/08/19	
FID: 2,5-Dibromotoluene			% Moisture		12.80	
RANGE/TARGET ANALYTE	**Elution Range**	**Dilution**	**RL**	**Units**	**Result**	**Analyzed**
Unadjusted C5-C8 Aliphatic Hydrocarbons [1]	NA	50X	6.4	mg/kg	<6.4	11/11/19 11:50
Unadjusted C9-C12 Aliphatic Hydrocarbons [1]	NA	50X	6.4	mg/kg	<6.4	11/11/19 11:50
Benzene	C5-C8	50X	0.3	mg/kg	<0.3	11/11/19 11:50
Ethylbenzene	C9-C12	50X	0.3	mg/kg	<0.3	11/11/19 11:50
Methyl t-butyl ether (MTBE)	C5-C8	50X	0.06	mg/kg	<0.06	11/11/19 11:50
Naphthalene	NA	50X	0.6	mg/kg	<0.6	11/11/19 11:50
Toluene	C5-C8	50X	0.3	mg/kg	<0.3	11/11/19 11:50
m&p-Xylene	C9-C12	50X	0.6	mg/kg	<0.6	11/11/19 11:50
o-Xylene	C9-C12	50X	0.6	mg/kg	<0.6	11/11/19 11:50
Total xylenes		50X	0.6	mg/kg	<0.6	11/11/19 11:50
C5-C8 Aliphatic Hydrocarbons [1,2]	NA	50X	6.4	mg/kg	<6.4	11/11/19 11:50
C9-C12 Aliphatic Hydrocarbons [1,3]	NA	50X	6.4	mg/kg	<6.4	11/11/19 11:50
C9-C10 Aromatic Hydrocarbons [1]	NA	50X	6.4	mg/kg	<6.4	11/11/19 11:50
2,5-Dibromotoluene-PID				%	93.5	11/11/19 11:50
2,5-Dibromotoluene-FID				%	112	11/11/19 11:50
Surrogate Acceptance Range				%	70-130	

[1] Hydrocarbon Range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range
[2] C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3] C9-C12 Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C9-C10 Aromatic Hydrocarbons

Volatile Petroleum Hydrocarbons
Sample: S2 (9K08006-02)

SAMPLE INFORMATION

Matrix	Soil		
Containers	Satisfactory		
Sample Preservation	Aqueous	NA	
	Soil or Sediment	Preserved with methanol and/or in an air-tight container	ml methanol per gram soil: 1:1 +/- 25%
		Methanol preserved (covering sample)	
		Received in air-tight container	
Temperature	Received on Ice Received at: 4+/-2 C°		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH-18-2.1			Client ID		S2	
Method for Target Analytes: MADEP VPH-18-2.1			Lab ID		9K08006-02	
VPH Surrogate Standards:			Date Collected		11/06/19	
PID: 2,5-Dibromotoluene			Date Received		11/08/19	
FID: 2,5-Dibromotoluene			% Moisture		12.80	
RANGE/TARGET ANALYTE	**Elution Range**	**Dilution**	**RL**	**Units**	**Result**	**Analyzed**
Unadjusted C5-C8 Aliphatic Hydrocarbons [1]	NA	500X	63.8	mg/kg	**251**	11/12/19 11:50
Unadjusted C9-C12 Aliphatic Hydrocarbons [1]	NA	500X	63.8	mg/kg	**2710**	11/12/19 11:50
Benzene	C5-C8	50X	0.3	mg/kg	<0.3	11/11/19 11:50
Ethylbenzene	C9-C12	50X	0.3	mg/kg	<0.3	11/11/19 11:50
Methyl t-butyl ether (MTBE)	C5-C8	50X	0.06	mg/kg	<0.06	11/11/19 11:50
Naphthalene	NA	50X	0.6	mg/kg	**2.4**	11/11/19 11:50
Toluene	C5-C8	50X	0.3	mg/kg	<0.3	11/11/19 11:50
m&p-Xylene	C9-C12	50X	0.6	mg/kg	<0.6	11/11/19 11:50
o-Xylene	C9-C12	50X	0.6	mg/kg	<0.6	11/11/19 11:50
Total xylenes		50X	0.6	mg/kg	<0.6	11/11/19 11:50
C5-C8 Aliphatic Hydrocarbons [1,2]	NA	500X	63.8	mg/kg	**251**	11/12/19 11:50
C9-C12 Aliphatic Hydrocarbons [1,3]	NA	500X	63.8	mg/kg	**1410**	11/12/19 11:50
C9-C10 Aromatic Hydrocarbons [1]	NA	500X	63.8	mg/kg	**1300**	11/12/19 11:50
2,5-Dibromotoluene-PID				%	186	11/11/19 11:50
2,5-Dibromotoluene-FID				%	441	11/11/19 11:50
Surrogate Acceptance Range				%	70-130	

[1] Hydrocarbon Range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range
[2] C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3] C9-C12 Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C9-C10 Aromatic Hydrocarbons

Volatile Petroleum Hydrocarbons
Sample: S3 (9K08006-03)

SAMPLE INFORMATION

Matrix	Soil		
Containers	Satisfactory		
Sample Preservation	Aqueous	NA	
	Soil or Sediment	Preserved with methanol and/or in an air-tight container	ml methanol per gram soil: 1:1 +/- 25%
		Methanol preserved (covering sample)	
		Received in air-tight container	
Temperature	Received on Ice Received at: 4+/-2 C°		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH-18-2.1			Client ID		S3	
Method for Target Analytes: MADEP VPH-18-2.1			Lab ID		9K08006-03	
VPH Surrogate Standards:			Date Collected		11/06/19	
PID: 2,5-Dibromotoluene			Date Received		11/08/19	
FID: 2,5-Dibromotoluene			% Moisture		12.80	
RANGE/TARGET ANALYTE	**Elution Range**	**Dilution**	**RL**	**Units**	**Result**	**Analyzed**
Unadjusted C5-C8 Aliphatic Hydrocarbons [1]	NA	50X	6.4	mg/kg	<6.4	11/11/19 11:50
Unadjusted C9-C12 Aliphatic Hydrocarbons [1]	NA	50X	6.4	mg/kg	<6.4	11/11/19 11:50
Benzene	C5-C8	50X	0.3	mg/kg	<0.3	11/11/19 11:50
Ethylbenzene	C9-C12	50X	0.3	mg/kg	<0.3	11/11/19 11:50
Methyl t-butyl ether (MTBE)	C5-C8	50X	0.06	mg/kg	<0.06	11/11/19 11:50
Naphthalene	NA	50X	0.6	mg/kg	<0.6	11/11/19 11:50
Toluene	C5-C8	50X	0.3	mg/kg	<0.3	11/11/19 11:50
m&p-Xylene	C9-C12	50X	0.6	mg/kg	<0.6	11/11/19 11:50
o-Xylene	C9-C12	50X	0.6	mg/kg	<0.6	11/11/19 11:50
Total xylenes		50X	0.6	mg/kg	<0.6	11/11/19 11:50
C5-C8 Aliphatic Hydrocarbons [1,2]	NA	50X	6.4	mg/kg	<6.4	11/11/19 11:50
C9-C12 Aliphatic Hydrocarbons [1,3]	NA	50X	6.4	mg/kg	<6.4	11/11/19 11:50
C9-C10 Aromatic Hydrocarbons [1]	NA	50X	6.4	mg/kg	<6.4	11/11/19 11:50
2,5-Dibromotoluene-PID				%	93.1	11/11/19 11:50
2,5-Dibromotoluene-FID				%	111	11/11/19 11:50
Surrogate Acceptance Range				%	70-130	

[1] Hydrocarbon Range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range
[2] C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3] C9-C12 Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C9-C10 Aromatic Hydrocarbons

Volatile Petroleum Hydrocarbons
Sample: S4 (9K08006-04)

SAMPLE INFORMATION

Matrix	Soil		
Containers	Satisfactory		
Sample Preservation	Aqueous	NA	
	Soil or Sediment	Preserved with methanol and/or in an air-tight container	ml methanol per gram soil: 1:1 +/- 25%
		Methanol preserved (covering sample)	
		Received in air-tight container	
Temperature	Received on Ice Received at: 4+/-2 C°		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH-18-2.1			Client ID		S4	
Method for Target Analytes: MADEP VPH-18-2.1			Lab ID		9K08006-04	
VPH Surrogate Standards:			Date Collected		11/06/19	
PID: 2,5-Dibromotoluene			Date Received		11/08/19	
FID: 2,5-Dibromotoluene			% Moisture		12.80	
RANGE/TARGET ANALYTE	**Elution Range**	**Dilution**	**RL**	**Units**	**Result**	**Analyzed**
Unadjusted C5-C8 Aliphatic Hydrocarbons [1]	NA	50X	5.6	mg/kg	<5.6	11/11/19 11:50
Unadjusted C9-C12 Aliphatic Hydrocarbons [1]	NA	50X	5.6	mg/kg	<5.6	11/11/19 11:50
Benzene	C5-C8	50X	0.3	mg/kg	<0.3	11/11/19 11:50
Ethylbenzene	C9-C12	50X	0.3	mg/kg	<0.3	11/11/19 11:50
Methyl t-butyl ether (MTBE)	C5-C8	50X	0.06	mg/kg	<0.06	11/11/19 11:50
Naphthalene	NA	50X	0.6	mg/kg	<0.6	11/11/19 11:50
Toluene	C5-C8	50X	0.3	mg/kg	<0.3	11/11/19 11:50
m&p-Xylene	C9-C12	50X	0.6	mg/kg	<0.6	11/11/19 11:50
o-Xylene	C9-C12	50X	0.6	mg/kg	<0.6	11/11/19 11:50
Total xylenes		50X	0.6	mg/kg	<0.6	11/11/19 11:50
C5-C8 Aliphatic Hydrocarbons [1,2]	NA	50X	5.6	mg/kg	<5.6	11/11/19 11:50
C9-C12 Aliphatic Hydrocarbons [1,3]	NA	50X	5.6	mg/kg	<5.6	11/11/19 11:50
C9-C10 Aromatic Hydrocarbons [1]	NA	50X	5.6	mg/kg	<5.6	11/11/19 11:50
2,5-Dibromotoluene-PID				%	92.7	11/11/19 11:50
2,5-Dibromotoluene-FID				%	105	11/11/19 11:50
Surrogate Acceptance Range				%	70-130	

[1] Hydrocarbon Range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range
[2] C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3] C9-C12 Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C9-C10 Aromatic Hydrocarbons

Volatile Petroleum Hydrocarbons
Sample: S5 (9K08006-05)

SAMPLE INFORMATION

Matrix	Soil		
Containers	Satisfactory		
Sample Preservation	Aqueous	NA	
	Soil or Sediment	Preserved with methanol and/or in an air-tight container	ml methanol per gram soil: 1:1 +/- 25%
		Methanol preserved (covering sample)	
		Received in air-tight container	
Temperature	Received on Ice Received at: 4+/-2 C°		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH-18-2.1			Client ID		S5	
Method for Target Analytes: MADEP VPH-18-2.1			Lab ID		9K08006-05	
VPH Surrogate Standards:			Date Collected		11/06/19	
PID: 2,5-Dibromotoluene			Date Received		11/08/19	
FID: 2,5-Dibromotoluene			% Moisture		12.80	
RANGE/TARGET ANALYTE	**Elution Range**	**Dilution**	**RL**	**Units**	**Result**	**Analyzed**
Unadjusted C5-C8 Aliphatic Hydrocarbons [1]	NA	50X	6.3	mg/kg	<6.3	11/11/19 11:50
Unadjusted C9-C12 Aliphatic Hydrocarbons [1]	NA	50X	6.3	mg/kg	<6.3	11/11/19 11:50
Benzene	C5-C8	50X	0.3	mg/kg	<0.3	11/11/19 11:50
Ethylbenzene	C9-C12	50X	0.3	mg/kg	<0.3	11/11/19 11:50
Methyl t-butyl ether (MTBE)	C5-C8	50X	0.06	mg/kg	<0.06	11/11/19 11:50
Naphthalene	NA	50X	0.6	mg/kg	<0.6	11/11/19 11:50
Toluene	C5-C8	50X	0.3	mg/kg	<0.3	11/11/19 11:50
m&p-Xylene	C9-C12	50X	0.6	mg/kg	<0.6	11/11/19 11:50
o-Xylene	C9-C12	50X	0.6	mg/kg	<0.6	11/11/19 11:50
Total xylenes		50X	0.6	mg/kg	<0.6	11/11/19 11:50
C5-C8 Aliphatic Hydrocarbons [1,2]	NA	50X	6.3	mg/kg	<6.3	11/11/19 11:50
C9-C12 Aliphatic Hydrocarbons [1,3]	NA	50X	6.3	mg/kg	<6.3	11/11/19 11:50
C9-C10 Aromatic Hydrocarbons [1]	NA	50X	6.3	mg/kg	<6.3	11/11/19 11:50
2,5-Dibromotoluene-PID				%	93.7	11/11/19 11:50
2,5-Dibromotoluene-FID				%	104	11/11/19 11:50
Surrogate Acceptance Range				%	70-130	

[1] Hydrocarbon Range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range
[2] C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3] C9-C12 Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C9-C10 Aromatic Hydrocarbons

Volatile Petroleum Hydrocarbons
Sample: S6 (9K08006-06)

SAMPLE INFORMATION

Matrix	Soil		
Containers	Satisfactory		
Sample Preservation	Aqueous	NA	
	Soil or Sediment	Preserved with methanol and/or in an air-tight container	ml methanol per gram soil: 1:1 +/- 25%
		Methanol preserved (covering sample)	
		Received in air-tight container	
Temperature	Received on Ice Received at: 4+/-2 C°		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH-18-2.1				Client ID	S6	
Method for Target Analytes: MADEP VPH-18-2.1				Lab ID	9K08006-06	
VPH Surrogate Standards:				Date Collected	11/06/19	
PID: 2,5-Dibromotoluene				Date Received	11/08/19	
FID: 2,5-Dibromotoluene				% Moisture	12.80	
RANGE/TARGET ANALYTE	**Elution Range**	**Dilution**	**RL**	**Units**	**Result**	**Analyzed**
Unadjusted C5-C8 Aliphatic Hydrocarbons [1]	NA	50X	6.2	mg/kg	**23.8**	11/11/19 11:50
Unadjusted C9-C12 Aliphatic Hydrocarbons [1]	NA	50X	6.2	mg/kg	**22.3**	11/11/19 11:50
Benzene	C5-C8	50X	0.3	mg/kg	<0.3	11/11/19 11:50
Ethylbenzene	C9-C12	50X	0.3	mg/kg	<0.3	11/11/19 11:50
Methyl t-butyl ether (MTBE)	C5-C8	50X	0.06	mg/kg	<0.06	11/11/19 11:50
Naphthalene	NA	50X	0.6	mg/kg	<0.6	11/11/19 11:50
Toluene	C5-C8	50X	0.3	mg/kg	<0.3	11/11/19 11:50
m&p-Xylene	C9-C12	50X	0.6	mg/kg	<0.6	11/11/19 11:50
o-Xylene	C9-C12	50X	0.6	mg/kg	<0.6	11/11/19 11:50
Total xylenes		50X	0.6	mg/kg	<0.6	11/11/19 11:50
C5-C8 Aliphatic Hydrocarbons [1,2]	NA	50X	6.2	mg/kg	**23.8**	11/11/19 11:50
C9-C12 Aliphatic Hydrocarbons [1,3]	NA	50X	6.2	mg/kg	**22.3**	11/11/19 11:50
C9-C10 Aromatic Hydrocarbons [1]	NA	50X	6.2	mg/kg	<6.2	11/11/19 11:50
2,5-Dibromotoluene-PID				%	98.4	11/11/19 11:50
2,5-Dibromotoluene-FID				%	111	11/11/19 11:50
Surrogate Acceptance Range				%	70-130	

