240 Barber Avenue, Suite 6
Worcester, MA 01606
Telephone 508-926-1315
Fax 508-926-1334
www.atcgroupservices.com

October 27, 2020
Project Number 0300000046

Ms. Shauna Little
U.S. Environmental Protection Agency
Office of Ecosystem Processing
RGP Applications Coordinator (OEP06-1)
5 Post Office Square, Suite 100
Boston, MA 02109-3912

RE: Notice of Intent for Remediation General Permit
Fitchburg State University Foundation Supporting Organization
Site: 15 Central Street
Fitchburg, MA 01420
MassDEP Release Tracking Number 2-18346

Dear Ms. Puleo:

ATC Group Services LLC (ATC), on behalf of Fitchburg State University Foundation Supporting Organization (FSUFSO), herein provides an application for a Notice of Intent (NOI)/ Remediation General Permit (RGP), as well as supporting documentation, for the proposed discharge of treated groundwater to surface water. The discharge of treated groundwater is proposed as part of remedial activities associated with the referenced Massachusetts Department of Environmental Protection (MassDEP) Disposal Site. A Site Locus is provided as **Figure 1**, a Site Plan is provided as **Figure 2**, and an Outfall Location Map as **Figure 3**. A copy of the NOI application form is provided as **Attachment I**.

Background & Release Description

During assessment activities associated with the closure of a 4,000 gallon single walled UST in December 2014, a release of fuel oil to soil and groundwater was discovered and reported to MassDEP. The UST had been in use at the property for approximately 40 years, having been installed within a portion of the 15 Central Street basement in the early 1970s. In September 2011, the UST was being prepared for in-place closure (residual liquids/sludge removal and tank cleaning) when the release conditions were observed. In December 2014 the UST was ultimately removed from its location. The Site is not located within a current or potential groundwater protection area.

Subsequent subsurface investigations revealed that a significant volume of #2 fuel oil Light Non-Aqueous Phase Liquid (LNAPL) was present on groundwater in the area of the former UST and immediate surrounding property to the east/southeast. A High Vacuum Multi Phase Extraction (MPE) system was operated within this area for 2 years (April 2013 - April 2015), which successfully reduced LNAPL thicknesses in the immediate area of 15 Central Street. In May 2015, additional monitoring wells installed at the adjacent down-gradient property known as 12 Brook Street which revealed elevated thicknesses of #2 fuel oil LNAPL which were associated with the subject release. In July 2019 and January 2020, the extent of LNAPL in this down-gradient area was defined. Detailed descriptions of the release, completed response actions and the extent of the LNAPL plume can be found within various report submittals on the MassDEP reportable release file viewer database under Release Tracking Number 2-18346.

Groundwater Recovery and Treatment

An LNAPL/groundwater recovery and treatment system has been designed to recover and remove LNAPL and treat groundwater at a flow rate of up to 150 gallons per minute (gpm). Following is a summary of the proposed recovery/treatment system.

Pretreatment

The un-treated groundwater/LNAPL will be pumped from the subsurface using a dewatering well point system and transferred to an 18,000 gallon weir tank for LNAPL separation and the primary settling of solids. The water within the weir tank will then be pumped through various bag filters for the removal of finer solids. The separated LNAPL will be pumped to a separate holding tank(s).

Product Skimmer to remove LNAPL

A product skimmer will be deployed in the first chamber of the weir tank and the LNAPL will be pumped into LNAPL holding tank(s). The LNAPL holding tank(s) will be stored within a secondary containment structure and the LNAPL will be transferred and disposed of off-property as required following proper protocols.

Vapor Mitigation Blower

A vapor mitigation blower will be connected to the weir tank to capture and treat petroleum vapors that accumulate in the covered weir tank. The blower will discharge vapors to two 500-pound vapor-phase carbon treatment vessels prior to discharge to the atmosphere.

Liquid Phase Granular Activated Carbon (LGAC) to remove dissolved petroleum contaminants

Two high pressure steel LGAC vessels, each filled with 3,000 pounds of reactivated LGAC, will be used to remove dissolved petroleum contaminants prior to discharge to the municipal storm drain.

Contingency Treatment

If required (due to inadequate solids removal via gravitational settling and bag filtration), a chemical aided settling system will be installed at the beginning of the water treatment system to enhance the settling and removal of total suspended solids (TSS). As part of the settling system, a coagulant (LRT E-50) and a nonionic dry polymer (both manufactured by Lockwood Remediation Technologies, LLC (LRT)) will be added to the water as a flocculant to promote the chemical removal of TSS. Once the system is installed, jar testing will be completed in the field to determine the appropriate chemical dosing necessary for efficient TSS settling. The flocculant material specifications and safety data sheet are included in **Attachment II**. If required, the flocculant material will be chemically mixed and pumped into the weir tank by use of a feed pump and used during dewatering activities, as may be required. The flocculant material is commonly used in pre-treatment discharge applications and has previously been authorized in general permit activities. The flocculant additives will not add any pollutant in concentrations which will exceed permit effluent limitations, will not exceed any applicable water quality standard(s), and will not add any pollutants to the discharge stream that would justify the application of permit conditions which are different from or absent in the permit application.

An Ion Exchange vessel will be used if elevated metals are encountered in the system discharge sampling results. The ion exchange vessel will consist of a high pressure steel carbon vessel filled with 40 cubic feet of cation ion exchange resin.

A pH Adjustment System will be used to adjust pH if detected within the system influent water outside of the permissible discharge limit range. The system will include acid or base (sulfuric acid or sodium hydroxide) metered to the weir tank via chemical feed pump. A pH probe and controller will be utilized to automatically maintain the pH within permitted limits of 6.5 to 8.3.

Treatment System Discharge

The average flow rate of the treated groundwater discharge from the treatment system to the storm water drainage line is expected to be approximately 75 gpm. The maximum flow rate and design capacity specification of the groundwater treatment system is 150 gpm. This design flow is based on maximum expected groundwater withdrawal rates, the raw water analytical data collection and equipment operating specifications. This discharge has been approved by the City of Fitchburg.

The storm water catch basin, to which discharge to the municipal storm water conveyance system is proposed, is located in Brook Street as shown on the attached plan. This storm water catch basin ultimately discharges to the Nashua River via the Punch Brook outfall identified by the City of Fitchburg as Outfall # CSO-045 and as shown on **Figure 3**.

Please refer to **Figure 1** for a depiction of the site and surrounding area, **Figure 2** for the Site Plan, **Figure 3** for the Outfall Location Map depicting the outfall location, and **Figure 4** for the Treatment System Schematic.

Influent Sample Analysis

Groundwater was collected from the raw water/influent location (MW-34) on August 20, 2020 and was submitted to Contest Analytical, Inc. of Longmeadow, Massachusetts for laboratory analysis for the following required 2017 RGP parameters:

- Total Petroleum Hydrocarbons (TPH) by EPA method 1664B,
- Total Residual Chlorine by SM21-22 4500 CL G,
- Chloride by EPA Method 300.0,
- Total Suspended Solids by SM21-23 2540D,
- Non-Halogenated Volatile Organic Compounds (VOCs) by EPA Method 624.1,
- Non-Halogenated Semi-Volatile Organic Compounds (SVOCs) by EPA method 625.1,
- Total metals by EPA Methods 200.7, 200.8 and/or 245.1,
- Hardness by EPA Method 200.7,
- Chromium VII by SM21-22 3500 CrB,
- Chromium III by Tri chrome calc,
- Ammonia by EPA Method 350.1 and,
- Phenol by EPA Method 420.1

Also, a sample of the receiving water at the Punch Brook outfall surface water, where it daylights to the Nashua River, was collected on August 20, 2020 for laboratory analysis of Hardness, Ammonia, and Metals. A summary of the sampling data is provided on **Table 1** and a copy of the laboratory report is included in **Attachment VI**. In addition, pH was obtained at both locations via

field measurement[1]. Based on the location of the discharge outfall to the receiving water and the proposed design discharge flow rate, the seven day-ten year low flow (7Q10) of the receiving water and a dilution factor were determined. The 7Q10 was determined to be 4.16 cubic feet per second (2.68 MGD) and the calculated dilution factor was determined to be 13.45. MassDEP approved the 7Q10 low flow determination and the calculated dilution factor (**Attachment III**). The groundwater raw water/ influent location analytical results were compared to the Appendix III effluent limitations (www.epa.gov/region1/npdes/rgp.html). These results indicate that the compound(s) below were detected at concentrations that exceed the applicable EPA Appendix III effluent limitations:

- Naphthalene

This compound is expected to be reduced by pretreatment with settling, filtration, and carbon adsorption.

Evaluation of Threatened or Endangered Species or Critical Habitat Located within Receiving Waters

According to Massachusetts Geographic Information Systems (MassGIS) online maps for the Natural Heritage Endangered Species Program (NHESP) (2008), no Priority Habitat of Rare Species or Estimated Habitats of Rare Wildlife are located within the work area. No NHESP Estimated Habitats of Rare Wildlife in Wetland Areas Protected Open Spaces are located within 500 feet of the Site or the point of proposed discharge to the Nashua River. Based on this information, the potential discharge will not have an adverse effect on any NHESP Priority Habitats of Rare Species or Estimated Habitats of Rare Wildlife. Copies of the MassGIS Resource Priority and NHESP Maps of the Site area are included in **Attachment IV**.

Review of National Register of Historic Places

Listings of Historic Places within the City of Fitchburg were obtained from the Massachusetts Cultural Resources Information System (MACRIS) online database at http://mhc-macris.net/towns.aspx (accessed October 9, 2020). A copy of the MACRIS report is provided as **Attachment V**. The database indicated that there are no historic places located in close proximity to the Site or proposed discharge area. This project does not involve the demolition or rehabilitation of historic properties.

The proposed remediation project is expected to start on or about March 1, 2021 and last for approximately 3-4 months. Should you have any questions or concerns regarding the contents of this letter or the NOI for the RGP, please do not hesitate to contact the undersigned at (508) 926-1315.

Sincerely,
ATC GROUP SERVICES LLC

[1] Field screening for pH was performed using a YSI Model 600 XL probe.

Matthew J. Lyne
Senior Scientist

Charles E. Klingler, LSP
Worcester Branch Manager

cc:
FSUFSO, Leah Fernandes, 160 Pearl Street, Fitchburg, MA

Attachments

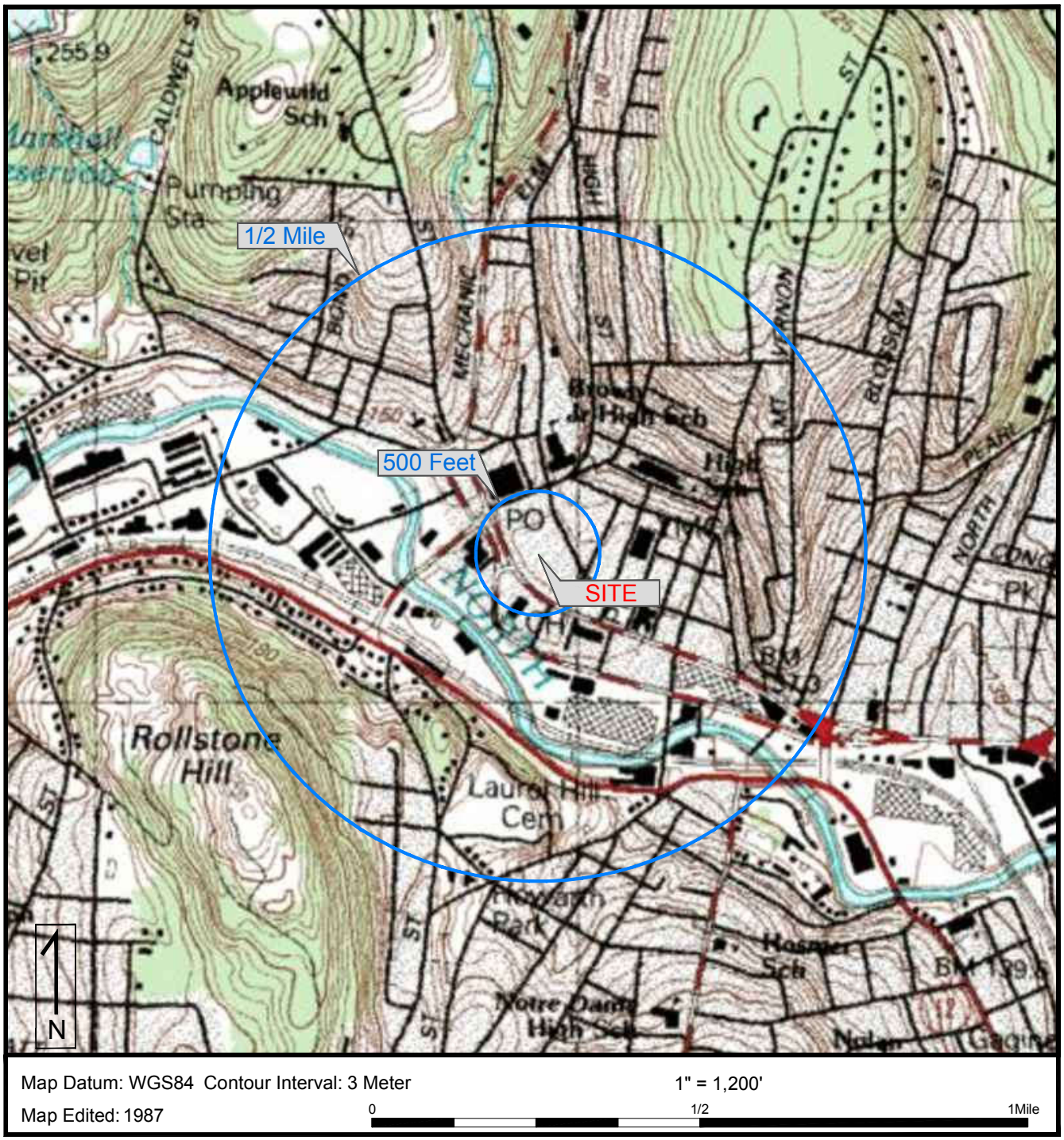
Figure 1:	Site Locus
Figure 2:	Site Plan
Figure 3:	Outfall Location Map
Figure 4:	Treatment System Schematic
Table 1:	Summary of Influent Sampling Data
Attachment I:	Notice of Intent Form
Attachment II:	Manufacturers Material Specifications and Safety Data Sheets
Attachment III:	MassDEP Approval of 7Q10 Low Flow Determination & Dilution Factor Calculation, WQBEL Calculation
Attachment IV:	MassGIS Resource Priority and NHESP Map
Attachment V:	MACRIS Database Search Results, PNF
Attachment VI:	Laboratory Analytical Report

FIGURES

ATC Group Services, LLC
240 Barber Ave., Suite 6
Worcester, MA 01606
Phone 508 926 1315 Fax 508 926 1334
www.atcgroupservices.com

Commercial Property
15 Central Street
Fitchburg, MA 01420

Figure 1: SITE LOCUS



Map Datum: WGS84 Contour Interval: 3 Meter
Map Edited: 1987

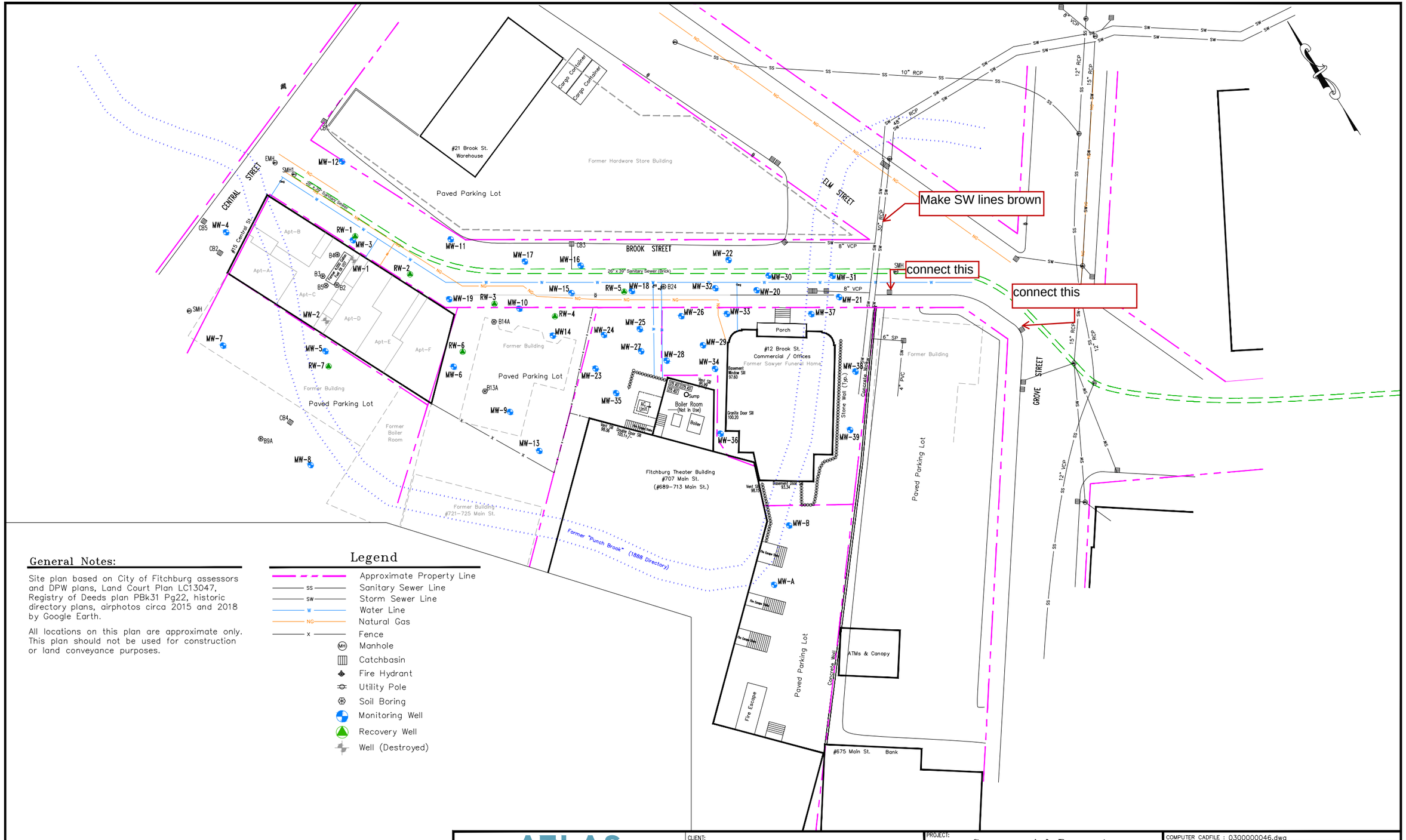
1" = 1,200'

0 1/2 1Mile

Base Map: U.S. Geological Survey; Quadrangle Location: Fitchburg, MA

Lat/Lon: 42.584942° NORTH, 71.803321° WEST | UTM Coordinates: 19 269966 EAST / 4718535 NORTH

Cad Generated By: Rick Starodoj



General Notes:

Site plan based on City of Fitchburg assessors and DPW plans, Land Court Plan LC13047, Registry of Deeds plan PBk31 Pg22, historic directory plans, airphotos circa 2015 and 2018 by Google Earth.