[1] Hydrocarbon Range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range
[2] C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3] C9-C12 Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C9-C10 Aromatic Hydrocarbons

Volatile Petroleum Hydrocarbons
Sample: MW-1 (9K08006-07)

SAMPLE INFORMATION

Matrix	Water		
Containers	Satisfactory		
Sample Preservation	Aqueous	pH<2	
	Soil or Sediment	NA	
		NA	
		Received in air-tight container	
Temperature	Received on Ice Received at: 4+/-2 C°		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH-18-2.1			Client ID		MW-1	
Method for Target Analytes: EPA Method 8260C			Lab ID		9K08006-07	
VPH Surrogate Standards:			Date Collected		11/06/19	
PID: 2,5-Dibromotoluene			Date Received		11/08/19	
FID: 2,5-Dibromotoluene			% Moisture		NA	
RANGE/TARGET ANALYTE	**Elution Range**	**Dilution**	**RL**	**Units**	**Result**	**Analyzed**
Unadjusted C5-C8 Aliphatic Hydrocarbons [1]	NA	1X	100	ug/l	**3540**	11/12/19 07:47
Unadjusted C9-C12 Aliphatic Hydrocarbons [1]	NA	1X	100	ug/l	**3400**	11/12/19 07:47
Benzene	C5-C8	1X	5.0	ug/l	**20.4**	11/12/19 07:47
Ethylbenzene	C9-C12	1X	5.0	ug/l	**127**	11/12/19 07:47
Methyl t-butyl ether (MTBE)	C5-C8	1X	10.0	ug/l	<10.0	11/12/19 07:47
Naphthalene	NA	1X	10.0	ug/l	**27.2**	11/12/19 07:47
Toluene	C5-C8	1X	5.0	ug/l	**18.4**	11/12/19 07:47
m&p-Xylene	C9-C12	1X	10.0	ug/l	**217**	11/12/19 07:47
o-Xylene	C9-C12	1X	10.0	ug/l	<10.0	11/12/19 07:47
Total xylenes		1X	10.0	ug/l	**217**	11/12/19 07:47
C5-C8 Aliphatic Hydrocarbons [1,2]	NA	1X	100	ug/l	**3500**	11/12/19 07:47
C9-C12 Aliphatic Hydrocarbons [1,3]	NA	1X	100	ug/l	**1390**	11/12/19 07:47
C9-C10 Aromatic Hydrocarbons [1]	NA	1X	100	ug/l	**1660**	11/12/19 07:47
2,5-Dibromotoluene-PID				%	115	11/12/19 07:47
2,5-Dibromotoluene-FID				%	122	11/12/19 07:47
Surrogate Acceptance Range				%	70-130	

[1] Hydrocarbon Range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range
[2] C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3] C9-C12 Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C9-C10 Aromatic Hydrocarbons

Extractable Petroleum Hydrocarbons
Sample: MW-1 (9K08006-07)

SAMPLE INFORMATION

Matrix	Water
Containers	Satisfactory
Aqueous Preservatives	pH<2
Temperature	Received on Ice Received at: 4+/-2 C°
Extraction Method	EPA Method 3510C

EPH ANALYTICAL RESULTS

Method for Ranges: MADEP EPH 4-1.1				Client ID	MW-1	
Method for Target Analytes: MADEP EPH 4-1.1				Lab ID	9K08006-07	
EPH Surrogate Standards: Aliphatic: Chlorooctadecane Aromatic: o-Terphenyl				Date Collected	11/06/19	
				Date Received	11/08/19	
				Date Thawed	NA	
				Date Extracted	11/11/19	
EPH Fractionation Surrogates: (1) 2-Fluorobiphenyl (2) 2-Bromonaphthalene				Percent Moisture	NA	
RANGE/TARGET ANALYTE		**Dilution**	**RL**	**Units**	**Result**	**Analyzed**
Unadjusted C11-C22 Aromatic Hydrocarbons [1]		1X	100	ug/l	**527**	11/13/19 18:16
Diesel PAH Analytes	Naphthalene	1X	1.0	ug/l	**16.9**	11/13/19 18:16
	2-Methylnaphthalene	1X	1.0	ug/l	**7.8**	11/13/19 18:16
	Phenanthrene	1X	1.0	ug/l	<1.0	11/13/19 18:16
	Acenaphthene	1X	5.0	ug/l	<5.0	11/13/19 18:16
Other Target PAH Analytes	Acenaphthylene	1X	1.0	ug/l	<1.0	11/13/19 18:16
	Fluorene	1X	5.0	ug/l	<5.0	11/13/19 18:16
	Anthracene	1X	5.0	ug/l	<5.0	11/13/19 18:16
	Fluoranthene	1X	5.0	ug/l	<5.0	11/13/19 18:16
	Pyrene	1X	5.0	ug/l	<5.0	11/13/19 18:16
	Benzo(a)anthracene	1X	1.0	ug/l	<1.0	11/13/19 18:16
	Chrysene	1X	2.0	ug/l	<2.0	11/13/19 18:16
	Benzo(b)fluoranthene	1X	1.0	ug/l	<1.0	11/13/19 18:16
	Benzo(k)fluoranthene	1X	1.0	ug/l	<1.0	11/13/19 18:16
	Benzo(a)pyrene	1X	0.2	ug/l	<0.2	11/13/19 18:16
	Indeno(1,2,3-cd)pyrene	1X	0.5	ug/l	<0.5	11/13/19 18:16
	Dibenz(a,h)anthracene	1X	0.5	ug/l	<0.5	11/13/19 18:16
	Benzo(g,h,i)perylene	1X	5.0	ug/l	<5.0	11/13/19 18:16
C9-C18 Aliphatic Hydrocarbons [1]		1X	200	ug/l	<200	11/14/19 05:39
C19-C36 Aliphatic Hydrocarbons [1]		1X	200	ug/l	<200	11/14/19 05:39
C11-C22 Aromatic Hydrocarbons [1,2]		1X	100	ug/l	**502**	11/13/19 18:16
Chlorooctadecane (Sample Surrogate)				%	69.2	11/14/19 05:39
o-Terphenyl (Sample Surrogate)				%	79.4	11/13/19 18:16
2-Fluorobiphenyl (Fractionation Surrogate)				%	108	11/13/19 18:16
2-Bromonaphthalene (Fractionation Surrogate)				%	96.4	11/13/19 18:16
Surrogate Acceptance Range [3]				%	40 - 140	

[1] Hydrocarbon range data excludes area counts of any surrogate(s) and/or internal standards eluting in that range.
[2] C11-C22 Aromatic Hydrocarbons excludes the concentration of Target PAH Analytes.
[3] See the case narrative in cases where a dash (-) is entered in the surrogate recovery block.

Quality Control

Dissolved Metals

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9K0530 - Dissolved Metals										
Blank (B9K0530-BLK1)					Prepared & Analyzed: 11/13/19					
Arsenic	ND		0.010	mg/L						
Selenium	ND		0.010	mg/L						
Lead	ND		0.005	mg/L						
Silver	ND		0.005	mg/L						
Chromium	ND		0.005	mg/L						
Cadmium	ND		0.005	mg/L						
Barium	ND		0.005	mg/L						
LCS (B9K0530-BS1)					Prepared & Analyzed: 11/13/19					
Selenium	0.230		0.010	mg/L	0.200		115	85-115		
Arsenic	0.216		0.010	mg/L	0.200		108	85-115		
Barium	1.02		0.005	mg/L	1.00		102	85-115		
Cadmium	1.02		0.005	mg/L	1.00		102	85-115		
Chromium	1.02		0.005	mg/L	1.00		102	85-115		
Lead	1.01		0.005	mg/L	1.00		101	85-115		
Silver	0.403		0.005	mg/L	0.400		101	85-115		

Volatile Organic Compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9K0419 - Purge-Trap										
Blank (B9K0419-BLK1)					Prepared & Analyzed: 11/11/19					
Acetone	ND		5	ug/l						
Benzene	ND		1	ug/l						
Bromobenzene	ND		1	ug/l						
Bromochloromethane	ND		1	ug/l						
Bromodichloromethane	ND		1	ug/l						
Bromoform	ND		1	ug/l						
Bromomethane	ND		1	ug/l						
2-Butanone	ND		5	ug/l						
tert-Butyl alcohol	ND		5	ug/l						
sec-Butylbenzene	ND		1	ug/l						
n-Butylbenzene	ND		1	ug/l						
tert-Butylbenzene	ND		1	ug/l						
Methyl t-butyl ether (MTBE)	ND		1	ug/l						
Carbon Disulfide	ND		1	ug/l						
Carbon Tetrachloride	ND		1	ug/l						
Chlorobenzene	ND		1	ug/l						
Chloroethane	ND		1	ug/l						
Chloroform	ND		1	ug/l						
Chloromethane	ND		1	ug/l						
4-Chlorotoluene	ND		1	ug/l						
2-Chlorotoluene	ND		1	ug/l						
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	ug/l						
Dibromochloromethane	ND		1	ug/l						
1,2-Dibromoethane (EDB)	ND		1	ug/l						
Dibromomethane	ND		1	ug/l						
1,2-Dichlorobenzene	ND		1	ug/l						
1,3-Dichlorobenzene	ND		1	ug/l						
1,4-Dichlorobenzene	ND		1	ug/l						
1,1-Dichloroethane	ND		1	ug/l						
1,2-Dichloroethane	ND		1	ug/l						
trans-1,2-Dichloroethene	ND		1	ug/l						
cis-1,2-Dichloroethene	ND		1	ug/l						
1,1-Dichloroethene	ND		1	ug/l						
1,2-Dichloropropane	ND		1	ug/l						
2,2-Dichloropropane	ND		1	ug/l						
cis-1,3-Dichloropropene	ND		1	ug/l						
trans-1,3-Dichloropropene	ND		1	ug/l						
1,1-Dichloropropene	ND		1	ug/l						
1,3-Dichloropropene (cis + trans)	ND		2	ug/l						
Diethyl ether	ND		5	ug/l						
1,4-Dioxane	ND		500	ug/l						
Ethylbenzene	ND		1	ug/l						
Hexachlorobutadiene	ND		1	ug/l						
2-Hexanone	ND		5	ug/l						
Isopropylbenzene	ND		1	ug/l						
p-Isopropyltoluene	ND		1	ug/l						
Methylene Chloride	ND		1	ug/l						
4-Methyl-2-pentanone	ND		5	ug/l						
Naphthalene	ND		1	ug/l						
n-Propylbenzene	ND		1	ug/l						
Styrene	ND		1	ug/l						
1,1,1,2-Tetrachloroethane	ND		1	ug/l						
Tetrachloroethene	ND		1	ug/l						
Tetrahydrofuran	ND		5	ug/l						

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9K0419 - Purge-Trap (Continued)										
Blank (B9K0419-BLK1)					Prepared & Analyzed: 11/11/19					
Toluene	ND		1	ug/l						
1,2,4-Trichlorobenzene	ND		1	ug/l						
1,2,3-Trichlorobenzene	ND		1	ug/l						
1,1,2-Trichloroethane	ND		1	ug/l						
1,1,1-Trichloroethane	ND		1	ug/l						
Trichloroethene	ND		1	ug/l						
1,2,3-Trichloropropane	ND		1	ug/l						
1,3,5-Trimethylbenzene	ND		1	ug/l						
1,2,4-Trimethylbenzene	ND		1	ug/l						
Vinyl Chloride	ND		1	ug/l						
o-Xylene	ND		1	ug/l						
m&p-Xylene	ND		2	ug/l						
Total xylenes	ND		2	ug/l						
1,1,2,2-Tetrachloroethane	ND		1	ug/l						
tert-Amyl methyl ether	ND		1	ug/l						
1,3-Dichloropropane	ND		1	ug/l						
Ethyl tert-butyl ether	ND		1	ug/l						
Diisopropyl ether	ND		1	ug/l						
Trichlorofluoromethane	ND		1	ug/l						
Dichlorodifluoromethane	ND		1	ug/l						
Surrogate: 4-Bromofluorobenzene			*43.5*	ug/l	*50.0*		*87.1*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4			*44.8*	ug/l	*50.0*		*89.5*	*70-130*		
Surrogate: Toluene-d8			*47.6*	ug/l	*50.0*		*95.3*	*70-130*		
LCS (B9K0419-BS1)					Prepared & Analyzed: 11/11/19					
Acetone	43			ug/l	50.0		86.4	70-130		
Benzene	53			ug/l	50.0		105	70-130		
Bromobenzene	46			ug/l	50.0		91.4	70-130		
Bromochloromethane	51			ug/l	50.0		102	70-130		
Bromodichloromethane	51			ug/l	50.0		103	70-130		
Bromoform	47			ug/l	50.0		93.4	70-130		
Bromomethane	47			ug/l	50.0		93.9	70-130		
2-Butanone	43			ug/l	50.0		86.5	70-130		
tert-Butyl alcohol	54			ug/l	50.0		108	70-130		
sec-Butylbenzene	58			ug/l	50.0		115	70-130		
n-Butylbenzene	59			ug/l	50.0		119	70-130		
tert-Butylbenzene	50			ug/l	50.0		100	70-130		
Methyl t-butyl ether (MTBE)	39			ug/l	50.0		77.5	70-130		
Carbon Disulfide	53			ug/l	50.0		107	70-130		
Carbon Tetrachloride	46			ug/l	50.0		92.1	70-130		
Chlorobenzene	49			ug/l	50.0		98.2	70-130		
Chloroethane	52			ug/l	50.0		104	70-130		
Chloroform	52			ug/l	50.0		103	70-130		
Chloromethane	59			ug/l	50.0		118	70-130		
4-Chlorotoluene	56			ug/l	50.0		112	70-130		
2-Chlorotoluene	55			ug/l	50.0		109	70-130		
1,2-Dibromo-3-chloropropane (DBCP)	35			ug/l	50.0		70.4	70-130		
Dibromochloromethane	46			ug/l	50.0		92.7	70-130		
1,2-Dibromoethane (EDB)	49			ug/l	50.0		97.4	70-130		
Dibromomethane	52			ug/l	50.0		103	70-130		
1,2-Dichlorobenzene	47			ug/l	50.0		93.7	70-130		
1,3-Dichlorobenzene	50			ug/l	50.0		100	70-130		
1,4-Dichlorobenzene	47			ug/l	50.0		94.1	70-130		
1,1-Dichloroethane	59			ug/l	50.0		118	70-130		