All locations on this plan are approximate only. This plan should not be used for construction or land conveyance purposes.

Legend

- Approximate Property Line
- ss — Sanitary Sewer Line
- sw — Storm Sewer Line
- w — Water Line
- NG — Natural Gas
- x — Fence
- MH — Manhole
- Catchbasin
- Fire Hydrant
- Utility Pole
- Soil Boring
- Monitoring Well
- Recovery Well
- Well (Destroyed)

ATLAS ATC AN ATLAS COMPANY
240 Barber Avenue, Suite 6 * Worcester, MA 01606
Phone: 508-926-1315 Fax: 508-926-1334

CLIENT: FSUFSO

GRAPHIC SCALE: 40 20 0 20 40

PROJECT: Commercial Property
15 Central Street
Fitchburg, Massachusetts

TITLE: Site Plan

COMPUTER CADFILE : 0300000046.dwg

DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
RAS	CK	CK	CK
SCALE:	DATE:	JOB NO.:	FIGURE NO.:
1" = 40'	6/4/20	0300000046	2

N

1 INCH = 100 FEET

0 50 100 200 300 400 Feet

SITE

Treated Water Discharge Location

PUNCH BROOK OUTFALL

Nashua River

ACADEMY ST

WALLACE WAY

SPRING ST

MOUNT VERNON ST

MAIN ST

CENTRAL ST

ELM ST

GROVE ST

BROOK ST

ADAMS ST

OLIVER ST

GARNET ST

HARTWELL ST

FOX ST

RICHARD ST

PLEASANT ST

GOODWIN ST

COTTAGE AVE

COTTAGE SQ

WOOD PL

WALLACE AVE

NEWTON PL

BOULDER DR

PUTNAM ST

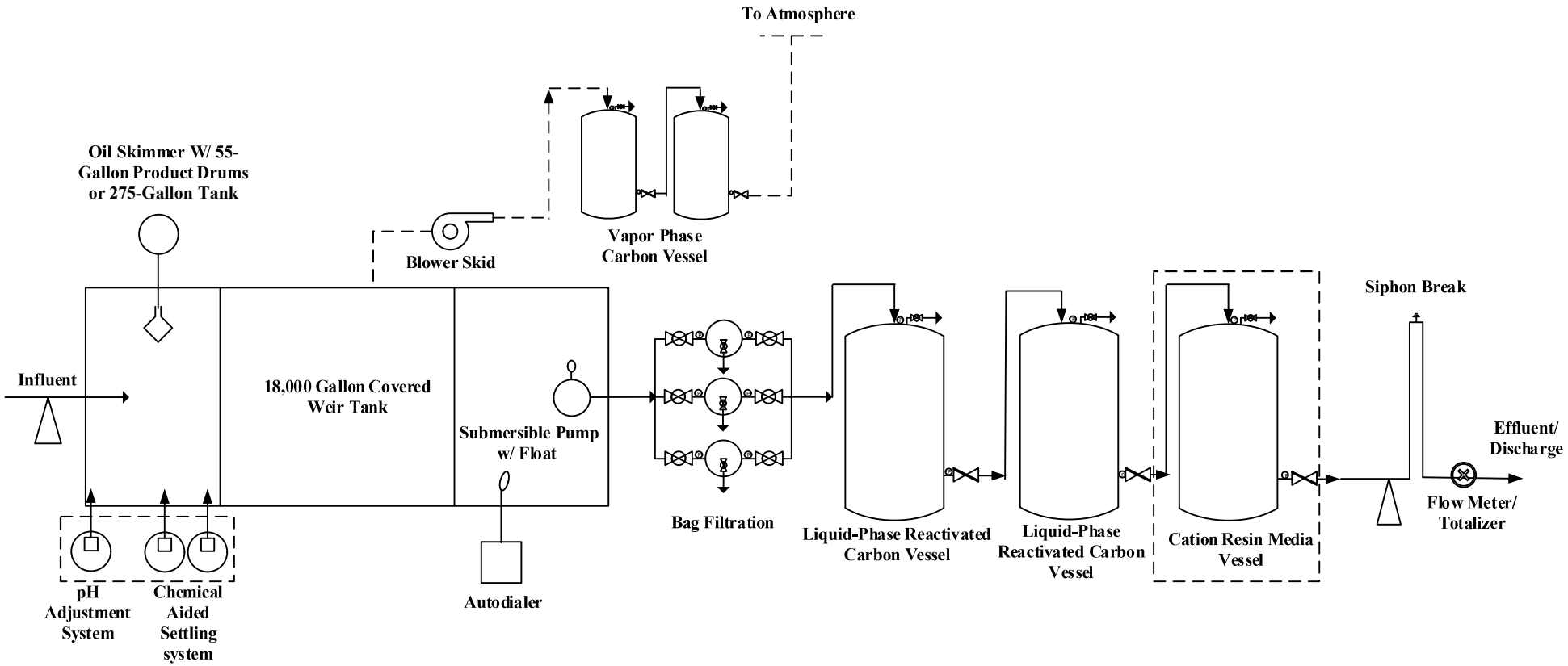
CRESCENT ST

MILL ST

CUSHING ST

Legend

- STORM DRAINS
- DRAIN MANHOLES
- CATCH BASINS
- SEWER MANHOLES
- SEWER NOT GRADED
- GRADE 0 SEWER
- GRADE 1 SEWER
- GRADE 2 SEWER
- GRADE 3 SEWER
- GRADE 4 SEWER
- GRADE 5 SEWER
- PROPERTY BOUNDARIES



Key:

- Piping/Hose
- Sample Port
- Ball Valve
- Butterfly Valve
- Pressure Gauge
- Contingency

Notes:

1.) Figure is not to scale
2.) System rated for 150 GPM

Lockwood Remediation Technologies, LLC
89 Crawford Street
Leominster, MA 01453
Office: 774-450-7177

DESIGNED BY: LRT | DRAWN BY: JHJ

CHECKED BY: | DATE:

Water Treatment System Schematic

15 Central Street
Fitchburg, MA

PROJECT No. 2-2021

FIGURE No. 1

TABLES

Con-Test Analytical Laboratory					
Analytical Testing Report					
Work Order: 20H1131					
Report Date: 8/28/2020 3:54:28 PM					
Table 1: Summary of Water Sampling Data					
General Method	Analyte	Units			
LAB ID			20H1131-01	20H1131-02	
CLIENT ID			**MW-34**	**Outfall #CSO-045**	TBEL
DATE SAMPLED			20-Aug-20	20-Aug-20	WQBEL
DATE RECEIVED			21-Aug-20	21-Aug-20	
MATRIX			Water	Water	
Volatile Organic Compounds by GC/MS	Acetone	µg/L	<7.58		7,970
Volatile Organic Compounds by GC/MS	tert-Amyl Methyl Ether (TAME)	µg/L	<0.280		90
Volatile Organic Compounds by GC/MS	Benzene	µg/L	2.16		5
Volatile Organic Compounds by GC/MS	tert-Butyl Alcohol (TBA)	µg/L	<8.34		120
Volatile Organic Compounds by GC/MS	Ethanol	µg/L	<21.1		NA
Volatile Organic Compounds by GC/MS	Ethylbenzene	µg/L	13.6		NA
Volatile Organic Compounds by GC/MS	Methyl tert-Butyl Ether (MTBE)	µg/L	<0.500		70
Volatile Organic Compounds by GC/MS	Toluene	µg/L	<0.280		NA
Volatile Organic Compounds by GC/MS	Xylenes (total)	µg/L	37.6		NA
Volatile Organic Compounds by GC/MS	m+p Xylene	µg/L	34.5		NA
Volatile Organic Compounds by GC/MS	o-Xylene	µg/L	3.04		NA
Semivolatile Organic Compounds by GC/MS	Benzo(a)anthracene (SIM)	µg/L	<0.015		1
Semivolatile Organic Compounds by GC/MS	Benzo(a)pyrene (SIM)	µg/L	<0.011		1
Semivolatile Organic Compounds by GC/MS	Benzo(b)fluoranthene (SIM)	µg/L	<0.014		1
Semivolatile Organic Compounds by GC/MS	Benzo(k)fluoranthene (SIM)	µg/L	<0.011		1
Semivolatile Organic Compounds by GC/MS	Bis(2-ethylhexyl)phthalate (SIM)	µg/L	<0.41		NA
Semivolatile Organic Compounds by GC/MS	Chrysene (SIM)	µg/L	<0.014		1
Semivolatile Organic Compounds by GC/MS	Dibenz(a,h)anthracene (SIM)	µg/L	<0.016		1
Semivolatile Organic Compounds by GC/MS	Indeno(1,2,3-cd)pyrene (SIM)	µg/L	<0.017		1
Semivolatile Organic Compounds by - GC/MS	Acenaphthene	µg/L	2.74		NA
Semivolatile Organic Compounds by - GC/MS	Acenaphthylene	µg/L	<0.221		NA
Semivolatile Organic Compounds by - GC/MS	Anthracene	µg/L	<0.193		NA
Semivolatile Organic Compounds by - GC/MS	Benzidine	µg/L	<15.7		NA
Semivolatile Organic Compounds by - GC/MS	Benzo(g,h,i)perylene	µg/L	<0.379		NA
Semivolatile Organic Compounds by - GC/MS	4-Bromophenylphenylether	µg/L	<0.283		NA
Semivolatile Organic Compounds by - GC/MS	4-Chloro-3-methylphenol	µg/L	<0.460		NA
Semivolatile Organic Compounds by - GC/MS	Bis(2-chloroethyl)ether	µg/L	<0.490		NA
Semivolatile Organic Compounds by - GC/MS	Bis(2-chloroisopropyl)ether	µg/L	<0.698		NA
Semivolatile Organic Compounds by - GC/MS	2-Chloronaphthalene	µg/L	<0.434		NA
Semivolatile Organic Compounds by - GC/MS	2-Chlorophenol	µg/L	<0.360		NA
Semivolatile Organic Compounds by - GC/MS	4-Chlorophenylphenylether	µg/L	<0.300		NA
Semivolatile Organic Compounds by - GC/MS	1,3-Dichlorobenzene	µg/L	<0.443		320
Semivolatile Organic Compounds by - GC/MS	1,4-Dichlorobenzene	µg/L	<0.367		5
Semivolatile Organic Compounds by - GC/MS	1,2-Dichlorobenzene	µg/L	<0.439		600
Semivolatile Organic Compounds by - GC/MS	3,3-Dichlorobenzidine	µg/L	<0.344		NA
Semivolatile Organic Compounds by - GC/MS	2,4-Dichlorophenol	µg/L	<0.287		NA
Semivolatile Organic Compounds by - GC/MS	2,4-Dimethylphenol	µg/L	<0.761		NA
Semivolatile Organic Compounds by - GC/MS	4,6-Dinitro-2-methylphenol	µg/L	<1.87		NA
Semivolatile Organic Compounds by - GC/MS	2,4-Dinitrophenol	µg/L	<1.56		NA
Semivolatile Organic Compounds by - GC/MS	2,4-Dinitrotoluene	µg/L	<0.313		NA
Semivolatile Organic Compounds by - GC/MS	2,6-Dinitrotoluene	µg/L	<0.331		NA
Semivolatile Organic Compounds by - GC/MS	1,2-Diphenylhydrazine/Azobenze	µg/L	<0.359		NA
Semivolatile Organic Compounds by - GC/MS	Fluoranthene	µg/L	<0.284		NA
Semivolatile Organic Compounds by - GC/MS	Fluorene	µg/L	5.12		NA
Semivolatile Organic Compounds by - GC/MS	Hexachlorobenzene	µg/L	<0.414		NA
Semivolatile Organic Compounds by - GC/MS	Hexachlorobutadiene	µg/L	<0.567		NA
Semivolatile Organic Compounds by - GC/MS	Hexachlorocyclopentadiene	µg/L	<4.59		NA
Semivolatile Organic Compounds by - GC/MS	Hexachloroethane	µg/L	<0.506		NA
Semivolatile Organic Compounds by - GC/MS	Isophorone	µg/L	<0.287		NA

Semivolatile Organic Compounds by - GC/MS	Naphthalene	µg/L	**36**		20
Semivolatile Organic Compounds by - GC/MS	Nitrobenzene	µg/L	<0.392		NA
Semivolatile Organic Compounds by - GC/MS	2-Nitrophenol	µg/L	<0.397		NA
Semivolatile Organic Compounds by - GC/MS	4-Nitrophenol	µg/L	<0.600		NA
Semivolatile Organic Compounds by - GC/MS	N-Nitrosodimethylamine	µg/L	<1.75		NA
Semivolatile Organic Compounds by - GC/MS	N-Nitrosodi-n-propylamine	µg/L	<0.496		NA
Semivolatile Organic Compounds by - GC/MS	2-Methylnaphthalene	µg/L	37.8		NA
Semivolatile Organic Compounds by - GC/MS	Phenanthrene	µg/L	4.84		NA
Semivolatile Organic Compounds by - GC/MS	2-Methylphenol	µg/L	<0.436		NA
Semivolatile Organic Compounds by - GC/MS	Phenol	µg/L	<0.189		1,080
Semivolatile Organic Compounds by - GC/MS	3/4-Methylphenol	µg/L	<0.195		NA
Semivolatile Organic Compounds by - GC/MS	Pyrene	µg/L	<0.244		NA
Semivolatile Organic Compounds by - GC/MS	1,2,4-Trichlorobenzene	µg/L	<0.534		NA
Semivolatile Organic Compounds by - GC/MS	2,4,6-Trichlorophenol	µg/L	<0.319		NA
Metals Analyses (Total)	Antimony	µg/L	<0.35	<0.35	206
Metals Analyses (Total)	Arsenic	µg/L	1.6	0.9	104
Metals Analyses (Total)	Cadmium	µg/L	<0.20	<0.20	10.2
Metals Analyses (Total)	Chromium	µg/L	2	1.6	323
Metals Analyses (Total)	Copper	µg/L	7.8	24	242
Metals Analyses (Total)	Lead	µg/L	0.28	1.4	160
Metals Analyses (Total)	Nickel	µg/L	<5.0	<5.0	1,450
Metals Analyses (Total)	Selenium	µg/L	<1.6	<1.6	235.8
Metals Analyses (Total)	Silver	µg/L	<0.20	<0.20	35.1
Metals Analyses (Total)	Zinc	µg/L	<10	19	420
Metals Analyses (Total)	Chromium, Trivalent	mg/L	0.002	0.0016	0.323
Metals Analyses (Total)	Iron	mg/L	0.47	0.47	5
Metals Analyses (Total)	Mercury	mg/L	<0.00010	<0.00010	0.0007
Metals Analyses (Total)	Hardness	mg/L	320	75	NS
Conventional Chemistry Parameters by EPA/AP	Ammonia as N	mg/L	0.54	9.2	NS
Conventional Chemistry Parameters by EPA/AP	Chloride	mg/L	970		NS
Conventional Chemistry Parameters by EPA/AP	Chlorine, Residual	mg/L	<0.020		0.136
Conventional Chemistry Parameters by EPA/AP	Hexavalent Chromium	mg/L	<0.0040	<0.0040	0.323
Conventional Chemistry Parameters by EPA/AP	Phenol	mg/L	<0.050		1,080
Conventional Chemistry Parameters by EPA/AP	Total Suspended Solids	mg/L	6.5		30
Conventional Chemistry Parameters by EPA/AP	Silica Gel Treated HEM (SGT-HE	mg/L	<1.8		5

ATTACHMENT I

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

A. General site information:

<table>
<tr><td rowspan="3">1. Name of site:
Former Residential Apartments (currently vacant and to remain vacant for the extended future).</td><td colspan="3">Site address: 15 Central Street
Street:</td></tr>
<tr><td>City: Fitchburg</td><td>State: MA</td><td>Zip: 01420</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td rowspan="4">2. Site owner
Fitchburg State University Foundation Supporting Organization, Inc.

Owner is (check one): ☐ Federal ☐ State/Tribal ■ Private
☐ Other; if so, specify:</td><td colspan="3">Contact Person: Leah Fernandes, Director of Env. Health, Safety and Risk Mngt.</td></tr>
<tr><td colspan="2">Telephone: 978-655-3756</td><td>Email: lfernan7@fitchburgstate.edu</td></tr>
<tr><td colspan="3">Mailing address: 160 Pearl Street
Street:</td></tr>
<tr><td>City: Fitchburg</td><td>State: MA</td><td>Zip: 01420</td></tr>
<tr><td rowspan="4">3. Site operator, if different than owner
Same as Site Owner</td><td colspan="3">Contact Person:</td></tr>
<tr><td colspan="2">Telephone:</td><td>Email:</td></tr>
<tr><td colspan="3">Mailing address:
Street:</td></tr>
<tr><td>City:</td><td>State:</td><td>Zip:</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):
2-18346; 2-18601
☐ 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):
Nashua River	MA81-02	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:

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.

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.	4.16 cfs
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.	13.45

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: September 17, 2020 via e-mail

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 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	☐ Contaminated surface water 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	☐ The receiving water ☐ A surface water other than the receiving water; if so, indicate waterbody:	☐ Potable water; if so, indicate municipality or origin: ☐ Other; if so, specify:

2. Source water contaminants: Heating Oil constituents	
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 001: Bank of Nashua River at Punch Brook Outfall (identified by City of Fitchburg as Outfall # CSO-045)	Outfall location(s): (Latitude, Longitude) Lat: 42 34' 54" Long. 71 47' 54"
Discharges enter the receiving water(s) via (check any that apply): ☐ Direct discharge to the receiving water ■ Indirect discharge, if so, specify: Discharge to enter the receiving water via on-site storm drainage system that discharges to the Nashua River via CSO & municipal drain. ☐ 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: October 7, 2020 via e-mail 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): March 1, 2021 to July 30, 2021 (intermittently) 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	✔		1	350.1	0.05	0.54	0.54	Report mg/L	---
Chloride		✔	1	300.0	4,000	970.000	970,000	Report µg/l	---
Total Residual Chlorine	✔			300	0.02			0.2 mg/L	
Total Suspended Solids		✔	1	2540	0.5	6.5	6.5	30 mg/L	---
Antimony	✔		1	6010	1			206 µg/L	
Arsenic		✔	1	6010	0.8	1.6	1.6	104 µg/L	
Cadmium	✔		1	6010	0.2			10.2 µg/L	
Chromium III		✔	1	6010	0.2	2	2	323 µg/L	
Chromium VI		✔	1	6010	4.0			323 µg/L	
Copper		✔	1	6010	1.0	7.8	7.8	242 µg/L	
Iron		✔	1	6010	50	470	470	5,000 µg/L	
Lead		✔	1	6010	0.20	0.28	0.28	160 µg/L	
Mercury	✔		1	7470	0.1			0.739 µg/L	
Nickel	✔		1	6010	5			1,450 µg/L	
Selenium	✔		1	6010	5			235.8 µg/L	
Silver	✔		1	6010	0.2			35.1 µg/L	
Zinc	✔		1	6010	10			420 µg/L	
Cyanide	✔							178 mg/L	
B. Non-Halogenated VOCs									
Total BTEX		✔	1	624.1	2	53	53	100 µg/L	---
Benzene		✔	1	624.1	2	2.16	2.16	5.0 µg/L	---
1,4 Dioxane	✔							200 µg/L	---
Acetone	✔		1	624.1	0.007			7.97 mg/L	---
Phenol	✔		1	625	50			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	✔							4.4 µg/L	
1,2 Dichlorobenzene	✔							600 µg/L	---
1,3 Dichlorobenzene	✔							320 µg/L	---
1,4 Dichlorobenzene	✔							5.0 µg/L	---
Total dichlorobenzene	✔							763 µg/L in NH	---
1,1 Dichloroethane	✔							70 µg/L	---
1,2 Dichloroethane	✔							5.0 µg/L	---
1,1 Dichloroethylene	✔							3.2 µg/L	---
Ethylene Dibromide	✔							0.05 µg/L	---
Methylene Chloride	✔							4.6 µg/L	---
1,1,1 Trichloroethane	✔							200 µg/L	---
1,1,2 Trichloroethane	✔							5.0 µg/L	---
Trichloroethylene	✔							5.0 µg/L	---
Tetrachloroethylene	✔							5.0 µg/L	
cis-1,2 Dichloroethylene	✔							70 µg/L	---
Vinyl Chloride	✔							2.0 µg/L	---
D. Non-Halogenated SVOCs									
Total Phthalates	✔							190 µg/L	
Diethylhexyl phthalate	✔							101 µg/L	
Total Group I PAHs	✔							1.0 µg/L	---
Benzo(a)anthracene	✔		1	625	0.015			As Total PAHs	
Benzo(a)pyrene	✔		1	625	0.011				
Benzo(b)fluoranthene	✔		1	625	0.014				
Benzo(k)fluoranthene	✔		1	625	0.011				
Chrysene	✔		1	625	0.014				
Dibenzo(a,h)anthracene	✔		1	625	0.016				
Indeno(1,2,3-cd)pyrene	✔		1	625	0.017				

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	✔		1	625	0.017			100 µg/L	---
Naphthalene		✔	1	625	0.423	36	36	20 µg/L	---
E. Halogenated SVOCs									
Total PCBs	✔							0.000064 µg/L	---
Pentachlorophenol	✔							1.0 µg/L	---
F. Fuels Parameters									
Total Petroleum Hydrocarbons	✔		1	1664	1.8			5.0 mg/L	---
Ethanol	✔		1	624.1	0.021			Report mg/L	---
Methyl-tert-Butyl Ether	✔		1	624.1	0.50			70 µg/L	
tert-Butyl Alcohol	✔		1	624.1	8.34			120 µg/L in MA 40 µg/L in NH	---
tert-Amyl Methyl Ether	✔		1	624.1	0.28			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	Field	NA	6.84	6.84		
Hardness		✔	1	E200.7	1.4	320	320		

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.
See cover letter supplied with this notice of intent.

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: Liquid Phase Granulated Activated Carbon Is use of a flow meter feasible? (check one): ■ Yes ☐ No, if so, provide justification:	150 gpm
Provide the proposed maximum effluent flow in gpm.	150 gpm
Provide the average effluent flow in gpm.	75 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:
See cover letter supplied with the notice of intent for this information.
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

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: BMPP to be prepared and available onsite prior to 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: 10/26/2020
Print Name and Title: Jay D. Bry	

ATTACHMENT II

SAFETY DATA SHEET

Revision date 2018-06-11 **Revision number** 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product name Redux E50

Other means of identification

Product code
Synonyms Water And Wastewater Treatment Coagulant/Flocculant

Recommended use of the chemical and restrictions on use

Recommended use [RU] No information available
Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier

Lockwood Remediation Technologies, LLC
89 Crawford Street
Leominster, Massachusetts 01453
Tel: (774) 450-7177
Hours: Monday-Friday 9:00-5:00 EST

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC: (800) 424-9300
Outside USA - +1 (703) 527-3887 collect calls accepted

Contact Point info@reduxtech.com

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Corrosive to metals	Category 1

GHS Label elements, including precautionary statements

EMERGENCY OVERVIEW

Physical state	Color	Appearance	Odor
liquid	colorless to yellow	clear	no appreciable odor

WARNING

Hazard statements
Causes skin irritation
Causes serious eye irritation
May be corrosive to metals

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Keep only in original container

Precautionary Statements - Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
Absorb spillage to prevent material damage

Precautionary Statements - Storage
Store in corrosive resistant container with a resistant inner liner

Other information
• May be harmful in contact with skin

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	weight-%	TRADE SECRET
Trade Secret Ingredient	PROPRIETARY	45 - 55%	*

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

First Aid Measures

Eye contact
Immediately flush with plenty of water for at least 20 minutes, holding eyelids apart to ensure flushing of the entire surface. Washing within one minute is essential to achieve maximum effectiveness. Seek immediate medical attention.

Skin contact
Immediately wash thoroughly with soap and water, remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention if irritation should develop.

Ingestion
Seek medical attention immediately. Give large amounts of water to drink. If vomiting should occur spontaneously, keep airway clear. Never give anything by mouth to an unconscious person.

Inhalation
Remove to fresh air.

Most important symptoms and effects, both acute and delayed

Acute effects
Possible eye, skin and respiratory tract irritation.

Chronic effects
May aggravate existing skin, eye, and lung conditions. Persons with kidney disorders have an increased risk from exposure based on general information found on aluminum salts.

Indication of any immediate medical attention and special treatment needed

Note to physicians
Aluminum soluble salts may cause gastroenteritis if ingested. Treatment includes the use of demulcents. Note: Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media
Water Spray, Carbon Dioxide, Foam, Dry Chemical.

Extinguishing media which must not be used for safety reasons
No information available

Special hazards arising from the substance or mixture

Special Hazard
May produce hazardous fumes or hazardous decomposition products.

Advice for firefighters

Firefighting measures
Product is a water solution and nonflammable. In a fire, this product may build up pressure and rupture a sealed container; cool exposed containers with water spray. Use self-contained breathing apparatus in confined areas; avoid breathing mist or spray.

Special protective equipment for firefighters
Not determined

Explosion data

Sensitivity to Mechanical Impact
None.

Sensitivity to Static Discharge
None.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions
Wear suitable protective clothing and gloves.

Environmental precautions

Environmental precautions
Do not permit run-off to get into sewers or surface waterways.

Methods and material for containment and cleaning up

Methods for containment
Prevent further leakage or spillage if safe to do so. Dike to collect large liquid spills.

Methods for cleaning up
Clear spills immediately. Contain large spill and remove using a vacuum truck. Soak up small spills with inert absorbent material and place in a labeled waste container for disposal. Ventilate area of leak or spill. Spills of solution are extremely slippery so all residue must be removed promptly.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling
Keep container closed when not in use
Keep away from heat and open flame.
Avoid contact with eyes, skin and clothing
Wash thoroughly after handling
Wear chemical splash goggles, gloves, and protective clothing when handling.
Avoid breathing vapor or mist
Use with adequate ventilation and employ respiratory protection where mist or spray may be generated.
FOR INDUSTRIAL USE ONLY.

Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions
Do not store in unlined metal containers.
Product may slowly corrode iron, brass, copper, aluminum, mild steel, and stainless steel.
Store in a cool, dry place away from direct heat.
Keep in tightly closed container.

Incompatible products
Oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Appropriate engineering controls

Engineering controls
Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details. If there are no applicable or established exposure limit requirements or guidelines, general ventilation should be sufficient.

Individual protection measures, such as personal protective equipment

Eye/face Protection
Wear chemical splash goggles and face shield (when eye and face contact is possible due to splashing or spraying of material).

Hand Protection
Appropriate chemical resistant gloves should be worn.

Skin and body protection
Standard work clothing and work shoes.

Respiratory protection
If exposures exceed the PEL or TLV, use NIOSH/MSHA approved respirator in accordance with OSHA Respiratory Protection Requirements under 29 CFR 1910.134.

Other personal protection data
Eyewash fountains and safety showers must be easily accessible.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid
Color	colorless to yellow
Appearance	clear
Odor	no appreciable odor
Odor threshold	No information available

Property	Values	Remarks / Method
pH	3.5	as is
Melting / freezing point	-7 °C / 19 °F	No information available
Boiling point / boiling range	No information available	No information available
Flash point	Not applicable	No information available
Evaporation rate	No information available	No information available

Flammability (solid, gas)	Not applicable	No information available
Flammability Limit in Air		
Upper flammability limit	Not applicable	No information available
Lower flammability limit	Not applicable	No information available
Vapor pressure	No information available	No information available
Vapor density	No information available	No information available
Specific gravity	1.33 - 1.35	No information available
Solubility (water)	Soluble	No information available
Solubility in other solvents	No information available	No information available
Partition coefficient: n-octanol/water	No information available	No information available
Autoignition temperature	Not applicable	No information available
Decomposition temperature	No information available	No information available
Kinematic viscosity	No information available	No information available
Dynamic viscosity	< 100 cps @ 20 °C	No information available

Other information

Density	11.0 - 11.3 lb/gal
Bulk Density	No information available
Explosive properties	No information available.
Oxidizing properties	No information available
Softening point	No information available
Molecular weight	No information available
Volatile organic compounds (VOCs) content	No information available
Percent Volatile, wt.%	40 - 50%

10. STABILITY AND REACTIVITY

Reactivity

Reactivity
No data available.

Chemical stability

Chemical stability
Stable.

Possibility of hazardous reactions

Possibility of hazardous reactions
None under normal processing.

Hazardous polymerization
No.

Conditions to avoid

Conditions to avoid
None

Incompatible materials

Materials to avoid
Oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products
Thermal decomposition may release toxic and/or hazardous gases such as Cl_2 and HCl.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact
May cause moderate eye irritation that can become severe with prolonged contact. Prolonged exposure to Aluminum salts may cause conjunctivitis.

Skin contact
May be harmful in contact with skin. Prolonged and/or repeated contact may cause skin irritation.

Ingestion
May cause irritation of the mouth, throat and stomach. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Inhalation
Inhalation of mist or vapor may cause respiratory tract irritation.

Acute toxicity - Product Information

Oral LD50	No information available
Dermal LD50	No information available
Inhalation LC50	No information available

Acute toxicity - Component Information

Component	weight-%	Oral LD50	Dermal LD50	Inhalation LC50
Trade Secret Ingredient	45 - 55%	= 9187 mg/kg (Rat)	> 2000 mg/kg (Rat)	--

Information on toxicological effects

Symptoms
No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation
Irritating to skin

Serious eye damage/eye irritation
Causes serious eye irritation

Sensitization
No information available

Germ cell mutagenicity
No information available

Carcinogenicity
This product does not contain any components in concentrations greater than or equal to 0.1% that are listed as known or suspected carcinogens by NTP, IARC, ACGIH, or OSHA.

Reproductive toxicity
No information available

Specific target organ toxicity - Single exposure
No information available.

Specific target organ toxicity - Repeated exposure
No information available

Aspiration hazard
No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	18374 mg/kg
ATEmix (dermal)	4004 mg/kg

Other information
Conclusions are drawn from sources other than direct testing.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic toxicity - Product Information

Fish	LC 50 (96 hour, static) 776.4 mg/L *Pimephales promelas* (Fathead Minnow) [1] EC 50 (96 hour, static) 265.5 mg/L *Pimephales promelas* (Fathead Minnow) [1]
Crustacea	LC 50 (48 hour, static) 803.8 mg/L *Ceriodaphnia dubia* (Water Flea) [1] NOEC (7 day chronic, static) 200 mg/L *Ceriodaphnia dubia* (Water Flea) [1]
Algae/aquatic plants	No information available

Acute aquatic toxicity - Component Information

Component	weight-%	Algae/aquatic plants	Fish	Toxicity to daphnia and other aquatic invertebrates
Trade Secret Ingredient	45 - 55%	--	LC50 (96 h static) 100 - 500 mg/L (Brachydanio rerio)	--

Persistence and degradability

Persistence and degradability
No information available

Bioaccumulative potential

Bioaccumulative potential
No information available.

Mobility

Mobility
No information available

Results of PBT and vPvB assessment

PBT and vPvB assessment
No information available

Other adverse effects

Other information
[1] Generated from tests conducted by ECT-Superior Laboratories May 2010

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes
Do NOT mix with other chemical wastes. Do not put solutions containing this product into sewer systems. Dispose of product in an approved chemical waste landfill or incinerate in accordance with applicable Federal, state and local regulations. Do not re-use empty containers.

Contaminated packaging
Since empty containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

DOT

NOT REGULATED FOR TRANSPORTATION
This product is excepted from DOT regulations under 49 CFR 173.154(d) when shipped by road or railway. The product exception is referenced in 49 CFR 172.101 Table. Packaging material must not be aluminum, steel or be degraded by this product

ICAO/IATA

Regulated

UN number	UN3264
Proper shipping name	Corrosive Liquid, Acidic, Inorganic, N.O.S. (Polyaluminum Chloride Solution)
Hazard class	8
Packing group	III
ERG Code	8L

IMDG

Regulated

UN number	UN3264
Proper shipping name	Corrosive Liquid, Acidic, Inorganic, N.O.S. (Polyaluminum Chloride Solution)
Hazard class	8
Packing group	III
EmS	F-A, S-B

Harmonized Tariff Number 2827.32

15. REGULATORY INFORMATION

International Inventories

TSCA (United States)
All ingredients are on the inventory or exempt from listing

Australia (AICS)
All ingredients are on the inventory or exempt from listing

Canada (DSL)
All ingredients are on the inventory or exempt from listing

Canada (NDSL)
None of the ingredients are on the inventory.

China (IECSC)
All ingredients are on the inventory or exempt from listing

EINECS (European Inventory of Existing Chemical Substances)
All ingredients are on the inventory or exempt from listing

ELINCS (European List of Notified Chemical Substances)
None of the ingredients are on the inventory.

ENCS (Japan)
All ingredients are on the inventory or exempt from listing

South Korea (KECL)
All ingredients are on the inventory or exempt from listing

Philippines (PICCS)
All ingredients are on the inventory or exempt from listing

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
AICS - Australian Inventory of Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
IECSC - China Inventory of Existing Chemical Substances
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances

U.S. Federal Regulations

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic health hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive hazard	No

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

16. OTHER INFORMATION

NFPA Rating	Health - 1	Flammability - 0	Instability - 0	Special Hazard -
HMIS Rating	Health - 1	Flammability - 0	Physical hazard - 0	Personal protection - B

Product code

Revision date 2015-03-12

Revision number 1

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

SAFETY DATA SHEET

I. Chemical Product and Company Identification

Product Name: Nonionic / Anionic Polymer
Product #s: LRT- 800 Series Polymers

Distributor: Lockwood Remediation Technologies, LLC
89 Crawford Street
Leominster, Massachusetts 01453
Tel: 774-450-7177
Fax: 885-835-0617
Email: plockwood@lrt-llc.net

For Chemical Emergency - Spill, Leak, Fire, Exposure or Accident
Call **CHEMTEL** - Day or Night – 1800-255-3924

II. Composition and Ingredient Information

Components:	CAS #:
Anionic Polyacrylamide	25085-02-3
Permissible Exposure Limit (PEL):	No information available.
Threshold Limit Value (TLV):	Information not available.

III. Hazard Identification

Primary Routes of Exposure: Skin Contact - Eye Contact - Inhalation

Skin Contact: May cause irritation, especially after prolonged or repeated contact.

Eye Contact: Dust contact and solution may cause irritation.

Ingestion: May cause discomfort or gastrointestinal disturbance. Low oral toxicity.

Inhalation: Dust contact and solution may cause irritation.

Unusual Chronic Toxicity: None Known.

IV. First Aid Measures

Skin Contact: Flush with plenty of soap and water for at least 15 minutes. If irritation persists, get medical attention.

Eyes Contact: Immediately flush with water, continuing for 15 minutes. Immediately contact a physician for additional treatment.

Ingestion: If conscious, immediately give 2 to 4 glasses of water, and induce vomiting by touching finger to back of throat or giving syrup of Ipecac.

CAUTION: If unconscious, having breathing or in convulsions, do not induce vomiting or give water.

Inhalation: Remove to fresh air.

V. Fire-Fighting Measures

Flammability Classification: NFPA - Minimal - Will not burn under normal conditions.

Flash Point: Not flammable.

Flammable and Explosive Limits: UEL: ND LEL: ND

Hazardous Combustion Byproducts:

Thermal decomposition expected to produce carbon monoxide, carbon dioxide, and various nitrous oxides and some HCl vapors.

Extinguishing Media: Foam - Carbon Dioxide - Dry Chemical

AVOID USING WATER - MAY CAUSE EXTREMELY SLIPPERY CONDITIONS.

Special Fire-Fighting Procedures: Wear self-contained breathing apparatus.
Solutions of product are extremely slippery.

Unusual Fire and Explosion Hazards: Material and its solutions are extremely slippery.

VI. Accidental Release Measures

Procedures: Sweep up or shovel into metal or plastic container. Do not use water to clean area; product is very slippery when wet.

Waste Disposal: Incineration and/or disposal in a chemical landfill. Disposer must comply with Federal, State, and Local disposal or discharge laws.

VII. Handling and Storage

Avoid contact with skin, eyes, or clothing.
Do not inhale mist if formed.
Use normal personal hygiene and housekeeping.
Store in a cool dry place.

VIII. Exposure Controls and Personal Protection

Eye Protection: Safety glasses for normal handling conditions.
Splash-proof goggles when handling solutions.
Do not wear contact lens.

Hand Protection: Rubber gloves.

Ventilation: Local exhaust - if dusting occurs. Natural ventilation adequate in absence of dust.

Respiratory Protection: If dusty conditions are encountered, wear NIOSH approved respirator.

Other Protection: Eye wash recommended, full work clothing, add protective rubber clothing if splashing or repeated contact with solution is likely.