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9K0419 - Purge-Trap (Continued)										
LCS (B9K0419-BS1)					Prepared & Analyzed: 11/11/19					
1,2-Dichloroethane	49			ug/l	50.0		97.6	70-130		
trans-1,2-Dichloroethene	51			ug/l	50.0		102	70-130		
cis-1,2-Dichloroethene	50			ug/l	50.0		101	70-130		
1,1-Dichloroethene	53			ug/l	50.0		106	70-130		
1,2-Dichloropropane	60			ug/l	50.0		120	70-130		
2,2-Dichloropropane	53			ug/l	50.0		105	70-130		
cis-1,3-Dichloropropene	47			ug/l	50.0		94.7	70-130		
trans-1,3-Dichloropropene	50			ug/l	50.0		99.3	70-130		
1,1-Dichloropropene	53			ug/l	50.0		105	70-130		
Diethyl ether	47			ug/l	50.0		94.8	70-130		
Ethylbenzene	51			ug/l	50.0		103	70-130		
Hexachlorobutadiene	43			ug/l	50.0		86.9	70-130		
2-Hexanone	36			ug/l	50.0		71.6	70-130		
Isopropylbenzene	50			ug/l	50.0		99.6	70-130		
p-Isopropyltoluene	50			ug/l	50.0		100	70-130		
Methylene Chloride	54			ug/l	50.0		108	70-130		
4-Methyl-2-pentanone	46			ug/l	50.0		91.7	70-130		
Naphthalene	35			ug/l	50.0		69.5	70-130		
n-Propylbenzene	57			ug/l	50.0		113	70-130		
Styrene	49			ug/l	50.0		98.3	70-130		
1,1,1,2-Tetrachloroethane	48			ug/l	50.0		96.5	70-130		
Tetrachloroethene	51			ug/l	50.0		102	70-130		
Tetrahydrofuran	52			ug/l	50.0		104	70-130		
Toluene	50			ug/l	50.0		100	70-130		
1,2,4-Trichlorobenzene	38			ug/l	50.0		76.5	70-130		
1,2,3-Trichlorobenzene	33			ug/l	50.0		65.5	70-130		
1,1,2-Trichloroethane	50			ug/l	50.0		99.2	70-130		
1,1,1-Trichloroethane	55			ug/l	50.0		111	70-130		
Trichloroethene	53			ug/l	50.0		105	70-130		
1,2,3-Trichloropropane	46			ug/l	50.0		91.9	70-130		
1,3,5-Trimethylbenzene	58			ug/l	50.0		116	70-130		
1,2,4-Trimethylbenzene	50			ug/l	50.0		99.8	70-130		
Vinyl Chloride	60			ug/l	50.0		120	70-130		
o-Xylene	47			ug/l	50.0		94.5	70-130		
m&p-Xylene	102			ug/l	100		102	70-130		
1,1,2,2-Tetrachloroethane	45			ug/l	50.0		89.7	70-130		
tert-Amyl methyl ether	47			ug/l	50.0		94.9	70-130		
1,3-Dichloropropane	49			ug/l	50.0		97.8	70-130		
Ethyl tert-butyl ether	53			ug/l	50.0		106	70-130		
Diisopropyl ether	53			ug/l	50.0		107	70-130		
Trichlorofluoromethane	56			ug/l	50.0		113	70-130		
Dichlorodifluoromethane	60			ug/l	50.0		120	70-130		
Surrogate: 4-Bromofluorobenzene			*52.0*	ug/l	*50.0*		*104*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4			*42.9*	ug/l	*50.0*		*85.8*	*70-130*		
Surrogate: Toluene-d8			*49.9*	ug/l	*50.0*		*99.9*	*70-130*		

Quality Control
(Continued)

Volatile Petroleum Hydrocarbons (MADEP-VPH)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9K0372 - MADEP VPH										
Blank (B9K0372-BLK1)					Prepared: 11/11/19 Analyzed: 11/12/19					
Unadjusted C5-C8 Aliphatic Hydrocarbons	ND		100	ug/l						
Unadjusted C9-C12 Aliphatic Hydrocarbons	ND		100	ug/l						
Benzene	ND		5.0	ug/l						
Ethylbenzene	ND		5.0	ug/l						
Methyl t-butyl ether (MTBE)	ND		10.0	ug/l						
Naphthalene	ND		10.0	ug/l						
Toluene	ND		5.0	ug/l						
m&p-Xylene	ND		10.0	ug/l						
o-Xylene	ND		10.0	ug/l						
Total xylenes	ND		10.0	ug/l						
C5-C8 Aliphatic Hydrocarbons	ND		100	ug/l						
C9-C12 Aliphatic Hydrocarbons	ND		100	ug/l						
C9-C10 Aromatic Hydrocarbons	ND		100	ug/l						
Surrogate: 2,5- Dibromotoluene-PID			*43.6*	ug/l	*50.0*		*87.2*	*70-130*		
Surrogate: 2,5- Dibromotoluene-FID			*55.3*	ug/l	*50.0*		*111*	*70-130*		
LCS (B9K0372-BS1)					Prepared: 11/11/19 Analyzed: 11/12/19					
Unadjusted C5-C8 Aliphatic Hydrocarbons	176		100	ug/l				70-130		
Unadjusted C9-C12 Aliphatic Hydrocarbons	ND		100	ug/l				70-130		
Benzene	59.4			ug/l	50.0		119	70-130		
Ethylbenzene	61.5			ug/l	50.0		123	70-130		
Methyl t-butyl ether (MTBE)	50.5			ug/l	50.0		101	70-130		
Naphthalene	39.9			ug/l	50.0		79.9	70-130		
Toluene	49.8			ug/l	50.0		99.5	70-130		
m&p-Xylene	116			ug/l	100		116	70-130		
o-Xylene	47.6			ug/l	50.0		95.1	70-130		
C9-C10 Aromatic Hydrocarbons	ND		100	ug/l				70-130		
Surrogate: 2,5- Dibromotoluene-PID			*50.1*	ug/l	*50.0*		*100*	*70-130*		
Surrogate: 2,5- Dibromotoluene-FID			*57.6*	ug/l	*50.0*		*115*	*70-130*		

Volatile Petroleum Hydrocarbons (MADEP-VPH) (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9K0372 - MADEP VPH (Continued)										
LCS Dup (B9K0372-BSD1)					Prepared: 11/11/19 Analyzed: 11/12/19					
Unadjusted C5-C8 Aliphatic Hydrocarbons	177		100	ug/l				70-130	0.982	25
Unadjusted C9-C12 Aliphatic Hydrocarbons	ND		100	ug/l				70-130		25
Benzene	59.8			ug/l	50.0		120	70-130	0.586	25
Ethylbenzene	60.6			ug/l	50.0		121	70-130	1.45	25
Methyl t-butyl ether (MTBE)	51.4			ug/l	50.0		103	70-130	1.68	25
Naphthalene	41.9			ug/l	50.0		83.8	70-130	4.83	25
Toluene	51.0			ug/l	50.0		102	70-130	2.38	25
m&p-Xylene	115			ug/l	100		115	70-130	0.152	25
o-Xylene	48.9			ug/l	50.0		97.8	70-130	2.77	25
C9-C10 Aromatic Hydrocarbons	ND		100	ug/l				70-130		25
Surrogate: 2,5- Dibromotoluene-PID			*45.4*	ug/l	*50.0*		*90.8*	*70-130*		
Surrogate: 2,5- Dibromotoluene-FID			*52.5*	ug/l	*50.0*		*105*	*70-130*		
Batch: B9K0373 - MADEP VPH										
Blank (B9K0373-BLK1)					Prepared & Analyzed: 11/11/19					
Unadjusted C5-C8 Aliphatic Hydrocarbons	ND		5.0	mg/kg						
Unadjusted C9-C12 Aliphatic Hydrocarbons	ND		5.0	mg/kg						
Benzene	ND		0.2	mg/kg						
Ethylbenzene	ND		0.2	mg/kg						
Methyl t-butyl ether (MTBE)	ND		0.05	mg/kg						
Naphthalene	ND		0.5	mg/kg						
Toluene	ND		0.2	mg/kg						
m&p-Xylene	ND		0.5	mg/kg						
o-Xylene	ND		0.5	mg/kg						
Total xylenes	ND		0.5	mg/kg						
C5-C8 Aliphatic Hydrocarbons	ND		5.0	mg/kg						
C9-C12 Aliphatic Hydrocarbons	ND		5.0	mg/kg						
C9-C10 Aromatic Hydrocarbons	ND		5.0	mg/kg						
Surrogate: 2,5- Dibromotoluene-PID			*42.2*	ug/l	*50.0*		*84.3*	*70-130*		
Surrogate: 2,5- Dibromotoluene-FID			*51.2*	ug/l	*50.0*		*102*	*70-130*		

Quality Control
(Continued)

Volatile Petroleum Hydrocarbons (MADEP-VPH) (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9K0373 - MADEP VPH (Continued)										
LCS (B9K0373-BS1)					Prepared & Analyzed: 11/11/19					
Unadjusted C5-C8 Aliphatic Hydrocarbons	8.8		5.0	mg/kg				70-130		
Unadjusted C9-C12 Aliphatic Hydrocarbons	ND		5.0	mg/kg				70-130		
Benzene	59.4			ug/l	50.0		119	70-130		
Ethylbenzene	61.5			ug/l	50.0		123	70-130		
Methyl t-butyl ether (MTBE)	50.5			ug/l	50.0		101	70-130		
Naphthalene	39.9			ug/l	50.0		79.9	70-130		
Toluene	49.8			ug/l	50.0		99.5	70-130		
m&p-Xylene	116			ug/l	100		116	70-130		
o-Xylene	47.6			ug/l	50.0		95.1	70-130		
C9-C10 Aromatic Hydrocarbons	ND		5.0	mg/kg				70-130		
Surrogate: 2,5- Dibromotoluene-PID			*50.1*	ug/l	*50.0*		*100*	*70-130*		
Surrogate: 2,5- Dibromotoluene-FID			*57.6*	ug/l	*50.0*		*115*	*70-130*		
LCS Dup (B9K0373-BSD1)					Prepared & Analyzed: 11/11/19					
Unadjusted C5-C8 Aliphatic Hydrocarbons	8.9		5.0	mg/kg				70-130	0.982	25
Unadjusted C9-C12 Aliphatic Hydrocarbons	ND		5.0	mg/kg				70-130		25
Benzene	59.8			ug/l	50.0		120	70-130	0.586	25
Ethylbenzene	60.6			ug/l	50.0		121	70-130	1.45	25
Methyl t-butyl ether (MTBE)	51.4			ug/l	50.0		103	70-130	1.68	25
Naphthalene	41.9			ug/l	50.0		83.8	70-130	4.83	25
Toluene	51.0			ug/l	50.0		102	70-130	2.38	25
m&p-Xylene	115			ug/l	100		115	70-130	0.152	25
o-Xylene	48.9			ug/l	50.0		97.8	70-130	2.77	25
C9-C10 Aromatic Hydrocarbons	ND		5.0	mg/kg				70-130		25
Surrogate: 2,5- Dibromotoluene-PID			*45.4*	ug/l	*50.0*		*90.8*	*70-130*		
Surrogate: 2,5- Dibromotoluene-FID			*52.5*	ug/l	*50.0*		*105*	*70-130*		

Extractable Petroleum Hydrocarbons (MADEP-EPH)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9K0370 - Sep-Funnel-extraction										
Blank (B9K0370-BLK1)					Prepared: 11/11/19 Analyzed: 11/13/19					
Unadjusted C11-C22 Aromatic Hydrocarbons	ND		100	ug/l						
Naphthalene	ND		1.0	ug/l						
2-Methylnaphthalene	ND		1.0	ug/l						
Phenanthrene	ND		1.0	ug/l						
Acenaphthene	ND		5.0	ug/l						
Acenaphthylene	ND		1.0	ug/l						
Fluorene	ND		5.0	ug/l						
Anthracene	ND		5.0	ug/l						
Fluoranthene	ND		5.0	ug/l						
Pyrene	ND		5.0	ug/l						
Benzo(a)anthracene	ND		1.0	ug/l						
Chrysene	ND		2.0	ug/l						
Benzo(b)fluoranthene	ND		1.0	ug/l						
Benzo(k)fluoranthene	ND		1.0	ug/l						
Benzo(a)pyrene	ND		0.2	ug/l						
Indeno(1,2,3-cd)pyrene	ND		0.5	ug/l						
Dibenz(a,h)anthracene	ND		0.5	ug/l						
Benzo(g,h,i)perylene	ND		5.0	ug/l						
C9-C18 Aliphatic Hydrocarbons	ND		200	ug/l						
C19-C36 Aliphatic Hydrocarbons	ND		200	ug/l						
C11-C22 Aromatic Hydrocarbons	ND		100	ug/l						
Surrogate: Chlorooctadecane			*62.1*	ug/l	*125*		*49.7*	*40-140*		
Surrogate: o-Terphenyl			*69.1*	ug/l	*125*		*55.3*	*40-140*		
Surrogate: 2-Fluorobiphenyl			*39.9*	ug/l	*50.0*		*79.8*	*40-140*		
Surrogate: 2-Bromonaphthalene			*36.8*	ug/l	*50.0*		*73.5*	*40-140*		
LCS (B9K0370-BS1)					Prepared: 11/11/19 Analyzed: 11/13/19					
Naphthalene	22.8		1.0	ug/l	40.0		57.0	40-140		
2-Methylnaphthalene	21.5		1.0	ug/l	40.0		53.6	40-140		
Phenanthrene	26.1		1.0	ug/l	40.0		65.4	40-140		
Acenaphthene	27.8		5.0	ug/l	40.0		69.4	40-140		
Acenaphthylene	24.0		1.0	ug/l	40.0		60.0	40-140		
Fluorene	23.3		5.0	ug/l	40.0		58.2	40-140		
Anthracene	33.6		5.0	ug/l	40.0		83.9	40-140		
Fluoranthene	29.4		5.0	ug/l	40.0		73.6	40-140		
Pyrene	30.7		5.0	ug/l	40.0		76.8	40-140		
Benzo(a)anthracene	28.7		1.0	ug/l	40.0		71.8	40-140		
Chrysene	31.9		2.0	ug/l	40.0		79.8	40-140		
Benzo(b)fluoranthene	28.9		1.0	ug/l	40.0		72.3	40-140		
Benzo(k)fluoranthene	31.1		1.0	ug/l	40.0		77.8	40-140		
Benzo(a)pyrene	29.9		0.2	ug/l	40.0		74.8	40-140		
Indeno(1,2,3-cd)pyrene	31.0		0.5	ug/l	40.0		77.6	40-140		
Dibenz(a,h)anthracene	29.4		0.5	ug/l	40.0		73.6	40-140		
Benzo(g,h,i)perylene	30.4		5.0	ug/l	40.0		76.1	40-140		
Nonane	13.5		5.0	ug/l	40.0		33.8	30-140		
Decane	18.4		5.0	ug/l	40.0		46.1	40-140		
Dodecane	23.8		5.0	ug/l	40.0		59.4	40-140		
Tetradecane	22.0		5.0	ug/l	40.0		55.0	40-140		
Hexadecane	23.0		5.0	ug/l	40.0		57.4	40-140		
Octadecane	24.9		5.0	ug/l	40.0		62.2	40-140		
Nonadecane	24.2		5.0	ug/l	40.0		60.5	40-140		
Eicosane	26.1		5.0	ug/l	40.0		65.3	40-140		
Docosane	26.3		5.0	ug/l	40.0		65.8	40-140		

Extractable Petroleum Hydrocarbons (MADEP-EPH) (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9K0370 - Sep-Funnel-extraction (Continued)										
LCS (B9K0370-BS1)					Prepared: 11/11/19 Analyzed: 11/14/19					
Tetracosane	26.3		5.0	ug/l	40.0		65.8	40-140		
Hexacosane	26.0		5.0	ug/l	40.0		65.0	40-140		
Octacosane	25.2		5.0	ug/l	40.0		63.1	40-140		
Triacontane	25.3		5.0	ug/l	40.0		63.2	40-140		
Hexatriacontane	23.9		5.0	ug/l	40.0		59.8	40-140		
Surrogate: Chlorooctadecane			*75.2*	ug/l	*125*		*60.2*	*40-140*		
Surrogate: o-Terphenyl			*95.6*	ug/l	*125*		*76.5*	*40-140*		
Surrogate: 2-Fluorobiphenyl			*42.1*	ug/l	*50.0*		*84.2*	*40-140*		
Surrogate: 2-Bromonaphthalene			*34.7*	ug/l	*50.0*		*69.4*	*40-140*		
LCS Dup (B9K0370-BSD1)					Prepared: 11/11/19 Analyzed: 11/13/19					
Naphthalene	22.0		1.0	ug/l	40.0		55.0	40-140	3.44	25
2-Methylnaphthalene	20.6		1.0	ug/l	40.0		51.5	40-140	4.04	25
Phenanthrene	24.4		1.0	ug/l	40.0		60.9	40-140	7.09	25
Acenaphthene	27.1		5.0	ug/l	40.0		67.8	40-140	2.30	25
Acenaphthylene	23.1		1.0	ug/l	40.0		57.8	40-140	3.86	25
Fluorene	22.4		5.0	ug/l	40.0		55.9	40-140	4.16	25
Anthracene	29.4		5.0	ug/l	40.0		73.5	40-140	13.2	25
Fluoranthene	27.6		5.0	ug/l	40.0		69.0	40-140	6.38	25
Pyrene	29.3		5.0	ug/l	40.0		73.2	40-140	4.67	25
Benzo(a)anthracene	26.8		1.0	ug/l	40.0		66.9	40-140	7.07	25
Chrysene	30.1		2.0	ug/l	40.0		75.2	40-140	5.91	25
Benzo(b)fluoranthene	26.5		1.0	ug/l	40.0		66.4	40-140	8.62	25
Benzo(k)fluoranthene	29.6		1.0	ug/l	40.0		74.1	40-140	4.81	25
Benzo(a)pyrene	28.0		0.2	ug/l	40.0		70.1	40-140	6.42	25
Indeno(1,2,3-cd)pyrene	30.8		0.5	ug/l	40.0		77.1	40-140	0.582	25
Dibenz(a,h)anthracene	27.8		0.5	ug/l	40.0		69.5	40-140	5.73	25
Benzo(g,h,i)perylene	28.7		5.0	ug/l	40.0		71.8	40-140	5.78	25
Nonane	14.2		5.0	ug/l	40.0		35.6	30-140	5.12	25
Decane	18.4		5.0	ug/l	40.0		46.1	40-140	0.0542	25
Dodecane	23.0		5.0	ug/l	40.0		57.4	40-140	3.42	25
Tetradecane	21.6		5.0	ug/l	40.0		54.1	40-140	1.70	25
Hexadecane	23.8		5.0	ug/l	40.0		59.4	40-140	3.34	25
Octadecane	25.6		5.0	ug/l	40.0		64.0	40-140	2.93	25
Nonadecane	25.0		5.0	ug/l	40.0		62.5	40-140	3.25	25
Eicosane	27.2		5.0	ug/l	40.0		68.1	40-140	4.16	25
Docosane	27.7		5.0	ug/l	40.0		69.2	40-140	5.07	25
Tetracosane	28.0		5.0	ug/l	40.0		70.1	40-140	6.25	25
Hexacosane	28.1		5.0	ug/l	40.0		70.2	40-140	7.66	25
Octacosane	27.7		5.0	ug/l	40.0		69.2	40-140	9.22	25
Triacontane	26.6		5.0	ug/l	40.0		66.6	40-140	5.20	25
Hexatriacontane	23.0		5.0	ug/l	40.0		57.4	40-140	3.97	25
Surrogate: Chlorooctadecane			*72.9*	ug/l	*125*		*58.3*	*40-140*		
Surrogate: o-Terphenyl			*90.1*	ug/l	*125*		*72.1*	*40-140*		
Surrogate: 2-Fluorobiphenyl			*47.8*	ug/l	*50.0*		*95.5*	*40-140*		
Surrogate: 2-Bromonaphthalene			*39.0*	ug/l	*50.0*		*78.1*	*40-140*		

Notes and Definitions

Item	Definition
Wet	Sample results reported on a wet weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.

9K0 8006a

CHAIN OF CUSTODY RECORD

PROJ. NO.

PROJECT NAME/LOCATION: 395 Alewife Brook Parkway

CLIENT: Mark A. Germano, ISP (MAG)

REPORT TO: Client

INVOICE TO: Client

DATE	TIME	COMP	GRAB	SAMPLE I.D.	AQUEOUS	SOIL	OTHER	NO. OF CONTAINERS	PRESERVATIVE	TESTS: VPH + Targets	EPH + Targets	VOCs	RCRA 8 Metals (dissolved)	REMARKS
11/6	12:-		X	S1		X		2	MeOH	X				Lab filter GW sample for metals
				S2										
				S3										
				S4										
				S5										
				S6										
				MW-1	X			6		X	X	X	X	

	Date/Time		Date/Time	
Sampled by: (Signature)	11/6/19 1014	Received by: (Signature)	11-8-19	1014
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	
	11-8-19 1418			
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	
			11/8	1415

Laboratory Remarks:
Temp. received: 4
Cooled ☐

Special Instructions:
List Specific Detection Limit Requirements:

Turnaround (Business Days)

**Netlab subcontracts the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve, Salmonella, Carbamates, CT ETPH

MassDEP Analytical Protocol Certification Form

Laboratory Name: New England Testing Laboratory, Inc.	Project #:
Project Location: 395 Alewife Brook Parkway	RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s): 9K08006

Matrices: ☒ Groundwater/Surface Water ☒ Soil/Sediment ☐ Drinking Water ☐ Air ☐ Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A ☒	7470/7471 Hg CAM III B ☒	MassDEP VPH (GC/PID/FID) CAM IV A ☒	8082 PCB CAM V A ☐	9014 Total Cyanide/PAC CAM VI A ☐	6860 Perchlorate CAM VIII B ☐
8270 SVOC CAM II B ☐	7010 Metals CAM III C ☐	MassDEP VPH (GC/MS) CAM IV C ☐	8081 Pesticides CAM V B ☐	7196 Hex Cr CAM VI B ☐	MassDEP APH CAM IX A ☐
6010 Metals CAM III A ☒	6020 Metals CAM III D ☐	MassDEP EPH CAM IV B ☒	8151 Herbicides CAM V C ☐	8330 Explosives CAM VIII A ☐	TO-15 VOC CAM IX B ☐

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☒ Yes ☐ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	☒ Yes ☐ No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☒ Yes ☐ No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	☒ Yes ☐ No
E	VPH, EPH, APH, and TO-15 only a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☒ Yes ☐ No ☐ Yes ☐ No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	☒ Yes ☐ No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☒ Yes ☐ No[1]

***Data User Note:** Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	☒ Yes ☐ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☒ Yes ☐ No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.

Signature: _____ **Position:** Laboratory Director

Printed Name: Richard Warila **Date**: 11/14/2019

New England Testing Laboratory, Inc.
(401) 353-3420

REPORT OF ANALYTICAL RESULTS

NETLAB Work Order Number: 9K27055
Client Project: 395 Alewife Brook Parkway

Report Date: 05-December-2019

Prepared for:

Mark A Germano
Mark A. Germano, LSP
15 Pinehurst Rd
Marshfield, MA 02050

Richard Warila, Laboratory Director
New England Testing Laboratory, Inc.
59 Greenhill Street
West Warwick, RI 02893
rich.warila@newenglandtesting.com

Samples Submitted :

The samples listed below were submitted to New England Testing Laboratory on 11/27/19. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is 9K27055. Custody records are included in this report.

Lab ID	Sample	Matrix	Date Sampled	Date Received
9K27055-01	PI-1	Soil	11/21/2019	11/27/2019
9K27055-02	PI-2	Soil	11/21/2019	11/27/2019
9K27055-03	IN	Water	11/26/2019	11/27/2019
9K27055-04	OUT	Water	11/26/2019	11/27/2019

Request for Analysis

At the client's request, the analyses presented in the following table were performed on the samples submitted.

IN (Lab Number: 9K27055-03)

Analysis	Method
MADEP VPH	MADEP VPH

OUT (Lab Number: 9K27055-04)

Analysis	Method
MADEP VPH	MADEP VPH

PI-1 (Lab Number: 9K27055-01)

Analysis	Method
MADEP VPH	MADEP VPH

PI-2 (Lab Number: 9K27055-02)

Analysis	Method
MADEP VPH	MADEP VPH

Method References

Method for the Determination of Volatile Petroleum Hydrocarbons, Rev. 2.1, Massachusetts Department of Environmental Protection, 2018

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, USEPA

Case Narrative

Sample Receipt:

The samples associated with this work order were received in appropriately cooled and preserved containers. The chain of custody was adequately completed and corresponded to the samples submitted.

Exceptions: None

Analysis:

All samples were prepared and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control requirements and allowances.

Exceptions: None

Volatile Petroleum Hydrocarbons
Sample: PI-1 (9K27055-01)

SAMPLE INFORMATION

Matrix	Soil		
Containers	Satisfactory		
Sample Preservation	Aqueous	NA	
	Soil or Sediment	Preserved with methanol and/or in an air-tight container	ml methanol per gram soil: 1:1 +/- 25%
		Methanol preserved (covering sample)	
		Received in air-tight container	
Temperature	Received on Ice Received at: 4+/-2 C°		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH-18-2.1			Client ID		PI-1	
Method for Target Analytes: MADEP VPH-18-2.1			Lab ID		9K27055-01	
VPH Surrogate Standards:			Date Collected		11/21/19	
PID: 2,5-Dibromotoluene			Date Received		11/27/19	
FID: 2,5-Dibromotoluene			% Moisture		11.20	
RANGE/TARGET ANALYTE	**Elution Range**	**Dilution**	**RL**	**Units**	**Result**	**Analyzed**
Unadjusted C5-C8 Aliphatic Hydrocarbons [1]	NA	50X	6.2	mg/kg	<6.2	12/04/19 07:28
Unadjusted C9-C12 Aliphatic Hydrocarbons [1]	NA	50X	6.2	mg/kg	<6.2	12/04/19 07:28
Benzene	C5-C8	50X	0.3	mg/kg	<0.3	12/04/19 07:28
Ethylbenzene	C9-C12	50X	0.3	mg/kg	<0.3	12/04/19 07:28
Methyl t-butyl ether (MTBE)	C5-C8	50X	0.06	mg/kg	<0.06	12/04/19 07:28
Naphthalene	NA	50X	0.6	mg/kg	<0.6	12/04/19 07:28
Toluene	C5-C8	50X	0.3	mg/kg	<0.3	12/04/19 07:28
m&p-Xylene	C9-C12	50X	0.6	mg/kg	<0.6	12/04/19 07:28
o-Xylene	C9-C12	50X	0.6	mg/kg	<0.6	12/04/19 07:28
Total xylenes		50X	0.6	mg/kg	<0.6	12/04/19 07:28
C5-C8 Aliphatic Hydrocarbons [1,2]	NA	50X	6.2	mg/kg	<6.2	12/04/19 07:28
C9-C12 Aliphatic Hydrocarbons [1,3]	NA	50X	6.2	mg/kg	<6.2	12/04/19 07:28
C9-C10 Aromatic Hydrocarbons [1]	NA	50X	6.2	mg/kg	<6.2	12/04/19 07:28
2,5-Dibromotoluene-PID				%	80.6	12/04/19 07:28
2,5-Dibromotoluene-FID				%	87.8	12/04/19 07:28
Surrogate Acceptance Range				%	70-130	

[1] Hydrocarbon Range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range
[2] C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3] C9-C12 Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C9-C10 Aromatic Hydrocarbons

Volatile Petroleum Hydrocarbons
Sample: PI-2 (9K27055-02)

SAMPLE INFORMATION

Matrix	Soil		
Containers	Satisfactory		
Sample Preservation	Aqueous	NA	
	Soil or Sediment	Preserved with methanol and/or in an air-tight container	ml methanol per gram soil: 1:1 +/- 25%
		Methanol preserved (covering sample)	
		Received in air-tight container	
Temperature	Received on Ice Received at: 4+/-2 C°		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH-18-2.1				Client ID	PI-2	
Method for Target Analytes: MADEP VPH-18-2.1				Lab ID	9K27055-02	
VPH Surrogate Standards:				Date Collected	11/21/19	
PID: 2,5-Dibromotoluene				Date Received	11/27/19	
FID: 2,5-Dibromotoluene				% Moisture	11.20	
RANGE/TARGET ANALYTE	**Elution Range**	**Dilution**	**RL**	**Units**	**Result**	**Analyzed**
Unadjusted C5-C8 Aliphatic Hydrocarbons [1]	NA	50X	6.2	mg/kg	<6.2	12/04/19 07:28
Unadjusted C9-C12 Aliphatic Hydrocarbons [1]	NA	50X	6.2	mg/kg	<6.2	12/04/19 07:28
Benzene	C5-C8	50X	0.3	mg/kg	<0.3	12/04/19 07:28
Ethylbenzene	C9-C12	50X	0.3	mg/kg	<0.3	12/04/19 07:28
Methyl t-butyl ether (MTBE)	C5-C8	50X	0.06	mg/kg	<0.06	12/04/19 07:28
Naphthalene	NA	50X	0.6	mg/kg	<0.6	12/04/19 07:28
Toluene	C5-C8	50X	0.3	mg/kg	<0.3	12/04/19 07:28
m&p-Xylene	C9-C12	50X	0.6	mg/kg	<0.6	12/04/19 07:28
o-Xylene	C9-C12	50X	0.6	mg/kg	<0.6	12/04/19 07:28
Total xylenes		50X	0.6	mg/kg	<0.6	12/04/19 07:28
C5-C8 Aliphatic Hydrocarbons [1,2]	NA	50X	6.2	mg/kg	<6.2	12/04/19 07:28
C9-C12 Aliphatic Hydrocarbons [1,3]	NA	50X	6.2	mg/kg	<6.2	12/04/19 07:28
C9-C10 Aromatic Hydrocarbons [1]	NA	50X	6.2	mg/kg	<6.2	12/04/19 07:28
2,5-Dibromotoluene-PID				%	80.2	12/04/19 07:28
2,5-Dibromotoluene-FID				%	85.1	12/04/19 07:28
Surrogate Acceptance Range				%	70-130	

[1] Hydrocarbon Range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range
[2] C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3] C9-C12 Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C9-C10 Aromatic Hydrocarbons