IX. Physical and Chemical Properties

Appearance	White granular
State	Solid
Specific Gravity (Water = 1)	0.8 - 1.0
Solubility in Water	Complete

X. Stability and Reactivity

Stability: Product is stable as supplied.

Incompatibility: Oxidizing Agents may cause exothermic reaction.

Hazardous Decomposition or Byproducts:

Thermal decomposition expected to produce carbon oxides, and various nitrous oxides.

Hazardous Polymerization: Will not occur.

XI. Toxicological Information Not listed as a carcinogen by IARC, NTP, OSHA or ACGIH.

XII. Ecological Information

XIII. Disposal Considerations

Incineration and/or disposal in chemical landfill. Disposer must comply with federal, state, and local disposal or discharge laws.

RCRA Status of Unused Material if Discarded: Not a hazardous waste.

Hazardous Waste Number: N/A

XIV. Transport Information

Not DOT regulated. Not a RCRA hazardous waste.

Label Instructions: Signal Word: **"Caution! Products are extremely slippery! "**

XV. Regulatory Information

Reportable Quantity (EPA 40 CFR 302): N/A

Threshold Planning Quantity (EPA 40 CFR 355): N/A

Toxic Chemical Release Reporting (EPA 40 CFR 372): N/A

SARA TITLE 3: Section 311 Hazard Categorizations (40CFR 370): N/A

SARA TITLE 3: Section 313 Information (40CFR 372): N/A

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Information (40CFR 302.4) N/A

US TSCA: Product is manufactured in compliance with all provisions of the Toxic Substances Control Act, 15 U.S.C.

XVI. Other Information

		Scale
Health	0	4 = Severe
Flammability	1	3 = Serious
Reactivity	0	2 = Moderate
Personal Protection	**F**	1 = Slight
		0 = Insignificant

Personal Protective Equipment Guide

A = Safety Glasses

B = Safety Glasses, Gloves

C = Safety Glasses, Gloves, Apron

D = Gloves, Apron, Face shield

E = Safety Glasses, Gloves, and Dust Respirator

F = Safety Glasses, Gloves, Apron and Dust Respirator

G = Safety Glasses, Gloves, and Vapor Respirator

H = Splash Goggles, Gloves, Apron, Vapor Respirator

I = Safety Glasses, Gloves, and Dust & Vapor Respirator

J = Splash Goggles, Gloves, Apron, and Dust & Vapor Respirator

K = Air Line Hood/Mask, Gloves, Full Suit, Boots

X = Ask supervisor for special handling instructions

ABBREVIATIONS:

ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
TLV - Threshold Limit Value
PEL - Permissible Exposure Limit
TWA - Time Weighted Average
STEL - Short-Term Exposure Limit
ANSI - American National Standard Institute
MSHA - Mine Safety and Health Administration
NIOSH - National Institute for Occupational Safety & Health
NA - Not Applicable
NE - Not Established
NR - Not Required
PPE - Personal Protective Equipment
LEL - Lower Exposure Level
UEL - Upper Exposure Level

ATTACHMENT III

Matthew Lyne

From: Ruan, Xiaodan (DEP) <xiaodan.ruan@state.ma.us>
Sent: Friday, September 18, 2020 4:55 PM
To: Matthew Lyne
Cc: Vakalopoulos, Catherine (DEP)
Subject: [EXTERNAL] RE: DF approval needed-15 Central Street, Fitchburg, MA

Hi Matthew,

I checked your calculation, and the DF of 13.45 for the proposed project at 15 Central Street, Fitchburg, with a design flow of 150 gpm is correct.

Here is water quality information in assisting you in filling out the NOI:

Waterbody and ID: Nashua River (MA81-02) within Nashua River Watershed
Classification: B
Outstanding Resource Water?: no
State's most recent Integrated List is located here: https://www.epa.gov/sites/production/files/2020-01/documents/2016-ma-303d-list-report.pdf, search for "MA81-02" to see the causes of impairments.
TMDLs: no final TMDL for this segment

Also, if this is not a *current* MCP site, then in addition to submitting the NOI to EPA, you need to apply with MassDEP and submit a $500 fee (unless fee exempt, e.g., municipality). Please note that beginning on June 30, 2020, MassDEP has started using ePLACE, an online application submittal process where you will set up a user ID and be able to submit NOIs for various projects as well as pay by credit card. The instructions are located on this page: https://www.mass.gov/how-to/wm-15-npdes-general-permit-notice-of-intent. If this is your first time using ePLACE, technical assistant information is available on the ePLACE application webpage.

Please let me know if you have any questions.

From: Matthew Lyne <Matthew.Lyne@atcgs.com>
Sent: Friday, September 18, 2020 12:55 PM
To: Ruan, Xiaodan (DEP) <xiaodan.ruan@mass.gov>
Cc: Vakalopoulos, Catherine (DEP) <catherine.vakalopoulos@mass.gov>
Subject: DF approval needed-15 Central Street, Fitchburg, MA

Xiaodan, for the dilution factor approval, see below. I came up with DF = 13.45

Design flow Qd = 150 gpm=0.334 ft3/sec

7Q10 Flow = 4.16 ft3/sec (from StreamStats you had attached).

DF=(4.16 +0.334)/0.334 =13.45

Please let me know if this sounds right and then I'll input into WQBEL table.
Thanks.

Matt

Matthew Lyne | SENIOR PROJECT MANAGER, P.E. | **ATC Group Services LLC**
Office +1 508 926 1315 | Cell +1 508 641 0476

240 Barber Avenue, Suite 6 | Worcester, MA 01606
Fax +1 508 926 1334 | matthew.lyne@atcgs.com | www.atcgroupservices.com

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From: Ruan, Xiaodan (DEP) <xiaodan.ruan@state.ma.us>
Sent: Thursday, September 17, 2020 12:39 PM
To: Matthew Lyne <Matthew.Lyne@atcgs.com>; Vakalopoulos, Catherine (DEP) <catherine.vakalopoulos@state.ma.us>
Subject: RE: Need help with 7Q10

Hi Matthew,

Using the outfall location you provided in the word file, I was able to get a 7Q10 using the StreamStats. Please see the attached report.

Please let me know if you have any questions.

Thanks,
Xiaodan

From: Matthew Lyne <Matthew.Lyne@atcgs.com>
Sent: Wednesday, September 16, 2020 4:30 PM
To: Vakalopoulos, Catherine (DEP) <catherine.vakalopoulos@mass.gov>
Cc: Ruan, Xiaodan (DEP) <xiaodan.ruan@mass.gov>
Subject: Need help with 7Q10

Dilution Factor	13.4					
A. Inorganics	TBEL applies if bolded		WQBEL applies if bolded		Compliance Level applies if shown	
Ammonia	**Report**	mg/L	---			
Chloride	**Report**	µg/L	---			
Total Residual Chlorine	0.2	mg/L	**136**	µg/L	---	µg/L
Total Suspended Solids	**30**	mg/L	---			
Antimony	**206**	µg/L	7941	µg/L		
Arsenic	**104**	µg/L	113	µg/L		
Cadmium	**10.2**	µg/L	0.2722	µg/L		
Chromium III	**323**	µg/L	1076.2	µg/L		
Chromium VI	**323**	µg/L	122.0	µg/L		
Copper	**242**	µg/L	9.4	µg/L		
Iron	**5000**	µg/L	12402	µg/L		
Lead	**160**	µg/L	22.50	µg/L		
Mercury	**0.739**	µg/L	11.24	µg/L		
Nickel	**1450**	µg/L	651.5	µg/L		
Selenium	**235.8**	µg/L	62.0	µg/L		
Silver	**35.1**	µg/L	47.6	µg/L		
Zinc	**420**	µg/L	1260.8	µg/L		
Cyanide	**178**	mg/L	64.5	µg/L	---	µg/L
B. Non-Halogenated VOCs						
Total BTEX	**100**	µg/L	---			
Benzene	**5.0**	µg/L	---			
1,4 Dioxane	**200**	µg/L	---			
Acetone	**7970**	µg/L	---			
Phenol	**1,080**	µg/L	3722	µg/L		
C. Halogenated VOCs						
Carbon Tetrachloride	**4.4**	µg/L	19.9	µg/L		
1,2 Dichlorobenzene	**600**	µg/L	---			
1,3 Dichlorobenzene	**320**	µg/L	---			
1,4 Dichlorobenzene	**5.0**	µg/L	---			
Total dichlorobenzene	**---**	µg/L	---			
1,1 Dichloroethane	**70**	µg/L	---			
1,2 Dichloroethane	**5.0**	µg/L	---			
1,1 Dichloroethylene	**3.2**	µg/L	---			
Ethylene Dibromide	**0.05**	µg/L	---			
Methylene Chloride	**4.6**	µg/L	---			
1,1,1 Trichloroethane	**200**	µg/L	---			
1,1,2 Trichloroethane	**5.0**	µg/L	---			
Trichloroethylene	**5.0**	µg/L	---			
Tetrachloroethylene	**5.0**	µg/L	40.9	µg/L		
cis-1,2 Dichloroethylene	**70**	µg/L	---			
Vinyl Chloride	**2.0**	µg/L	---			

D. Non-Halogenated SVOCs						
Total Phthalates	**190**	µg/L	---	µg/L		
Diethylhexyl phthalate	**101**	µg/L	27.3	µg/L		
Total Group I Polycyclic Aromatic Hydrocarbons	**1.0**	µg/L	---			
Benzo(a)anthracene	**1.0**	µg/L	0.0471	µg/L	---	µg/L
Benzo(a)pyrene	**1.0**	µg/L	0.0471	µg/L	---	µg/L
Benzo(b)fluoranthene	**1.0**	µg/L	0.0471	µg/L	---	µg/L
Benzo(k)fluoranthene	**1.0**	µg/L	0.0471	µg/L	---	µg/L
Chrysene	**1.0**	µg/L	0.0471	µg/L	---	µg/L
Dibenzo(a,h)anthracene	**1.0**	µg/L	0.0471	µg/L	---	µg/L
Indeno(1,2,3-cd)pyrene	**1.0**	µg/L	0.0471	µg/L	---	µg/L
Total Group II Polycyclic Aromatic Hydrocarbons	**100**	µg/L	---			
Naphthalene	**20**	µg/L	---			
E. Halogenated SVOCs						
Total Polychlorinated Biphenyls	**0.000064**	µg/L	---		0.5	µg/L
Pentachlorophenol	**1.0**	µg/L	---			
F. Fuels Parameters						
Total Petroleum Hydrocarbons	**5.0**	mg/L	---			
Ethanol	**Report**	mg/L	---			
Methyl-tert-Butyl Ether	**70**	µg/L	248	µg/L		
tert-Butyl Alcohol	**120**	µg/L	---			
tert-Amyl Methyl Ether	**90**	µg/L	---			

ATTACHMENT IV

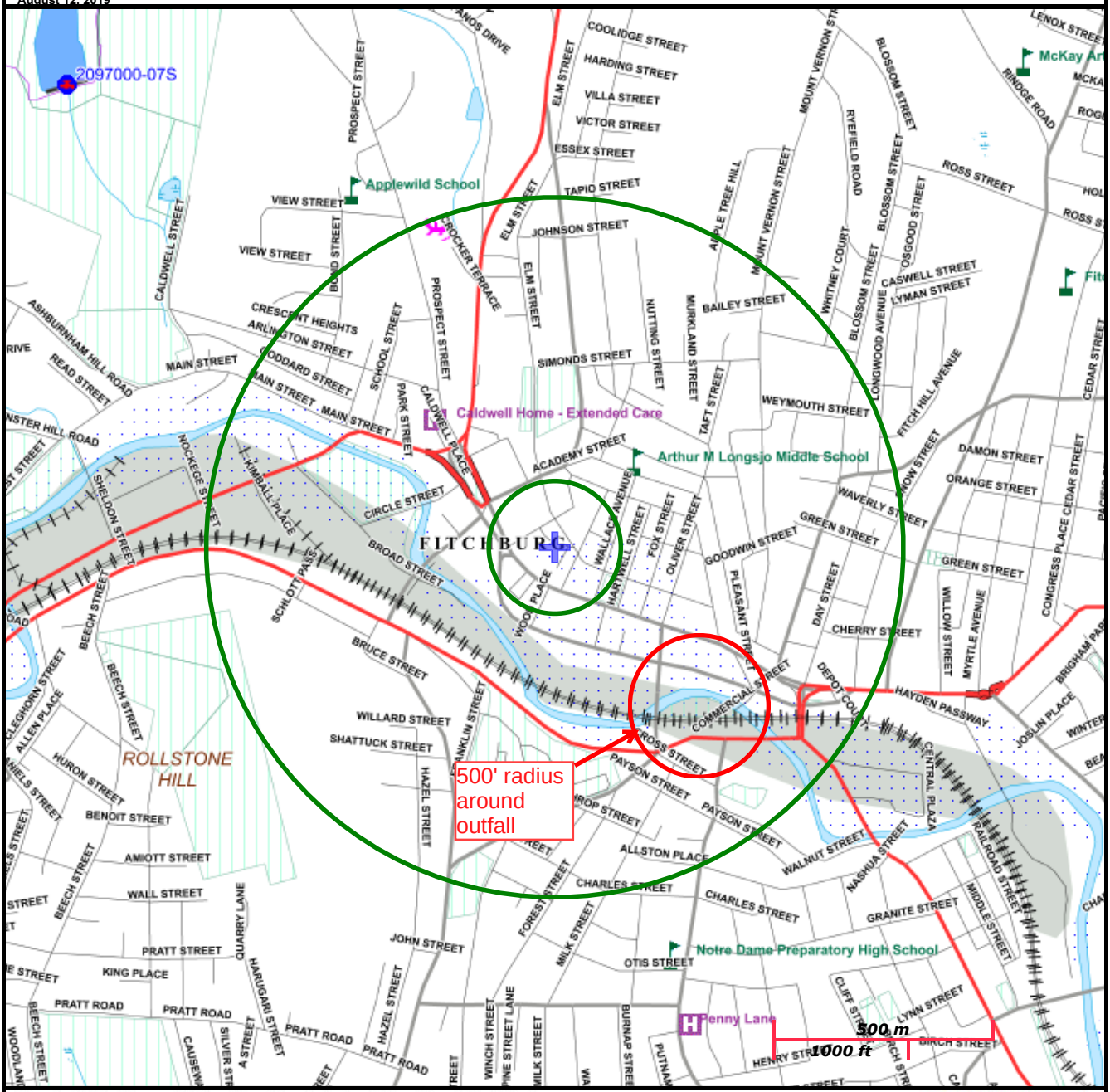
MassDEP - Bureau of Waste Site Cleanup

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

Site Information:
FITCHBURG
BROOK STREET FITCHBURG, MA
2-000018346
NAD83 UTM Meters:
4718513mN , 270004mE (Zone: 19)
August 12, 2019

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



Priority Habitats and Estimated Habitats - Effective October 1, 2008

Priority Habitats for use with the MA Endangered Species Act Regulations (321 CMR 10)

Estimated Habitats for use with the MA Wetlands Protection Act Regulations (310 CMR 10)

Produced by the Natural Heritage & Endangered Species Program

website: www.nhesp.org

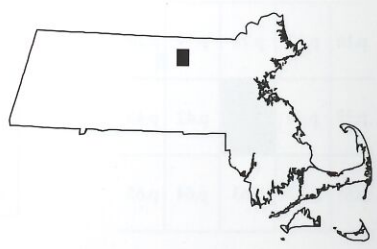
Page Index

Priority Habitat of Rare Species

Priority Habitat of Rare Species and also Estimated Habitat of Rare Wildlife

Certified Vernal Pool (as of July 31, 2008)

Fitchburg Quad



ATTACHMENT V

Massachusetts Cultural Resource Information System
MACRIS

MACRIS Search Results

Search Criteria: Town(s): Fitchburg; Place: Fitchburg; Street Name: Central; Resource Type(s): Building, Burial Ground;

Inv. No.	Property Name	Street	Town	Year
FIT.148		50 Central St	Fitchburg	r 1835
FIT.149		55 Central St	Fitchburg	r 1825
FIT.150	Reed House	61-63 Central St	Fitchburg	r 1820
FIT.151		62 Central St	Fitchburg	c 1830
FIT.152		67-69 Central St	Fitchburg	c 1830
FIT.153		71 Central St	Fitchburg	r 1845
FIT.154	Prentice, B. House	73-75 Central St	Fitchburg	r 1810
FIT.155		82 Central St	Fitchburg	r 1845
FIT.156		88 Central St	Fitchburg	r 1845
FIT.103	Ware, T. K. House	130-134 Elm St	Fitchburg	c 1810

ATLAS ATC
—AN ATLAS COMPANY—

240 Barber Avenue, Suite 6
Worcester, MA 01606
Telephone 508-926-1315
Fax 508-926-1334
www.atcgroupservices.com

October 9, 2020

File No. 03-000000-46

Massachusetts Historical Commission
220 Morrissey Boulevard
Boston, MA 02125

RE: **Project Notification Form**
Fitchburg State University
15 Central Street
Fitchburg, Massachusetts

To whom it may concern:

On behalf of Fitchburg State University (FSU), ATC Group Services LLC (ATC), is submitting this Project Notification Form (PNF) for the above referenced facility (i.e., the "Site"). FSU is proposing to initiate cleanup activities as part a remedial plan for the release of fuel oil at the site. Approval for treatment and discharge of the groundwater is necessary through EPA and this PNF is required as part of the Notice of Intent process. A Site Locus map is included as Figure 1.

The subject property currently is a 12 unit apartment complex. The building is a two story brick building. Land use in the vicinity of the Site is mainly residential. A Site Plan depicting the current setting of the property and surrounding area is included as Figures 2.

If there are any questions regarding this submittal, please do not hesitate to contact the undersigned at (508) 926-1315.

Sincerely,
ATC Group Services LLC

Matthew Lyne
Senior Project Manager

cc:

Figure 1- Site Locus
Figure 2- Site Plan

ATC Group Services, LLC
240 Barber Ave., Suite 6
Worcester, MA 01606
Phone 508 926 1315 Fax 508 926 1334
www.atcgroupservices.com

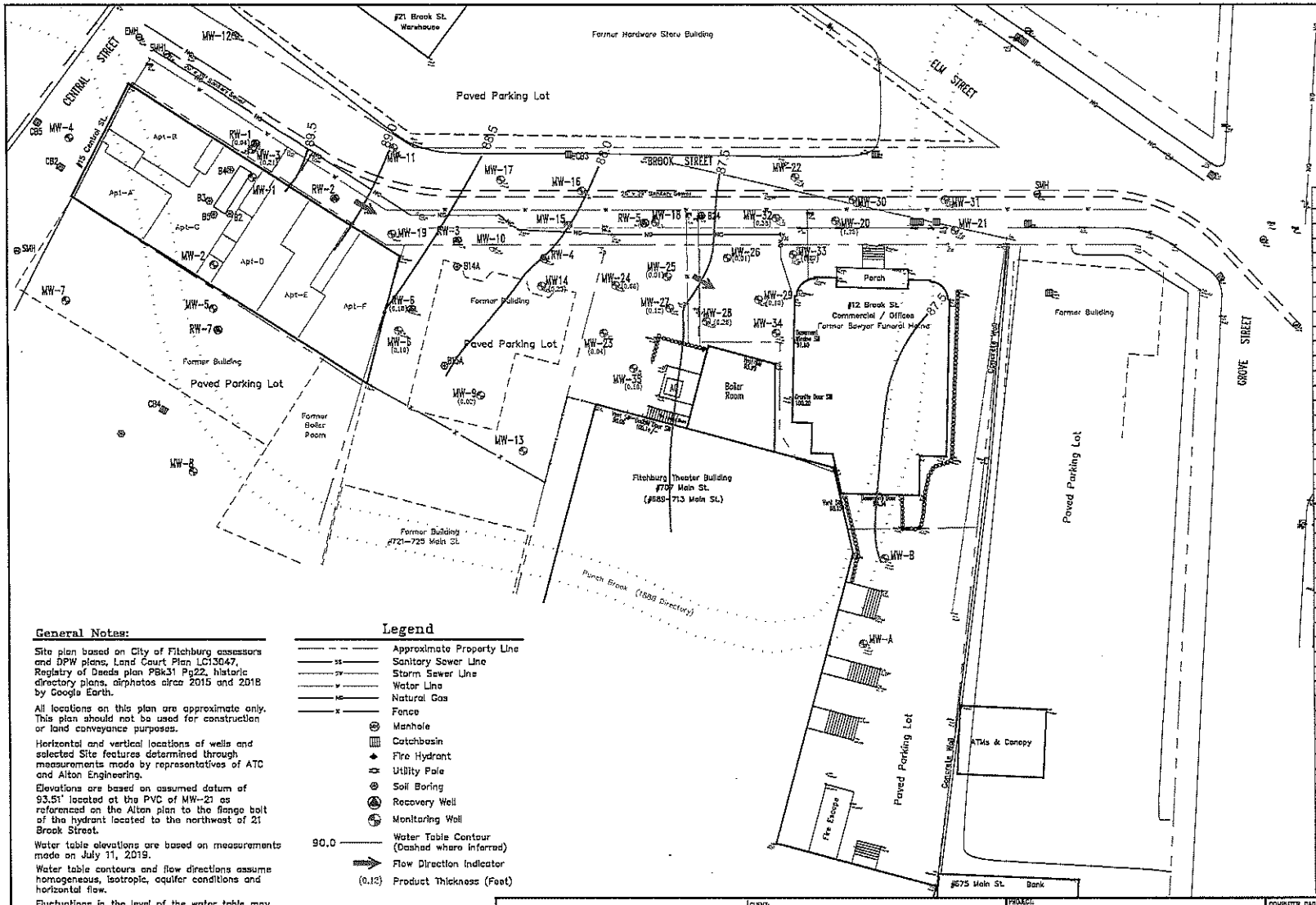
Commercial Property
15 Central Street
Fitchburg, MA 01420

Figure 1: SITE LOCUS

Base Map: U.S. Geological Survey; Quadrangle Location: Fitchburg, MA

Lat/Lon: 42.584942° NORTH, 71.803321° WEST | UTM Coordinates: 19 269966 EAST / 4718535 NORTH

Cad Generated By: Rick Starodoj



Well ID	Rim	PVC	Corrected GW-Elev	Product Thickness
RMW-01				
RMW-02				
RMW-03	96.12	97.08	89.86	0.21
RMW-04		96.84		
RMW-05		95.89		
RMW-06	96.25	96.87	88.36	0.19
RMW-07		97.21		
RMW-08		95.70		
RMW-09		96.02	87.77	0.02
RMW-10	94.67	94.52		
RMW-11	95.02	94.90		
RMW-12	95.95	95.84		
RMW-13		96.37	87.68	
RMW-14	95.13	94.82	87.91	0.23
RMW-15		94.73		
RMW-16	94.55	94.47		
RMW-17	94.66	94.44		
RMW-18	94.27	94.00		
RMW-19	95.39	95.19	87.59	
RMW-20	93.90	93.78	87.16	1.75
RMW-21	93.69	93.51	87.04	
RMW-22	94.08	93.98	87.17	
RMW-23	95.16	94.91	87.89	0.64
RMW-24	95.00	94.82	87.87	0.66
RMW-25		95.51		0.01
RMW-26		94.39	87.46	0.01
RMW-27	95.16	94.48	87.51	0.12
RMW-28	94.66	94.58	87.47	0.26
RMW-29	94.77	94.45	87.29	0.1
RMW-30	94.02	93.59	87.12	
RMW-31	93.81	93.54	87.02	
RMW-32	93.98	93.61	87.25	0.36
RMW-33	94.45	94.21	87.17	0.27
RMW-34	94.51	94.41	87.10	
RMW-35	95.11	94.74	87.56	0.18
RMW-A	93.94	93.17	87.25	
RMW-B	93.91	93.68	88.98	
RW-01	98.14			0.04
RW-02				
RW-03	94.61			--
RW-04	94.95			--
RW-05	94.30			
RW-06	96.00			0.18
RW-07				

Correction factor of 0.87 used to adjust GW elevation for presence of fuel oil.

GW's 19 & 25 were not used in the GW contour calculations.

General Notes:

Site plan based on City of Fitchburg assessors and DPW plans, Land Court Plan LC13047, Registry of Deeds plan PBk31 Pg22, historic directory plans, airphotos circa 2015 and 2018 by Google Earth.

All locations on this plan are approximate only. This plan should not be used for construction or land conveyance purposes.

Horizontal and vertical locations of wells and selected Site features determined through measurements made by representatives of ATC and Alton Engineering.

Elevations are based on assumed datum of 93.51' located at the PVC of MW-21 as referenced on the Alton plan to the flange bolt of the hydrant located to the northwest of 21 Brook Street.

Water table elevations are based on measurements made on July 11, 2019.

Water table contours and flow directions assume homogeneous, isotropic, aquifer conditions and horizontal flow.

Fluctuations in the level of the water table may occur due to factors not accounted for at the time of measurement.

Water table contours are interpolated between data points and inferred in other areas.

Legend

- Approximate Property Line
- SS — Sanitary Sewer Line
- SW — Storm Sewer Line
- W — Water Line
- NG — Natural Gas
- X — Fence
- MH — Manhole
- Catchbasin
- Fire Hydrant
- Utility Pole
- Soil Boring
- Recovery Well
- Monitoring Well
- 90.0 — Water Table Contour (Dashed where inferred)
- Flow Direction Indicator
- (0.12) Product Thickness (Feet)

ATC
240 Harbor Avenue • Worcester, MA 01605
Phone: 508-752-9151 Fax: 508-757-7660

CLIENT: Fitchburg State University

GRAPHIC SCALE: 30 15 0 15 30

PROJECT: Commercial Property
15 Central Street
Fitchburg, Massachusetts

TITLE: Site Plan with Groundwater Contours (7/11/19)

COMPUTER DWGFILE = 0300000046.dwg

DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
RAS	CK	CK	CK
SCALE:	DATE:	JOB NO.:	FIGURE NO.:
1" = 30'	7/25/19	0300000046	2

ATC
240 Barber Ave., Suite 6
Worcester, MA 01606

10-9-20

FOREVER / USA

Massachusetts Historical Commission
220 Morrissey Boulevard
Boston, MA 02125

ATTACHMENT VI

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

August 28, 2020

Charles Klingler
ATC Group Services, LLC - Worcester
240 Barber Avenue
Worcester, MA 01606

Project Location: Fitchburg, MA
Client Job Number:
Project Number: 0300000046
Laboratory Work Order Number: 20H1131

Enclosed are results of analyses for samples received by the laboratory on August 21, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Michelle M. Koch
Project Manager

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

ATC Group Services, LLC - Worcester
240 Barber Avenue
Worcester, MA 01606
ATTN: Charles Klingler

REPORT DATE: 8/28/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 0300000046

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20H1131

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

PROJECT LOCATION: Fitchburg, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MW-34	20H1131-01	Ground Water		624.1	
				625.1	
				EPA 1664B	
				EPA 200.7	
				EPA 200.8	
				EPA 245.1	
				EPA 300.0	
				EPA 350.1	
				EPA 420.1	
				SM21-22 2540D	
				SM21-22 3500 Cr B	
				SM21-22 4500 CL G	
				Tri Chrome Calc.	
Outfall #CSO-045	20H1131-02	Storm Water		EPA 200.7	
				EPA 200.8	
				EPA 245.1	
				EPA 350.1	
				SM21-22 3500 Cr B	
				Tri Chrome Calc.	

con-test® ANALYTICAL LABORATORY

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CASE NARRATIVE SUMMARY

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

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

624.1

Qualifications:

DL-01

Elevated reporting limits for all volatile compounds due to foaming sample matrix.

Analyte & Samples(s) Qualified:

20H1131-01[MW-34]

625.1

Qualifications:

L-04

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

Analyte & Samples(s) Qualified:

Benzidine
20H1131-01[MW-34], B265086-BLK1, B265086-BS1, B265086-BSD1

Hexachlorocyclopentadiene
20H1131-01[MW-34], B265086-BLK1, B265086-BS1, B265086-BSD1

V-04

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

Analyte & Samples(s) Qualified:

2,4-Dinitrophenol
20H1131-01[MW-34]

Benzidine
20H1131-01[MW-34], B265086-BLK1, B265086-BS1, B265086-BSD1

V-05

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

Analyte & Samples(s) Qualified:

Benzidine
20H1131-01[MW-34], B265086-BLK1, B265086-BS1, B265086-BSD1

Hexachlorocyclopentadiene
B265086-BLK1, B265086-BS1, B265086-BSD1

V-34

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

Analyte & Samples(s) Qualified:

Benzidine
20H1131-01[MW-34]

EPA 200.8

Qualifications:

L-07

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

Analyte & Samples(s) Qualified:

B264983-BSD1

SM21-22 3500 Cr B

Qualifications:

H-03

Sample received after recommended holding time was exceeded.

Analyte & Samples(s) Qualified:

Hexavalent Chromium
20H1131-02[Outfall #CSO-045], B264914-MS1, B264914-MSD1

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

H-09

Sample received by laboratory with insufficient time remaining to perform analysis within the recommended holding time.

Analyte & Samples(s) Qualified:

Hexavalent Chromium
20H1131-01[MW-34]

MS-07

Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery.Possibility of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.

Analyte & Samples(s) Qualified:

Hexavalent Chromium
20H1131-02[Outfall #CSO-045], B264914-MS1, B264914-MSD1

SM21-22 4500 CL G

Qualifications:

H-09

Sample received by laboratory with insufficient time remaining to perform analysis within the recommended holding time.

Analyte & Samples(s) Qualified:

Chlorine, Residual
20H1131-01[MW-34]

MS-07

Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery.Possibility of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.

Analyte & Samples(s) Qualified:

Chlorine, Residual
20H1131-01[MW-34], B264915-MS1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski
Laboratory Director

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Fitchburg, MA | Sample Description: | Work Order: 20H1131

Date Received: 8/21/2020

Field Sample #: MW-34

Sample ID: 20H1131-01 | Start Date/Time: 8/20/2020 5:00:00PM

Sample Matrix: Ground Water | Stop Date/Time: 8/20/2020 5:50:00PM

Sample Flags: DL-01

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	<7.58	100	7.58	µg/L	2		624.1	8/24/20	8/24/20 13:48	EEH
tert-Amyl Methyl Ether (TAME)	<0.280	1.00	0.280	µg/L	2		624.1	8/24/20	8/24/20 13:48	EEH
Benzene	2.16	2.00	0.360	µg/L	2		624.1	8/24/20	8/24/20 13:48	EEH
tert-Butyl Alcohol (TBA)	<8.34	40.0	8.34	µg/L	2		624.1	8/24/20	8/24/20 13:48	EEH
Ethanol	<21.1	100	21.1	µg/L	2		624.1	8/24/20	8/24/20 13:48	EEH
Ethylbenzene	13.6	4.00	0.260	µg/L	2		624.1	8/24/20	8/24/20 13:48	EEH
Methyl tert-Butyl Ether (MTBE)	<0.500	4.00	0.500	µg/L	2		624.1	8/24/20	8/24/20 13:48	EEH
Toluene	<0.280	2.00	0.280	µg/L	2		624.1	8/24/20	8/24/20 13:48	EEH
Xylenes (total)	37.6	6.00		µg/L	2		624.1	8/24/20	8/24/20 13:48	EEH
m+p Xylene	34.5	4.00	0.600	µg/L	2		624.1	8/24/20	8/24/20 13:48	EEH
o-Xylene	3.04	2.00	0.340	µg/L	2		624.1	8/24/20	8/24/20 13:48	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	105	70-130		8/24/20 13:48
Toluene-d8	99.8	70-130		8/24/20 13:48
4-Bromofluorobenzene	101	70-130		8/24/20 13:48

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Project Location: Fitchburg, MA | Sample Description: | Work Order: 20H1131

Date Received: 8/21/2020

Field Sample #: MW-34

Sample ID: 20H1131-01 | Start Date/Time: 8/20/2020 5:00:00PM

Sample Matrix: Ground Water | Stop Date/Time: 8/20/2020 5:50:00PM

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzo(a)anthracene (SIM)	<0.015	0.048	0.015	µg/L	1		625.1	8/26/20	8/27/20 20:04	CLA
Benzo(a)pyrene (SIM)	<0.011	0.096	0.011	µg/L	1		625.1	8/26/20	8/27/20 20:04	CLA
Benzo(b)fluoranthene (SIM)	<0.014	0.048	0.014	µg/L	1		625.1	8/26/20	8/27/20 20:04	CLA
Benzo(k)fluoranthene (SIM)	<0.011	0.19	0.011	µg/L	1		625.1	8/26/20	8/27/20 20:04	CLA
Bis(2-ethylhexyl)phthalate (SIM)	<0.41	0.96	0.41	µg/L	1		625.1	8/26/20	8/27/20 20:04	CLA
Chrysene (SIM)	<0.014	0.19	0.014	µg/L	1		625.1	8/26/20	8/27/20 20:04	CLA
Dibenz(a,h)anthracene (SIM)	<0.016	0.096	0.016	µg/L	1		625.1	8/26/20	8/27/20 20:04	CLA
Indeno(1,2,3-cd)pyrene (SIM)	<0.017	0.096	0.017	µg/L	1		625.1	8/26/20	8/27/20 20:04	CLA

Surrogates	% Recovery	Recovery Limits	Flag/Qual		
Nitrobenzene-d5	61.6	30-130		8/27/20	20:04
2-Fluorobiphenyl	47.8	30-130		8/27/20	20:04
p-Terphenyl-d14	61.0	30-130		8/27/20	20:04

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

Project Location: Fitchburg, MA | Sample Description: | Work Order: 20H1131

Date Received: 8/21/2020

Field Sample #: MW-34

Sample ID: 20H1131-01 | Start Date/Time: 8/20/2020 5:00:00PM

Sample Matrix: Ground Water | Stop Date/Time: 8/20/2020 5:50:00PM

Semivolatile Organic Compounds by - GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	2.74	4.78	0.221	µg/L	1	J	625.1	8/26/20	8/27/20 17:28	IMR
Acenaphthylene	<0.221	4.78	0.221	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
Anthracene	<0.193	4.78	0.193	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
Benzidine	<15.7	19.1	15.7	µg/L	1	V-04, V-05, L-04, V-34	625.1	8/26/20	8/27/20 17:28	IMR
Benzo(g,h,i)perylene	<0.379	4.78	0.379	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
4-Bromophenylphenylether	<0.283	9.57	0.283	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
4-Chloro-3-methylphenol	<0.460	9.57	0.460	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
Bis(2-chloroethyl)ether	<0.490	9.57	0.490	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
Bis(2-chloroisopropyl)ether	<0.698	9.57	0.698	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
2-Chloronaphthalene	<0.434	9.57	0.434	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
2-Chlorophenol	<0.360	9.57	0.360	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
4-Chlorophenylphenylether	<0.300	9.57	0.300	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
1,3-Dichlorobenzene	<0.443	4.78	0.443	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
1,4-Dichlorobenzene	<0.367	4.78	0.367	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
1,2-Dichlorobenzene	<0.439	4.78	0.439	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
3,3-Dichlorobenzidine	<0.344	9.57	0.344	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
2,4-Dichlorophenol	<0.287	9.57	0.287	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
2,4-Dimethylphenol	<0.761	9.57	0.761	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
4,6-Dinitro-2-methylphenol	<1.87	9.57	1.87	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
2,4-Dinitrophenol	<1.56	9.57	1.56	µg/L	1	V-04	625.1	8/26/20	8/27/20 17:28	IMR
2,4-Dinitrotoluene	<0.313	9.57	0.313	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
2,6-Dinitrotoluene	<0.331	9.57	0.331	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
1,2-Diphenylhydrazine/Azobenzene	<0.359	9.57	0.359	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
Fluoranthene	<0.284	4.78	0.284	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
Fluorene	5.12	4.78	0.234	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
Hexachlorobenzene	<0.414	9.57	0.414	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
Hexachlorobutadiene	<0.567	9.57	0.567	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
Hexachlorocyclopentadiene	<4.59	9.57	4.59	µg/L	1	L-04	625.1	8/26/20	8/27/20 17:28	IMR
Hexachloroethane	<0.506	9.57	0.506	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
Isophorone	<0.287	9.57	0.287	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
Naphthalene	36.0	4.78	0.423	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
Nitrobenzene	<0.392	9.57	0.392	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
2-Nitrophenol	<0.397	9.57	0.397	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
4-Nitrophenol	<0.600	9.57	0.600	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
N-Nitrosodimethylamine	<1.75	9.57	1.75	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
N-Nitrosodi-n-propylamine	<0.496	9.57	0.496	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
2-Methylnaphthalene	37.8	4.78	0.255	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
Phenanthrene	4.84	4.78	0.275	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
2-Methylphenol	<0.436	9.57	0.436	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
Phenol	<0.189	9.57	0.189	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
3/4-Methylphenol	<0.195	19.1	0.195	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
Pyrene	<0.244	4.78	0.244	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR
1,2,4-Trichlorobenzene	<0.534	4.78	0.534	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Fitchburg, MA | Sample Description: | Work Order: 20H1131