Volatile Petroleum Hydrocarbons
Sample: IN (9K27055-03)

SAMPLE INFORMATION

Matrix	Water	
Containers	Satisfactory	
Sample Preservation	Aqueous	pH<2
	Soil or Sediment	NA
		NA
		Received in air-tight container
Temperature	Received on Ice Received at: 4+/-2 C°	

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH-18-2.1			Client ID		IN	
Method for Target Analytes: MADEP VPH-18-2.1			Lab ID		9K27055-03	
VPH Surrogate Standards:			Date Collected		11/26/19	
PID: 2,5-Dibromotoluene			Date Received		11/27/19	
FID: 2,5-Dibromotoluene			% Moisture		NA	
RANGE/TARGET ANALYTE	**Elution Range**	**Dilution**	**RL**	**Units**	**Result**	**Analyzed**
Unadjusted C5-C8 Aliphatic Hydrocarbons [1]	NA	20X	2000	ug/l	**9640**	12/04/19 14:24
Unadjusted C9-C12 Aliphatic Hydrocarbons [1]	NA	20X	2000	ug/l	**12800**	12/04/19 14:24
Benzene	C5-C8	20X	100	ug/l	**696**	12/04/19 14:24
Ethylbenzene	C9-C12	20X	100	ug/l	**456**	12/04/19 14:24
Methyl t-butyl ether (MTBE)	C5-C8	1X	10.0	ug/l	**20.9**	12/04/19 14:24
Naphthalene	NA	1X	10.0	ug/l	**142**	12/04/19 14:24
Toluene	C5-C8	20X	100	ug/l	**4910**	12/04/19 14:24
m&p-Xylene	C9-C12	20X	200	ug/l	**1680**	12/04/19 14:24
o-Xylene	C9-C12	20X	200	ug/l	**678**	12/04/19 14:24
Total xylenes		20X	200	ug/l	**2350**	12/04/19 14:24
C5-C8 Aliphatic Hydrocarbons [1,2]	NA	20X	2000	ug/l	**3620**	12/04/19 14:24
C9-C12 Aliphatic Hydrocarbons [1,3]	NA	20X	2000	ug/l	**8000**	12/04/19 14:24
C9-C10 Aromatic Hydrocarbons [1]	NA	20X	1000	ug/l	**1960**	12/04/19 14:24
2,5-Dibromotoluene-PID				%	81.5	12/04/19 14:24
2,5-Dibromotoluene-FID				%	98.7	12/04/19 14:24
Surrogate Acceptance Range				%	70-130	

[1] Hydrocarbon Range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range
[2] C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3] C9-C12 Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C9-C10 Aromatic Hydrocarbons

Volatile Petroleum Hydrocarbons
Sample: OUT (9K27055-04)

SAMPLE INFORMATION

Matrix	Water		
Containers	Satisfactory		
Sample Preservation	Aqueous	pH<2	
	Soil or Sediment	NA	
		NA	
		Received in air-tight container	
Temperature	Received on Ice Received at: 4+/-2 C°		

VPH ANALYTICAL RESULTS

Method for Ranges: MADEP VPH-18-2.1				Client ID	OUT	
Method for Target Analytes: MADEP VPH-18-2.1				Lab ID	9K27055-04	
VPH Surrogate Standards:				Date Collected	11/26/19	
PID: 2,5-Dibromotoluene				Date Received	11/27/19	
FID: 2,5-Dibromotoluene				% Moisture	NA	
RANGE/TARGET ANALYTE	**Elution Range**	**Dilution**	**RL**	**Units**	**Result**	**Analyzed**
Unadjusted C5-C8 Aliphatic Hydrocarbons [1]	NA	1X	100	ug/l	<100	12/04/19 14:24
Unadjusted C9-C12 Aliphatic Hydrocarbons [1]	NA	1X	100	ug/l	<100	12/04/19 14:24
Benzene	C5-C8	1X	5.0	ug/l	<5.0	12/04/19 14:24
Ethylbenzene	C9-C12	1X	5.0	ug/l	<5.0	12/04/19 14:24
Methyl t-butyl ether (MTBE)	C5-C8	1X	10.0	ug/l	**50.6**	12/04/19 14:24
Naphthalene	NA	1X	10.0	ug/l	<10.0	12/04/19 14:24
Toluene	C5-C8	1X	5.0	ug/l	**8.2**	12/04/19 14:24
m&p-Xylene	C9-C12	1X	10.0	ug/l	<10.0	12/04/19 14:24
o-Xylene	C9-C12	1X	10.0	ug/l	<10.0	12/04/19 14:24
Total xylenes		1X	10.0	ug/l	<10.0	12/04/19 14:24
C5-C8 Aliphatic Hydrocarbons [1,2]	NA	1X	100	ug/l	<100	12/04/19 14:24
C9-C12 Aliphatic Hydrocarbons [1,3]	NA	1X	100	ug/l	<100	12/04/19 14:24
C9-C10 Aromatic Hydrocarbons [1]	NA	1X	100	ug/l	<100	12/04/19 14:24
2,5-Dibromotoluene-PID				%	79.3	12/04/19 14:24
2,5-Dibromotoluene-FID				%	86.1	12/04/19 14:24
Surrogate Acceptance Range				%	70-130	

[1] Hydrocarbon Range data excludes concentrations of any surrogate(s) and/or internal standards eluting in that range
[2] C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range
[3] C9-C12 Aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C9-C10 Aromatic Hydrocarbons

Quality Control

Volatile Petroleum Hydrocarbons (MADEP-VPH)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9L0119 - MADEP VPH										
Blank (B9L0119-BLK1)					Prepared & Analyzed: 12/04/19					
Unadjusted C5-C8 Aliphatic Hydrocarbons	ND		100	ug/l						
Unadjusted C9-C12 Aliphatic Hydrocarbons	ND		100	ug/l						
Benzene	ND		5.0	ug/l						
Ethylbenzene	ND		5.0	ug/l						
Methyl t-butyl ether (MTBE)	ND		10.0	ug/l						
Naphthalene	ND		10.0	ug/l						
Toluene	ND		5.0	ug/l						
m&p-Xylene	ND		10.0	ug/l						
o-Xylene	ND		10.0	ug/l						
Total xylenes	ND		10.0	ug/l						
C5-C8 Aliphatic Hydrocarbons	ND		100	ug/l						
C9-C12 Aliphatic Hydrocarbons	ND		100	ug/l						
C9-C10 Aromatic Hydrocarbons	ND		100	ug/l						
Surrogate: 2,5- Dibromotoluene-PID			*36.0*	ug/l	*50.0*		*72.0*	*70-130*		
Surrogate: 2,5- Dibromotoluene-FID			*39.0*	ug/l	*50.0*		*78.0*	*70-130*		
LCS (B9L0119-BS1)					Prepared & Analyzed: 12/04/19					
Benzene	58.3			ug/l	50.0		117	70-130		
Ethylbenzene	41.2			ug/l	50.0		82.5	70-130		
Methyl t-butyl ether (MTBE)	47.5			ug/l	50.0		95.0	70-130		
Naphthalene	42.3			ug/l	50.0		84.6	70-130		
Toluene	38.0			ug/l	50.0		75.9	70-130		
m&p-Xylene	85.0			ug/l	100		85.0	70-130		
o-Xylene	38.5			ug/l	50.0		77.1	70-130		
C5-C8 Aliphatic Hydrocarbons	147			ug/l	150		97.7	70-130		
C9-C12 Aliphatic Hydrocarbons	84.0			ug/l	100		84.0	70-130		
C9-C10 Aromatic Hydrocarbons	46.2			ug/l	50.0		92.3	70-130		
Surrogate: 2,5- Dibromotoluene-PID			*35.5*	ug/l	*50.0*		*71.0*	*70-130*		
Surrogate: 2,5- Dibromotoluene-FID			*37.4*	ug/l	*50.0*		*74.7*	*70-130*		

Quality Control
(Continued)

Volatile Petroleum Hydrocarbons (MADEP-VPH) (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9L0119 - MADEP VPH (Continued)										
LCS Dup (B9L0119-BSD1)					Prepared & Analyzed: 12/04/19					
Benzene	58.4			ug/l	50.0		117	70-130	0.183	25
Ethylbenzene	41.7			ug/l	50.0		83.5	70-130	1.22	25
Methyl t-butyl ether (MTBE)	49.9			ug/l	50.0		99.9	70-130	5.03	25
Naphthalene	44.7			ug/l	50.0		89.5	70-130	5.60	25
Toluene	38.4			ug/l	50.0		76.8	70-130	1.18	25
m&p-Xylene	86.8			ug/l	100		86.8	70-130	2.12	25
o-Xylene	39.1			ug/l	50.0		78.3	70-130	1.51	25
C5-C8 Aliphatic Hydrocarbons	147			ug/l	150		97.7	70-130	0.0150	25
C9-C12 Aliphatic Hydrocarbons	78.3			ug/l	100		78.3	70-130	7.04	25
C9-C10 Aromatic Hydrocarbons	46.4			ug/l	50.0		92.8	70-130	0.572	25
Surrogate: 2,5- Dibromotoluene-PID			*36.2*	ug/l	*50.0*		*72.3*	*70-130*		
Surrogate: 2,5- Dibromotoluene-FID			*38.2*	ug/l	*50.0*		*76.4*	*70-130*		
Batch: B9L0120 - MADEP VPH										
Blank (B9L0120-BLK1)					Prepared & Analyzed: 12/04/19					
Unadjusted C5-C8 Aliphatic Hydrocarbons	ND		5.0	mg/kg						
Unadjusted C9-C12 Aliphatic Hydrocarbons	ND		5.0	mg/kg						
Benzene	ND		0.2	mg/kg						
Ethylbenzene	ND		0.2	mg/kg						
Methyl t-butyl ether (MTBE)	ND		0.05	mg/kg						
Naphthalene	ND		0.5	mg/kg						
Toluene	ND		0.2	mg/kg						
m&p-Xylene	ND		0.5	mg/kg						
o-Xylene	ND		0.5	mg/kg						
Total xylenes	ND		0.5	mg/kg						
C5-C8 Aliphatic Hydrocarbons	ND		5.0	mg/kg						
C9-C12 Aliphatic Hydrocarbons	ND		5.0	mg/kg						
C9-C10 Aromatic Hydrocarbons	ND		5.0	mg/kg						
Surrogate: 2,5- Dibromotoluene-PID			*35.6*	ug/l	*50.0*		*71.1*	*70-130*		
Surrogate: 2,5- Dibromotoluene-FID			*37.1*	ug/l	*50.0*		*74.2*	*70-130*		

Quality Control
(Continued)

Volatile Petroleum Hydrocarbons (MADEP-VPH) (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9L0120 - MADEP VPH (Continued)										
LCS (B9L0120-BS1)					Prepared & Analyzed: 12/04/19					
Benzene	58.3			ug/l	50.0		117	70-130		
Ethylbenzene	41.2			ug/l	50.0		82.5	70-130		
Methyl t-butyl ether (MTBE)	47.5			ug/l	50.0		95.0	70-130		
Naphthalene	42.3			ug/l	50.0		84.6	70-130		
Toluene	38.0			ug/l	50.0		75.9	70-130		
m&p-Xylene	85.0			ug/l	100		85.0	70-130		
o-Xylene	38.5			ug/l	50.0		77.1	70-130		
C5-C8 Aliphatic Hydrocarbons	147			ug/l	150		97.7	70-130		
C9-C12 Aliphatic Hydrocarbons	84.0			ug/l	100		84.0	70-130		
C9-C10 Aromatic Hydrocarbons	46.2			ug/l	50.0		92.3	70-130		
Surrogate: 2,5- Dibromotoluene-PID			*35.5*	ug/l	*50.0*		*71.0*	*70-130*		
Surrogate: 2,5- Dibromotoluene-FID			*37.4*	ug/l	*50.0*		*74.7*	*70-130*		
LCS Dup (B9L0120-BSD1)					Prepared & Analyzed: 12/04/19					
Benzene	58.4			ug/l	50.0		117	70-130	0.183	25
Ethylbenzene	41.7			ug/l	50.0		83.5	70-130	1.22	25
Methyl t-butyl ether (MTBE)	49.9			ug/l	50.0		99.9	70-130	5.03	25
Naphthalene	44.7			ug/l	50.0		89.5	70-130	5.60	25
Toluene	38.4			ug/l	50.0		76.8	70-130	1.18	25
m&p-Xylene	86.8			ug/l	100		86.8	70-130	2.12	25
o-Xylene	39.1			ug/l	50.0		78.3	70-130	1.51	25
C5-C8 Aliphatic Hydrocarbons	147			ug/l	150		97.7	70-130	0.0150	25
C9-C12 Aliphatic Hydrocarbons	78.3			ug/l	100		78.3	70-130	7.04	25
C9-C10 Aromatic Hydrocarbons	46.4			ug/l	50.0		92.8	70-130	0.572	25
Surrogate: 2,5- Dibromotoluene-PID			*36.2*	ug/l	*50.0*		*72.3*	*70-130*		
Surrogate: 2,5- Dibromotoluene-FID			*38.2*	ug/l	*50.0*		*76.4*	*70-130*		

Notes and Definitions

Item	Definition
Wet	Sample results reported on a wet weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.

9K2 7055 &

NC.

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME/LOCATION: 395 Alewife Brook Parkway
CLIENT: Mark A. Germano	
REPORT TO:* Client	
INVOICE TO: Client	

DATE	TIME	COMP	GRAB	SAMPLE I.D.	AQUEOUS	SOIL	OTHER	NO. OF CONTAINERS	PRESERVATIVE	TESTS** VPH + Target x4	REMARKS
11/21			X	PI-1		X		3	MeOH	X	Note samples taken 11/21 watch holding times
11/21			X	PI-2		X		2	MeOH	X	
11/26			X	In	X			2	HCL	X	
11/26			X	Out	X			2	HCL	X	

Sampled by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	11-27-19 1250		11-27-19 1250
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	11-27-19 1515		
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time
			11/27/19 1515

Laboratory Remarks: 4
Temp. received: ____
Cooled ☐

Special Instructions:
List Specific Detection Limit Requirements:

Turnaround (Business Days) 4

**Netlab subcontracts the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve, Salmonella, Carbamates, CT ETPH

MassDEP Analytical Protocol Certification Form

Laboratory Name: New England Testing Laboratory, Inc. Project #:

Project Location: Alewife Brook Parkway RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s): 9K27055

Matrices: ☒ Groundwater/Surface Water ☒ Soil/Sediment ☐ Drinking Water ☐ Air ☐ Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A ☐	7470/7471 Hg CAM III B ☐	MassDEP VPH (GC/PID/FID) CAM IV A ☒	8082 PCB CAM V A ☐	9014 Total Cyanide/PAC CAM VI A ☐	6860 Perchlorate CAM VIII B ☐
8270 SVOC CAM II B ☐	7010 Metals CAM III C ☐	MassDEP VPH (GC/MS) CAM IV C ☐	8081 Pesticides CAM V B ☐	7196 Hex Cr CAM VI B ☐	MassDEP APH CAM IX A ☐
6010 Metals CAM III A ☐	6020 Metals CAM III D ☐	MassDEP EPH CAM IV B ☐	8151 Herbicides CAM V C ☐	8330 Explosives CAM VIII A ☐	TO-15 VOC CAM IX B ☐

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☒ Yes ☐ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	☒ Yes ☐ No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☒ Yes ☐ No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	☒ Yes ☐ No
E	VPH, EPH, APH, and TO-15 only a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☒ Yes ☐ No ☐ Yes ☐ No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	☒ Yes ☐ No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☒ Yes ☐ No[1]

***Data User Note:** Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	☒ Yes ☐ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☒ Yes ☐ No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.