Date Received: 8/21/2020

Field Sample #: MW-34

Sample ID: 20H1131-01 | Start Date/Time: 8/20/2020 5:00:00PM

Sample Matrix: Ground Water | Stop Date/Time: 8/20/2020 5:50:00PM

Semivolatile Organic Compounds by - GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2,4,6-Trichlorophenol	<0.319	9.57	0.319	µg/L	1		625.1	8/26/20	8/27/20 17:28	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	41.2	15-110		8/27/20 17:28
Phenol-d6	30.3	15-110		8/27/20 17:28
Nitrobenzene-d5	66.7	30-130		8/27/20 17:28
2-Fluorobiphenyl	73.0	30-130		8/27/20 17:28
2,4,6-Tribromophenol	88.8	15-110		8/27/20 17:28
p-Terphenyl-d14	90.7	30-130		8/27/20 17:28

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

Project Location: Fitchburg, MA | Sample Description: | Work Order: 20H1131

Date Received: 8/21/2020

Field Sample #: MW-34

Sample ID: 20H1131-01 | Start Date/Time: 8/20/2020 5:00:00PM

Sample Matrix: Ground Water | Stop Date/Time: 8/20/2020 5:50:00PM

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0	0.35	µg/L	1		EPA 200.8	8/25/20	8/27/20 11:28	QNW
Arsenic	1.6	0.80		µg/L	1		EPA 200.8	8/25/20	8/27/20 11:28	QNW
Cadmium	ND	0.20		µg/L	1		EPA 200.8	8/25/20	8/27/20 11:28	QNW
Chromium	2.0	1.0		µg/L	1		EPA 200.8	8/25/20	8/27/20 11:28	QNW
Chromium, Trivalent	0.0020			mg/L	1		Tri Chrome Calc.	8/25/20	8/27/20 11:28	QNW
Copper	7.8	1.0		µg/L	1		EPA 200.8	8/25/20	8/27/20 11:28	QNW
Iron	0.47	0.050		mg/L	1		EPA 200.7	8/25/20	8/26/20 14:56	TBC
Lead	0.28	0.50	0.085	µg/L	1		EPA 200.8	8/25/20	8/27/20 11:28	QNW
Mercury	ND	0.00010		mg/L	1		EPA 245.1	8/24/20	8/25/20 10:27	CJV
Nickel	ND	5.0		µg/L	1		EPA 200.8	8/25/20	8/27/20 11:28	QNW
Selenium	ND	5.0	1.6	µg/L	1		EPA 200.8	8/25/20	8/27/20 11:28	QNW
Silver	ND	0.20		µg/L	1		EPA 200.8	8/25/20	8/27/20 11:28	QNW
Zinc	ND	10		µg/L	1		EPA 200.8	8/25/20	8/27/20 11:28	QNW
Hardness	320	1.4		mg/L	1		EPA 200.7	8/25/20	8/26/20 14:56	TBC

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Fitchburg, MA | Sample Description: | Work Order: 20H1131

Date Received: 8/21/2020

Field Sample #: MW-34

Sample ID: 20H1131-01 | Start Date/Time: 8/20/2020 5:00:00PM

Sample Matrix: Ground Water | Stop Date/Time: 8/20/2020 5:50:00PM

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	0.54	0.10	mg/L	1		EPA 350.1	8/22/20	8/24/20 10:16	MMH
Chloride	970	25	mg/L	25		EPA 300.0	8/27/20	8/27/20 18:09	MMH
Chlorine, Residual	ND	0.020	mg/L	1	MS-07, H-09	SM21-22 4500 CL G	8/21/20	8/21/20 22:30	DJM
Hexavalent Chromium	ND	0.0040	mg/L	1	H-09	SM21-22 3500 Cr B	8/21/20	8/21/20 21:45	CB2/DJM
Phenol	ND	0.050	mg/L	1		EPA 420.1	8/26/20	8/27/20 11:10	LL
Total Suspended Solids	6.5	0.83	mg/L	1		SM21-22 2540D	8/24/20	8/24/20 12:51	LL
Silica Gel Treated HEM (SGT-HEM)	ND	1.8	mg/L	1		EPA 1664B	8/26/20	8/26/20 9:01	LL

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

Project Location: Fitchburg, MA | Sample Description: | Work Order: 20H1131

Date Received: 8/21/2020

Field Sample #: Outfall #CSO-045 | Sampled: 8/20/2020 14:30

Sample ID: 20H1131-02

Sample Matrix: Storm Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0	0.35	µg/L	1		EPA 200.8	8/25/20	8/27/20 11:31	QNW
Arsenic	0.90	0.80		µg/L	1		EPA 200.8	8/25/20	8/27/20 11:31	QNW
Cadmium	ND	0.20		µg/L	1		EPA 200.8	8/25/20	8/27/20 11:31	QNW
Chromium	1.6	1.0		µg/L	1		EPA 200.8	8/25/20	8/27/20 11:31	QNW
Chromium, Trivalent	0.0016			mg/L	1		Tri Chrome Calc.	8/25/20	8/27/20 11:31	QNW
Copper	24	1.0		µg/L	1		EPA 200.8	8/25/20	8/27/20 11:31	QNW
Iron	0.47	0.050		mg/L	1		EPA 200.7	8/25/20	8/26/20 15:04	TBC
Lead	1.4	0.50	0.085	µg/L	1		EPA 200.8	8/25/20	8/27/20 11:31	QNW
Mercury	ND	0.00010		mg/L	1		EPA 245.1	8/24/20	8/25/20 10:29	CJV
Nickel	ND	5.0		µg/L	1		EPA 200.8	8/25/20	8/27/20 11:31	QNW
Selenium	ND	5.0	1.6	µg/L	1		EPA 200.8	8/25/20	8/27/20 11:31	QNW
Silver	ND	0.20		µg/L	1		EPA 200.8	8/25/20	8/27/20 11:31	QNW
Zinc	19	10		µg/L	1		EPA 200.8	8/25/20	8/27/20 11:31	QNW
Hardness	75	1.4		mg/L	1		EPA 200.7	8/25/20	8/26/20 15:04	TBC

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

Project Location: Fitchburg, MA | Sample Description: | Work Order: 20H1131

Date Received: 8/21/2020

Field Sample #: Outfall #CSO-045 | Sampled: 8/20/2020 14:30

Sample ID: 20H1131-02

Sample Matrix: Storm Water

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	9.2	0.50	mg/L	5		EPA 350.1	8/22/20	8/24/20 10:29	MMH
Hexavalent Chromium	ND	0.0040	mg/L	1	H-03, MS-07	SM21-22 3500 Cr B	8/21/20	8/21/20 21:45	CB2/DJM

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Sample Extraction Data

Prep Method: SW-846 5030B **Analytical Method: 624.1**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20H1131-01 [MW-34]	B264970	2.5	5.00	08/24/20

Prep Method: SW-846 3510C **Analytical Method: 625.1**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20H1131-01 [MW-34]	B265086	1040	1.00	08/26/20

Prep Method: SW-846 3510C **Analytical Method: 625.1**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20H1131-01 [MW-34]	B265212	1040	1.00	08/26/20

EPA 1664B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20H1131-01 [MW-34]	B265114	770		08/26/20

Prep Method: EPA 200.7 **Analytical Method: EPA 200.7**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20H1131-01 [MW-34]	B264981	50.0	50.0	08/25/20
20H1131-01 [MW-34]	B264981	50.0		08/25/20
20H1131-02 [Outfall #CSO-045]	B264981	50.0	50.0	08/25/20
20H1131-02 [Outfall #CSO-045]	B264981	50.0		08/25/20

Prep Method: EPA 200.8 **Analytical Method: EPA 200.8**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20H1131-01 [MW-34]	B264983	50.0	50.0	08/25/20
20H1131-02 [Outfall #CSO-045]	B264983	50.0	50.0	08/25/20

Prep Method: EPA 245.1 **Analytical Method: EPA 245.1**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20H1131-01 [MW-34]	B264980	6.00	6.00	08/24/20
20H1131-02 [Outfall #CSO-045]	B264980	6.00	6.00	08/24/20

Prep Method: EPA 300.0 **Analytical Method: EPA 300.0**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20H1131-01 [MW-34]	B265256	10.0	10.0	08/27/20

EPA 350.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date

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Sample Extraction Data

EPA 350.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20H1131-01 [MW-34]	B264921	50.0	50.0	08/22/20
20H1131-02 [Outfall #CSO-045]	B264921	50.0	50.0	08/22/20

EPA 420.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20H1131-01 [MW-34]	B265112	50.0	50.0	08/26/20

SM21-22 2540D

Lab Number [Field ID]	Batch	Initial [mL]	Date
20H1131-01 [MW-34]	B264957	600	08/24/20

SM21-22 3500 Cr B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20H1131-01 [MW-34]	B264914	50.0	50.0	08/21/20
20H1131-02 [Outfall #CSO-045]	B264914	50.0	50.0	08/21/20

SM21-22 4500 CL G

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20H1131-01 [MW-34]	B264915	100	100	08/21/20

Prep Method: EPA 200.8 Analytical Method: Tri Chrome Calc.

Lab Number [Field ID]	Batch	Initial [mL]	Date
20H1131-01 [MW-34]	B264983	50.0	08/25/20
20H1131-02 [Outfall #CSO-045]	B264983	50.0	08/25/20

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B264970 - SW-846 5030B										
Blank (B264970-BLK1)				Prepared & Analyzed: 08/24/20						
Acetone	ND	50.0	µg/L							
Benzene	ND	1.00	µg/L							
Ethylbenzene	ND	2.00	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	2.00	µg/L							
Toluene	ND	1.00	µg/L							
Xylenes (total)	ND	3.00	µg/L							
Vinyl Chloride	ND	2.00	µg/L							
m+p Xylene	ND	2.00	µg/L							
o-Xylene	ND	1.00	µg/L							
Surrogate: 1,2-Dichloroethane-d4	*25.4*		µg/L	25.0		102	70-130			
Surrogate: Toluene-d8	*25.1*		µg/L	25.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	*25.6*		µg/L	25.0		103	70-130			
LCS (B264970-BS1)				Prepared & Analyzed: 08/24/20						
Acetone	200	50.0	µg/L	200		102	70-160			†
Benzene	19	1.00	µg/L	20.0		95.1	65-135			
Ethylbenzene	20	2.00	µg/L	20.0		99.2	60-140			
Methyl tert-Butyl Ether (MTBE)	20	2.00	µg/L	20.0		101	70-130			
Toluene	20	1.00	µg/L	20.0		97.8	70-130			
Vinyl Chloride	17	2.00	µg/L	20.0		84.1	5-195			
m+p Xylene	40	2.00	µg/L	40.0		101	70-130			
o-Xylene	21	1.00	µg/L	20.0		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	*24.8*		µg/L	25.0		99.1	70-130			
Surrogate: Toluene-d8	*25.3*		µg/L	25.0		101	70-130			
Surrogate: 4-Bromofluorobenzene	*25.4*		µg/L	25.0		101	70-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B265212 - SW-846 3510C										
Blank (B265212-BLK1)				Prepared & Analyzed: 08/27/20						
Benzo(a)anthracene (SIM)	ND	0.050	µg/L							
Benzo(a)pyrene (SIM)	ND	0.10	µg/L							
Benzo(b)fluoranthene (SIM)	ND	0.050	µg/L							
Benzo(k)fluoranthene (SIM)	ND	0.20	µg/L							
Bis(2-ethylhexyl)phthalate (SIM)	ND	1.0	µg/L							
Chrysene (SIM)	ND	0.20	µg/L							
Dibenz(a,h)anthracene (SIM)	ND	0.10	µg/L							
Indeno(1,2,3-cd)pyrene (SIM)	ND	0.10	µg/L							
Surrogate: Nitrobenzene-d5	*81.9*		µg/L	100		81.9	30-130			
Surrogate: 2-Fluorobiphenyl	*83.1*		µg/L	100		83.1	30-130			
Surrogate: p-Terphenyl-d14	*80.7*		µg/L	100		80.7	30-130			
LCS (B265212-BS1)				Prepared & Analyzed: 08/27/20						
Benzo(a)anthracene (SIM)	48.1	1.0	µg/L	50.0		96.2	33-143			
Benzo(a)pyrene (SIM)	48.3	2.0	µg/L	50.0		96.6	17-163			
Benzo(b)fluoranthene (SIM)	54.3	1.0	µg/L	50.0		109	24-159			
Benzo(k)fluoranthene (SIM)	49.7	4.0	µg/L	50.0		99.4	11-162			
Bis(2-ethylhexyl)phthalate (SIM)	49.0	20	µg/L	50.0		98.0	8-158			
Chrysene (SIM)	46.8	4.0	µg/L	50.0		93.6	17-168			
Dibenz(a,h)anthracene (SIM)	52.3	2.0	µg/L	50.0		105	10-227			
Indeno(1,2,3-cd)pyrene (SIM)	56.0	2.0	µg/L	50.0		112	10-171			
Surrogate: Nitrobenzene-d5	*82.0*		µg/L	100		82.0	30-130			
Surrogate: 2-Fluorobiphenyl	*93.6*		µg/L	100		93.6	30-130			
Surrogate: p-Terphenyl-d14	*74.9*		µg/L	100		74.9	30-130			
LCS Dup (B265212-BSD1)				Prepared & Analyzed: 08/27/20						
Benzo(a)anthracene (SIM)	48.9	1.0	µg/L	50.0		97.8	33-143	1.69	53	
Benzo(a)pyrene (SIM)	49.2	2.0	µg/L	50.0		98.3	17-163	1.76	72	
Benzo(b)fluoranthene (SIM)	55.5	1.0	µg/L	50.0		111	24-159	2.15	71	
Benzo(k)fluoranthene (SIM)	50.8	4.0	µg/L	50.0		102	11-162	2.23	63	
Bis(2-ethylhexyl)phthalate (SIM)	50.2	20	µg/L	50.0		100	8-158	2.38	82	
Chrysene (SIM)	47.7	4.0	µg/L	50.0		95.4	17-168	1.86	87	
Dibenz(a,h)anthracene (SIM)	52.3	2.0	µg/L	50.0		105	10-227	0.153	126	
Indeno(1,2,3-cd)pyrene (SIM)	57.2	2.0	µg/L	50.0		114	10-171	2.12	99	
Surrogate: Nitrobenzene-d5	*85.8*		µg/L	100		85.8	30-130			
Surrogate: 2-Fluorobiphenyl	*90.0*		µg/L	100		90.0	30-130			
Surrogate: p-Terphenyl-d14	*77.8*		µg/L	100		77.8	30-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by - GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B265086 - SW-846 3510C										
Blank (B265086-BLK1)				Prepared: 08/26/20 Analyzed: 08/27/20						
Acenaphthene	ND	5.00	µg/L							
Acenaphthylene	ND	5.00	µg/L							
Anthracene	ND	5.00	µg/L							
Benzidine	ND	20.0	µg/L							L-04, V-04, V-05
Benzo(g,h,i)perylene	ND	5.00	µg/L							
4-Bromophenylphenylether	ND	10.0	µg/L							
4-Chloro-3-methylphenol	ND	10.0	µg/L							
Bis(2-chloroethyl)ether	ND	10.0	µg/L							
Bis(2-chloroisopropyl)ether	ND	10.0	µg/L							
2-Chloronaphthalene	ND	10.0	µg/L							
2-Chlorophenol	ND	10.0	µg/L							
4-Chlorophenylphenylether	ND	10.0	µg/L							
1,3-Dichlorobenzene	ND	5.00	µg/L							
1,4-Dichlorobenzene	ND	5.00	µg/L							
1,2-Dichlorobenzene	ND	5.00	µg/L							
3,3-Dichlorobenzidine	ND	10.0	µg/L							
2,4-Dichlorophenol	ND	10.0	µg/L							
2,4-Dimethylphenol	ND	10.0	µg/L							
4,6-Dinitro-2-methylphenol	ND	10.0	µg/L							
2,4-Dinitrophenol	ND	10.0	µg/L							
2,4-Dinitrotoluene	ND	10.0	µg/L							
2,6-Dinitrotoluene	ND	10.0	µg/L							
1,2-Diphenylhydrazine/Azobenzene	ND	10.0	µg/L							
Fluoranthene	ND	5.00	µg/L							
Fluorene	ND	5.00	µg/L							
Hexachlorobenzene	ND	10.0	µg/L							
Hexachlorobutadiene	ND	10.0	µg/L							
Hexachlorocyclopentadiene	ND	10.0	µg/L							L-04, V-05
Hexachloroethane	ND	10.0	µg/L							
Isophorone	ND	10.0	µg/L							
Naphthalene	ND	5.00	µg/L							
Nitrobenzene	ND	10.0	µg/L							
2-Nitrophenol	ND	10.0	µg/L							
4-Nitrophenol	ND	10.0	µg/L							
N-Nitrosodimethylamine	ND	10.0	µg/L							
N-Nitrosodi-n-propylamine	ND	10.0	µg/L							
2-Methylnaphthalene	ND	5.00	µg/L							
Phenanthrene	ND	5.00	µg/L							
2-Methylphenol	ND	10.0	µg/L							
Phenol	ND	10.0	µg/L							
3/4-Methylphenol	ND	20.0	µg/L							
Pyrene	ND	5.00	µg/L							
1,2,4-Trichlorobenzene	ND	5.00	µg/L							
2,4,6-Trichlorophenol	ND	10.0	µg/L							
Surrogate: 2-Fluorophenol	*118*		µg/L	200		59.1	15-110			
Surrogate: Phenol-d6	*86.3*		µg/L	200		43.2	15-110			
Surrogate: Nitrobenzene-d5	*88.4*		µg/L	100		88.4	30-130			
Surrogate: 2-Fluorobiphenyl	*94.6*		µg/L	100		94.6	30-130			
Surrogate: 2,4,6-Tribromophenol	*204*		µg/L	200		102	15-110			
Surrogate: p-Terphenyl-d14	*102*		µg/L	100		102	30-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by - GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B265086 - SW-846 3510C											
LCS (B265086-BS1)				Prepared: 08/26/20 Analyzed: 08/27/20							
Acenaphthene	38.2	5.00	µg/L	50.0		76.4		47-145			
Acenaphthylene	40.8	5.00	µg/L	50.0		81.5		33-145			
Anthracene	42.8	5.00	µg/L	50.0		85.7		27-133			
Benzidine	14.7	20.0	µg/L	50.0		**29.4**	*	40-140			J, V-04, V-05, L-04
Benzo(g,h,i)perylene	41.4	5.00	µg/L	50.0		82.7		10-219			
4-Bromophenylphenylether	43.5	10.0	µg/L	50.0		87.1		53-127			
4-Chloro-3-methylphenol	39.3	10.0	µg/L	50.0		78.7		22-147			
Bis(2-chloroethyl)ether	36.3	10.0	µg/L	50.0		72.6		12-158			
Bis(2-chloroisopropyl)ether	41.2	10.0	µg/L	50.0		82.3		36-166			
2-Chloronaphthalene	35.3	10.0	µg/L	50.0		70.6		60-120			
2-Chlorophenol	36.7	10.0	µg/L	50.0		73.3		23-134			
4-Chlorophenylphenylether	42.4	10.0	µg/L	50.0		84.7		25-158			
1,3-Dichlorobenzene	34.1	5.00	µg/L	50.0		68.2		10-172			
1,4-Dichlorobenzene	34.7	5.00	µg/L	50.0		69.5		20-124			
1,2-Dichlorobenzene	35.3	5.00	µg/L	50.0		70.6		32-129			
3,3-Dichlorobenzidine	46.5	10.0	µg/L	50.0		93.0		10-262			
2,4-Dichlorophenol	40.7	10.0	µg/L	50.0		81.4		39-135			
2,4-Dimethylphenol	35.8	10.0	µg/L	50.0		71.6		32-120			
4,6-Dinitro-2-methylphenol	35.7	10.0	µg/L	50.0		71.3		10-181			
2,4-Dinitrophenol	34.8	10.0	µg/L	50.0		69.6		10-191			
2,4-Dinitrotoluene	40.4	10.0	µg/L	50.0		80.9		39-139			
2,6-Dinitrotoluene	43.3	10.0	µg/L	50.0		86.7		50-158			
1,2-Diphenylhydrazine/Azobenzene	37.6	10.0	µg/L	50.0		75.2		40-140			
Fluoranthene	44.8	5.00	µg/L	50.0		89.6		26-137			
Fluorene	42.2	5.00	µg/L	50.0		84.3		59-121			
Hexachlorobenzene	42.8	10.0	µg/L	50.0		85.5		10-152			
Hexachlorobutadiene	36.8	10.0	µg/L	50.0		73.6		24-120			
Hexachlorocyclopentadiene	17.8	10.0	µg/L	50.0		**35.7**	*	40-140			V-05, L-04
Hexachloroethane	33.0	10.0	µg/L	50.0		66.0		40-120			
Isophorone	40.0	10.0	µg/L	50.0		79.9		21-196			
Naphthalene	38.8	5.00	µg/L	50.0		77.5		21-133			
Nitrobenzene	37.2	10.0	µg/L	50.0		74.4		35-180			
2-Nitrophenol	41.1	10.0	µg/L	50.0		82.2		29-182			
4-Nitrophenol	26.5	10.0	µg/L	50.0		53.0		10-132			
N-Nitrosodimethylamine	26.0	10.0	µg/L	50.0		52.0		40-140			
N-Nitrosodi-n-propylamine	40.3	10.0	µg/L	50.0		80.6		10-230			
2-Methylnaphthalene	43.4	5.00	µg/L	50.0		86.8		40-140			
Phenanthrene	42.7	5.00	µg/L	50.0		85.4		54-120			
2-Methylphenol	35.4	10.0	µg/L	50.0		70.9		40-140			
Phenol	20.4	10.0	µg/L	50.0		40.8		5-120			
3/4-Methylphenol	34.7	20.0	µg/L	50.0		69.4		40-140			
Pyrene	40.6	5.00	µg/L	50.0		81.1		52-120			
1,2,4-Trichlorobenzene	37.4	5.00	µg/L	50.0		74.8		44-142			
2,4,6-Trichlorophenol	41.5	10.0	µg/L	50.0		82.9		37-144			
Surrogate: 2-Fluorophenol	*116*		µg/L	200		57.9		15-110			
Surrogate: Phenol-d6	*85.4*		µg/L	200		42.7		15-110			
Surrogate: Nitrobenzene-d5	*82.4*		µg/L	100		82.4		30-130			
Surrogate: 2-Fluorobiphenyl	*92.6*		µg/L	100		92.6		30-130			
Surrogate: 2,4,6-Tribromophenol	*192*		µg/L	200		95.8		15-110			
Surrogate: p-Terphenyl-d14	*94.6*		µg/L	100		94.6		30-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by - GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B265086 - SW-846 3510C											
LCS Dup (B265086-BSD1)				Prepared: 08/26/20 Analyzed: 08/27/20							
Acenaphthene	37.1	5.00	µg/L	50.0		74.2		47-145	2.95	48	
Acenaphthylene	39.6	5.00	µg/L	50.0		79.1		33-145	2.94	74	
Anthracene	41.2	5.00	µg/L	50.0		82.4		27-133	3.93	66	
Benzidine	13.3	20.0	µg/L	50.0		**26.5**	*	40-140	10.2	30	J, L-04, V-04, V-05
Benzo(g,h,i)perylene	40.3	5.00	µg/L	50.0		80.6		10-219	2.57	97	
4-Bromophenylphenylether	41.5	10.0	µg/L	50.0		83.0		53-127	4.77	43	
4-Chloro-3-methylphenol	39.5	10.0	µg/L	50.0		79.1		22-147	0.507	73	
Bis(2-chloroethyl)ether	36.6	10.0	µg/L	50.0		73.3		12-158	0.960	108	
Bis(2-chloroisopropyl)ether	42.6	10.0	µg/L	50.0		85.2		36-166	3.39	76	
2-Chloronaphthalene	35.1	10.0	µg/L	50.0		70.1		60-120	0.654	24	
2-Chlorophenol	36.8	10.0	µg/L	50.0		73.6		23-134	0.327	61	
4-Chlorophenylphenylether	40.7	10.0	µg/L	50.0		81.4		25-158	4.05	61	
1,3-Dichlorobenzene	33.1	5.00	µg/L	50.0		66.2		10-172	2.95	30	
1,4-Dichlorobenzene	33.5	5.00	µg/L	50.0		67.0		20-124	3.60	30	
1,2-Dichlorobenzene	34.4	5.00	µg/L	50.0		68.7		32-129	2.67	30	
3,3-Dichlorobenzidine	45.1	10.0	µg/L	50.0		90.2		10-262	3.04	108	
2,4-Dichlorophenol	39.8	10.0	µg/L	50.0		79.7		39-135	2.09	50	
2,4-Dimethylphenol	38.5	10.0	µg/L	50.0		77.1		32-120	7.37	58	
4,6-Dinitro-2-methylphenol	35.8	10.0	µg/L	50.0		71.6		10-181	0.420	203	
2,4-Dinitrophenol	34.4	10.0	µg/L	50.0		68.9		10-191	1.10	132	
2,4-Dinitrotoluene	39.8	10.0	µg/L	50.0		79.5		39-139	1.67	42	
2,6-Dinitrotoluene	41.4	10.0	µg/L	50.0		82.8		50-158	4.56	48	
1,2-Diphenylhydrazine/Azobenzene	37.1	10.0	µg/L	50.0		74.2		40-140	1.34	30	
Fluoranthene	43.1	5.00	µg/L	50.0		86.2		26-137	3.94	66	
Fluorene	40.9	5.00	µg/L	50.0		81.7		59-121	3.13	38	
Hexachlorobenzene	41.0	10.0	µg/L	50.0		81.9		10-152	4.32	55	
Hexachlorobutadiene	35.1	10.0	µg/L	50.0		70.3		24-120	4.61	62	
Hexachlorocyclopentadiene	16.8	10.0	µg/L	50.0		**33.7**	*	40-140	5.71	30	L-04, V-05
Hexachloroethane	32.2	10.0	µg/L	50.0		64.5		40-120	2.39	52	
Isophorone	40.2	10.0	µg/L	50.0		80.5		21-196	0.698	93	
Naphthalene	38.1	5.00	µg/L	50.0		76.3		21-133	1.61	65	
Nitrobenzene	37.1	10.0	µg/L	50.0		74.2		35-180	0.296	62	
2-Nitrophenol	40.6	10.0	µg/L	50.0		81.2		29-182	1.15	55	
4-Nitrophenol	26.9	10.0	µg/L	50.0		53.7		10-132	1.31	131	
N-Nitrosodimethylamine	26.5	10.0	µg/L	50.0		53.1		40-140	2.09	30	
N-Nitrosodi-n-propylamine	41.4	10.0	µg/L	50.0		82.8		10-230	2.67	87	
2-Methylnaphthalene	43.3	5.00	µg/L	50.0		86.6		40-140	0.231	30	
Phenanthrene	41.2	5.00	µg/L	50.0		82.3		54-120	3.67	39	
2-Methylphenol	36.1	10.0	µg/L	50.0		72.2		40-140	1.87	30	
Phenol	21.4	10.0	µg/L	50.0		42.8		5-120	4.64	64	
3/4-Methylphenol	35.7	20.0	µg/L	50.0		71.3		40-140	2.79	30	
Pyrene	39.3	5.00	µg/L	50.0		78.6		52-120	3.13	49	
1,2,4-Trichlorobenzene	36.0	5.00	µg/L	50.0		72.0		44-142	3.79	50	
2,4,6-Trichlorophenol	40.2	10.0	µg/L	50.0		80.3		37-144	3.21	58	
Surrogate: 2-Fluorophenol	*115*		µg/L	200		57.6		15-110			
Surrogate: Phenol-d6	*88.3*		µg/L	200		44.1		15-110			
Surrogate: Nitrobenzene-d5	*81.8*		µg/L	100		81.8		30-130			
Surrogate: 2-Fluorobiphenyl	*88.1*		µg/L	100		88.1		30-130			
Surrogate: 2,4,6-Tribromophenol	*184*		µg/L	200		92.0		15-110			
Surrogate: p-Terphenyl-d14	*91.3*		µg/L	100		91.3		30-130			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B264980 - EPA 245.1										
Blank (B264980-BLK1)				Prepared: 08/24/20 Analyzed: 08/25/20						
Mercury	ND	0.00010	mg/L							
LCS (B264980-BS1)				Prepared: 08/24/20 Analyzed: 08/25/20						
Mercury	0.00397	0.00010	mg/L	0.00400		99.3	85-115			
LCS Dup (B264980-BSD1)				Prepared: 08/24/20 Analyzed: 08/25/20						
Mercury	0.00396	0.00010	mg/L	0.00400		98.9	85-115	0.412	20	
Batch B264981 - EPA 200.7										
Blank (B264981-BLK1)				Prepared: 08/25/20 Analyzed: 08/26/20						
Iron	ND	0.050	mg/L							
Hardness	ND	1.4	mg/L							
LCS (B264981-BS1)				Prepared: 08/25/20 Analyzed: 08/26/20						
Iron	4.05	0.050	mg/L	4.00		101	85-115			
Hardness	26	1.4	mg/L	26.4		99.8	85-115			
LCS Dup (B264981-BSD1)				Prepared: 08/25/20 Analyzed: 08/26/20						
Iron	4.08	0.050	mg/L	4.00		102	85-115	0.763	20	
Hardness	26	1.4	mg/L	26.4		100	85-115	0.209	20	
Batch B264983 - EPA 200.8										
Blank (B264983-BLK1)				Prepared: 08/25/20 Analyzed: 08/26/20						
Antimony	ND	1.0	µg/L							
Arsenic	ND	0.80	µg/L							
Cadmium	ND	0.20	µg/L							
Chromium	ND	1.0	µg/L							
Copper	ND	1.0	µg/L							
Lead	ND	0.50	µg/L							
Nickel	ND	5.0	µg/L							
Selenium	ND	5.0	µg/L							
Silver	ND	0.20	µg/L							
Zinc	ND	10	µg/L							
LCS (B264983-BS1)				Prepared: 08/25/20 Analyzed: 08/26/20						
Antimony	515	10	µg/L	500		103	85-115			
Arsenic	540	8.0	µg/L	500		108	85-115			
Cadmium	541	2.0	µg/L	500		108	85-115			
Chromium	499	10	µg/L	500		99.8	85-115			
Copper	1010	10	µg/L	1000		101	85-115			
Lead	515	5.0	µg/L	500		103	85-115			
Nickel	506	50	µg/L	500		101	85-115			
Selenium	533	50	µg/L	500		107	85-115			
Silver	492	2.0	µg/L	500		98.3	85-115			
Zinc	1100	100	µg/L	1000		110	85-115			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B264983 - EPA 200.8											
LCS Dup (B264983-BSD1)				Prepared: 08/25/20 Analyzed: 08/26/20							
Antimony	519	10	µg/L	500		104		85-115	0.667	20	
Arsenic	536	8.0	µg/L	500		107		85-115	0.826	20	
Cadmium	542	2.0	µg/L	500		108		85-115	0.187	20	
Chromium	492	10	µg/L	500		98.4		85-115	1.40	20	
Copper	1010	10	µg/L	1000		101		85-115	0.101	20	
Lead	509	5.0	µg/L	500		102		85-115	1.14	20	
Nickel	505	50	µg/L	500		101		85-115	0.304	20	
Selenium	592	50	µg/L	500		**118**	*	85-115	10.5	20	
Silver	487	2.0	µg/L	500		97.5		85-115	0.859	20	
Zinc	1100	100	µg/L	1000		110		85-115	0.184	20	

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QUALITY CONTROL

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B264914 - SM21-22 3500 Cr B										
Blank (B264914-BLK1)				Prepared & Analyzed: 08/21/20						
Hexavalent Chromium	ND	0.0040	mg/L							
LCS (B264914-BS1)				Prepared & Analyzed: 08/21/20						
Hexavalent Chromium	0.10	0.0040	mg/L	0.100		103	90-115			
LCS Dup (B264914-BSD1)				Prepared & Analyzed: 08/21/20						
Hexavalent Chromium	0.10	0.0040	mg/L	0.100		100	90-115	2.53	11	
Matrix Spike (B264914-MS1)	**Source: 20H1131-02**			Prepared & Analyzed: 08/21/20						
Hexavalent Chromium	0.040	0.0040	mg/L	0.100	ND	39.8	34.7-148			H-03, MS-07
Matrix Spike Dup (B264914-MSD1)	**Source: 20H1131-02**			Prepared & Analyzed: 08/21/20						
Hexavalent Chromium	0.042	0.0040	mg/L	0.100	ND	42.4	34.7-148	6.25	13.2	H-03, MS-07
Batch B264915 - SM21-22 4500 CL G										
Blank (B264915-BLK1)				Prepared & Analyzed: 08/21/20						
Chlorine, Residual	ND	0.020	mg/L							
LCS (B264915-BS1)				Prepared & Analyzed: 08/21/20						
Chlorine, Residual	0.70	0.020	mg/L	0.614		114	85.3-130			
LCS Dup (B264915-BSD1)				Prepared & Analyzed: 08/21/20						
Chlorine, Residual	0.68	0.020	mg/L	0.614		110	85.3-130	3.32	13.6	
Duplicate (B264915-DUP1)	**Source: 20H1131-01**			Prepared & Analyzed: 08/21/20						
Chlorine, Residual	ND	0.020	mg/L		ND			NC	29.4	
Matrix Spike (B264915-MS1)	**Source: 20H1131-01**			Prepared & Analyzed: 08/21/20						
Chlorine, Residual	ND	0.020	mg/L	0.300	ND	*	10-169			MS-07
Batch B264921 - EPA 350.1										
Blank (B264921-BLK1)				Prepared: 08/22/20 Analyzed: 08/24/20						
Ammonia as N	ND	0.10	mg/L							
LCS (B264921-BS1)				Prepared: 08/22/20 Analyzed: 08/24/20						
Ammonia as N	2.1	0.10	mg/L	2.00		104	90-110			
LCS Dup (B264921-BSD1)				Prepared: 08/22/20 Analyzed: 08/24/20						
Ammonia as N	2.0	0.10	mg/L	2.00		100	90-110	3.44	20	

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QUALITY CONTROL

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B264957 - SM21-22 2540D										
Blank (B264957-BLK1)				Prepared & Analyzed: 08/24/20						
Total Suspended Solids	ND	2.5	mg/L							
LCS (B264957-BS1)				Prepared & Analyzed: 08/24/20						
Total Suspended Solids	186	10	mg/L	200		93.0	57.4-123			
Batch B265112 - EPA 420.1										
Blank (B265112-BLK1)				Prepared: 08/26/20 Analyzed: 08/27/20						
Phenol	ND	0.050	mg/L							
LCS (B265112-BS1)				Prepared: 08/26/20 Analyzed: 08/27/20						
Phenol	0.42	0.050	mg/L	0.500		84.5	75.6-130			
LCS Dup (B265112-BSD1)				Prepared: 08/26/20 Analyzed: 08/27/20						
Phenol	0.41	0.050	mg/L	0.500		81.4	75.6-130	3.72	10.3	
Duplicate (B265112-DUP1)	**Source: 20H1131-01**			Prepared: 08/26/20 Analyzed: 08/27/20						
Phenol	ND	0.050	mg/L		ND			NC	37.2	
Matrix Spike (B265112-MS1)	**Source: 20H1131-01**			Prepared: 08/26/20 Analyzed: 08/27/20						
Phenol	0.47	0.050	mg/L	0.500	ND	93.8	34.1-149			
Batch B265114 - EPA 1664B										
Blank (B265114-BLK1)				Prepared & Analyzed: 08/26/20						
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L							
LCS (B265114-BS1)				Prepared & Analyzed: 08/26/20						
Silica Gel Treated HEM (SGT-HEM)	9.7		mg/L	10.0		97.0	64-132			
Duplicate (B265114-DUP1)	**Source: 20H1131-01**			Prepared & Analyzed: 08/26/20						
Silica Gel Treated HEM (SGT-HEM)	ND	1.8	mg/L		ND			NC	18	
Matrix Spike (B265114-MS1)	**Source: 20H1131-01**			Prepared & Analyzed: 08/26/20						
Silica Gel Treated HEM (SGT-HEM)	91	14	mg/L	100	ND	91.0	64-132			
Batch B265256 - EPA 300.0										
Blank (B265256-BLK1)				Prepared & Analyzed: 08/27/20						
Chloride	ND	1.0	mg/L							

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QUALITY CONTROL

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B265256 - EPA 300.0										
LCS (B265256-BS1)				Prepared & Analyzed: 08/27/20						
Chloride	10		mg/L	10.0		101	90-110			
LCS Dup (B265256-BSD1)				Prepared & Analyzed: 08/27/20						
Chloride	10		mg/L	10.0		101	90-110	0.0652	20	