Signature: _____ **Position:** Laboratory Director

Printed Name: Richard Warila **Date**: 12/5/2019

New England Testing Laboratory, Inc.
(401) 353-3420

REPORT OF ANALYTICAL RESULTS

NETLAB Work Order Number: 9L09037
Client Project: 395 Alewife Brook Parkway RGP

Report Date: 17-December-2019

Prepared for:

Mark A Germano
Mark A. Germano, LSP
15 Pinehurst Rd
Marshfield, MA 02050

Richard Warila, Laboratory Director
New England Testing Laboratory, Inc.
59 Greenhill Street
West Warwick, RI 02893
rich.warila@newenglandtesting.com

Samples Submitted :

The samples listed below were submitted to New England Testing Laboratory on 12/09/19. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is 9L09037. Custody records are included in this report.

Lab ID	Sample	Matrix	Date Sampled	Date Received
9L09037-01	Influent	Water	12/09/2019	12/09/2019
9L09037-02	Brook	Water	12/09/2019	12/09/2019

Request for Analysis

At the client's request, the analyses presented in the following table were performed on the samples submitted.

Brook (Lab Number: 9L09037-02)

Analysis	Method
Ammonia	SM4500-NH3-D (11)
Antimony	EPA 200.8
Arsenic	EPA 200.8
Cadmium	EPA 200.8
Calcium	SM3120-B (11)
Chromium	EPA 200.8
Copper	EPA 200.8
Hexavalent Chromium	SM3500-Cr-B (11)
Iron	EPA 200.8
Lead	EPA 200.8
Magnesium	SM3120-B (11)
Mercury	EPA 245.1
Nickel	EPA 200.8
Selenium	EPA 200.8
Silver	EPA 200.8
Trivalent Chromium	Calculation
Zinc	EPA 200.8

Influent (Lab Number: 9L09037-01)

Analysis	Method
Acid Base/Neutral Extractables	EPA 625.1
Ammonia	SM4500-NH3-D (11)
Antimony	EPA 200.8
Arsenic	EPA 200.8
Cadmium	EPA 200.8
Chloride	SM4500CI-B (11)
Chromium	EPA 200.8
Copper	EPA 200.8
Cyanide	SM4500-CN-E (11)
Hexavalent Chromium	SM3500-Cr-B (11)
Iron	EPA 200.8
Lead	EPA 200.8
Mercury	EPA 245.1
Methanol and Ethanol	EPA-8100-mod
Nickel	EPA 200.8
PCBs	EPA 8082A
pH	SM4500-H-B (11)
Selenium	EPA 200.8
Silver	EPA 200.8
Total Petroleum Hydrocarbons	EPA-8100-mod
Total Suspended Solids	SM2540-D (11)
Trivalent Chromium	Calculation
Volatile Organic Compounds	EPA 624.1
Zinc	EPA 200.8

Method References

40 CFR Part 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act, Office of Federal Register National Archives and Records Administration

Methods for the Determination of Metals in Environmental Samples EPA-600/R-94/111, USEPA, 1994

Standard Methods for the Examination of Water and Wastewater, 20th Edition, APHA/ AWWA-WPCF, 1998

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, USEPA

Case Narrative

Sample Receipt:

The samples associated with this work order were received in appropriately cooled and preserved containers. The chain of custody was adequately completed and corresponded to the samples submitted.

Exceptions: None

Analysis:

All samples were prepared and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control requirements and allowances.

Exceptions:
PCB: Sample "Influent" was reported with surrogates outside method parameters due to matrix interference.

Results: Calculation

Sample: Influent

Lab Number: 9L09037-01 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Trivalent Chromium	**0.000491**		0.000100	mg/L	12/10/19 13:05	12/13/19 16:03

Results: Calculation

Sample: Brook

Lab Number: 9L09037-02 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Trivalent Chromium	**0.0181**		0.00100	mg/L	12/10/19 13:05	12/13/19 16:08

Results: General Chemistry

Sample: Influent

Lab Number: 9L09037-01 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Ammonia	ND		0.1	mg/L	12/11/19	12/11/19
Chloride	**324**		25	mg/L	12/12/19	12/12/19
Cyanide	ND		0.010	mg/L	12/11/19	12/11/19
Hexavalent chromium	ND		0.01	mg/L	12/09/19 16:30	12/09/19 16:30
pH	**7.2**		0.1	SU	12/09/19 17:15	12/09/19 17:15
Total Suspended Solids	**8**		2	mg/L	12/11/19	12/11/19

Results: General Chemistry

Sample: Brook

Lab Number: 9L09037-02 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Ammonia	**0.5**		0.1	mg/L	12/11/19	12/11/19
Hexavalent chromium	ND		0.01	mg/L	12/10/19 9:55	12/10/19 9:55

Results: Total Metals

Sample: Influent

Lab Number: 9L09037-01 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Antimony	**0.0006**		0.0001	mg/L	12/10/19	12/13/19
Arsenic	**0.0164**		0.0001	mg/L	12/10/19	12/13/19
Cadmium	ND		0.0001	mg/L	12/10/19	12/13/19
Chromium	**0.0005**		0.0001	mg/L	12/10/19	12/13/19
Copper	**0.005**		0.001	mg/l	12/10/19	12/13/19
Iron	**0.258**		0.001	mg/l	12/10/19	12/13/19
Mercury	ND		0.0002	mg/L	12/11/19	12/11/19
Nickel	**0.003**		0.001	mg/l	12/10/19	12/13/19
Selenium	ND		0.005	mg/L	12/10/19	12/13/19
Silver	ND		0.0001	mg/L	12/10/19	12/13/19
Zinc	**0.007**		0.001	mg/l	12/10/19	12/13/19
Lead	**0.0013**		0.0001	mg/L	12/10/19	12/13/19

Results: Total Metals

Sample: Brook

Lab Number: 9L09037-02 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Total Hardness	**29.8**		0.125	mg/L	12/10/19	12/11/19
Antimony	**0.0049**		0.0010	mg/L	12/10/19	12/13/19
Arsenic	**0.0091**		0.0010	mg/L	12/10/19	12/13/19
Cadmium	ND		0.0010	mg/L	12/10/19	12/13/19
Calcium	**7.01**		0.05	mg/L	12/10/19	12/11/19
Chromium	**0.0181**		0.0010	mg/L	12/10/19	12/13/19
Copper	**0.050**		0.010	mg/l	12/10/19	12/13/19
Iron	**4.71**		0.010	mg/l	12/10/19	12/13/19
Magnesium	**2.99**		0.05	mg/L	12/10/19	12/11/19
Mercury	ND		0.0002	mg/L	12/11/19	12/11/19
Nickel	ND		0.010	mg/l	12/10/19	12/13/19
Selenium	ND		0.050	mg/L	12/10/19	12/13/19
Silver	ND		0.0010	mg/L	12/10/19	12/13/19
Zinc	**0.291**		0.010	mg/l	12/10/19	12/13/19
Lead	**0.0477**		0.0010	mg/L	12/10/19	12/13/19

Results: Volatile Organic Compounds

Sample: Influent

Lab Number: 9L09037-01 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Benzene	**671**		10	ug/l	12/12/19	12/12/19
Carbon tetrachloride	ND		1	ug/l	12/12/19	12/12/19
1,2-Dichlorobenzene	ND		1	ug/l	12/12/19	12/12/19
1,3-Dichlorobenzene	ND		1	ug/l	12/12/19	12/12/19
1,4-Dichlorobenzene	ND		1	ug/l	12/12/19	12/12/19
1,1-Dichloroethane	ND		1	ug/l	12/12/19	12/12/19
1,2-Dichloroethane	ND		1	ug/l	12/12/19	12/12/19
Methylene chloride	ND		5	ug/l	12/12/19	12/12/19
Tetrachloroethene	ND		1	ug/l	12/12/19	12/12/19
Toluene	**7690**		100	ug/l	12/12/19	12/12/19
1,1,2-Trichloroethane	ND		1	ug/l	12/12/19	12/12/19
1,1,1-Trichloroethane	ND		1	ug/l	12/12/19	12/12/19
Trichloroethene	ND		1	ug/l	12/12/19	12/12/19
Vinyl chloride	ND		1	ug/l	12/12/19	12/12/19
cis-1,2-Dichloroethene	ND		1	ug/l	12/12/19	12/12/19
Acetone	ND		5	ug/l	12/12/19	12/12/19
tert-Butyl alcohol	ND		5	ug/l	12/12/19	12/12/19
Methyl t-butyl ether (MTBE)	**535**		10	ug/l	12/12/19	12/12/19
1,2-Dibromoethane (EDB)	ND		1	ug/l	12/12/19	12/12/19
Total xylenes	ND		1	ug/l	12/12/19	12/12/19
1,4-Dioxane	ND		500	ug/l	12/12/19	12/12/19
o-Xylene	**1190**		10	ug/l	12/12/19	12/12/19
m&p-Xylene	**2530**		20	ug/l	12/12/19	12/12/19
tert-Amyl methyl ether	ND		1	ug/l	12/12/19	12/12/19
Ethylbenzene	**71**		1	ug/l	12/12/19	12/12/19

Surrogate(s)	Recovery%	Limits		
4-Bromofluorobenzene	*94.6%*	*70-130*	12/12/19	12/12/19
1,2-Dichloroethane-d4	*96.3%*	*70-130*	12/12/19	12/12/19
Toluene-d8	*99.6%*	*70-130*	12/12/19	12/12/19

Results: Semivolatile organic compounds

Sample: Influent

Lab Number: 9L09037-01 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Ethanol	ND		10	mg/L	12/16/19	12/16/19

Results: Base/Neutral & Acid Extractables

Sample: Influent

Lab Number: 9L09037-01 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
2,4,6-Trichlorophenol	ND		2	ug/l	12/12/19	12/13/19
2,4-Dichlorophenol	ND		2	ug/l	12/12/19	12/13/19
2,4-Dimethylphenol	ND		10	ug/l	12/12/19	12/13/19
2,4-Dinitrophenol	ND		5	ug/l	12/12/19	12/13/19
2-Chlorophenol	ND		2	ug/l	12/12/19	12/13/19
4,6-Dinitro-2-methylphenol	ND		5	ug/l	12/12/19	12/13/19
4-Chloro-3-methylphenol	ND		2	ug/l	12/12/19	12/13/19
4-Nitrophenol	ND		5	ug/l	12/12/19	12/13/19
Acenaphthene	ND		2	ug/l	12/12/19	12/13/19
Acenaphthylene	ND		2	ug/l	12/12/19	12/13/19
Anthracene	ND		2	ug/l	12/12/19	12/13/19
Benzo(a)anthracene	ND		2	ug/l	12/12/19	12/13/19
Benzo(a)pyrene	ND		2	ug/l	12/12/19	12/13/19
Benzo(b)fluoranthene	ND		2	ug/l	12/12/19	12/13/19
Benzo(g,h,i)perylene	ND		2	ug/l	12/12/19	12/13/19
Benzo(k)fluoranthene	ND		2	ug/l	12/12/19	12/13/19
Bis(2-ethylhexyl)phthalate	ND		6	ug/l	12/12/19	12/13/19
Butyl benzyl phthalate	ND		2	ug/l	12/12/19	12/13/19
Chrysene	ND		2	ug/l	12/12/19	12/13/19
Di(n)octyl phthalate	ND		3	ug/l	12/12/19	12/13/19
Dibenz(a,h)anthracene	ND		2	ug/l	12/12/19	12/13/19
Diethyl phthalate	ND		2	ug/l	12/12/19	12/13/19
Dimethyl phthalate	**3**		2	ug/l	12/12/19	12/13/19
Di-n-butylphthalate	ND		3	ug/l	12/12/19	12/13/19
Fluoranthene	ND		2	ug/l	12/12/19	12/13/19
Fluorene	ND		2	ug/l	12/12/19	12/13/19
Indeno(1,2,3-cd)pyrene	ND		2	ug/l	12/12/19	12/13/19
Naphthalene	**71**		2	ug/l	12/12/19	12/13/19
Pentachlorophenol	ND		5	ug/l	12/12/19	12/13/19
Phenanthrene	ND		2	ug/l	12/12/19	12/13/19
Pyrene	ND		2	ug/l	12/12/19	12/13/19
4-Methylphenol	ND		4	ug/l	12/12/19	12/13/19
2-Methylphenol	**6**		2	ug/l	12/12/19	12/13/19
m&p-Cresol	ND		4	ug/l	12/12/19	12/13/19
3-Methyl phenol	ND		4	ug/l	12/12/19	12/13/19
2,4,5-Trichlorophenol	ND		2	ug/l	12/12/19	12/13/19
2,6-Dichlorophenol	ND		2	ug/l	12/12/19	12/13/19

Surrogate(s)	Recovery%	Limits		
Nitrobenzene-d5	*51.8%*	*30-118*	12/12/19	12/13/19
p-Terphenyl-d14	*77.8%*	*38-130*	12/12/19	12/13/19
2-Fluorobiphenyl	*58.4%*	*30-119*	12/12/19	12/13/19
Phenol-d6	*16.9%*	*10-115*	12/12/19	12/13/19
2,4,6-Tribromophenol	*75.6%*	*15-130*	12/12/19	12/13/19

Results: Base/Neutral & Acid Extractables (Continued)

Sample: Influent (Continued)

Lab Number: 9L09037-01 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
2-Fluorophenol	*27.0%*		*10-115*		12/12/19	12/13/19

Results: Polychlorinated Biphenyls (PCBs)

Sample: Influent

Lab Number: 9L09037-01 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Aroclor-1016	ND		0.2	ug/l	12/11/19	12/12/19
Aroclor-1221	ND		0.4	ug/l	12/11/19	12/12/19
Aroclor-1232	ND		0.2	ug/l	12/11/19	12/12/19
Aroclor-1242	ND		0.2	ug/l	12/11/19	12/12/19
Aroclor-1248	ND		0.2	ug/l	12/11/19	12/12/19
Aroclor-1254	ND		0.2	ug/l	12/11/19	12/12/19
Aroclor-1260	ND		0.2	ug/l	12/11/19	12/12/19
Aroclor-1262	ND		0.2	ug/l	12/11/19	12/12/19
Aroclor-1268	ND		0.2	ug/l	12/11/19	12/12/19
PCBs (Total)	ND		0.2	ug/l	12/11/19	12/12/19

Surrogate(s)	Recovery%	Limits		
2,4,5,6-Tetrachloro-m-xylene (TCMX)	*24.0%*	*30-107*	12/11/19	12/12/19
Decachlorobiphenyl (DCBP)	*31.5%*	*30-140*	12/11/19	12/12/19

Results: Total Petroleum Hydrocarbons

Sample: Influent

Lab Number: 9L09037-01 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Total Petroleum Hydrocarbons	**3910**		1000	ug/l	12/16/19	12/16/19
Surrogate(s)	Recovery%		Limits			
Chlorooctadecane	*58.0%*		*47-115*		12/16/19	12/16/19

Quality Control

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9L0362 - Hexavalent Chrome										
Blank (B9L0362-BLK1)					Prepared & Analyzed: 12/09/19					
Hexavalent chromium	ND		0.01	mg/L						
Blank (B9L0362-BLK2)					Prepared & Analyzed: 12/09/19					
Hexavalent chromium	ND		0.01	mg/L						
LCS (B9L0362-BS1)					Prepared & Analyzed: 12/09/19					
Hexavalent chromium	0.51		0.01	mg/L	0.500		102	90-110		
LCS (B9L0362-BS2)					Prepared & Analyzed: 12/09/19					
Hexavalent chromium	0.10		0.01	mg/L	0.100		105	90-110		
LCS (B9L0362-BS3)					Prepared & Analyzed: 12/09/19					
Hexavalent chromium	0.51		0.01	mg/L	0.500		102	90-110		
Duplicate (B9L0362-DUP1)		**Source: 9L09034-01**			Prepared & Analyzed: 12/09/19					
Hexavalent chromium	ND		0.50	mg/L		ND				20
Matrix Spike (B9L0362-MS1)		**Source: 9L09034-01**			Prepared & Analyzed: 12/09/19					
Hexavalent chromium	ND		0.50	mg/L	0.500	ND		80-120		
Batch: B9L0374 - pH										
LCS (B9L0374-BS1)					Prepared & Analyzed: 12/09/19					
pH	7.1		0.1	SU	7.00		101	90-110		
LCS (B9L0374-BS2)					Prepared & Analyzed: 12/09/19					
pH	7.0		0.1	SU	7.00		101	90-110		

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9L0374 - pH (Continued)										
Duplicate (B9L0374-DUP1)		**Source: 9L09005-01**			Prepared & Analyzed: 12/09/19					
pH	6.8		0.1	SU		6.8			0.00	20
Batch: B9L0412 - Cyanide										
Blank (B9L0412-BLK1)					Prepared & Analyzed: 12/11/19					
Cyanide	ND		0.010	mg/L						
Blank (B9L0412-BLK2)					Prepared & Analyzed: 12/11/19					
Cyanide	ND		0.010	mg/L						
LCS (B9L0412-BS1)					Prepared & Analyzed: 12/11/19					
Cyanide	0.091		0.010	mg/L	0.100		91.0	90-110		
LCS (B9L0412-BS2)					Prepared & Analyzed: 12/11/19					
Cyanide	0.091		0.010	mg/L	0.100		91.0	90-110		
LCS (B9L0412-BS3)					Prepared & Analyzed: 12/11/19					
Cyanide	0.091		0.010	mg/L	0.100		91.0	90-110		
Duplicate (B9L0412-DUP1)		**Source: 9L05050-01**			Prepared & Analyzed: 12/11/19					
Cyanide	ND		0.010	mg/L		ND				200
Matrix Spike (B9L0412-MS1)		**Source: 9L05050-01**			Prepared & Analyzed: 12/11/19					
Cyanide	0.093		0.010	mg/L	0.100	ND	93.0	80-120		
Batch: B9L0425 - Hexavalent Chrome										
Blank (B9L0425-BLK1)					Prepared & Analyzed: 12/10/19					
Hexavalent chromium	ND		0.01	mg/L						

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9L0425 - Hexavalent Chrome (Continued)										
Blank (B9L0425-BLK2)					Prepared & Analyzed: 12/10/19					
Hexavalent chromium	ND		0.01	mg/L						
LCS (B9L0425-BS1)					Prepared & Analyzed: 12/10/19					
Hexavalent chromium	0.53		0.01	mg/L	0.500		106	90-110		
LCS (B9L0425-BS2)					Prepared & Analyzed: 12/10/19					
Hexavalent chromium	0.11		0.01	mg/L	0.100		108	90-110		
LCS (B9L0425-BS3)					Prepared & Analyzed: 12/10/19					
Hexavalent chromium	0.53		0.01	mg/L	0.500		106	90-110		
Duplicate (B9L0425-DUP1)		**Source: 9L09037-02**			Prepared & Analyzed: 12/10/19					
Hexavalent chromium	ND		0.01	mg/L		ND				20
Matrix Spike (B9L0425-MS1)		**Source: 9L09037-02**			Prepared & Analyzed: 12/10/19					
Hexavalent chromium	0.46		0.01	mg/L	0.500	ND	93.0	80-120		
Batch: B9L0495 - Ammonia										
Blank (B9L0495-BLK1)					Prepared & Analyzed: 12/11/19					
Ammonia	ND		0.1	mg/L						
Blank (B9L0495-BLK2)					Prepared & Analyzed: 12/11/19					
Ammonia	ND		0.1	mg/L						
LCS (B9L0495-BS1)					Prepared & Analyzed: 12/11/19					
Ammonia	1.1		0.1	mg/L	1.00		107	90-110		

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9L0495 - Ammonia (Continued)										
LCS (B9L0495-BS2)					Prepared & Analyzed: 12/11/19					
Ammonia	1.0		0.1	mg/L	1.00		95.5	90-110		
Duplicate (B9L0495-DUP1)		**Source: 9L10011-02**			Prepared & Analyzed: 12/11/19					
Ammonia	0.1		0.1	mg/L		0.1			2.69	20
Matrix Spike (B9L0495-MS1)		**Source: 9L10011-02**			Prepared & Analyzed: 12/11/19					
Ammonia	1.3		0.1	mg/L	1.00	0.1	119	80-120		
Batch: B9L0525 - TSS										
Blank (B9L0525-BLK1)					Prepared & Analyzed: 12/11/19					
Total Suspended Solids	ND		2	mg/L						
LCS (B9L0525-BS1)					Prepared & Analyzed: 12/11/19					
Total Suspended Solids	950		10	mg/L	1000		95.0	90-110		
Duplicate (B9L0525-DUP1)		**Source: 9L09030-01**			Prepared & Analyzed: 12/11/19					
Total Suspended Solids	ND		2	mg/L		ND				20
Batch: B9L0566 - Chloride										
Blank (B9L0566-BLK1)					Prepared & Analyzed: 12/12/19					
Chloride	ND		1	mg/L						
LCS (B9L0566-BS1)					Prepared & Analyzed: 12/12/19					
Chloride	62		1	mg/L	60.6		102	90-110		

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9L0566 - Chloride (Continued)										
Duplicate (B9L0566-DUP1)		**Source: 9L09037-01**			Prepared & Analyzed: 12/12/19					
Chloride	301		25	mg/L		324			7.41	20
Matrix Spike (B9L0566-MS1)		**Source: 9L09037-01**			Prepared & Analyzed: 12/12/19					
Chloride	417		25	mg/L	60.6	324	153	80-120		

Quality Control
(Continued)

Total Metals

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9L0402 - Metals Digestion Waters										
Blank (B9L0402-BLK1)					Prepared: 12/10/19 Analyzed: 12/13/19					
Arsenic	ND		0.0001	mg/L						
Zinc	ND		0.001	mg/l						
Selenium	ND		0.005	mg/L						
Antimony	ND		0.0001	mg/L						
Nickel	ND		0.001	mg/l						
Iron	ND		0.001	mg/l						
Copper	ND		0.001	mg/l						
Cadmium	ND		0.0001	mg/L						
Silver	ND		0.0001	mg/L						
Magnesium	ND		0.05	mg/L						
Calcium	ND		0.05	mg/L						
Chromium	ND		0.0001	mg/L						
Lead	ND		0.0001	mg/L						
LCS (B9L0402-BS1)					Prepared: 12/10/19 Analyzed: 12/11/19					
Magnesium	9.65		0.05	mg/L	10.0		96.5	85-115		
Calcium	10.2		0.05	mg/L	10.0		102	85-115		
LCS (B9L0402-BS2)					Prepared: 12/10/19 Analyzed: 12/13/19					
Chromium	0.0210		0.0001	mg/L	0.0200		105	85-115		
Nickel	0.201		0.001	mg/l	0.200		101	85-115		
Iron	0.187		0.001	mg/l	0.200		93.7	85-115		
Copper	0.171		0.001	mg/l	0.200		85.5	85-115		
Silver	0.0201		0.0001	mg/L	0.0200		100	85-115		
Zinc	0.193		0.001	mg/l	0.200		96.5	85-115		
Cadmium	0.0187		0.0001	mg/L	0.0200		93.7	85-115		
Selenium	0.020		0.005	mg/L	0.0200		100	85-115		
Arsenic	0.0177		0.0001	mg/L	0.0200		88.6	85-115		
Antimony	0.0206		0.0001	mg/L	0.0200		103	85-115		
Lead	0.0207		0.0001	mg/L	0.0200		103	85-115		

Quality Control
(Continued)

Volatile Organic Compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9L0515 - Purge-Trap										
Blank (B9L0515-BLK1)					Prepared & Analyzed: 12/12/19					
Benzene	ND		1	ug/l						
Carbon tetrachloride	ND		1	ug/l						
1,2-Dichlorobenzene	ND		1	ug/l						
1,3-Dichlorobenzene	ND		1	ug/l						
1,4-Dichlorobenzene	ND		1	ug/l						
1,1-Dichloroethane	ND		1	ug/l						
1,2-Dichloroethane	ND		1	ug/l						
Methylene chloride	ND		5	ug/l						
Tetrachloroethene	ND		1	ug/l						
Toluene	ND		1	ug/l						
1,1,2-Trichloroethane	ND		1	ug/l						
1,1,1-Trichloroethane	ND		1	ug/l						
Trichloroethene	ND		1	ug/l						
Vinyl chloride	ND		1	ug/l						
cis-1,2-Dichloroethene	ND		1	ug/l						
Acetone	ND		5	ug/l						
tert-Butyl alcohol	ND		5	ug/l						
Methyl t-butyl ether (MTBE)	ND		1	ug/l						
1,2-Dibromoethane (EDB)	ND		1	ug/l						
Total xylenes	ND		1	ug/l						
1,4-Dioxane	ND		500	ug/l						
o-Xylene	ND		1	ug/l						
m&p-Xylene	ND		2	ug/l						
tert-Amyl methyl ether	ND		1	ug/l						
Ethylbenzene	ND		1	ug/l						
Surrogate: 4-Bromofluorobenzene			*45.4*	ug/l	*50.0*		*90.8*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4			*52.0*	ug/l	*50.0*		*104*	*70-130*		
Surrogate: Toluene-d8			*46.6*	ug/l	*50.0*		*93.2*	*70-130*		

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9L0515 - Purge-Trap (Continued)										
LCS (B9L0515-BS1)					Prepared & Analyzed: 12/12/19					
Benzene	17			ug/l	20.0		82.8	65-135		
Carbon tetrachloride	15			ug/l	20.0		76.6	70-130		
1,2-Dichlorobenzene	21			ug/l	20.0		103	65-135		
1,3-Dichlorobenzene	20			ug/l	20.0		101	70-130		
1,4-Dichlorobenzene	20			ug/l	20.0		101	65-135		
1,1-Dichloroethane	17			ug/l	20.0		85.6	70-130		
1,2-Dichloroethane	18			ug/l	20.0		89.4	70-130		
Methylene chloride	15			ug/l	20.0		73.9	60-140		
Tetrachloroethene	16			ug/l	20.0		79.4	70-130		
Toluene	17			ug/l	20.0		85.0	70-130		
1,1,2-Trichloroethane	17			ug/l	20.0		85.2	70-130		
1,1,1-Trichloroethane	15			ug/l	20.0		76.0	70-130		
Trichloroethene	14			ug/l	20.0		67.9	65-135		
Vinyl chloride	14			ug/l	20.0		68.2	5-195		
cis-1,2-Dichloroethene	18			ug/l	20.0		91.2	70-130		
Acetone	10			ug/l	20.0		47.9	34-193		
tert-Butyl alcohol	13			ug/l	20.0		66.2	26-177		
Methyl t-butyl ether (MTBE)	17			ug/l	20.0		84.8	70-130		
1,2-Dibromoethane (EDB)	16			ug/l	20.0		82.4	70-130		
Total xylenes	ND		1	ug/l				70-130		
1,4-Dioxane	0			ug/l	20.0			70-130		
o-Xylene	17			ug/l	20.0		83.6	70-130		
m&p-Xylene	37			ug/l	40.0		91.7	70-130		
tert-Amyl methyl ether	16			ug/l	20.0		77.8	70-130		
Ethylbenzene	16			ug/l	20.0		80.0	60-140		
Surrogate: 4-Bromofluorobenzene			*49.0*	ug/l	*50.0*		*97.9*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4			*50.9*	ug/l	*50.0*		*102*	*70-130*		
Surrogate: Toluene-d8			*47.7*	ug/l	*50.0*		*95.4*	*70-130*		

Quality Control
(Continued)

Semivolatile organic compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9L0674 - EPA 3580A										
Blank (B9L0674-BLK1)					Prepared & Analyzed: 12/16/19					
Ethanol	ND		10	mg/L						

Base/Neutral & Acid Extractables

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9L0531 - Sep-Funnel-extraction										
Blank (B9L0531-BLK1)					Prepared: 12/12/19 Analyzed: 12/13/19					
2,4,6-Trichlorophenol	ND		2	ug/l						
2,4-Dichlorophenol	ND		2	ug/l						
2,4-Dimethylphenol	ND		10	ug/l						
2,4-Dinitrophenol	ND		5	ug/l						
2-Chlorophenol	ND		2	ug/l						
4,6-Dinitro-2-methylphenol	ND		5	ug/l						
4-Chloro-3-methylphenol	ND		2	ug/l						
4-Nitrophenol	ND		5	ug/l						
Acenaphthene	ND		2	ug/l						
Acenaphthylene	ND		2	ug/l						
Anthracene	ND		2	ug/l						
Benzo(a)anthracene	ND		2	ug/l						
Benzo(a)pyrene	ND		2	ug/l						
Benzo(b)fluoranthene	ND		2	ug/l						
Benzo(g,h,i)perylene	ND		2	ug/l						
Benzo(k)fluoranthene	ND		2	ug/l						
Bis(2-ethylhexyl)phthalate	ND		6	ug/l						
Butyl benzyl phthalate	ND		2	ug/l						
Chrysene	ND		2	ug/l						
Di(n)octyl phthalate	ND		3	ug/l						
Dibenz(a,h)anthracene	ND		2	ug/l						
Diethyl phthalate	ND		2	ug/l						
Dimethyl phthalate	ND		2	ug/l						
Di-n-butylphthalate	ND		3	ug/l						
Fluoranthene	ND		2	ug/l						
Fluorene	ND		2	ug/l						
Indeno(1,2,3-cd)pyrene	ND		2	ug/l						
Naphthalene	ND		2	ug/l						
Pentachlorophenol	ND		5	ug/l						
Phenanthrene	ND		2	ug/l						
Pyrene	ND		2	ug/l						
4-Methylphenol	ND		4	ug/l						
2-Methylphenol	ND		2	ug/l						
m&p-Cresol	ND		4	ug/l						
3-Methyl phenol	ND		4	ug/l						
2,4,5-Trichlorophenol	ND		2	ug/l						
2,6-Dichlorophenol	ND		2	ug/l						
Surrogate: Nitrobenzene-d5			*23.3*	ug/l	*50.0*		*46.6*	*30-118*		
Surrogate: p-Terphenyl-d14			*34.5*	ug/l	*50.0*		*69.0*	*38-130*		
Surrogate: 2-Fluorobiphenyl			*24.0*	ug/l	*50.0*		*48.0*	*30-119*		
Surrogate: Phenol-d6			*8.52*	ug/l	*50.0*		*17.0*	*10-115*		
Surrogate: 2,4,6-Tribromophenol			*29.6*	ug/l	*50.0*		*59.1*	*15-130*		
Surrogate: 2-Fluorophenol			*11.9*	ug/l	*50.0*		*23.8*	*10-115*		

Base/Neutral & Acid Extractables (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9L0531 - Sep-Funnel-extraction (Continued)										
LCS (B9L0531-BS1)					Prepared: 12/12/19 Analyzed: 12/13/19					
2,4,6-Trichlorophenol	34		2	ug/l	50.0		68.3	52-129		
2,4-Dichlorophenol	33		2	ug/l	50.0		65.2	53-122		
2,4-Dimethylphenol	28		10	ug/l	50.0		57.0	42-120		
2,4-Dinitrophenol	30		5	ug/l	50.0		59.9	5-173		
2-Chlorophenol	30		2	ug/l	50.0		59.2	36-120		
4,6-Dinitro-2-methylphenol	38		5	ug/l	50.0		75.2	53-130		
4-Chloro-3-methylphenol	34		2	ug/l	50.0		67.8	41-128		
4-Nitrophenol	15		5	ug/l	50.0		29.7	13-129		
Acenaphthene	35		2	ug/l	50.0		70.2	60-132		
Acenaphthylene	35		2	ug/l	50.0		70.0	54-126		
Anthracene	38		2	ug/l	50.0		75.7	43-120		
Benzo(a)anthracene	40		2	ug/l	50.0		80.5	42-133		
Benzo(a)pyrene	44		2	ug/l	50.0		88.8	32-148		
Benzo(b)fluoranthene	42		2	ug/l	50.0		85.0	42-140		
Benzo(g,h,i)perylene	43		2	ug/l	50.0		85.9	5-195		
Benzo(k)fluoranthene	42		2	ug/l	50.0		83.7	25-146		
Bis(2-ethylhexyl)phthalate	42		6	ug/l	50.0		83.7	29-137		
Butyl benzyl phthalate	40		2	ug/l	50.0		80.4	5-152		
Chrysene	42		2	ug/l	50.0		85.0	44-140		
Di(n)octyl phthalate	42		3	ug/l	50.0		84.4	19-132		
Dibenz(a,h)anthracene	43		2	ug/l	50.0		85.8	5-200		
Diethyl phthalate	37		2	ug/l	50.0		74.1	5-120		
Dimethyl phthalate	35		2	ug/l	50.0		70.0	5-120		
Di-n-butylphthalate	40		3	ug/l	50.0		80.9	8-120		
Fluoranthene	41		2	ug/l	50.0		81.1	43-121		
Fluorene	37		2	ug/l	50.0		73.8	70-120		
Indeno(1,2,3-cd)pyrene	46		2	ug/l	50.0		91.3	5-151		
Naphthalene	34		2	ug/l	50.0		68.4	36-120		
Pentachlorophenol	46		5	ug/l	50.0		93.0	38-152		
Phenanthrene	38		2	ug/l	50.0		77.0	65-120		
Pyrene	40		2	ug/l	50.0		80.4	70-120		
Surrogate: Nitrobenzene-d5			*31.2*	ug/l	*50.0*		*62.5*	*30-118*		
Surrogate: p-Terphenyl-d14			*37.9*	ug/l	*50.0*		*75.8*	*38-130*		
Surrogate: 2-Fluorobiphenyl			*30.1*	ug/l	*50.0*		*60.3*	*30-119*		
Surrogate: Phenol-d6			*11.4*	ug/l	*50.0*		*22.7*	*10-115*		
Surrogate: 2,4,6-Tribromophenol			*38.3*	ug/l	*50.0*		*76.5*	*15-130*		
Surrogate: 2-Fluorophenol			*16.0*	ug/l	*50.0*		*31.9*	*10-115*		

Polychlorinated Biphenyls (PCBs)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9L0474 - Sep-Funnel-extraction										
Blank (B9L0474-BLK1)					Prepared: 12/11/19 Analyzed: 12/12/19					
Aroclor-1016	ND		0.2	ug/l						
Aroclor-1221	ND		0.4	ug/l						
Aroclor-1232	ND		0.2	ug/l						
Aroclor-1242	ND		0.2	ug/l						
Aroclor-1248	ND		0.2	ug/l						
Aroclor-1254	ND		0.2	ug/l						
Aroclor-1260	ND		0.2	ug/l						
Aroclor-1262	ND		0.2	ug/l						
Aroclor-1268	ND		0.2	ug/l						
PCBs (Total)	ND		0.2	ug/l						
Surrogate: 2,4,5,6-Tetrachloro-m-xylene (TCMX)			*0.0334*	ug/l	*0.0800*		*41.7*	*30-107*		
Surrogate: Decachlorobiphenyl (DCBP)			*0.0378*	ug/l	*0.0800*		*47.2*	*30-140*		
LCS (B9L0474-BS1)					Prepared: 12/11/19 Analyzed: 12/12/19					
Aroclor-1016	0.6		0.2	ug/l	1.00		58.1	40-124		
Aroclor-1260	0.6		0.2	ug/l	1.00		58.0	48-123		
Surrogate: 2,4,5,6-Tetrachloro-m-xylene (TCMX)			*0.0327*	ug/l	*0.0800*		*40.9*	*30-107*		
Surrogate: Decachlorobiphenyl (DCBP)			*0.0409*	ug/l	*0.0800*		*51.1*	*30-140*		

Quality Control
(Continued)

Total Petroleum Hydrocarbons

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B9L0651 - Sep-Funnel-extraction										
Blank (B9L0651-BLK1)					Prepared & Analyzed: 12/16/19					
Total Petroleum Hydrocarbons	ND		200	ug/l						
Surrogate: Chlorooctadecane			*96.1*	ug/l	*125*		*76.9*	*47-115*		
LCS (B9L0651-BS1)					Prepared & Analyzed: 12/16/19					
Total Petroleum Hydrocarbons	6430		200	ug/l	10000		64.3	32.6-113		
Surrogate: Chlorooctadecane			*82.6*	ug/l	*125*		*66.0*	*47-115*		

Notes and Definitions

Item	Definition
Wet	Sample results reported on a wet weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.

NEW ENGLAND TESTING LABORATORY, INC.
59 Greenhill Street
West Warwick, RI 02893
1-888-863-8522

9 L 0 9037

CHAIN OF CUSTODY RECORD

PROJ. NO.

PROJECT NAME/LOCATION: 395 Alexander Brook Parkway (ASP)

CLIENT: Mark Abernano, LSP

REPORT TO: Client

INVOICE TO: Client

DATE	TIME	COMP	GRAB	SAMPLE I.D.	AQUEOUS	SOIL	OTHER	NO. OF CONTAINERS	PRESERVATIVE	TESTS** RGP Applicable Tests 7-pH Ammonia Hardness Metals	REMARKS
12/9	1100		X	Effluent	X			9		X	
↓	1130		X	Brook	X			3		X X X	LR

Sampled by: (Signature)	Date/Time 12/9 1150	Received by: (Signature)	Date/Time 12/5/11 1100
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Date/Time 12/9/11 1450	Received for Laboratory by: (Signature)	Date/Time 12/9 1455

Laboratory Remarks: 4
Temp. received: ____
Cooled ☐

Special Instructions:
List Specific Detection Limit Requirements:
BP

Turnaround (Business Days) ____

**Netlab subcontracts the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve, Salmonella, Carbamates, CT ETPH

ATTACHMENT D
MASSACHUSETTS CULTURAL RESOURCES

Massachusetts Cultural Resource Information
MACRIS

MHC Home | MACRIS Home

Results

Get Results in Report Format
○PDF ◉Spreadsheet

Below are the results of your search, using the following search criteria:
Town(s): Somerville
Street No: 395
Street Name: Alewife Brook Pkwy
Resource Type(s): Area, Building, Burial Ground, Object, Structure

For more information about this page and how to use it, click here

No Results Found.

New Search | New Search – Same Town(s) | Previous

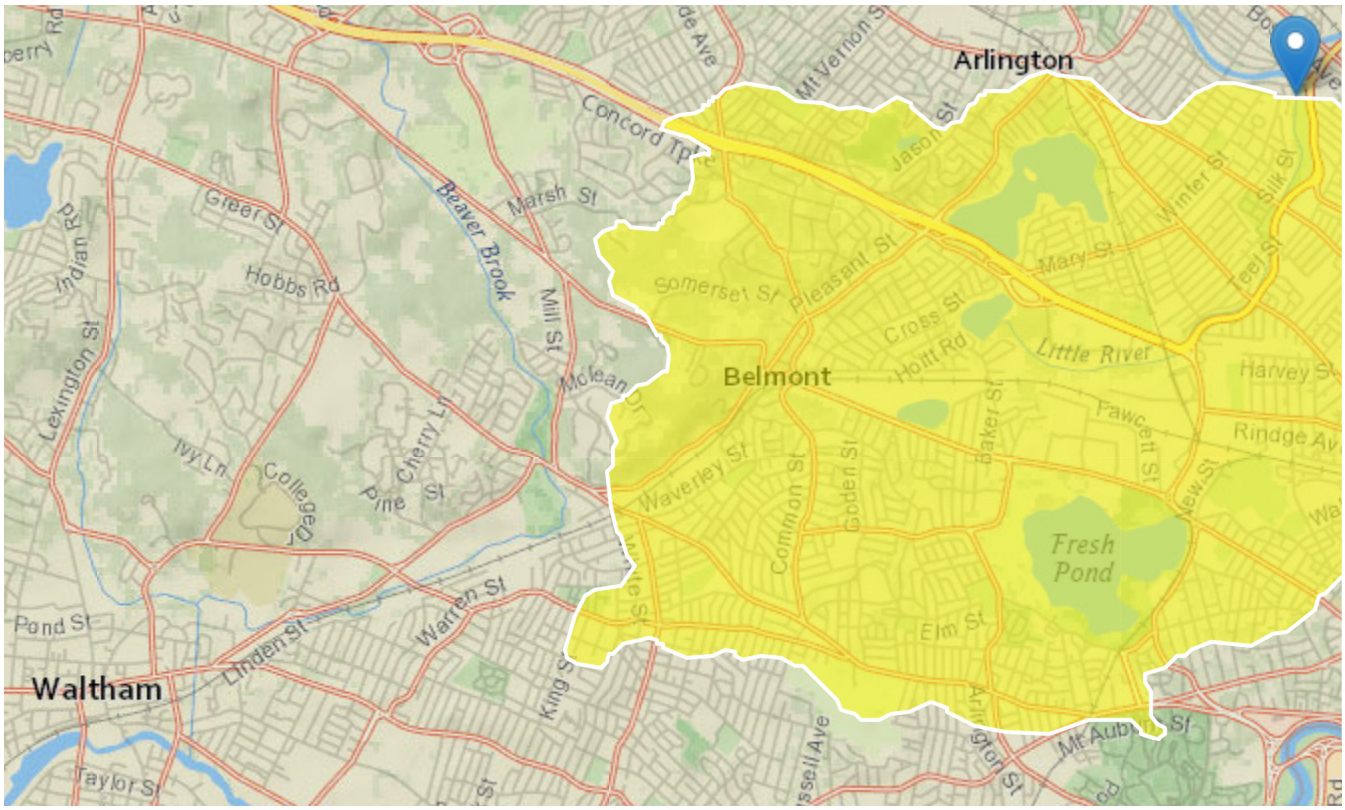
MHC Home | MACRIS Home

ATTACHMENT E

STREAM STATISTICS/DILUTION FACTOR CONFIRMATION

StreamStats Report

Region ID: MA
Workspace ID: MA20200123195035632000
Clicked Point (Latitude, Longitude): 42.41383, -71.13255
Time: 2020-01-23 14:50:51 -0500



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	8.84	square miles
BSLDEM250	Mean basin slope computed from 1:250K DEM	1.614	percent
DRFTPERSTR	Area of stratified drift per unit of stream length	0.53	square mile per mile
MAREGION	Region of Massachusetts 0 for Eastern 1 for Western	0	dimensionless

Low-Flow Statistics Parameters[Statewide Low Flow WRIR00 4135]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	8.84	square miles	1.61	149
BSLDEM250	Mean Basin Slope from 250K DEM	1.614	percent	0.32	24.6
DRFTPERSTR	Stratified Drift per Stream Length	0.53	square mile per mile	0	1.29
MAREGION	Massachusetts Region	0	dimensionless	0	1

Low-Flow Statistics Flow Report[Statewide Low Flow WRIR00 4135]

PIl: Prediction Interval-Lower, PIu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PIl	PIu	SE	SEp
7 Day 2 Year Low Flow	1.56	ft^3/s	0.449	5.19	49.5	49.5
7 Day 10 Year Low Flow	0.759	ft^3/s	0.176	3.06	70.8	70.8

Low-Flow Statistics Citations

Ries, K.G., III,2000, Methods for estimating low-flow statistics for Massachusetts streams: U.S. Geological Survey Water Resources Investigations Report 00-4135, 81 p. (http://pubs.usgs.gov/wri/wri004135/)

Application Version: 4.3.11

From: Vakalopoulos, Catherine (DEP)
To: "mgermano916@gmail.com"
Subject: RE: RGP-Dilution Factor
Date: Thursday, January 23, 2020 4:36:26 PM

Hi Mark,
Yes, as we discussed over the phone today, I can confirm that the dilution factor (14.64) for the proposed dewatering discharge with a design flow of 25 gpm from 395 Alewife Brook Parkway in Somerville directly to Alewife Brook (southwest of the rotary) is correct. Please note that the 7Q10 is 0.759 cfs which equals 0.491 mgd.

To assist you with the NOI in case you have not filled this part out: this segment of Alewife Brook is identified as MA71-04, is classified as class B, is not an Outstanding Resource Water, and there are no approved TMDLs for this segment. As we also discussed, the $500 MassDEP WM15 fee is not required because this is a current MCP site.

Please let me know if you have any additional questions.

Cathy

Cathy Vakalopoulos, Massachusetts Department of Environmental Protection
1 Winter St., Boston, MA 02108, 617-348-4026
Please consider the environment before printing this e-mail

From: mgermano916@gmail.com [mailto:mgermano916@gmail.com]
Sent: Thursday, January 23, 2020 3:38 PM
To: Vakalopoulos, Catherine (DEP)
Subject: RGP-Dilution Factor

Hi Catherine,
Pursuant to our conversation today. I am preparing a NOI for a RGP for 395 Alewife Brook Parkway Somerville, MA RTN 3-2770. Using Stream Stats we determined
The 7Q10 to be 0.759 mgd. The treatment system maximum flow is 25 gpm. We calculated the Dilution Factor to be 14.64. Please confirm.
Mark

Mark A. Germano, LSP
781-837-1949 office
339-793-3528 cell