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
DL-01	Elevated reporting limits for all volatile compounds due to foaming sample matrix.
H-03	Sample received after recommended holding time was exceeded.
H-09	Sample received by laboratory with insufficient time remaining to perform analysis within the recommended holding time.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
MS-07	Matrix spike recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery.Possibility of sample matrix effects that lead to low bias for reported result or non-homogeneous sample aliquot cannot be eliminated.
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-34	Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
624.1 in Water	
Acetone	CT,NY,MA,NH
tert-Amyl Methyl Ether (TAME)	MA
Benzene	CT,NY,MA,NH,RI,NC,ME,VA
tert-Butyl Alcohol (TBA)	NY,MA
1,2-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,3-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,4-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
Ethanol	NY,MA,NH
Ethylbenzene	CT,NY,MA,NH,RI,NC,ME,VA
Methyl tert-Butyl Ether (MTBE)	NY,MA,NH,NC
Naphthalene	NY,MA,NC
Toluene	CT,NY,MA,NH,RI,NC,ME,VA
1,2,4-Trichlorobenzene	MA,NC
Xylenes (total)	NY,MA,NH,VA
m+p Xylene	CT,NY,MA,NH,RI,NC
o-Xylene	CT,NY,MA,NH,RI,NC
625.1 in Water	
Acenaphthene	CT,MA,NH,NY,NC,RI,ME,VA
Acenaphthylene	CT,MA,NH,NY,NC,RI,ME,VA
Anthracene	CT,MA,NH,NY,NC,RI,ME,VA
Benzidine	CT,MA,NH,NY,NC,RI,ME,VA
Benzo(g,h,i)perylene	CT,MA,NH,NY,NC,RI,ME,VA
4-Bromophenylphenylether	CT,MA,NH,NY,NC,RI,ME,VA
4-Chloro-3-methylphenol	CT,MA,NH,NY,NC,RI,VA
Bis(2-chloroethyl)ether	CT,MA,NH,NY,NC,RI,ME,VA
Bis(2-chloroisopropyl)ether	CT,MA,NH,NY,NC,RI,ME,VA
2-Chloronaphthalene	CT,MA,NH,NY,NC,RI,ME,VA
2-Chlorophenol	CT,MA,NH,NY,NC,RI,ME,VA
4-Chlorophenylphenylether	CT,MA,NH,NY,NC,RI,ME,VA
1,3-Dichlorobenzene	MA,NC
1,4-Dichlorobenzene	MA,NC
1,2-Dichlorobenzene	MA,NC
3,3-Dichlorobenzidine	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dichlorophenol	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dimethylphenol	CT,MA,NH,NY,NC,RI,ME,VA
4,6-Dinitro-2-methylphenol	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dinitrophenol	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dinitrotoluene	CT,MA,NH,NY,NC,RI,ME,VA
2,6-Dinitrotoluene	CT,MA,NH,NY,NC,RI,ME,VA
1,2-Diphenylhydrazine/Azobenzene	NC
Fluoranthene	CT,MA,NH,NY,NC,RI,ME,VA
Fluorene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachlorobenzene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachlorobutadiene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachlorocyclopentadiene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachloroethane	CT,MA,NH,NY,NC,RI,ME,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
625.1 in Water	
Isophorone	CT,MA,NH,NY,NC,RI,ME,VA
Naphthalene	CT,MA,NH,NY,NC,RI,ME,VA
Nitrobenzene	CT,MA,NH,NY,NC,RI,ME,VA
2-Nitrophenol	CT,MA,NH,NY,NC,RI,ME,VA
4-Nitrophenol	CT,MA,NH,NY,NC,RI,ME,VA
N-Nitrosodimethylamine	CT,MA,NH,NY,NC,RI,ME,VA
N-Nitrosodi-n-propylamine	CT,MA,NH,NY,NC,RI,ME,VA
2-Methylnaphthalene	NC
Phenanthrene	CT,MA,NH,NY,NC,RI,ME,VA
2-Methylphenol	NY,NC
Phenol	CT,MA,NH,NY,NC,RI,ME,VA
3/4-Methylphenol	NY,NC
Pyrene	CT,MA,NH,NY,NC,RI,ME,VA
1,2,4-Trichlorobenzene	CT,MA,NH,NY,NC,RI,ME,VA
2,4,6-Trichlorophenol	CT,MA,NH,NY,NC,RI,ME,VA
2-Fluorophenol	NC
2-Fluorophenol	NC,VA
Phenol-d6	VA
Nitrobenzene-d5	VA
EPA 200.7 in Water	
Chromium	CT,MA,NH,NY,RI,NC,ME,VA
Iron	CT,MA,NH,NY,RI,NC,ME,VA
Hardness	CT,MA,NH,NY,RI,VA
EPA 200.8 in Water	
Antimony	CT,MA,NH,NY,RI,NC,ME,VA
Arsenic	CT,MA,NH,NY,RI,NC,ME,VA
Cadmium	CT,MA,NH,NY,RI,NC,ME,VA
Chromium	CT,MA,NH,NY,RI,NC,ME,VA
Copper	CT,MA,NH,NY,RI,NC,ME,VA
Lead	CT,MA,NH,NY,RI,NC,ME,VA
Nickel	CT,MA,NH,NY,RI,NC,ME,VA
Selenium	CT,MA,NH,NY,RI,NC,ME,VA
Silver	CT,MA,NH,NY,RI,NC,ME,VA
Zinc	CT,MA,NH,NY,RI,NC,ME,VA
EPA 245.1 in Water	
Mercury	CT,MA,NH,RI,NY,NC,ME,VA
EPA 300.0 in Water	
Chloride	NC,NY,MA,VA,ME,NH,CT,RI
EPA 350.1 in Water	
Ammonia as N	NC,NY,MA,NH,RI,ME,VA
EPA 420.1 in Water	
Phenol	CT,MA,NH,NY,RI,NC,ME,VA
SM21-22 2540D in Water	
Total Suspended Solids	CT,MA,NH,NY,RI,NC,ME,VA

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

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SM21-22 3500 Cr B in Water	
Hexavalent Chromium	NY,CT,NH,RI,ME,VA,NC
SM21-22 4500 CL G in Water	
Chlorine, Residual	CT,MA,RI,ME

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2020
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	10/1/2020

2041131

con-test ANALYTICAL LABORATORY

http://www.contestlabs.com

Doc # 381 Rev 2_06262019

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Page 1 of 1

Plus attach. sht

Company Name:	ATC Worcester
Address:	240 Barber AVE
Phone:	774-272-2212
Project Name:	FSUFSO
Project Location:	Fitchburg
Project Number:	03000000 46
Project Manager:	Klingler
Con-Test Quote Name/Number:	
Invoice Recipient:	Klingler ATC
Sampled By:	Klingler

Requested Turnaround Time			
5-Day	X	10-Day	
PFAS 10-Day (std)		Due Date:	

Rush-Approval Required			
1-Day		3-Day	
2-Day		4-Day	

Dissolved Metals Samples	
	Field Filtered
	Lab to Filter

Orthophosphate Samples	
	Field Filtered
	Lab to Filter

Data Delivery			
Format:	PDF	X	EXCEL X
Other:			
CLP Like Data Pkg Required:			
Email To:	Charles.klingler@atkgs.com		
Fax To #:			

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Ammonia	Chloride	TKN as Chloride	TSS	Metals *	624.1 VOCs *	8260 (CEK)	MtBE in 624.1	Hardness	Other Hydrocarbons 624
01	MW-34	8/20/20	1750	G	GW	L	6	7	9	—	—	X	X	X	X	X	X	X	X		X
02	Outfall #CSO-045	8/20/20	14:30	G	O		—	—	4	—	—	X				X				X	
								5 (CEK)	6 7 (CEK)												
												For outfall # CSO-045 Metals — only require those detected in MW-34 (CEK)									

Relinquished by: (signature) — Date/Time: 8/21/20

Received by: (signature) — Date/Time: 8/21/20 1040

Relinquished by: (signature) — Date/Time: 8/21/20 1645

Received by: (signature) 2.1C — Date/Time: 8/21/20 1645

Relinquished by: (signature) — Date/Time:

Received by: (signature) — Date/Time:

Relinquished by: (signature) — Date/Time:

Received by: (signature) — Date/Time:

Client Comments: Samples for EPA NPDES NOI RGP. See attached Appendix VII Parameters — Parameters to exclude — Cyanide, 1,4 Dioxane, phthalates, ~~Pesticides~~, halogenated VOC & Semi VOC (CEK)

Detection Limit Requirements		Special Requirements	
MA		MA MCP Required	
		MCP Certification Form Required	
		CT RCP Required	
CT		RCP Certification Form Required	
		MA State DW Required	
Other:		PWSID #	

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity

Government		Municipality		MWRA		WRTA	
Federal		21 J		School			
City		Brownfield	X	MBTA			

Other
- Chromatogram
- AIHA-LAP,LLC

PCB ONLY
- Soxhlet
- Non Soxhlet

Comments:

Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con-Test values your partnership on each project and will try to assist with missing information, but will not be held accountable.

Counter Use Only

Total Number Of:

VIALS 6
GLASS 7
PLASTIC 9
BACTERIA —
ENCORE —

Glassware in the fridge? Y / N

Glassware in freezer? Y / N

Prepackaged Cooler? Y / N

*Contest is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define) Storm Water

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[2] Preservation Code (5 pgs)

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

Do not Require

Parameter	CAS Number(s)	Organic Test Methods				
		GC[5]	GC/MS[6]	HPLC[7]	State Methods[8]	Other[9]
b. Non-Halogenated Volatile Organic Compounds						
Total BTEX	71-43-2 + 108-88-3 + 100-41-4 + 106-42-3 + 95-47-6 + 1330-20-7	602 (0.5 µg/L)	624 (1-2 µg/L) 1624 (2-4 µg/L)		MA VPH (5 µg/L)	8260 (2 µg/L) 524.2 (0.5 µg/L)
Benzene	71-43-2	602 (0.5 µg/L)	624, 1624 (2 µg/L)		MA VPH (5 µg/L)	8260 (2 µg/L) 524.2 (0.5 µg/L)
1,4 Dioxane NO EEL	123-91-1		1624 (50 µg/L)			8260 (5 µg/L) 522 (0.1 µg/L)
Acetone	67-64-1		1624 (50 µg/L)			8260 (50 µg/L) 524.2 (10 µg/L)
Phenol	108-95-2		625 (2.5 µg/L)			8270 (5 µg/L) 420.1, 420.2 (2 µg/L 420.4 (50 µg/L)
NO **c. ~~Halogenated Volatile Organic Compounds~~** ND EEL						
Carbon Tetrachloride	56-23-5	601 (0.5 µg/L)	624 (1 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)
1,2 Dichlorobenzene	95-50-1	601, 602 (0.5 µg/L)	624 (2.5 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)
1,3 Dichlorobenzene	541-73-1	601, 602 (0.5 µg/L)	624 (2.5 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)
1,4 Dichlorobenzene	106-46-7	601, 602 (0.5 µg/L)	624 (2.5 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)
Total dichlorobenzene	95-50-1 + 541-73-1 + 106-46-7	601, 602 (0.5 µg/L)	624 (2.5 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)
1,1 Dichloroethane	75-34-3	601 (0.5 µg/L)	624 (1 µg/L)			8260 (5 µg/L) 524.2 (0.5 µg/L)

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

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

Parameter	CAS Number(s)	Organic Test Methods				
		GC[5]	GC/MS[6]	HPLC[7]	State Methods[8]	Other[9]
Total Group II Polycyclic Aromatic Hydrocarbons	83-32-9 + 208-96-8 + 120-12-7 + 191-24-2 + 206-44-0 + 86-73-7 + 91-20-3 + 85-01-8 + 129-00-0	610 (5 µg/L)	625 (0.5-2.5 µg/L)	610 (0.5-2 µg/L)	MA EPH (5 µg/L)	8270 (5 µg/L) SIM[10] (0.1 µg/L) 525.2 (0.5 µg/L)
Naphthalene	91-20-3	610 (5 µg/L)	625 (0.5 µg/L)	610 (2 µg/L)	MA VPH (5 µg/L) MA EPH (5 µg/L)	8270 (5 µg/L) SIM[10] (0.1 µg/L) 524.2 (0.5 µg/L) 8260 (2 µg/L)
NO ~~**c. Halogenated Semi-Volatile Organic Compounds**~~ NO CEV						
Total Polychlorinated Biphenyls	1336-36-3A	608 (0.5 µg/L)				8082 (0.5 µg/L) 1668B (0.00005 µg/L)
Pentachlorophenol	87-86-5	604 (10 µg/L)	625 (5 µg/L)			8270 525 (5 µg/L)
f. Fuels Parameters						
Total Petroleum Hydrocarbons					1664A (5 mg/L)	
Ethanol	64-17-5					1666/1671/D3695
Methyl-tert-Butyl Ether	1634-04-4		524.2 (10 µg/L)		MA VPH (5 µg/L)	8260 (10 µg/L)
tert-Butyl Alcohol	75-65-0		524.2 (10 µg/L)			624, 8260 (10 µg/L)
tert-Amyl Methyl Ether	994-05-08		524.2 (10 µg/L)			624, 8260 (10 µg/L)

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

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Doc# 277 Rev 5 2017

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

Client ATC

Received By RLF Date 8/21/20 Time 1645

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____

Direct from Sampling _____ Ambient _____ Melted Ice _____

By Gun # 4 Actual Temp - 2.1°C

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

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

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

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

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

Did COC include all pertinent Information? Client T Analysis T Sampler Name T

Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? T Who was notified? David

Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

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

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.	4	1 Liter Plastic	1	16 oz Amb.	
HCL-	3	500 mL Amb.	1	500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	10	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-	3	SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

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

Comments:

con-test® ANALYTICAL LABORATORY
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August 31, 2020

Charles Klingler
ATC Group Services, LLC - Worcester
240 Barber Avenue
Worcester, MA 01606

Project Location: Fitchburg, MA
Client Job Number:
Project Number: 0300000046
Laboratory Work Order Number: 20H1318

Enclosed are results of analyses for samples received by the laboratory on August 26, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Michelle M. Koch
Project Manager

Table of Contents

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ATC Group Services, LLC - Worcester
240 Barber Avenue
Worcester, MA 01606
ATTN: Charles Klingler

REPORT DATE: 8/31/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: 0300000046

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20H1318

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

PROJECT LOCATION: Fitchburg, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MW-34	20H1318-01	Storm Water		SM21-22 3500 Cr B	
Outfall #CSO-045	20H1318-02	Storm Water		SM21-22 3500 Cr B	

con-test® ANALYTICAL LABORATORY
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CASE NARRATIVE SUMMARY

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

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Fitchburg, MA | Sample Description: | Work Order: 20H1318

Date Received: 8/26/2020

Field Sample #: MW-34 | Sampled: 8/26/2020 09:15

Sample ID: 20H1318-01

Sample Matrix: Storm Water

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexavalent Chromium	ND	0.0040	mg/L	1		SM21-22 3500 Cr B	8/26/20	8/26/20 20:15	CB2

con-test® ANALYTICAL LABORATORY
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Project Location: Fitchburg, MA | Sample Description: | Work Order: 20H1318

Date Received: 8/26/2020

Field Sample #: Outfall #CSO-045 | Sampled: 8/26/2020 09:45

Sample ID: 20H1318-02

Sample Matrix: Storm Water

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

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexavalent Chromium	ND	0.0040	mg/L	1		SM21-22 3500 Cr B	8/26/20	8/26/20 20:15	CB2

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Sample Extraction Data

SM21-22 3500 Cr B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20H1318-01 [MW-34]	B265190	50.0	50.0	08/26/20
20H1318-02 [Outfall #CSO-045]	B265190	50.0	50.0	08/26/20

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QUALITY CONTROL

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B265190 - SM21-22 3500 Cr B										
Blank (B265190-BLK1)				Prepared & Analyzed: 08/26/20						
Hexavalent Chromium	ND	0.0040	mg/L							
LCS (B265190-BS1)				Prepared & Analyzed: 08/26/20						
Hexavalent Chromium	0.10	0.0040	mg/L	0.100		102	90-115			
LCS Dup (B265190-BSD1)				Prepared & Analyzed: 08/26/20						
Hexavalent Chromium	0.10	0.0040	mg/L	0.100		103	90-115	1.23	11	

con-test® ANALYTICAL LABORATORY

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

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

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SM21-22 3500 Cr B in Water	
Hexavalent Chromium	NY,CT,NH,RI,ME,VA,NC

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2020
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021
MI	Dept. of Env, Great Lakes, and Energy	9100	10/1/2020

20H1318

con-test ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

http://www.contestlabs.com

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

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Page 1 of 1

Company Name:	ATC Worcester
Address:	240 Boston Ave
Phone:	774-272-2212
Project Name:	BSU FSO
Project Location:	Fitchburg MA
Project Number:	0300000046
Project Manager:	CBK
Con-Test Quote Name/Number:	—
Invoice Recipient:	CBK, Monica B
Sampled By:	CBK

Requested Turnaround Time

5-Day	X	10-Day	
PFAS 10-Day (std)		Due Date:	

Rush Approval Required

1-Day		3-Day	
2-Day		4-Day	

Dissolved Metals Samples

- Field Filtered
- Lab to Filter

Orthophosphate Samples

- Field Filtered
- Lab to Filter

Data Delivery

Format: PDF X EXCEL
Other:
CLP Like Data Pkg Required:
Email To:
Fax To #:

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	Hex Cr
1	MW-34	8/26/20	0915	G	GW	L			1			X
2	Outfall #CSO-045	8/26/20	0945	G	O	L			1			X

[2] Preservation Code: I

Courier Use Only

Total Number Of:

VIALS
GLASS 2
PLASTIC
BACTERIA
ENCORE

Glassware in the fridge? Y / N

Glassware in freezer? Y / N

Prepackaged Cooler? Y / N

*Contest is not responsible for missing samples from prepacked coolers

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define) Storm Water

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

Relinquished by: (signature)		Date/Time: 8/26/20
Received by: (signature)		Date/Time: 8/26/20 1110
Relinquished by: (signature)		Date/Time: 8/26/20 1750
Received by: (signature)		Date/Time: 8/26/20 1750
Relinquished by: (signature)		Date/Time:
Received by: (signature)		Date/Time:
Relinquished by: (signature)		Date/Time:
Received by: (signature)		Date/Time:

Client Comments: EPA NPDES NOI approved 40 CFR § 136

Detection Limit Requirements

MA
CT
Other

Special Requirements

- MA MCP Required
- MCP Certification Form Required
- CT RCP Required
- RCP Certification Form Required
- MA State DW Required

PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP, LLC Accredited

Project Entity

Government		Municipality		MWRA		WRTA	
Federal		21 J		School			
City		Brownfield	X	MBTA			

Other
- Chromatogram
- *AIHA-LAP,LLC*

PCB ONLY
- Soxhlet
- Non Soxhlet

Comments:

Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con Test values your partnership on each project and will try to assist with missing information, but will not b held accountable.

Table of Contents

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

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

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

Client ATC

Received By CC Date 5/26/20 Time 1750

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

Were samples within Temperature? 2-6°C T By Gun # 4 Actual Temp - 4.4 By Blank # _____ Actual Temp - _____

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

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

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

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

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

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? _____

Are there Rushes? F Who was notified? _____

Are there Short Holds? T Eat 5/26/20 Who was notified? Mandi

Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? NA Acid _____ Base _____

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

Unused Media

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

Comments: