TEXTRON

July 6, 2017

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

Subject: **NPDES General Permit for Remediation Activity Discharges in Massachusetts**
Textron, Inc. – Former Gorham Silver Company
NPDES Permit No. MAG910022

To Whom it May Concern:

Enclosed for your review and approval is a Notice of Intent ("NOI") form and supporting materials requesting continued permit coverage under the NPDES General Permit for Remediation Activity Discharges in Massachusetts ("RGP") for the Textron Inc. - Former Gorham Silver Company facility site in Mansfield, Massachusetts. Remediation system discharges from the site are currently covered under the previous RGP under permit No. MAG910022.

Attached to this correspondence, please find the aforementioned NOI, mapping depicting the Project's existing facilities and treatment system, influent and receiving water sampling results, as well as Endangered Species Act and National Historic Preservation Act documentation. Please feel free to contact me at 401-457-2635 or gsimpson@textron.com should you have any questions regarding this submittal.

Thank you for your continued attention to this Project.

Sincerely,

Greg Simpson
Site Remediation Engineer
Textron, Inc.
gsimpson@textron.com

cc.
Shauna Little, USEPA, little.shauna@epa.gov
Shelley Puleo, USEPA, puleo.shelley@epa.gov
Rick Alves, Town of Mansfield, ralves@mansfieldma.com
Melissa Cannon, AECOM, Melissa.Cannon@aecom.com

Enclosures

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

A. General site information:

<table>
<tr><td rowspan="4">1. Name of site:
Textron, Inc. - Former Gorham Silver Company</td><td colspan="3">Site address: 340 South Main Street</td></tr>
<tr><td colspan="3">Street:</td></tr>
<tr><td>City: Mansfield</td><td>State: MA</td><td>Zip: 02048</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td rowspan="5">2. Site owner
Church of Christ

Owner is (check one): ☐ Federal ☐ State/Tribal ■ Private
☐ Other; if so, specify:</td><td colspan="3">Contact Person:</td></tr>
<tr><td>Telephone: 508-261-2871</td><td colspan="2">Email: info@edgewoodchurchofchrist.co</td></tr>
<tr><td colspan="3">Mailing address: PO Box 869
Street:</td></tr>
<tr><td>City: Mansfield</td><td>State: MA</td><td>Zip: 02048</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td rowspan="5">3. Site operator, if different than owner
Textron, Inc.</td><td colspan="3">Contact Person: Greg Simpson</td></tr>
<tr><td>Telephone: 401-457-2635</td><td colspan="2">Email: gsimpson@textron.com</td></tr>
<tr><td colspan="3">Mailing address:
Street: 40 Westminster St</td></tr>
<tr><td>City: Providence</td><td>State: RI</td><td>Zip: 02903</td></tr>
<tr><td colspan="3"></td></tr>
<tr><td>4. NPDES permit number assigned by EPA:
MAG910022

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):

☐ 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):
Rumford River	MA62-39	Class B

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

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

Are sensitive receptors present near the site? (check one): ■ Yes ☐ No

If yes, specify: Discharge to catch basin, thru local storm drain system, to unnamed wetland west of the site which eventually flows douth to the Rumford River. See

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. Fish Consumption (Dioxin, PCP); Fish, Other Aquatic Life and Wildlife (Fishes Bioassessments; Aquatic Macro-invertebrate Bioassessments; Physical

4. Indicate the seven day-ten-year low flow (7Q10) of the receiving water determined in accordance with the instructions in Appendix V for sites located in Massachusetts and Appendix VI for sites located in New Hampshire.	0.304 mgd
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.	6.07

6. Has the operator received confirmation from the appropriate State for the 7Q10and dilution factor indicated? (check one): ■ Yes ☐ No

If yes, indicate date confirmation received: 1/25/2018 email from Cathy Vakalopoulos, MassDEP

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: See Section D.4	
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 location(s): (Latitude, Longitude) 71-12'-45" W 42-00'-49" N
Discharges enter the receiving water(s) via (check any that apply): ☐ Direct discharge to the receiving water ■ Indirect discharge, if so, specify: Discharge to catch basin, thru local storm drain system, to unnamed wetland west of the site which eventually flows south to the Rumford River. ☐ A private storm sewer system ■ A municipal storm sewer system If the discharge enters the receiving water via a private or municipal storm sewer system: Has notification been provided to the owner of this system? (check one): ■ Yes ☐ No Has the operator has received permission from the owner to use such system for discharges? (check one): ■ Yes ☐ No, if so, explain, with an estimated timeframe for obtaining permission: Has the operator attached a summary of any additional requirements the owner of this system has specified? (check one): ☐ Yes ■ No	
Provide the expected start and end dates of discharge(s) (month/year): Ongoing 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	E250.1	50	150		Report mg/L	---
Chloride		✔	1	EPA 300.0	6,000	155,000		Report µg/l	---
Total Residual Chlorine		✔	1	SM4500-C	40	144		0.2 mg/L	
Total Suspended Solids		✔	1	SM2540D	500	2,300		30 mg/L	---
Antimony	✔		1	EPA 200.7	6.0	< 6.0		206 µg/L	
Arsenic	✔		1	EPA 200.7	4.0	< 4.0		104 µg/L	
Cadmium	✔		1	EPA 200.7	2.5	< 2.5		10.2 µg/L	
Chromium III	✔		1	Calculatio	10.0	< 10.0		323 µg/L	
Chromium VI	✔		1	SM3500-C	5	<5		323 µg/L	
Copper	✔		1	EPA 200.7	5.0	< 5.0		242 µg/L	
Iron		✔	1	EPA 200.7	40.0	853		5,000 µg/L	
Lead	✔		1	EPA 200.7	7.5	< 7.5		160 µg/L	
Mercury	✔		1	EPA	0.20	< 0.20		0.739 µg/L	
Nickel	✔		1	EPA 200.7	5.0	< 5.0		1,450 µg/L	
Selenium	✔		1	EPA 200.7	15.0	< 15.0		235.8 µg/L	
Silver	✔		1	EPA 200.7	5.0	< 5.0		35.1 µg/L	
Zinc		✔	1	EPA 200.7	5.0	8.3		420 µg/L	
Cyanide	✔		1	SW9010/S	10	< 10		178 mg/L	
B. Non-Halogenated VOCs									
Total BTEX								100 µg/L	---
Benzene								5.0 µg/L	---
1,4 Dioxane								200 µg/L	---
Acetone								7.97 mg/L	---
Phenol								1,080 µg/L	

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	✔		1	SW846	50.0	< 50.0		4.4 µg/L	
1,2 Dichlorobenzene	✔		1	SW846	50.0	< 50.0		600 µg/L	---
1,3 Dichlorobenzene	✔		1	SW846	50.0	< 50.0		320 µg/L	---
1,4 Dichlorobenzene	✔		1	SW846	50.0	< 50.0		5.0 µg/L	---
Total dichlorobenzene	✔		1	SW846	50.0	< 50.0		763 µg/L in NH	---
1,1 Dichloroethane	✔		1	SW846	50.0	< 50.0		70 µg/L	---
1,2 Dichloroethane	✔		1	SW846	50.0	< 50.0		5.0 µg/L	---
1,1 Dichloroethylene	✔		1	SW846	50.0	< 50.0		3.2 µg/L	---
Ethylene Dibromide	✔							0.05 µg/L	---
Methylene Chloride	✔		1	SW846	100	< 100		4.6 µg/L	---
1,1,1 Trichloroethane	✔		1	SW846	50.0	< 50.0		200 µg/L	---
1,1,2 Trichloroethane	✔		1	SW846	50.0	< 50.0		5.0 µg/L	---
Trichloroethylene		✔	1	SW846	50.0	7,730		5.0 µg/L	---
Tetrachloroethylene		✔	1	SW846	50.0	414		5.0 µg/L	
cis-1,2 Dichloroethylene	✔		1	SW846	50.0	< 50.0		70 µg/L	---
Vinyl Chloride	✔		1	SW846	50.0	< 50.0		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								As Total PAHs	
Benzo(a)pyrene									
Benzo(b)fluoranthene									
Benzo(k)fluoranthene									
Chrysene									
Dibenzo(a,h)anthracene									
Indeno(1,2,3-cd)pyrene									

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								100 µg/L	---
Naphthalene								20 µg/L	---
E. Halogenated SVOCs									
Total PCBs								0.000064 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	
tert-Butyl Alcohol								120 µg/L in MA 40 µg/L in NH	---
tert-Amyl Methyl Ether								90 µg/L in MA 140 µg/L in NH	---
Other (i.e., pH, temperature, hardness, salinity, LC_{50}, additional pollutants present); if so, specify:									
pH						5.94 SU			
Hardness						55.5 mg/L			

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:

Polishing particulate pre-filter and ion exchange resin vessels downstream of LGAC and upstream of discharge.

2. Provide a written description of all treatment system(s) or processes that will be applied to the effluent prior to discharge.

See attached process flow diagram. GW from depression wells routed to "homerun shed" head settling tank. Effluent from head tank routed thru bag filters to "treatment shed". GW and vapor from MPHVE wells routed to treatment shed to phase seperator. Water from seperator routed thru bag filters and combined with GW from homerun shed. Combined effluent flow is then routed through two 1000-pound liquid-phase granular activated carbon (LGAC) adsorbers. LGAC adsorbers rated for flows up to 50 gpm. Effluent from the LGAC vessels routed thru a polishing particulate pre-filter and a series of ion exchange resin vessels. Treated effluent from the ion exchange vessels routed to on-site catch basin, ultimately discharging to

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: See written description above

Indicate if either of the following will occur (check any that apply):

☐ Chlorination ☐ De-chlorination

3. Provide the **design flow capacity** in gallons per minute (gpm) of the most limiting component. Indicate the most limiting component: Is use of a flow meter feasible? (check one): ■ Yes ☐ No, if so, provide justification:	50 gpm
Provide the proposed maximum effluent flow in gpm.	50 gpm
Provide the average effluent flow in gpm.	3.5 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:
No chemical additives are used

2. Provide the following information for each chemical/additive, using attachments, if necessary:

a. Product name, chemical formula, and manufacturer of the chemical/additive;
b. Purpose or use of the chemical/additive or remedial agent;
c. Material Safety Data Sheet (MSDS) and Chemical Abstracts Service (CAS) Registry number for each chemical/additive;
d. The frequency (hourly, daily, etc.), duration (hours, days), quantity (maximum and average), and method of application for the chemical/additive;
e. Any material compatibility risks for storage and/or use including the control measures used to minimize such risks; and
f. If available, the vendor's reported aquatic toxicity (NOAEL and/or LC50 in percent for aquatic organism(s)).

3. Has the operator attached an explanation which demonstrates that the addition of such chemicals/additives may be authorized under this general permit in accordance with the instructions in F, above? (check one): ☐ Yes ☐ No; if no, has the operator attached data that demonstrates each of the 126 priority pollutants in CWA Section 307(a) and 40 CFR Part 423.15(j)(1) are non-detect in discharges with the addition of the proposed chemical/additive?
(check one): ☐ Yes ☐ No

G. Endangered Species Act eligibility determination

1. Indicate under which criterion the discharge(s) is eligible for coverage under this general permit:

☐ **FWS Criterion A**: No endangered or threatened species or critical habitat are in proximity to the discharges or related activities or come in contact with the "action area".

☐ **FWS Criterion B**: Formal or informal consultation with the FWS under section 7 of the ESA resulted in either a no jeopardy opinion (formal consultation) or a written concurrence by FWS on a finding that the discharges and related activities are "not likely to adversely affect" listed species or critical habitat (informal consultation). Has the operator completed consultation with FWS? (check one): ☐ Yes ☐ No; if no, is consultation underway? (check one): ☐ Yes ☐ No

■ **FWS Criterion C**: Using the best scientific and commercial data available, the effect of the discharges and related activities on listed species and critical habitat have been evaluated. Based on those evaluations, a determination is made by EPA, or by the operator and affirmed by EPA, that the discharges and related activities will have "no effect" on any federally threatened or endangered listed species or designated critical habitat under the jurisdiction of the FWS. This determination was made by: (check one) ■ the operator ☐ EPA ☐ Other; if so, specify:

☐ **NMFS Criterion**: A determination made by EPA is affirmed by the operator that the discharges and related activities will have "no effect" or are "not likely to adversely affect" any federally threatened or endangered listed species or critical habitat under the jurisdiction of NMFS and will not result in any take of listed species. Has the operator previously completed consultation with NMFS? (check one): ☐ Yes ☐ No

2. Has the operator attached supporting documentation of ESA eligibility in accordance with the instructions in Appendix I, and G, above? (check one): ■ Yes ☐ No

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.

A copy of the March 27, 2015 Authorization Letter from U.S. EPA is attached.

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: The site's Operations, Monitoring, & Management (OM&M) Plan has been updated to meet the BMPP terms of the General Permit. Thus a BMPP meeting the requirements of the General Permit has been developed and implemented.
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: 1/25/2018
Print Name and Title: Greg Simpson, Site Remediation Engineer

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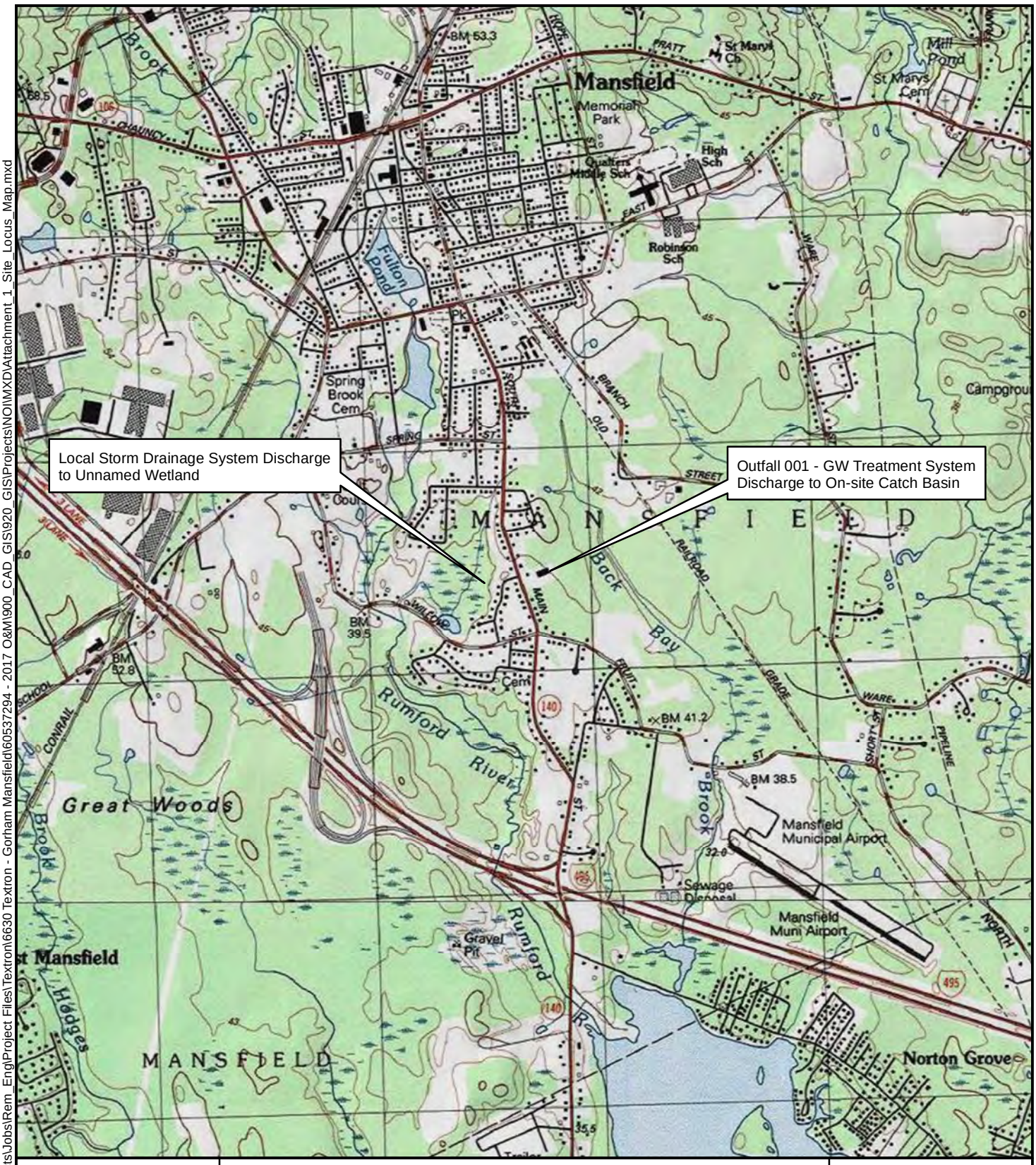
ATTACHMENT 1

U.S.G.S. SITE LOCATION MAP


Local Storm Drainage System Discharge to Unnamed Wetland
Outfall 001 - GW Treatment System Discharge to On-site Catch Basin
Mansfield
Memorial Park
Fulton Pond
Spring Brook Cem
Robinson Sch
High Sch
Quarters Middle Sch
St Marys Cem
Mill Pond
Back Bay
Rumford River
Great Woods
Mansfield Municipal Airport
Mansfield Muni Airport
Sewage Disposal
Gravel Pit
MANSFIELD
Norton Grove
BM 53.3
BM 39.5
BM 52.8
BM 41.2
BM 38.5
Map Location
VT
NH
ME
NY
MA
CT
RI
N
Site Locus Map
Textron, Inc - Former Gorham Silver Company
340 South Main Street
Mansfield, MA
0 500 1,000 2,000 3,000 4,000 5,000 6,000 Feet
0 100 200 400 600 800 1,000 1,200 1,400 1,600 Meters
Map Projection: State Plane, NAD 83, Feet.
Image Source: USGS Topographic Quadrangle: Mansfield, MA.
Scale: 1:24,000
AECOM
Attachment 1
Date: June 2017
Project #: 60537294
Path: \\USCHL1FP001\Data\Projects\Jobs\Rem_Eng\Project Files\Textron\6630 Textron - Gorham Mansfield\60537294 - 2017 O&M\900_CAD_GIS\920_GIS\Projects\NOI\MXD\Attachment_1_Site_Locus_Map.mxd

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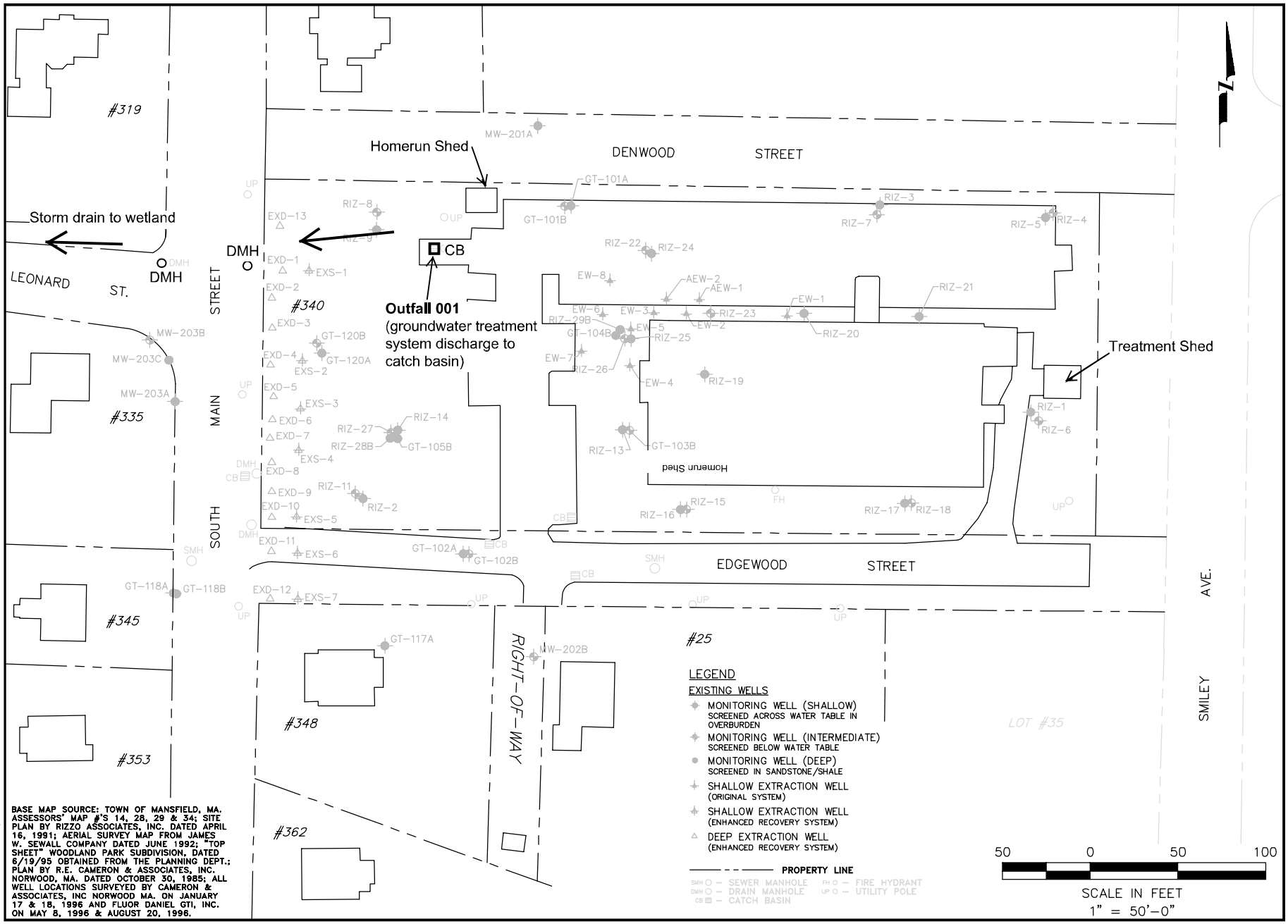
ATTACHMENT 2

LINE DIAGRAMS



BASE MAP SOURCE: TOWN OF MANSFIELD, MA. ASSESSORS' MAP #'S 14, 28, 29 & 34; SITE PLAN BY RIZZO ASSOCIATES, INC. DATED APRIL 16, 1991; AERIAL SURVEY MAP FROM JAMES W. SEWALL COMPANY DATED JUNE 1992; "TOP SHEET" WOODLAND PARK SUBDIVISION, DATED 6/19/95 OBTAINED FROM THE PLANNING DEPT.; PLAN BY R.E. CAMERON & ASSOCIATES, INC. NORWOOD, MA. DATED OCTOBER 30, 1985; ALL WELL LOCATIONS SURVEYED BY CAMERON & ASSOCIATES, INC NORWOOD MA. ON JANUARY 17 & 18, 1996 AND FLUOR DANIEL GTI, INC. ON MAY 8, 1996 & AUGUST 20, 1996.

FILENAME: 663011B.DWG

REVISIONS			
NO.:	DESCRIPTION:	DATE:	BY:

DESIGNED BY: X
DRAWN BY: K.P.B.
CHECKED BY: X
APPROVED BY: X

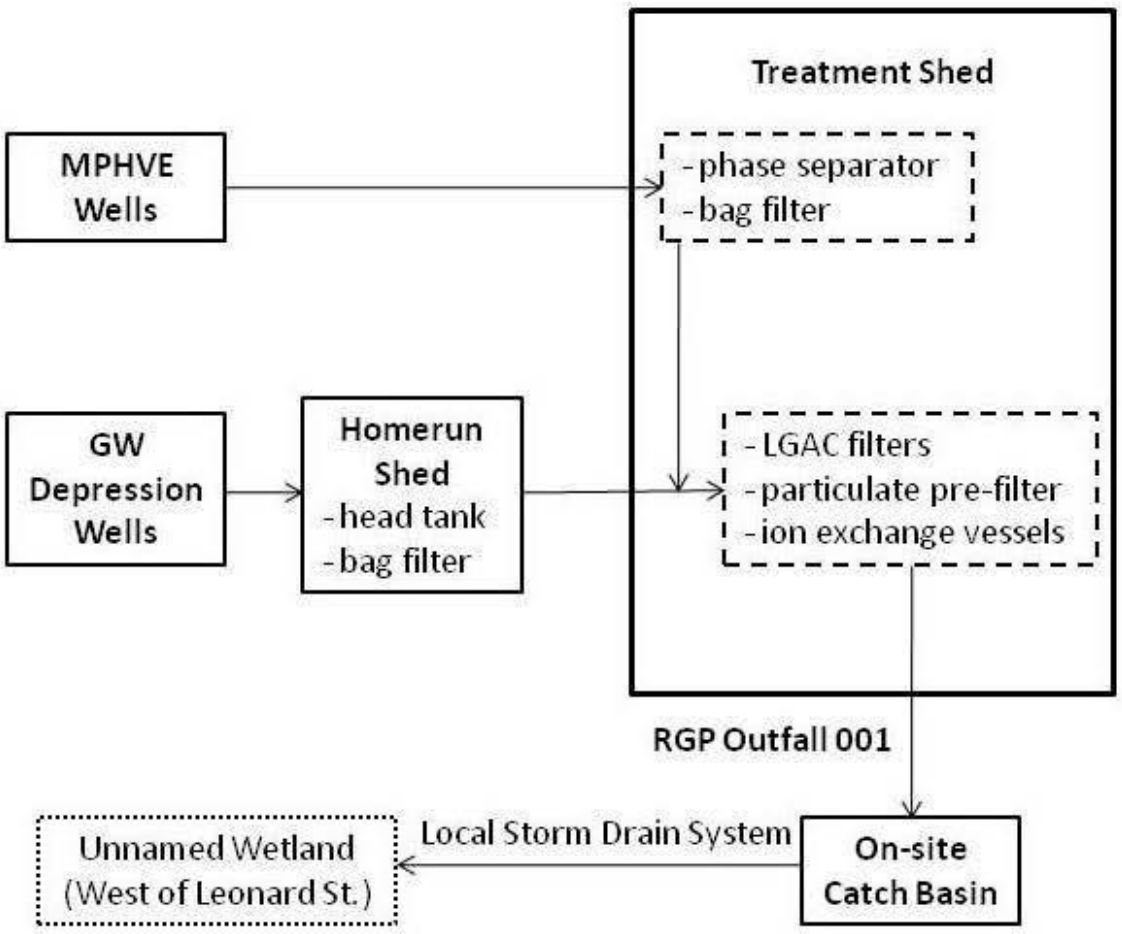
AECOM
ENSR CORPORATION
2 TECHNOLOGY PARK DRIVE
WESTFORD, MASSACHUSETTS 01886
PHONE: (978) 589-3000
FAX: (978) 589-3100
WEB: HTTP://WWW.ENSR.COM

SITE PLAN
FORMER GORHAM SILVER COMPANY
340 SOUTH MAIN STREET
MANSFIELD, MA

SCALE: 1"=50'
DATE: 7/04
PROJECT NUMBER: 06630-149-004

FIGURE NUMBER: Figure 2

SHEET NUMBER: 1

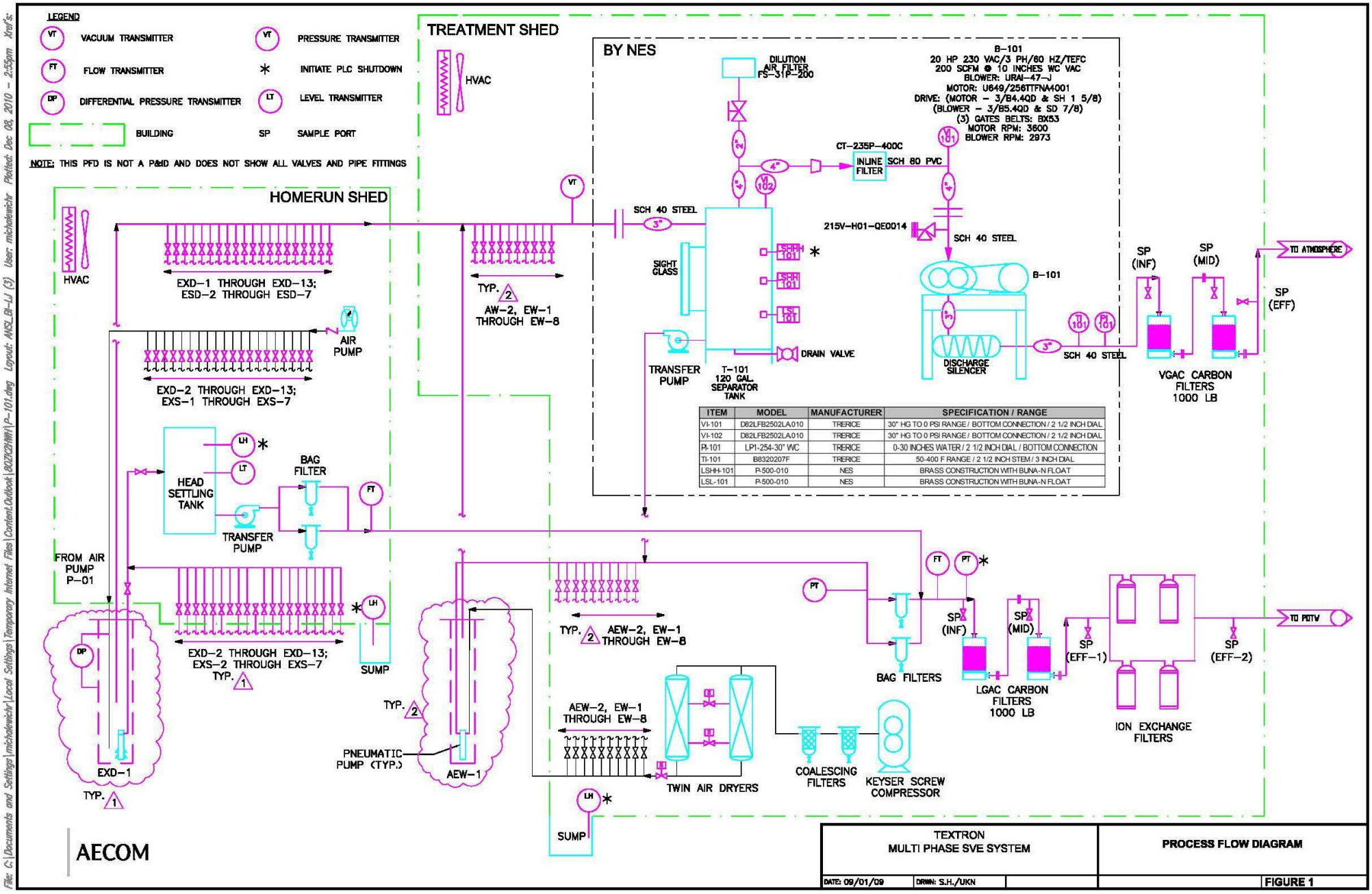


AECOM

Textron, Inc.
Former Gorham Silver Facility Site
340 South Main Street
Mansfield, MA

Line Diagram
Groundwater
Treatment/Discharge

Figure 3



ITEM	MODEL	MANUFACTURER	SPECIFICATION / RANGE
VI-101	D82LFB2502LA010	TRERICE	30" HG TO 0 PSI RANGE / BOTTOM CONNECTION / 2 1/2 INCH DIAL
VI-102	D82LFB2502LA010	TRERICE	30" HG TO 0 PSI RANGE / BOTTOM CONNECTION / 2 1/2 INCH DIAL
PI-101	LP1-254-30" WC	TRERICE	0-30 INCHES WATER / 2 1/2 INCH DIAL / BOTTOM CONNECTION
TI-101	B8320207F	TRERICE	50-400 F RANGE / 2 1/2 INCH STEM / 3 INCH DIAL
LSHH-101	P-500-010	NES	BRASS CONSTRUCTION WITH BUNA-N FLOAT
LSL-101	P-500-010	NES	BRASS CONSTRUCTION WITH BUNA-N FLOAT

TEXTRON

ATTACHMENT 3

INFLUENT AND RECEIVING WATER SAMPLING RESULTS

eurofins | Spectrum Analytical

☑ Final Report
☐ Revised Report

Report Date:
28-Jun-17 16:07

Laboratory Report
SC35970

AECOM Environment
250 Apollo Drive
Chelmsford, MA 01824
Attn: Melissa Cannon

Project: Textron - Mansfield, MA
Project #: 60537294

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87936
Maine # MA138
New Hampshire # 2972/2538
New Jersey # MA011
New York # 11393
Pennsylvania # 68-04426/68-02924
Rhode Island # LAO00348
USDA # P330-15-00375
Vermont # VT-11393

Authorized by:

Dawn Wojcik
Laboratory Director

Eurofins Spectrum Analytical holds primary certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.
Please note that this report contains 15 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Eurofins Spectrum Analytical, Inc.

Eurofins Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Eurofins Spectrum Analytical, Inc. is currently accredited for the specific method or analyte indicated. Please refer to our 'Quality' web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Eurofins Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (PA-68-04426).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

Sample Summary

Work Order: SC35970

Project: Textron - Mansfield, MA

Project Number: 60537294

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SC35970-01	Source	Surface Water	16-Jun-17 11:30	16-Jun-17 18:25
SC35970-02	Receiving	Ground Water	16-Jun-17 12:00	16-Jun-17 18:25
SC35970-03	TB	Ground Water	16-Jun-17 11:00	16-Jun-17 18:25

CASE NARRATIVE:

Data has been reported to the RDL. This report excludes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the reporting limit are reported as "<" (less than) the reporting limit in this report.

The samples were received 3.2 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

Analyses for Total Hardness, pH, and Total Residual Chlorine fall under the state of Pennsylvania code Chapter 252.6 accreditation by rule.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

EPA 200.7

Samples:

SC35970-01 *Source*

MRL raised to correlate to batch QC reporting limits.

Iron
Magnesium

SC35970-02 *Receiving*

MRL raised to correlate to batch QC reporting limits.

Iron
Magnesium

EPA 300.0

Samples:

SC35970-01 *Source*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Chloride

SM4500-Cl-G (11)

Samples:

SC35970-01 *Source*

Elevated Reporting Limits due to limited sample volume.

Total Residual Chlorine

Sample Acceptance Check Form

Client:	AECOM Environment - Chelmsford, MA
Project:	Textron - Mansfield, MA / 60537294
Work Order:	SC35970
Sample(s) received on:	6/16/2017

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	Yes	No	N/A
Were custody seals present?	☐	☑	☐
Were custody seals intact?	☐	☐	☑
Were samples received at a temperature of ≤ 6°C?	☑	☐	☐
Were samples cooled on ice upon transfer to laboratory representative?	☑	☐	☐
Were sample containers received intact?	☑	☐	☐
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	☑	☐	☐
Were samples accompanied by a Chain of Custody document?	☑	☐	☐
Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	☑	☐	☐
Did sample container labels agree with Chain of Custody document?	☑	☐	☐
Were samples received within method-specific holding times?	☑	☐	☐

Summary of Hits

Lab ID: SC35970-01 **Client ID:** Source

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Ammonia as Nitrogen	0.15		0.05	mg/L	E350.1
Calcium	17.2		0.100	mg/l	EPA 200.7
Iron	0.853	R06	0.0400	mg/l	EPA 200.7
Magnesium	3.04	R06	0.0500	mg/l	EPA 200.7
Zinc	0.0083		0.0050	mg/l	EPA 200.7
Chloride	155	D, GS1	6.00	mg/l	EPA 300.0
Hardness	55.5		0.456	mg/l CaCO3	SM 2340B (11)
Total Suspended Solids	2.3		0.5	mg/l	SM2540D (11)
Total Residual Chlorine	0.144	D, R02	0.040	mg/l	SM4500-Cl-G (11)

Lab ID: SC35970-02 **Client ID:** Receiving

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Ammonia as Nitrogen	0.13		0.05	mg/L	E350.1
Calcium	36.5		0.100	mg/l	EPA 200.7
Iron	0.758	R06	0.0400	mg/l	EPA 200.7
Magnesium	8.27	R06	0.0500	mg/l	EPA 200.7
Nickel	0.0146		0.0050	mg/l	EPA 200.7
Zinc	0.0542		0.0050	mg/l	EPA 200.7
Hardness	125		0.456	mg/l CaCO3	SM 2340B (11)

Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Source	60537294	Surface Water	16-Jun-17 11:30	16-Jun-17
SC35970-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Halocarbons by SW846 8260													
Prepared by method SW846 5030 Water MS													
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	19-Jun-17	20-Jun-17	GMA	1710216	
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*99*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*101*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*107*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*103*			*70-130 %*			"	"	"	"	"	
Total Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Preservation	**Field Preserved; pH<2 confirmed**		N/A			1	EPA 200/6000 methods	16-Jun-17		AAW	1710137	
Total Metals by EPA 200 Series Methods													
7440-22-4	Silver	< 0.0050		mg/l	0.0050	0.0035	1	EPA 200.7	22-Jun-17	23-Jun-17	tbc	1710452	X
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0028	1	"	"	"	"	"	X
7440-70-2	Calcium	**17.2**		mg/l	0.100	0.0340	1	"	"	"	"	"	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0004	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0019	1	"	"	"	"	"	X
7440-50-8	Copper	< 0.0050		mg/l	0.0050	0.0029	1	"	"	"	"	"	X
7439-89-6	Iron	**0.853**	R06	mg/l	0.0400	0.0100	1	"	"	26-Jun-17	"	"	X
7439-97-6	Mercury	< 0.00020		mg/l	0.00020	0.00013	1	EPA 245.1/7470A	"	22-Jun-17	JLC	1710453	X
7439-95-4	Magnesium	**3.04**	R06	mg/l	0.0500	0.0074	1	EPA 200.7	"	23-Jun-17	tbc	1710452	X
7440-02-0	Nickel	< 0.0050		mg/l	0.0050	0.0010	1	"	"	"	"	"	X
7439-92-1	Lead	< 0.0075		mg/l	0.0075	0.0034	1	"	"	26-Jun-17	"	"	X
7440-36-0	Antimony	< 0.0060		mg/l	0.0060	0.0026	1	"	"	23-Jun-17	"	"	X
7782-49-2	Selenium	< 0.0150		mg/l	0.0150	0.0072	1	"	"	"	"	"	X
7440-66-6	Zinc	**0.0083**		mg/l	0.0050	0.0027	1	"	"	"	"	"	X
General Chemistry Parameters													
Prepared by method EPA 200 Series													
16065-83-1	Trivalent Chromium	< 0.0100		mg/l	0.0100	0.0053	1	Calculation	22-Jun-17	23-Jun-17	tbc	1710452	
	Hardness	**55.5**	HD	mg/l CaCO3	0.456	0.115	1	SM 2340B (11)	"	"	tbc	[CALC]	
7782-50-5	Total Residual Chlorine	**0.144**	D, R02,ClHT	mg/l	0.040	0.011	2	SM4500-Cl-G (11)	28-Jun-17 11:22	28-Jun-17 12:32	RLT	1710917	X
16887-00-6	Chloride	**155**	D, GS1	mg/l	6.00	0.538	6	EPA 300.0	20-Jun-17	21-Jun-17	LNB	1710326	X
18540-29-9	Hexavalent Chromium	< 0.005		mg/l	0.005	0.002	1	SM3500-Cr-B (11)/7196A	16-Jun-17 19:39	17-Jun-17 08:57	RLT	1710148	
	pH	**5.94**	pH	pH Units			1	ASTM D 1293-99B	16-Jun-17 19:00	16-Jun-17 19:15	BD	1710139	X
	Total Suspended Solids	**2.3**		mg/l	0.5	0.2	1	SM2540D (11)	20-Jun-17	23-Jun-17	CMB	1710294	X
Subcontracted Analyses													
Prepared by method 391221-SW9010C/													

*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Source	60537294	Surface Water	16-Jun-17 11:30	16-Jun-17
SC35970-01				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Subcontracted Analyses													
Prepared by method 391221-SW9010C/													
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
57-12-5	Total Cyanide	< 0.010		mg/L	0.010	0.010	1	SW9010C/SW9012B	23-Jun-17	26-Jun-17 13:59	MACT0	391221A	
Subcontracted Analyses													
Prepared by method 390559													
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
7664-41-7	Ammonia as Nitrogen	**0.15**		mg/L	0.05	0.05	1	E350.1		20-Jun-17 10:41	MACT0	390559A	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
Receiving SC35970-02	60537294	Ground Water	16-Jun-17 12:00	16-Jun-17

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Total Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Preservation	**Field Preserved; pH<2 confirmed**		N/A			1	EPA 200/6000 methods	16-Jun-17		AAW	1710137	
Total Metals by EPA 200 Series Methods													
7440-22-4	Silver	< 0.0050		mg/l	0.0050	0.0035	1	EPA 200.7	22-Jun-17	23-Jun-17	tbc	1710452	X
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0028	1	"	"	"	"	"	X
7440-70-2	Calcium	**36.5**		mg/l	0.100	0.0340	1	"	"	"	"	"	X
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0004	1	"	"	"	"	"	X
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0019	1	"	"	"	"	"	X
7440-50-8	Copper	< 0.0050		mg/l	0.0050	0.0029	1	"	"	"	"	"	X
7439-89-6	Iron	**0.758**	R06	mg/l	0.0400	0.0100	1	"	"	26-Jun-17	"	"	X
7439-97-6	Mercury	< 0.00020		mg/l	0.00020	0.00013	1	EPA 245.1/7470A	"	22-Jun-17	JLC	1710453	X
7439-95-4	Magnesium	**8.27**	R06	mg/l	0.0500	0.0074	1	EPA 200.7	"	23-Jun-17	tbc	1710452	X
7440-02-0	Nickel	**0.0146**		mg/l	0.0050	0.0010	1	"	"	"	"	"	X
7439-92-1	Lead	< 0.0075		mg/l	0.0075	0.0034	1	"	"	26-Jun-17	"	"	X
7440-36-0	Antimony	< 0.0060		mg/l	0.0060	0.0026	1	"	"	23-Jun-17	"	"	X
7782-49-2	Selenium	< 0.0150		mg/l	0.0150	0.0072	1	"	"	"	"	"	X
7440-66-6	Zinc	**0.0542**		mg/l	0.0050	0.0027	1	"	"	"	"	"	X
General Chemistry Parameters													
Prepared by method EPA 200 Series													
16065-83-1	Trivalent Chromium	< 0.0100		mg/l	0.0100	0.0053	1	Calculation	22-Jun-17	23-Jun-17	tbc	1710452	
	Hardness	**125**	HD	mg/l CaCO3	0.456	0.115	1	SM 2340B (11)	"	"	tbc	[CALC]	
18540-29-9	Hexavalent Chromium	< 0.005		mg/l	0.005	0.002	1	SM3500-Cr-B (11)/7196A	16-Jun-17 19:39	17-Jun-17 08:59	RLT	1710148	
	pH	**6.07**	pH	pH Units			1	ASTM D 1293-99B	16-Jun-17 19:00	16-Jun-17 19:15	BD	1710139	X
Subcontracted Analyses													
Prepared by method 390559													
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
7664-41-7	Ammonia as Nitrogen	**0.13**		mg/L	0.05	0.05	1	E350.1		20-Jun-17 10:42	MACT0	390559A	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
TB SC35970-03	60537294	Ground Water	16-Jun-17 11:00	16-Jun-17

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Halocarbons by SW846 8260 Prepared by method SW846 5030 Water MS													
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.3	1	SW846 8260C	19-Jun-17	20-Jun-17	GMA	1710216	
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*97*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*101*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*109*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*102*			*70-130 %*			"	"	"	"	"	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1710216 - SW846 5030 Water MS										
Blank (1710216-BLK1)					Prepared: 19-Jun-17 Analyzed: 20-Jun-17					
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
Tetrachloroethene	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Surrogate: 4-Bromofluorobenzene	*49.0*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: Toluene-d8	*49.9*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*53.0*		µg/l		*50.0*		*106*	*70-130*		
Surrogate: Dibromofluoromethane	*50.4*		µg/l		*50.0*		*101*	*70-130*		
LCS (1710216-BS1)					Prepared & Analyzed: 19-Jun-17					
cis-1,2-Dichloroethene	**19.0**		µg/l		20.0		95	70-130		
Tetrachloroethene	**19.7**		µg/l		20.0		99	70-130		
Trichloroethene	**19.0**		µg/l		20.0		95	70-130		
Surrogate: 4-Bromofluorobenzene	*50.8*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: Toluene-d8	*49.5*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.7*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Dibromofluoromethane	*50.8*		µg/l		*50.0*		*102*	*70-130*		
LCS Dup (1710216-BSD1)					Prepared & Analyzed: 19-Jun-17					
cis-1,2-Dichloroethene	**19.5**		µg/l		20.0		97	70-130	2	20
Tetrachloroethene	**19.6**		µg/l		20.0		98	70-130	0.3	20
Trichloroethene	**18.6**		µg/l		20.0		93	70-130	2	20
Surrogate: 4-Bromofluorobenzene	*51.3*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: Toluene-d8	*49.6*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*52.5*		µg/l		*50.0*		*105*	*70-130*		
Surrogate: Dibromofluoromethane	*50.9*		µg/l		*50.0*		*102*	*70-130*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
EPA 200.7										
Batch 1710452 - EPA 200 Series										
Blank (1710452-BLK1)					Prepared: 22-Jun-17 Analyzed: 23-Jun-17					
Antimony	< 0.0060		mg/l	0.0060						
Selenium	< 0.0150		mg/l	0.0150						
Iron	< 0.0400		mg/l	0.0400						
Zinc	< 0.0050		mg/l	0.0050						
Silver	< 0.0050		mg/l	0.0050						
Nickel	< 0.0050		mg/l	0.0050						
Lead	< 0.0075		mg/l	0.0075						
Arsenic	< 0.0040		mg/l	0.0040						
Calcium	< 0.100		mg/l	0.100						
Cadmium	< 0.0025		mg/l	0.0025						
Chromium	< 0.0050		mg/l	0.0050						
Magnesium	< 0.0500		mg/l	0.0500						
Copper	< 0.0050		mg/l	0.0050						
LCS (1710452-BS1)					Prepared: 22-Jun-17 Analyzed: 23-Jun-17					
Antimony	**1.21**		mg/l	0.0060	1.25		97	85-115		
Selenium	**1.32**		mg/l	0.0150	1.25		106	85-115		
Iron	**1.30**		mg/l	0.0400	1.25		104	85-115		
Nickel	**1.30**		mg/l	0.0050	1.25		104	85-115		
Zinc	**1.35**		mg/l	0.0050	1.25		108	85-115		
Silver	**1.35**		mg/l	0.0050	1.25		108	85-115		
Arsenic	**1.30**		mg/l	0.0040	1.25		104	85-115		
Calcium	**6.72**		mg/l	0.100	6.25		108	85-115		
Cadmium	**1.23**		mg/l	0.0025	1.25		98	85-115		
Chromium	**1.38**		mg/l	0.0050	1.25		110	85-115		
Magnesium	**1.33**		mg/l	0.0500	1.25		106	85-115		
Copper	**1.39**		mg/l	0.0050	1.25		111	85-115		
Lead	**1.33**		mg/l	0.0075	1.25		106	85-115		
EPA 245.1/7470A										
Batch 1710453 - EPA200/SW7000 Series										
Blank (1710453-BLK1)					Prepared & Analyzed: 22-Jun-17					
Mercury	< 0.00020		mg/l	0.00020						
LCS (1710453-BS1)					Prepared & Analyzed: 22-Jun-17					
Mercury	**0.00434**		mg/l	0.00020	0.00500		87	85-115		
Duplicate (1710453-DUP1)			**Source: SC35970-01**		Prepared & Analyzed: 22-Jun-17					
Mercury	< 0.00020		mg/l	0.00020		BRL				20
Matrix Spike (1710453-MS1)			**Source: SC35970-01**		Prepared & Analyzed: 22-Jun-17					
Mercury	**0.00459**		mg/l	0.00020	0.00500	BRL	92	80-120		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
ASTM D 1293-99B										
Batch 1710139 - General Preparation										
Duplicate (1710139-DUP1)			**Source: SC35970-02**			Prepared & Analyzed: 16-Jun-17				
pH	**6.09**		pH Units			6.07			0.3	5
Reference (1710139-SRM1)						Prepared & Analyzed: 16-Jun-17				
pH	**5.96**		pH Units		6.00		99	97.5-102.5		
Reference (1710139-SRM2)						Prepared & Analyzed: 16-Jun-17				
pH	**6.01**		pH Units		6.00		100	97.5-102.5		
EPA 300.0										
Batch 1710326 - General Preparation										
Blank (1710326-BLK1)						Prepared & Analyzed: 20-Jun-17				
Chloride	< 1.00		mg/l	1.00						
LCS (1710326-BS1)						Prepared & Analyzed: 20-Jun-17				
Chloride	**19.6**		mg/l	1.00	20.0		98	90-110		
Reference (1710326-SRM1)						Prepared & Analyzed: 20-Jun-17				
Chloride	**24.8**		mg/l	1.00	25.0		99	90-110		
SM2540D (11)										
Batch 1710294 - General Preparation										
Blank (1710294-BLK1)						Prepared: 20-Jun-17 Analyzed: 23-Jun-17				
Total Suspended Solids	< 0.5		mg/l	0.5						
LCS (1710294-BS1)						Prepared: 20-Jun-17 Analyzed: 23-Jun-17				
Total Suspended Solids	**90.0**		mg/l	10.0	100		90	90-110		
SM3500-Cr-B (11)/7196A										
Batch 1710148 - General Preparation										
Blank (1710148-BLK1)						Prepared: 16-Jun-17 Analyzed: 17-Jun-17				
Hexavalent Chromium	< 0.005		mg/l	0.005						
LCS (1710148-BS1)						Prepared: 16-Jun-17 Analyzed: 17-Jun-17				
Hexavalent Chromium	**0.052**		mg/l	0.005	0.0500		104	90-111		
Duplicate (1710148-DUP1)			**Source: SC35970-01**			Prepared: 16-Jun-17 Analyzed: 17-Jun-17				
Hexavalent Chromium	< 0.005		mg/l	0.005		BRL				20
Matrix Spike (1710148-MS1)			**Source: SC35970-01**			Prepared: 16-Jun-17 Analyzed: 17-Jun-17				
Hexavalent Chromium	**0.045**		mg/l	0.005	0.0500	BRL	89	85-115		
Matrix Spike Dup (1710148-MSD1)			**Source: SC35970-01**			Prepared: 16-Jun-17 Analyzed: 17-Jun-17				
Hexavalent Chromium	**0.044**		mg/l	0.005	0.0500	BRL	88	85-115	1	20
Reference (1710148-SRM1)						Prepared: 16-Jun-17 Analyzed: 17-Jun-17				
Hexavalent Chromium	**0.027**		mg/l	0.005	0.0250		108	85-115		
SM4500-Cl-G (11)										
Batch 1710917 - General Preparation										
Blank (1710917-BLK1)						Prepared & Analyzed: 28-Jun-17				
Total Residual Chlorine	< 0.020		mg/l	0.020						
LCS (1710917-BS1)						Prepared & Analyzed: 28-Jun-17				
Total Residual Chlorine	**0.049**		mg/l	0.020	0.0500		98	90-110		
Reference (1710917-SRM1)						Prepared & Analyzed: 28-Jun-17				
Total Residual Chlorine	**0.108**		mg/l	0.020	0.105		103	85-115		

Subcontracted Analyses - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW9010C/SW9012B										
Batch 391221A - 391221-SW9010C/										
BLK (BY44735-BLK)						Prepared: 23-Jun-17 Analyzed: 26-Jun-17				
Total Cyanide	< 0.01		mg/L	0.01				-		
DUP (BY44735-DUP)			**Source: BY44735**			Prepared: 23-Jun-17 Analyzed: 26-Jun-17				
Total Cyanide	< 0.01		mg/L	0.01				-	NC	30
LCS (BY44735-LCS)						Prepared: 23-Jun-17 Analyzed: 26-Jun-17				
Total Cyanide	**0.4600**		mg/L	0.01	0.4855		94.7	90-110		30
MS (BY44735-MS)			**Source: BY44735**			Prepared: 23-Jun-17 Analyzed: 26-Jun-17				
Total Cyanide	**0.1980**		mg/L	0.01	00000298		99.0	90-110		30

Subcontracted Analyses - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
E350.1										
Batch 390559A - 390559										
BLK (BY40933-BLK)						Prepared: 19-Jun-17 Analyzed: 20-Jun-17				
Ammonia as Nitrogen	< 0.05		mg/L	0.05				-		
DUP (BY40933-DUP)			**Source: BY40933**			Prepared: 19-Jun-17 Analyzed: 20-Jun-17				
Ammonia as Nitrogen	**53.3**		mg/L	0.50				-	0.4	20
LCS (BY40933-LCS)						Prepared: 19-Jun-17 Analyzed: 20-Jun-17				
Ammonia as Nitrogen	**3.450**		mg/L	0.05	3.74		92.2	90-110		20
MS (BY40933-MS)			**Source: BY40933**			Prepared: 19-Jun-17 Analyzed: 20-Jun-17				
Ammonia as Nitrogen	**71.10**		mg/L	0.05	20		90.0	90-110		20

Notes and Definitions

D	Data reported from a dilution
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
R02	Elevated Reporting Limits due to limited sample volume.
R06	MRL raised to correlate to batch QC reporting limits.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference
ClHT	The method for residual chlorine indicates that samples should be analyzed immediately. 40 CFR 136 specifies a holding time of 15 minutes from sampling to analysis. Therefore all aqueous residual chlorine samples not analyzed in the field are considered out of hold time at the time of sample receipt.
pH	The method for pH does not stipulate a specific holding time other than to state that the samples should be analyzed as soon as possible. For aqueous samples the 40 CFR 136 specifies a holding time of 15 minutes from sampling to analysis. Therefore all aqueous pH samples not analyzed in the field are considered out of hold time at the time of sample receipt. All soil samples are analyzed as soon as possible after sample receipt.
HD	Total Hardness is a calculation based on the reported values of Ca and Mg.

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

SC35970 BM

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CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:

☒ Standard TAT - 7 to 10 business days

☐ Rush TAT - Date Needed: _____

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed.

Report To: AECOM
250 APOLLO DRIVE
CHELMSFORD, MA

Telephone #: 978-400-1213
Project Mgr: Melissa Cannon

Invoice To:

P.O No.: _____ Quote #: 5049

Project No: 60537294
Site Name: Textron
Location: Mansfield State: MA
Sampler(s): Floyd Button

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11=_____ 12=_____

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1=_____ X2=_____ X3=_____

G= Grab C=Compsite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analysis: 8260	Ammonia as N / Hardness / Total Metals	Total Cyanide	Chloride EPA 300.0 / pH	Hexavalent Chromium	Total residual Chlorine	TSS	Check if chlorinated	QA/QC Reporting Notes: * additional charges may appply
SC35970-01	Source	6/16/17	1130	G	SW	3			5	X	X	X	X	X	X	X	X	☐	*see e-mail for specific metals. *
02	Receiving	6/16/17	1200	G	GW				3		X	X	~~X~~		X			☐	
03	TB	6/16/17	1100	G	GW	2				X								☐	

List Preservative Code below: 2 3 4 5

MA DEP MCP CAM Report? ☐ Yes ☐ No
CT DPH RCP Report? ☐ Yes ☐ No
☐ Standard ☐ No QC ☐ DQA*
☐ ASP A* ☐ ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ Tier II* ☐ Tier IV*
☐ Other: _____
State-specific reporting standards:

Relinquished by:	Received by:	Date:	Time:	Temp °C
[signature]	[signature]	6-16-17	12:52	Observed 3.2
[signature]	[signature] 6/16	~~6/16/17~~	~~1635~~	Correction Factor 0
		6/16/17	18:25	Corrected 3.2
				IR ID # 01

☐ EDD format: melissa.cannon@aecom.com
☒ E-mail to: _____

Condition upon receipt: Custody Seals: ☐ Present ☐ Intact ☐ Broken
☐ Ambient ☒ Iced ☐ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

SC35970 BM

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CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:

- [x] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed: _____

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed.

Report To: AECOM
250 APOLLO DRIVE
CHELMSFORD, MA

Telephone #: 978-400-1213
Project Mgr: Melissa Cannon

Invoice To:

P.O No.: _____ Quote #: 5049

Project No: 60537294
Site Name: Textron
Location: Mansfield State: MA
Sampler(s): Floyd Burton

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11=_____ 12=_____

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1=_____ X2=_____ X3=_____

G= Grab C=Compsite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analysis: 8260	Ammonia as N; Hardness; Total Metals	Total Cyanide	Chloride EPA 300.0; pH	Hexavalent Chromium	Total residual Chlorine	TSS	Check if chlorinated	QA/QC Reporting Notes: * additional charges may appply
SC35970-01	Source	6/16/17	1130	G	SW	3			5	X	X	X	X	X	X	X	X	*see e-mail for specific
02	Receiving	6/16/17	1200	G	GW				3		X	X	[illegible]		X			metals. *
03	TB	6/16/17	1100	G	GW	2				X								Metals per attached email from client. DM 6/19.

List Preservative Code below: 2 3 4 5

MA DEP MCP CAM Report? [ ] Yes [ ] No
CT DPH RCP Report? [ ] Yes [ ] No
[ ] Standard [ ] No QC [ ] DQA*
[ ] ASP A* [ ] ASP B*
[ ] NJ Reduced* [ ] NJ Full*
[ ] Tier II* [ ] Tier IV*
[ ] Other: _____
State-specific reporting standards:

Relinquished by:	Received by:	Date:	Time:	Temp °C
[signature]	[signature]	6-16-17	12:52	Observed 3.2
[signature]	[signature] 6/16	6/16/17	1635	Correction Factor 0
		6/16/17	18:25	Corrected 3.2
				IR ID # 01

[ ] EDD format: melissa.cannon@aecom.com
[x] E-mail to: _____

Condition upon receipt: Custody Seals: [ ] Present [ ] Intact [ ] Broken
[ ] Ambient [x] Iced [ ] Refrigerated [ ] DI VOA Frozen [ ] Soil Jar Frozen

Elie Makhoul

From: Burton, Floyd <Floyd.Burton@aecom.com>
Sent: Monday, June 19, 2017 9:04 AM
To: Elie Makhoul
Cc: Cannon, Melissa
Subject: RE: Heads up

Here is what we need to analyze the samples for:

Source water sample:
-pH
-temperature
-hardness
-Ammonia
-Chloride
-Total Residual Chlorine
-TSS
-Antimony
-Arsenic
-Cadmium
-Chromium III
-Chromium VI
-Copper
-Iron
-Lead
-Mercury-
-Nickel
-Selenium
-Silver
-Zinc
-Cyanide
-PCE
-TCE
-cis-1,2-DCE

Receiving water sample:
-pH
-temperature
-hardness
-ammonia
-total recoverable antimony
-total recoverable arsenic
-total recoverable cadmium
-total recoverable chromium III
-total recoverable chromium VI
-total recoverable copper
-total recoverable iron
-total recoverable lead
-total recoverable mercury

-total recoverable nickel
-total recoverable selenium
-total recoverable silver
-total recoverable zinc

Any other questions, please reach out to the PM- Melissa Cannon @ 978-400-1213

From: Elie Makhoul [mailto:ElieMakhoul@eurofinsUS.com]
Sent: Friday, June 16, 2017 6:13 PM
To: Burton, Floyd
Cc: Kimberly Laplante; SpectrumSample@EurofinsUS.com
Subject: RE: Heads up

Hi Floyd,
We haven't received the list of analyses for the Textron samples. Could you please send is to us on Monday morning?
Thank you and have a nice weekend.

Elie,

From: Kimberly Laplante
Sent: Friday, June 16, 2017 12:01 PM
To: !US38_Spectrum_Sample
Subject: Heads up

Hi. Just letting you know that Floyd Burton from Aecom is going to be emailing you the analysis list for the Textron samples he is sending in today. The list of analyses was too large to write on the COC, so he is emailing instead. Must be a quarterly sampling for the NPDES permit. This is associated with quote 5049.

Thanks,
Kim

Batch Summary

[CALC]

General Chemistry Parameters

SC35970-01 (Source)
SC35970-02 (Receiving)

1710137

Total Metals by EPA 200/6000 Series Methods

SC35970-01 (Source)
SC35970-02 (Receiving)

1710139

General Chemistry Parameters

1710139-DUP1
1710139-SRM1
1710139-SRM2
SC35970-01 (Source)
SC35970-02 (Receiving)

1710148

General Chemistry Parameters

1710148-BLK1
1710148-BS1
1710148-DUP1
1710148-MS1
1710148-MSD1
1710148-SRM1
SC35970-01 (Source)
SC35970-02 (Receiving)

1710216

Volatile Organic Compounds

1710216-BLK1
1710216-BS1
1710216-BSD1
SC35970-01 (Source)
SC35970-03 (TB)

1710294

General Chemistry Parameters

1710294-BLK1
1710294-BS1
SC35970-01 (Source)

1710326

General Chemistry Parameters

1710326-BLK1
1710326-BS1
1710326-SRM1
SC35970-01 (Source)

1710452

Total Metals by EPA 200 Series Methods

1710452-BLK1
1710452-BS1
SC35970-01 (Source)
SC35970-01 (Source)
SC35970-02 (Receiving)
SC35970-02 (Receiving)

1710453

Total Metals by EPA 200 Series Methods

1710453-BLK1
1710453-BS1
1710453-DUP1
1710453-MS1
SC35970-01 (Source)
SC35970-02 (Receiving)

1710917

General Chemistry Parameters

1710917-BLK1
1710917-BS1
1710917-SRM1
SC35970-01 (Source)

390559A

Subcontracted Analyses

BY40933-BLK
BY40933-DUP
BY40933-LCS
BY40933-MS
SC35970-01 (Source)
SC35970-02 (Receiving)

391221A

Subcontracted Analyses

BY44735-BLK
BY44735-DUP
BY44735-LCS
BY44735-MS
SC35970-01 (Source)

S705492

Volatile Organic Compounds

S705492-CAL1
S705492-CAL2
S705492-CAL3
S705492-CAL4
S705492-CAL5
S705492-CAL6
S705492-CAL7
S705492-CAL8
S705492-CAL9
S705492-ICV1
S705492-LCV1
S705492-LCV2
S705492-LCV3
S705492-TUN1

S705541

Volatile Organic Compounds

S705541-CCV1
S705541-TUN1

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☑ Final Report
☐ Revised Report

Report Date:
09-Jun-17 14:52

Laboratory Report
SC35221

AECOM Environment
250 Apollo Drive
Chelmsford, MA 01824
Attn: Melissa Cannon

Project: Textron - Mansfield, MA
Project #: 60537294

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87936
Maine # MA138
New Hampshire # 2972/2538
New Jersey # MA011
New York # 11393
Pennsylvania # 68-04426/68-02924
Rhode Island # LAO00348
USDA # P330-15-00375
Vermont # VT-11393

Authorized by:

Rebecca Merz
Quality Services Manager

Eurofins Spectrum Analytical holds primary certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts does not offer certification for all analytes. Please refer to our website for specific certification holdings in each state.
Please note that this report contains 26 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Eurofins Spectrum Analytical, Inc.

Eurofins Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Eurofins Spectrum Analytical, Inc. is currently accredited for the specific method or analyte indicated. Please refer to our 'Quality' web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Eurofins Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey, Pennsylvania and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (PA-68-04426).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

Sample Summary

Work Order: SC35221

Project: Textron - Mansfield, MA

Project Number: 60537294

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SC35221-01	INF	Ground Water	25-May-17 15:30	30-May-17 15:45
SC35221-02	MID	Ground Water	25-May-17 15:15	30-May-17 15:45
SC35221-03	EFF	Ground Water	25-May-17 15:00	30-May-17 15:45
SC35221-04	TB	Ground Water	25-May-17 14:30	30-May-17 15:45

CASE NARRATIVE:

Data has been reported to the RDL. This report excludes estimated concentrations detected below the RDL and above the MDL (J-Flag).

All non-detects and all results below the reporting limit are reported as "<" (less than) the reporting limit in this report.

The samples were received 1.8 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

EPA 200.7

Duplicates:

1709062-DUP1 *Source: SC35221-01*

MRL raised to correlate to batch QC reporting limits.

Iron

Samples:

SC35221-01 *INF*

MRL raised to correlate to batch QC reporting limits.

Iron

SC35221-03 *EFF*

MRL raised to correlate to batch QC reporting limits.

Iron

EPA 300.0

Duplicates:

1709037-DUP1 *Source: SC35221-03*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Chloride

Samples:

SC35221-01 *INF*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Chloride

SC35221-03 *EFF*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Chloride

SW846 8260C

Calibration:

1705025

SW846 8260C

Calibration:

1705025

Analyte quantified by quadratic equation type calibration.

Bromodichloromethane
Bromoform
Carbon tetrachloride
cis-1,3-Dichloropropene
Dibromochloromethane
trans-1,3-Dichloropropene

This affected the following samples:

1709262-BLK1
1709262-BS1
1709262-BSD1
1709320-BLK1
1709320-BS1
1709320-BSD1
1709424-BLK1
1709424-BS1
1709424-BSD1
EFF
INF
MID
S704674-ICV1
S705041-CCV1
S705081-CCV1
S705115-CCV1
TB

S704674-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

Acetone (124%)

This affected the following samples:

1709262-BLK1
1709262-BS1
1709262-BSD1
1709320-BLK1
1709320-BS1
1709320-BSD1
1709424-BLK1
1709424-BS1
1709424-BSD1
EFF
INF
MID
S705041-CCV1
S705081-CCV1
S705115-CCV1
TB

Blanks:

1709262-BLK1

This compound is a common laboratory contaminant.

Chloromethane

SW846 8260C

Blanks:

1709320-BLK1

This compound is a common laboratory contaminant.

Acetone
Chloromethane

1709424-BLK1

This compound is a common laboratory contaminant.

Acetone
Chloromethane

Samples:

SC35221-01 *INF*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SC35221-01RE1 *INF*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SC35221-04 *TB*

This compound is a common laboratory contaminant.

Acetone
Chloromethane

SW846 8270D SIM

Calibration:

1704025

Analyte quantified by quadratic equation type calibration.

Benzo (e) pyrene-d12
Pentachlorophenol

This affected the following samples:

1709046-BLK2
1709046-BS2
1709046-BSD2
EFF
INF
S703654-ICV1
S705228-CCV1

Samples:

S705228-CCV1

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Benzo (k) fluoranthene (21.0%)

This affected the following samples:

1709046-BLK2
1709046-BS2
1709046-BSD2

Sample Acceptance Check Form

Client:	AECOM Environment - Chelmsford, MA
Project:	Textron - Mansfield, MA / 60537294
Work Order:	SC35221
Sample(s) received on:	5/30/2017

The following outlines the condition of samples for the attached Chain of Custody upon receipt.

	Yes	No	N/A
Were custody seals present?	☐	☑	☐
Were custody seals intact?	☐	☐	☑
Were samples received at a temperature of ≤ 6°C?	☑	☐	☐
Were samples refrigerated upon transfer to laboratory representative?	☑	☐	☐
Were sample containers received intact?	☑	☐	☐
Were samples properly labeled (labels affixed to sample containers and include sample ID, site location, and/or project number and the collection date)?	☑	☐	☐
Were samples accompanied by a Chain of Custody document?	☑	☐	☐
Does Chain of Custody document include proper, full, and complete documentation, which shall include sample ID, site location, and/or project number, date and time of collection, collector's name, preservation type, sample matrix and any special remarks concerning the sample?	☑	☐	☐
Did sample container labels agree with Chain of Custody document?	☑	☐	☐
Were samples received within method-specific holding times?	☑	☐	☐

Summary of Hits

Lab ID: SC35221-01 **Client ID:** INF

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Iron	1.76	R06	0.0400	mg/l	EPA 200.7
Zinc	0.0489		0.0050	mg/l	EPA 200.7
Chloride	151	GS1, D	6.00	mg/l	EPA 300.0
Tetrachloroethene	7730	D, E	50.0	µg/l	SW846 8260C
Trichloroethene	414	D	50.0	µg/l	SW846 8260C

Lab ID: SC35221-01RE1 **Client ID:** INF

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Tetrachloroethene	7830	D	200	µg/l	SW846 8260C
Trichloroethene	410	D	200	µg/l	SW846 8260C

Lab ID: SC35221-03 **Client ID:** EFF

Parameter	Result	Flag	Reporting Limit	Units	Analytical Method
Chloride	125	GS1, D	3.00	mg/l	EPA 300.0

Please note that because there are no reporting limits associated with hazardous waste characterizations or micro analyses, this summary does not include hits from these analyses if included in this work order.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
INF	60537294	Ground Water	25-May-17 15:30	30-May-17
SC35221-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS			GS1										
67-64-1	Acetone	< 500	D	µg/l	500	40.2	50	SW846 8260C	05-Jun-17	06-Jun-17	GMA	1709262	
75-27-4	Bromodichloromethane	< 25.0	D	µg/l	25.0	20.8	50	"	"	"	"	"	
75-25-2	Bromoform	< 50.0	D	µg/l	50.0	21.2	50	"	"	"	"	"	
74-83-9	Bromomethane	< 100	D	µg/l	100	44.8	50	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 50.0	D	µg/l	50.0	21.8	50	"	"	"	"	"	
108-90-7	Chlorobenzene	< 50.0	D	µg/l	50.0	12.4	50	"	"	"	"	"	
75-00-3	Chloroethane	< 100	D	µg/l	100	29.4	50	"	"	"	"	"	
67-66-3	Chloroform	< 50.0	D	µg/l	50.0	16.3	50	"	"	"	"	"	
74-87-3	Chloromethane	< 100	D	µg/l	100	18.4	50	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 25.0	D	µg/l	25.0	15.8	50	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 50.0	D	µg/l	50.0	13.8	50	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 50.0	D	µg/l	50.0	15.7	50	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 50.0	D	µg/l	50.0	13.6	50	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 100	D	µg/l	100	29.2	50	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 50.0	D	µg/l	50.0	16.2	50	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 50.0	D	µg/l	50.0	13.8	50	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 50.0	D	µg/l	50.0	34.6	50	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 50.0	D	µg/l	50.0	16.4	50	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 50.0	D	µg/l	50.0	18.8	50	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 50.0	D	µg/l	50.0	14.6	50	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 25.0	D	µg/l	25.0	18.0	50	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 25.0	D	µg/l	25.0	17.4	50	"	"	"	"	"	
75-09-2	Methylene chloride	< 100	D	µg/l	100	33.0	50	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 25.0	D	µg/l	25.0	16.5	50	"	"	"	"	"	
127-18-4	Tetrachloroethene	**7,730**	D, E	µg/l	50.0	28.5	50	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 50.0	D	µg/l	50.0	25.4	50	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 50.0	D	µg/l	50.0	16.5	50	"	"	"	"	"	
79-01-6	Trichloroethene	**414**	D	µg/l	50.0	24.8	50	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 50.0	D	µg/l	50.0	24.4	50	"	"	"	"	"	
75-01-4	Vinyl chloride	< 50.0	D	µg/l	50.0	23.6	50	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 1000	D	µg/l	1000	570	50	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*92*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*102*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*107*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*107*			*70-130 %*			"	"	"	"	"	
Re-analysis of Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS			GS1										
67-64-1	Acetone	< 2000	D	µg/l	2000	161	200	SW846 8260C	06-Jun-17	07-Jun-17	GMA	1709320	
75-27-4	Bromodichloromethane	< 100	D	µg/l	100	83.4	200	"	"	"	"	"	
75-25-2	Bromoform	< 200	D	µg/l	200	85.0	200	"	"	"	"	"	
74-83-9	Bromomethane	< 400	D	µg/l	400	179	200	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 200	D	µg/l	200	87.4	200	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
INF	60537294	Ground Water	25-May-17 15:30	30-May-17
SC35221-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Re-analysis of Volatile Organic Compounds by SW846 8260			GS1										
108-90-7	Chlorobenzene	< 200	D	µg/l	200	49.8	200	SW846 8260C	06-Jun-17	07-Jun-17	GMA	1709320	
75-00-3	Chloroethane	< 400	D	µg/l	400	118	200	"	"	"	"	"	
67-66-3	Chloroform	< 200	D	µg/l	200	65.2	200	"	"	"	"	"	
74-87-3	Chloromethane	< 400	D	µg/l	400	73.6	200	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 100	D	µg/l	100	63.4	200	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 200	D	µg/l	200	55.4	200	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 200	D	µg/l	200	62.8	200	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 200	D	µg/l	200	54.4	200	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 400	D	µg/l	400	117	200	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 200	D	µg/l	200	64.6	200	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 200	D	µg/l	200	55.4	200	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 200	D	µg/l	200	139	200	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 200	D	µg/l	200	65.4	200	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 200	D	µg/l	200	75.4	200	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 200	D	µg/l	200	58.4	200	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 100	D	µg/l	100	71.8	200	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 100	D	µg/l	100	69.4	200	"	"	"	"	"	
75-09-2	Methylene chloride	< 400	D	µg/l	400	132	200	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 100	D	µg/l	100	66.0	200	"	"	"	"	"	
127-18-4	Tetrachloroethene	**7,830**	D	µg/l	200	114	200	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 200	D	µg/l	200	102	200	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 200	D	µg/l	200	66.0	200	"	"	"	"	"	
79-01-6	Trichloroethene	**410**	D	µg/l	200	99.4	200	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 200	D	µg/l	200	97.4	200	"	"	"	"	"	
75-01-4	Vinyl chloride	< 200	D	µg/l	200	94.4	200	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 4000	D	µg/l	4000	2280	200	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*92*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*103*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*104*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*105*			*70-130 %*			"	"	"	"	"	
Semivolatile Organic Compounds by GCMS													
Phthalates Prepared by method SW846 3510C													
117-81-7	Bis(2-ethylhexyl)phthalate	< 0.952		µg/l	0.952	0.608	1	SW846 8270D	01-Jun-17	02-Jun-17	MSL	1709046	
85-68-7	Butyl benzyl phthalate	< 0.952		µg/l	0.952	0.417	1	"	"	"	"	"	
84-66-2	Diethyl phthalate	< 0.952		µg/l	0.952	0.593	1	"	"	"	"	"	
131-11-3	Dimethyl phthalate	< 0.952		µg/l	0.952	0.722	1	"	"	"	"	"	
84-74-2	Di-n-butyl phthalate	< 0.952		µg/l	0.952	0.435	1	"	"	"	"	"	
117-84-0	Di-n-octyl phthalate	< 0.952		µg/l	0.952	0.387	1	"	"	"	"	"	
Surrogate recoveries:													
321-60-8	*2-Fluorobiphenyl*	*50*			*30-130 %*			"	"	"	"	"	
1718-51-0	*Terphenyl-dl4*	*57*			*30-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
INF	60537294	Ground Water	25-May-17 15:30	30-May-17
SC35221-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GCMS													
SVOCs by SIM													
87-86-5	Pentachlorophenol	< 0.952		µg/l	0.952	0.223	1	SW846 8270D SIM	01-Jun-17	09-Jun-17	MSL	1709046	
Surrogate recoveries:													
205440-82-0	*Benzo (e) pyrene-d12*	*66*			*30-130 %*			"	"	"	"	"	
93951-73-6	*2-Chlorophenol-d4*	*37*			*15-110 %*			"	"	"	"	"	
Total Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Preservation	**Field Preserved; pH<2 confirmed**		N/A			1	EPA 200/6000 methods	31-May-17		BK	1709028	
Total Metals by EPA 200 Series Methods													
7439-89-6	Iron	**1.76**	R06	mg/l	0.0400	0.0100	1	EPA 200.7	01-Jun-17	02-Jun-17	TBC	1709062	X
7440-66-6	Zinc	**0.0489**		mg/l	0.0050	0.0027	1	"	"	"	"	"	X
General Chemistry Parameters													
16887-00-6	Chloride	**151**	GS1, D	mg/l	6.00	0.538	6	EPA 300.0	31-May-17	01-Jun-17	CAW	1709037	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MID SC35221-02	60537294	Ground Water	25-May-17 15:15	30-May-17

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
67-64-1	Acetone	< 10.0		µg/l	10.0	0.80	1	SW846 8260C	07-Jun-17	07-Jun-17	GMA	1709424	
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.42	1	"	"	"	"	"	
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	
74-83-9	Bromomethane	< 2.00		µg/l	2.00	0.90	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.44	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.25	1	"	"	"	"	"	
75-00-3	Chloroethane	< 2.00		µg/l	2.00	0.59	1	"	"	"	"	"	
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	
74-87-3	Chloromethane	< 2.00		µg/l	2.00	0.37	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.32	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.31	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.27	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.58	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.69	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.35	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.66	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.33	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 1.00		µg/l	1.00	0.57	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.00		µg/l	1.00	0.51	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 1.00		µg/l	1.00	0.50	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	11.4	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*92*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*102*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*107*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*104*			*70-130 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
EFF	60537294	Ground Water	25-May-17 15:00	30-May-17
SC35221-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
67-64-1	Acetone	< 10.0		µg/l	10.0	0.80	1	SW846 8260C	05-Jun-17	06-Jun-17	GMA	1709262	
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.42	1	"	"	"	"	"	
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	
74-83-9	Bromomethane	< 2.00		µg/l	2.00	0.90	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.44	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.25	1	"	"	"	"	"	
75-00-3	Chloroethane	< 2.00		µg/l	2.00	0.59	1	"	"	"	"	"	
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	
74-87-3	Chloromethane	< 2.00		µg/l	2.00	0.37	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.32	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.31	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.27	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.58	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.69	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.35	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.66	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.33	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 1.00		µg/l	1.00	0.57	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.00		µg/l	1.00	0.51	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 1.00		µg/l	1.00	0.50	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	11.4	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*93*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*102*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*107*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*106*			*70-130 %*			"	"	"	"	"	
Semivolatile Organic Compounds by GCMS													
Phthalates Prepared by method SW846 3510C													
117-81-7	Bis(2-ethylhexyl)phthalate	< 0.952		µg/l	0.952	0.608	1	SW846 8270D	01-Jun-17	02-Jun-17	MSL	1709046	
85-68-7	Butyl benzyl phthalate	< 0.952		µg/l	0.952	0.417	1	"	"	"	"	"	
84-66-2	Diethyl phthalate	< 0.952		µg/l	0.952	0.593	1	"	"	"	"	"	
131-11-3	Dimethyl phthalate	< 0.952		µg/l	0.952	0.722	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
EFF SC35221-03	60537294	Ground Water	25-May-17 15:00	30-May-17

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GCMS													
Phthalates													
84-74-2	Di-n-butyl phthalate	< 0.952		µg/l	0.952	0.435	1	SW846 8270D	01-Jun-17	02-Jun-17	MSL	1709046	
117-84-0	Di-n-octyl phthalate	< 0.952		µg/l	0.952	0.387	1	"	"	"	"	"	
Surrogate recoveries:													
321-60-8	*2-Fluorobiphenyl*	*41*			*30-130 %*			"	"	"	"	"	
1718-51-0	*Terphenyl-dl4*	*54*			*30-130 %*			"	"	"	"	"	
SVOCs by SIM													
87-86-5	Pentachlorophenol	< 0.952		µg/l	0.952	0.223	1	SW846 8270D SIM	"	09-Jun-17	MSL	"	
Surrogate recoveries:													
205440-82-0	*Benzo (e) pyrene-d12*	*64*			*30-130 %*			"	"	"	"	"	
93951-73-6	*2-Chlorophenol-d4*	*33*			*15-110 %*			"	"	"	"	"	
Total Metals by EPA 200/6000 Series Methods													
Prepared by method General Prep-Metal													
	Preservation	**Field Preserved; pH<2 confirmed**		N/A			1	EPA 200/6000 methods	31-May-17		BK	1709028	
Total Metals by EPA 200 Series Methods													
7439-89-6	Iron	< 0.0400	R06	mg/l	0.0400	0.0100	1	EPA 200.7	01-Jun-17	02-Jun-17	TBC	1709062	X
7440-66-6	Zinc	< 0.0050		mg/l	0.0050	0.0027	1	"	"	"	"	"	X
General Chemistry Parameters													
16887-00-6	Chloride	**125**	GS1, D	mg/l	3.00	0.269	3	EPA 300.0	31-May-17	01-Jun-17	CAW	1709037	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
TB	60537294	Ground Water	25-May-17 14:30	30-May-17
SC35221-04				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds by SW846 8260 Prepared by method SW846 5030 Water MS													
67-64-1	Acetone	< 10.0	O01	µg/l	10.0	0.80	1	SW846 8260C	05-Jun-17	06-Jun-17	GMA	1709262	
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.42	1	"	"	"	"	"	
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.42	1	"	"	"	"	"	
74-83-9	Bromomethane	< 2.00		µg/l	2.00	0.90	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.44	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.25	1	"	"	"	"	"	
75-00-3	Chloroethane	< 2.00		µg/l	2.00	0.59	1	"	"	"	"	"	
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	
74-87-3	Chloromethane	< 2.00	O01	µg/l	2.00	0.37	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.32	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.31	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.27	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.58	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 1.00		µg/l	1.00	0.32	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.28	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.69	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.29	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.36	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.35	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.66	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.33	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 1.00		µg/l	1.00	0.57	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.00		µg/l	1.00	0.51	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 1.00		µg/l	1.00	0.50	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.47	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	11.4	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*93*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*102*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*104*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*103*			*70-130 %*			"	"	"	"	"	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1709262 - SW846 5030 Water MS										
Blank (1709262-BLK1)					Prepared & Analyzed: 05-Jun-17					
Acetone	< 10.0		µg/l	10.0						
Bromodichloromethane	< 0.50		µg/l	0.50						
Bromoform	< 1.00		µg/l	1.00						
Bromomethane	< 2.00		µg/l	2.00						
Carbon tetrachloride	< 1.00		µg/l	1.00						
Chlorobenzene	< 1.00		µg/l	1.00						
Chloroethane	< 2.00		µg/l	2.00						
Chloroform	< 1.00		µg/l	1.00						
Chloromethane	< 2.00	O01	µg/l	2.00						
Dibromochloromethane	< 0.50		µg/l	0.50						
1,2-Dichlorobenzene	< 1.00		µg/l	1.00						
1,3-Dichlorobenzene	< 1.00		µg/l	1.00						
1,4-Dichlorobenzene	< 1.00		µg/l	1.00						
Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00						
1,1-Dichloroethane	< 1.00		µg/l	1.00						
1,2-Dichloroethane	< 1.00		µg/l	1.00						
1,1-Dichloroethene	< 1.00		µg/l	1.00						
cis-1,2-Dichloroethene	< 1.00		µg/l	1.00						
trans-1,2-Dichloroethene	< 1.00		µg/l	1.00						
1,2-Dichloropropane	< 1.00		µg/l	1.00						
cis-1,3-Dichloropropene	< 0.50		µg/l	0.50						
trans-1,3-Dichloropropene	< 0.50		µg/l	0.50						
Methylene chloride	< 2.00		µg/l	2.00						
1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50						
Tetrachloroethene	< 1.00		µg/l	1.00						
1,1,1-Trichloroethane	< 1.00		µg/l	1.00						
1,1,2-Trichloroethane	< 1.00		µg/l	1.00						
Trichloroethene	< 1.00		µg/l	1.00						
Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00						
Vinyl chloride	< 1.00		µg/l	1.00						
1,4-Dioxane	< 20.0		µg/l	20.0						
Surrogate: 4-Bromofluorobenzene	*47.1*		µg/l		*50.0*		*94*	*70-130*		
Surrogate: Toluene-d8	*51.2*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*51.4*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: Dibromofluoromethane	*51.1*		µg/l		*50.0*		*102*	*70-130*		
LCS (1709262-BS1)					Prepared & Analyzed: 05-Jun-17					
Acetone	**23.9**		µg/l		20.0		120	70-130		
Bromodichloromethane	**18.9**		µg/l		20.0		95	70-130		
Bromoform	**18.6**		µg/l		20.0		93	70-130		
Bromomethane	**19.2**		µg/l		20.0		96	70-130		
Carbon tetrachloride	**19.0**		µg/l		20.0		95	70-130		
Chlorobenzene	**20.2**		µg/l		20.0		101	70-130		
Chloroethane	**20.9**		µg/l		20.0		104	70-130		
Chloroform	**17.8**		µg/l		20.0		89	70-130		
Chloromethane	**21.9**		µg/l		20.0		109	70-130		
Dibromochloromethane	**19.1**		µg/l		20.0		96	70-130		
1,2-Dichlorobenzene	**20.1**		µg/l		20.0		101	70-130		
1,3-Dichlorobenzene	**20.8**		µg/l		20.0		104	70-130		
1,4-Dichlorobenzene	**18.7**		µg/l		20.0		94	70-130		
Dichlorodifluoromethane (Freon12)	**19.4**		µg/l		20.0		97	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1709262 - SW846 5030 Water MS										
LCS (1709262-BS1)					Prepared & Analyzed: 05-Jun-17					
1,1-Dichloroethane	**21.4**		µg/l		20.0		107	70-130		
1,2-Dichloroethane	**20.2**		µg/l		20.0		101	70-130		
1,1-Dichloroethene	**21.4**		µg/l		20.0		107	70-130		
cis-1,2-Dichloroethene	**17.4**		µg/l		20.0		87	70-130		
trans-1,2-Dichloroethene	**20.8**		µg/l		20.0		104	70-130		
1,2-Dichloropropane	**20.3**		µg/l		20.0		101	70-130		
cis-1,3-Dichloropropene	**19.5**		µg/l		20.0		97	70-130		
trans-1,3-Dichloropropene	**19.8**		µg/l		20.0		99	70-130		
Methylene chloride	**21.0**		µg/l		20.0		105	70-130		
1,1,2,2-Tetrachloroethane	**21.0**		µg/l		20.0		105	70-130		
Tetrachloroethene	**19.0**		µg/l		20.0		95	70-130		
1,1,1-Trichloroethane	**20.8**		µg/l		20.0		104	70-130		
1,1,2-Trichloroethane	**21.1**		µg/l		20.0		106	70-130		
Trichloroethene	**19.4**		µg/l		20.0		97	70-130		
Trichlorofluoromethane (Freon 11)	**21.0**		µg/l		20.0		105	70-130		
Vinyl chloride	**20.4**		µg/l		20.0		102	70-130		
1,4-Dioxane	**186**		µg/l		200		93	70-130		
Surrogate: 4-Bromofluorobenzene	*52.0*		µg/l		*50.0*		*104*	*70-130*		
Surrogate: Toluene-d8	*51.4*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*49.2*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: Dibromofluoromethane	*51.3*		µg/l		*50.0*		*103*	*70-130*		
LCS Dup (1709262-BSD1)					Prepared: 05-Jun-17 Analyzed: 06-Jun-17					
Acetone	**23.7**		µg/l		20.0		119	70-130	0.8	20
Bromodichloromethane	**18.6**		µg/l		20.0		93	70-130	2	20
Bromoform	**18.4**		µg/l		20.0		92	70-130	1	20
Bromomethane	**18.4**		µg/l		20.0		92	70-130	4	20
Carbon tetrachloride	**18.0**		µg/l		20.0		90	70-130	5	20
Chlorobenzene	**19.4**		µg/l		20.0		97	70-130	4	20
Chloroethane	**20.5**		µg/l		20.0		102	70-130	2	20
Chloroform	**17.4**		µg/l		20.0		87	70-130	2	20
Chloromethane	**21.2**		µg/l		20.0		106	70-130	3	20
Dibromochloromethane	**18.8**		µg/l		20.0		94	70-130	1	20
1,2-Dichlorobenzene	**19.6**		µg/l		20.0		98	70-130	3	20
1,3-Dichlorobenzene	**20.2**		µg/l		20.0		101	70-130	3	20
1,4-Dichlorobenzene	**18.2**		µg/l		20.0		91	70-130	3	20
Dichlorodifluoromethane (Freon12)	**18.2**		µg/l		20.0		91	70-130	6	20
1,1-Dichloroethane	**20.4**		µg/l		20.0		102	70-130	5	20
1,2-Dichloroethane	**19.8**		µg/l		20.0		99	70-130	2	20
1,1-Dichloroethene	**20.9**		µg/l		20.0		104	70-130	2	20
cis-1,2-Dichloroethene	**16.8**		µg/l		20.0		84	70-130	3	20
trans-1,2-Dichloroethene	**20.2**		µg/l		20.0		101	70-130	3	20
1,2-Dichloropropane	**19.6**		µg/l		20.0		98	70-130	3	20
cis-1,3-Dichloropropene	**18.6**		µg/l		20.0		93	70-130	5	20
trans-1,3-Dichloropropene	**19.0**		µg/l		20.0		95	70-130	4	20
Methylene chloride	**20.6**		µg/l		20.0		103	70-130	2	20
1,1,2,2-Tetrachloroethane	**20.7**		µg/l		20.0		103	70-130	2	20
Tetrachloroethene	**18.5**		µg/l		20.0		93	70-130	3	20
1,1,1-Trichloroethane	**20.2**		µg/l		20.0		101	70-130	3	20
1,1,2-Trichloroethane	**20.7**		µg/l		20.0		104	70-130	2	20
Trichloroethene	**18.8**		µg/l		20.0		94	70-130	3	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1709262 - SW846 5030 Water MS										
LCS Dup (1709262-BSD1)					Prepared: 05-Jun-17 Analyzed: 06-Jun-17					
Trichlorofluoromethane (Freon 11)	**19.9**		µg/l		20.0		100	70-130	5	20
Vinyl chloride	**19.5**		µg/l		20.0		98	70-130	5	20
1,4-Dioxane	**188**		µg/l		200		94	70-130	1	20
Surrogate: 4-Bromofluorobenzene	*51.6*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: Toluene-d8	*51.5*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*48.8*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: Dibromofluoromethane	*51.0*		µg/l		*50.0*		*102*	*70-130*		
Batch 1709320 - SW846 5030 Water MS										
Blank (1709320-BLK1)					Prepared & Analyzed: 06-Jun-17					
Acetone	< 10.0	O01	µg/l	10.0						
Bromodichloromethane	< 0.50		µg/l	0.50						
Bromoform	< 1.00		µg/l	1.00						
Bromomethane	< 2.00		µg/l	2.00						
Carbon tetrachloride	< 1.00		µg/l	1.00						
Chlorobenzene	< 1.00		µg/l	1.00						
Chloroethane	< 2.00		µg/l	2.00						
Chloroform	< 1.00		µg/l	1.00						
Chloromethane	< 2.00	O01	µg/l	2.00						
Dibromochloromethane	< 0.50		µg/l	0.50						
1,2-Dichlorobenzene	< 1.00		µg/l	1.00						
1,3-Dichlorobenzene	< 1.00		µg/l	1.00						
1,4-Dichlorobenzene	< 1.00		µg/l	1.00						
Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00						
1,1-Dichloroethane	< 1.00		µg/l	1.00						
1,2-Dichloroethane	< 1.00		µg/l	1.00						
1,1-Dichloroethene	< 1.00		µg/l	1.00						
cis-1,2-Dichloroethene	< 1.00		µg/l	1.00						
trans-1,2-Dichloroethene	< 1.00		µg/l	1.00						
1,2-Dichloropropane	< 1.00		µg/l	1.00						
cis-1,3-Dichloropropene	< 0.50		µg/l	0.50						
trans-1,3-Dichloropropene	< 0.50		µg/l	0.50						
Methylene chloride	< 2.00		µg/l	2.00						
1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50						
Tetrachloroethene	< 1.00		µg/l	1.00						
1,1,1-Trichloroethane	< 1.00		µg/l	1.00						
1,1,2-Trichloroethane	< 1.00		µg/l	1.00						
Trichloroethene	< 1.00		µg/l	1.00						
Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00						
Vinyl chloride	< 1.00		µg/l	1.00						
1,4-Dioxane	< 20.0		µg/l	20.0						
Surrogate: 4-Bromofluorobenzene	*46.2*		µg/l		*50.0*		*92*	*70-130*		
Surrogate: Toluene-d8	*51.4*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*53.1*		µg/l		*50.0*		*106*	*70-130*		
Surrogate: Dibromofluoromethane	*52.4*		µg/l		*50.0*		*105*	*70-130*		
LCS (1709320-BS1)					Prepared & Analyzed: 06-Jun-17					
Acetone	**18.6**		µg/l		20.0		93	70-130		
Bromodichloromethane	**18.9**		µg/l		20.0		95	70-130		
Bromoform	**18.1**		µg/l		20.0		90	70-130		
Bromomethane	**21.1**		µg/l		20.0		106	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1709320 - SW846 5030 Water MS										
LCS (1709320-BS1)					Prepared & Analyzed: 06-Jun-17					
Carbon tetrachloride	**19.4**		µg/l		20.0		97	70-130		
Chlorobenzene	**20.0**		µg/l		20.0		100	70-130		
Chloroethane	**21.6**		µg/l		20.0		108	70-130		
Chloroform	**17.9**		µg/l		20.0		89	70-130		
Chloromethane	**21.1**		µg/l		20.0		106	70-130		
Dibromochloromethane	**18.8**		µg/l		20.0		94	70-130		
1,2-Dichlorobenzene	**19.1**		µg/l		20.0		96	70-130		
1,3-Dichlorobenzene	**20.7**		µg/l		20.0		104	70-130		
1,4-Dichlorobenzene	**18.1**		µg/l		20.0		91	70-130		
Dichlorodifluoromethane (Freon12)	**18.5**		µg/l		20.0		92	70-130		
1,1-Dichloroethane	**21.7**		µg/l		20.0		108	70-130		
1,2-Dichloroethane	**19.5**		µg/l		20.0		98	70-130		
1,1-Dichloroethene	**22.4**		µg/l		20.0		112	70-130		
cis-1,2-Dichloroethene	**17.1**		µg/l		20.0		86	70-130		
trans-1,2-Dichloroethene	**21.6**		µg/l		20.0		108	70-130		
1,2-Dichloropropane	**19.8**		µg/l		20.0		99	70-130		
cis-1,3-Dichloropropene	**18.2**		µg/l		20.0		91	70-130		
trans-1,3-Dichloropropene	**17.7**		µg/l		20.0		88	70-130		
Methylene chloride	**21.4**		µg/l		20.0		107	70-130		
1,1,2,2-Tetrachloroethane	**20.3**		µg/l		20.0		101	70-130		
Tetrachloroethene	**19.4**		µg/l		20.0		97	70-130		
1,1,1-Trichloroethane	**20.3**		µg/l		20.0		102	70-130		
1,1,2-Trichloroethane	**20.7**		µg/l		20.0		103	70-130		
Trichloroethene	**19.5**		µg/l		20.0		98	70-130		
Trichlorofluoromethane (Freon 11)	**21.9**		µg/l		20.0		110	70-130		
Vinyl chloride	**21.3**		µg/l		20.0		107	70-130		
1,4-Dioxane	**165**		µg/l		200		82	70-130		
Surrogate: 4-Bromofluorobenzene	*51.9*		µg/l		*50.0*		*104*	*70-130*		
Surrogate: Toluene-d8	*51.5*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*49.8*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: Dibromofluoromethane	*51.2*		µg/l		*50.0*		*102*	*70-130*		
LCS Dup (1709320-BSD1)					Prepared & Analyzed: 06-Jun-17					
Acetone	**16.7**		µg/l		20.0		83	70-130	11	20
Bromodichloromethane	**17.7**		µg/l		20.0		88	70-130	7	20
Bromoform	**17.0**		µg/l		20.0		85	70-130	6	20
Bromomethane	**20.8**		µg/l		20.0		104	70-130	2	20
Carbon tetrachloride	**18.3**		µg/l		20.0		92	70-130	6	20
Chlorobenzene	**19.2**		µg/l		20.0		96	70-130	4	20
Chloroethane	**20.5**		µg/l		20.0		103	70-130	5	20
Chloroform	**17.0**		µg/l		20.0		85	70-130	5	20
Chloromethane	**20.6**		µg/l		20.0		103	70-130	3	20
Dibromochloromethane	**18.1**		µg/l		20.0		90	70-130	4	20
1,2-Dichlorobenzene	**19.0**		µg/l		20.0		95	70-130	0.9	20
1,3-Dichlorobenzene	**19.9**		µg/l		20.0		99	70-130	4	20
1,4-Dichlorobenzene	**18.0**		µg/l		20.0		90	70-130	0.6	20
Dichlorodifluoromethane (Freon12)	**17.6**		µg/l		20.0		88	70-130	5	20
1,1-Dichloroethane	**20.8**		µg/l		20.0		104	70-130	4	20
1,2-Dichloroethane	**19.3**		µg/l		20.0		96	70-130	1	20
1,1-Dichloroethene	**20.6**		µg/l		20.0		103	70-130	8	20
cis-1,2-Dichloroethene	**16.3**		µg/l		20.0		82	70-130	5	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1709320 - SW846 5030 Water MS										
LCS Dup (1709320-BSD1)					Prepared & Analyzed: 06-Jun-17					
trans-1,2-Dichloroethene	**20.6**		µg/l		20.0		103	70-130	5	20
1,2-Dichloropropane	**19.0**		µg/l		20.0		95	70-130	4	20
cis-1,3-Dichloropropene	**17.6**		µg/l		20.0		88	70-130	4	20
trans-1,3-Dichloropropene	**17.2**		µg/l		20.0		86	70-130	3	20
Methylene chloride	**20.6**		µg/l		20.0		103	70-130	3	20
1,1,2,2-Tetrachloroethane	**19.8**		µg/l		20.0		99	70-130	2	20
Tetrachloroethene	**19.2**		µg/l		20.0		96	70-130	1	20
1,1,1-Trichloroethane	**19.4**		µg/l		20.0		97	70-130	5	20
1,1,2-Trichloroethane	**20.0**		µg/l		20.0		100	70-130	4	20
Trichloroethene	**18.6**		µg/l		20.0		93	70-130	5	20
Trichlorofluoromethane (Freon 11)	**20.8**		µg/l		20.0		104	70-130	5	20
Vinyl chloride	**20.3**		µg/l		20.0		101	70-130	5	20
1,4-Dioxane	**174**		µg/l		200		87	70-130	5	20
Surrogate: 4-Bromofluorobenzene	*51.9*		µg/l		*50.0*		*104*	*70-130*		
Surrogate: Toluene-d8	*51.1*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*48.5*		µg/l		*50.0*		*97*	*70-130*		
Surrogate: Dibromofluoromethane	*51.3*		µg/l		*50.0*		*103*	*70-130*		
Batch 1709424 - SW846 5030 Water MS										
Blank (1709424-BLK1)					Prepared & Analyzed: 07-Jun-17					
Acetone	< 10.0	O01	µg/l	10.0						
Bromodichloromethane	< 0.50		µg/l	0.50						
Bromoform	< 1.00		µg/l	1.00						
Bromomethane	< 2.00		µg/l	2.00						
Carbon tetrachloride	< 1.00		µg/l	1.00						
Chlorobenzene	< 1.00		µg/l	1.00						
Chloroethane	< 2.00		µg/l	2.00						
Chloroform	< 1.00		µg/l	1.00						
Chloromethane	< 2.00	O01	µg/l	2.00						
Dibromochloromethane	< 0.50		µg/l	0.50						
1,2-Dichlorobenzene	< 1.00		µg/l	1.00						
1,3-Dichlorobenzene	< 1.00		µg/l	1.00						
1,4-Dichlorobenzene	< 1.00		µg/l	1.00						
Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00						
1,1-Dichloroethane	< 1.00		µg/l	1.00						
1,2-Dichloroethane	< 1.00		µg/l	1.00						
1,1-Dichloroethene	< 1.00		µg/l	1.00						
cis-1,2-Dichloroethene	< 1.00		µg/l	1.00						
trans-1,2-Dichloroethene	< 1.00		µg/l	1.00						
1,2-Dichloropropane	< 1.00		µg/l	1.00						
cis-1,3-Dichloropropene	< 0.50		µg/l	0.50						
trans-1,3-Dichloropropene	< 0.50		µg/l	0.50						
Methylene chloride	< 2.00		µg/l	2.00						
1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50						
Tetrachloroethene	< 1.00		µg/l	1.00						
1,1,1-Trichloroethane	< 1.00		µg/l	1.00						
1,1,2-Trichloroethane	< 1.00		µg/l	1.00						
Trichloroethene	< 1.00		µg/l	1.00						
Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00						
Vinyl chloride	< 1.00		µg/l	1.00						
1,4-Dioxane	< 20.0		µg/l	20.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1709424 - SW846 5030 Water MS										
Blank (1709424-BLK1)					Prepared & Analyzed: 07-Jun-17					
Surrogate: 4-Bromofluorobenzene	*45.9*		µg/l		*50.0*		*92*	*70-130*		
Surrogate: Toluene-d8	*51.6*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*52.8*		µg/l		*50.0*		*106*	*70-130*		
Surrogate: Dibromofluoromethane	*53.7*		µg/l		*50.0*		*107*	*70-130*		
LCS (1709424-BS1)					Prepared & Analyzed: 07-Jun-17					
Acetone	**20.0**		µg/l		20.0		100	70-130		
Bromodichloromethane	**19.9**		µg/l		20.0		100	70-130		
Bromoform	**19.4**		µg/l		20.0		97	70-130		
Bromomethane	**22.9**		µg/l		20.0		114	70-130		
Carbon tetrachloride	**20.0**		µg/l		20.0		100	70-130		
Chlorobenzene	**20.9**		µg/l		20.0		104	70-130		
Chloroethane	**22.7**		µg/l		20.0		113	70-130		
Chloroform	**18.7**		µg/l		20.0		94	70-130		
Chloromethane	**21.8**		µg/l		20.0		109	70-130		
Dibromochloromethane	**19.9**		µg/l		20.0		99	70-130		
1,2-Dichlorobenzene	**20.0**		µg/l		20.0		100	70-130		
1,3-Dichlorobenzene	**21.9**		µg/l		20.0		110	70-130		
1,4-Dichlorobenzene	**18.9**		µg/l		20.0		95	70-130		
Dichlorodifluoromethane (Freon12)	**19.2**		µg/l		20.0		96	70-130		
1,1-Dichloroethane	**22.7**		µg/l		20.0		114	70-130		
1,2-Dichloroethane	**20.6**		µg/l		20.0		103	70-130		
1,1-Dichloroethene	**22.8**		µg/l		20.0		114	70-130		
cis-1,2-Dichloroethene	**17.5**		µg/l		20.0		87	70-130		
trans-1,2-Dichloroethene	**22.7**		µg/l		20.0		113	70-130		
1,2-Dichloropropane	**20.8**		µg/l		20.0		104	70-130		
cis-1,3-Dichloropropene	**19.3**		µg/l		20.0		97	70-130		
trans-1,3-Dichloropropene	**19.2**		µg/l		20.0		96	70-130		
Methylene chloride	**22.6**		µg/l		20.0		113	70-130		
1,1,2,2-Tetrachloroethane	**21.7**		µg/l		20.0		108	70-130		
Tetrachloroethene	**19.6**		µg/l		20.0		98	70-130		
1,1,1-Trichloroethane	**20.7**		µg/l		20.0		104	70-130		
1,1,2-Trichloroethane	**21.7**		µg/l		20.0		108	70-130		
Trichloroethene	**20.2**		µg/l		20.0		101	70-130		
Trichlorofluoromethane (Freon 11)	**22.4**		µg/l		20.0		112	70-130		
Vinyl chloride	**22.2**		µg/l		20.0		111	70-130		
1,4-Dioxane	**174**		µg/l		200		87	70-130		
Surrogate: 4-Bromofluorobenzene	*52.9*		µg/l		*50.0*		*106*	*70-130*		
Surrogate: Toluene-d8	*51.5*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*49.9*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: Dibromofluoromethane	*51.2*		µg/l		*50.0*		*102*	*70-130*		
LCS Dup (1709424-BSD1)					Prepared & Analyzed: 07-Jun-17					
Acetone	**21.9**		µg/l		20.0		109	70-130	9	20
Bromodichloromethane	**19.7**		µg/l		20.0		98	70-130	1	20
Bromoform	**19.6**		µg/l		20.0		98	70-130	0.9	20
Bromomethane	**23.3**		µg/l		20.0		117	70-130	2	20
Carbon tetrachloride	**20.1**		µg/l		20.0		100	70-130	0.3	20
Chlorobenzene	**20.8**		µg/l		20.0		104	70-130	0.1	20
Chloroethane	**22.7**		µg/l		20.0		114	70-130	0.09	20
Chloroform	**18.4**		µg/l		20.0		92	70-130	2	20
Chloromethane	**23.2**		µg/l		20.0		116	70-130	7	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8260C										
Batch 1709424 - SW846 5030 Water MS										
LCS Dup (1709424-BSD1)					Prepared & Analyzed: 07-Jun-17					
Dibromochloromethane	**20.1**		µg/l		20.0		100	70-130	1	20
1,2-Dichlorobenzene	**20.8**		µg/l		20.0		104	70-130	4	20
1,3-Dichlorobenzene	**21.9**		µg/l		20.0		110	70-130	0.05	20
1,4-Dichlorobenzene	**19.6**		µg/l		20.0		98	70-130	3	20
Dichlorodifluoromethane (Freon12)	**19.9**		µg/l		20.0		100	70-130	3	20
1,1-Dichloroethane	**22.8**		µg/l		20.0		114	70-130	0.1	20
1,2-Dichloroethane	**20.8**		µg/l		20.0		104	70-130	0.6	20
1,1-Dichloroethene	**23.5**		µg/l		20.0		117	70-130	3	20
cis-1,2-Dichloroethene	**17.8**		µg/l		20.0		89	70-130	2	20
trans-1,2-Dichloroethene	**22.8**		µg/l		20.0		114	70-130	0.7	20
1,2-Dichloropropane	**20.5**		µg/l		20.0		103	70-130	1	20
cis-1,3-Dichloropropene	**19.5**		µg/l		20.0		97	70-130	0.9	20
trans-1,3-Dichloropropene	**19.5**		µg/l		20.0		97	70-130	1	20
Methylene chloride	**22.9**		µg/l		20.0		114	70-130	1	20
1,1,2,2-Tetrachloroethane	**22.1**		µg/l		20.0		110	70-130	2	20
Tetrachloroethene	**20.5**		µg/l		20.0		103	70-130	4	20
1,1,1-Trichloroethane	**21.3**		µg/l		20.0		106	70-130	3	20
1,1,2-Trichloroethane	**21.9**		µg/l		20.0		110	70-130	1	20
Trichloroethene	**19.8**		µg/l		20.0		99	70-130	2	20
Trichlorofluoromethane (Freon 11)	**23.1**		µg/l		20.0		115	70-130	3	20
Vinyl chloride	**22.4**		µg/l		20.0		112	70-130	0.8	20
1,4-Dioxane	**178**		µg/l		200		89	70-130	2	20
Surrogate: 4-Bromofluorobenzene	*52.5*		µg/l		*50.0*		*105*	*70-130*		
Surrogate: Toluene-d8	*51.4*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*48.8*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: Dibromofluoromethane	*50.9*		µg/l		*50.0*		*102*	*70-130*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8270D										
Batch 1709046 - SW846 3510C										
Blank (1709046-BLK1)					Prepared & Analyzed: 01-Jun-17					
Bis(2-ethylhexyl)phthalate	< 1.00		µg/l	1.00						
Butyl benzyl phthalate	< 1.00		µg/l	1.00						
Diethyl phthalate	< 1.00		µg/l	1.00						
Dimethyl phthalate	< 1.00		µg/l	1.00						
Di-n-butyl phthalate	< 1.00		µg/l	1.00						
Di-n-octyl phthalate	< 1.00		µg/l	1.00						
Surrogate: 2-Fluorobiphenyl	*30.4*		µg/l		*50.0*		*61*	*30-130*		
Surrogate: Terphenyl-dl4	*32.5*		µg/l		*50.0*		*65*	*30-130*		
LCS (1709046-BS1)					Prepared & Analyzed: 01-Jun-17					
Bis(2-ethylhexyl)phthalate	**25.3**		µg/l	1.00	50.0		51	40-140		
Butyl benzyl phthalate	**25.9**		µg/l	1.00	50.0		52	40-140		
Diethyl phthalate	**26.0**		µg/l	1.00	50.0		52	40-140		
Dimethyl phthalate	**26.0**		µg/l	1.00	50.0		52	40-140		
Di-n-butyl phthalate	**25.2**		µg/l	1.00	50.0		50	40-140		
Di-n-octyl phthalate	**24.1**		µg/l	1.00	50.0		48	40-140		
Surrogate: 2-Fluorobiphenyl	*30.4*		µg/l		*50.0*		*61*	*30-130*		
Surrogate: Terphenyl-dl4	*29.9*		µg/l		*50.0*		*60*	*30-130*		
LCS Dup (1709046-BSD1)					Prepared & Analyzed: 01-Jun-17					
Bis(2-ethylhexyl)phthalate	**25.3**		µg/l	1.00	50.0		51	40-140	0.04	20
Butyl benzyl phthalate	**23.6**		µg/l	1.00	50.0		47	40-140	9	20
Diethyl phthalate	**25.5**		µg/l	1.00	50.0		51	40-140	2	20
Dimethyl phthalate	**24.7**		µg/l	1.00	50.0		49	40-140	5	20
Di-n-butyl phthalate	**25.4**		µg/l	1.00	50.0		51	40-140	1	20
Di-n-octyl phthalate	**22.3**		µg/l	1.00	50.0		45	40-140	8	20
Surrogate: 2-Fluorobiphenyl	*28.9*		µg/l		*50.0*		*58*	*30-130*		
Surrogate: Terphenyl-dl4	*27.8*		µg/l		*50.0*		*56*	*30-130*		
SW846 8270D SIM										
Batch 1709046 - SW846 3510C										
Blank (1709046-BLK2)					Prepared: 01-Jun-17 Analyzed: 09-Jun-17					
Acenaphthene	< 0.050		µg/l	0.050						
Acenaphthylene	< 0.050		µg/l	0.050						
1-Methylnaphthalene	< 0.050		µg/l	0.050						
Anthracene	< 0.050		µg/l	0.050						
Benzo (a) anthracene	< 0.050		µg/l	0.050						
Benzo (a) pyrene	< 0.050		µg/l	0.050						
Benzo (b) fluoranthene	< 0.050		µg/l	0.050						
Benzo (g,h,i) perylene	< 0.050		µg/l	0.050						
Benzo (k) fluoranthene	< 0.050		µg/l	0.050						
Chrysene	< 0.050		µg/l	0.050						
Dibenzo (a,h) anthracene	< 0.050		µg/l	0.050						
Fluoranthene	< 0.050		µg/l	0.050						
Fluorene	< 0.050		µg/l	0.050						
Indeno (1,2,3-cd) pyrene	< 0.050		µg/l	0.050						
2-Methylnaphthalene	< 0.050		µg/l	0.050						
Naphthalene	< 0.050		µg/l	0.050						
Pentachlorophenol	< 1.00		µg/l	1.00						
Phenanthrene	< 0.050		µg/l	0.050						
Pyrene	< 0.050		µg/l	0.050						
Surrogate: Benzo (e) pyrene-d12	*0.760*		µg/l		*1.00*		*76*	*30-130*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
SW846 8270D SIM										
Batch 1709046 - SW846 3510C										
LCS (1709046-BS2)					Prepared: 01-Jun-17 Analyzed: 09-Jun-17					
Acenaphthene	**0.931**		µg/l	0.050	1.00		93	40-140		
Acenaphthylene	**0.890**		µg/l	0.050	1.00		89	40-140		
1-Methylnaphthalene	**0.936**		µg/l	0.050	1.00		94	40-140		
Anthracene	**0.680**		µg/l	0.050	1.00		68	40-140		
Benzo (a) anthracene	**0.783**		µg/l	0.050	1.00		78	40-140		
Benzo (a) pyrene	**0.780**		µg/l	0.050	1.00		78	40-140		
Benzo (b) fluoranthene	**0.790**		µg/l	0.050	1.00		79	40-140		
Benzo (g,h,i) perylene	**0.779**		µg/l	0.050	1.00		78	40-140		
Benzo (k) fluoranthene	**0.858**		µg/l	0.050	1.00		86	40-140		
Chrysene	**0.733**		µg/l	0.050	1.00		73	40-140		
Dibenzo (a,h) anthracene	**0.882**		µg/l	0.050	1.00		88	40-140		
Fluoranthene	**0.761**		µg/l	0.050	1.00		76	40-140		
Fluorene	**0.832**		µg/l	0.050	1.00		83	40-140		
Indeno (1,2,3-cd) pyrene	**0.834**		µg/l	0.050	1.00		83	40-140		
2-Methylnaphthalene	**1.11**		µg/l	0.050	1.00		111	40-140		
Naphthalene	**0.867**		µg/l	0.050	1.00		87	40-140		
Pentachlorophenol	**1.03**		µg/l	1.00	1.00		103	40-140		
Phenanthrene	**0.760**		µg/l	0.050	1.00		76	40-140		
Pyrene	**0.852**		µg/l	0.050	1.00		85	40-140		
Surrogate: Benzo (e) pyrene-d12	*0.900*		µg/l		*1.00*		*90*	*30-130*		
LCS Dup (1709046-BSD2)					Prepared: 01-Jun-17 Analyzed: 09-Jun-17					
Acenaphthene	**0.684**	QR2	µg/l	0.050	1.00		68	40-140	31	20
Acenaphthylene	**0.689**	QR2	µg/l	0.050	1.00		69	40-140	25	20
1-Methylnaphthalene	**0.719**	QR2	µg/l	0.050	1.00		72	40-140	26	20
Anthracene	**0.570**		µg/l	0.050	1.00		57	40-140	18	20
Benzo (a) anthracene	**0.662**		µg/l	0.050	1.00		66	40-140	17	20
Benzo (a) pyrene	**0.614**	QR2	µg/l	0.050	1.00		61	40-140	24	20
Benzo (b) fluoranthene	**0.632**	QR2	µg/l	0.050	1.00		63	40-140	22	20
Benzo (g,h,i) perylene	**0.586**	QR2	µg/l	0.050	1.00		59	40-140	28	20
Benzo (k) fluoranthene	**0.669**	QR2	µg/l	0.050	1.00		67	40-140	25	20
Chrysene	**0.634**		µg/l	0.050	1.00		63	40-140	14	20
Dibenzo (a,h) anthracene	**0.672**	QR2	µg/l	0.050	1.00		67	40-140	27	20
Fluoranthene	**0.622**		µg/l	0.050	1.00		62	40-140	20	20
Fluorene	**0.677**	QR2	µg/l	0.050	1.00		68	40-140	21	20
Indeno (1,2,3-cd) pyrene	**0.627**	QR2	µg/l	0.050	1.00		63	40-140	28	20
2-Methylnaphthalene	**0.832**	QR2	µg/l	0.050	1.00		83	40-140	29	20
Naphthalene	**0.669**	QR2	µg/l	0.050	1.00		67	40-140	26	20
Pentachlorophenol	**0.860**		µg/l	1.00	1.00		86	40-140	18	20
Phenanthrene	**0.618**	QR2	µg/l	0.050	1.00		62	40-140	21	20
Pyrene	**0.649**	QR2	µg/l	0.050	1.00		65	40-140	27	20
Surrogate: Benzo (e) pyrene-d12	*0.770*		µg/l		*1.00*		*77*	*30-130*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
EPA 200.7										
Batch 1709062 - EPA 200 Series										
Blank (1709062-BLK1)					Prepared: 01-Jun-17 Analyzed: 02-Jun-17					
Iron	< 0.0400		mg/l	0.0400						
Zinc	< 0.0050		mg/l	0.0050						
LCS (1709062-BS1)					Prepared: 01-Jun-17 Analyzed: 02-Jun-17					
Iron	**1.34**		mg/l	0.0400	1.25		107	85-115		
Zinc	**1.31**		mg/l	0.0050	1.25		105	85-115		
Duplicate (1709062-DUP1)			**Source: SC35221-01**		Prepared: 01-Jun-17 Analyzed: 02-Jun-17					
Iron	**1.76**	R06	mg/l	0.0400		1.76			0.3	20
Zinc	**0.0464**		mg/l	0.0050		0.0489			5	20
Matrix Spike (1709062-MS1)			**Source: SC35221-01**		Prepared: 01-Jun-17 Analyzed: 02-Jun-17					
Iron	**3.08**		mg/l	0.0400	1.25	1.76	106	70-130		
Zinc	**1.34**		mg/l	0.0050	1.25	0.0489	103	70-130		
Post Spike (1709062-PS1)			**Source: SC35221-01**		Prepared: 01-Jun-17 Analyzed: 02-Jun-17					
Iron	**3.16**		mg/l	0.0400	1.25	1.76	112	85-115		
Zinc	**1.34**		mg/l	0.0050	1.25	0.0489	104	85-115		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
EPA 300.0										
Batch 1709037 - General Preparation										
Blank (1709037-BLK1)					Prepared: 31-May-17 Analyzed: 01-Jun-17					
Chloride	< 1.00		mg/l	1.00						
LCS (1709037-BS1)					Prepared: 31-May-17 Analyzed: 01-Jun-17					
Chloride	**20.9**		mg/l	1.00	20.0		104	90-110		
Duplicate (1709037-DUP1)			**Source: SC35221-03**		Prepared: 31-May-17 Analyzed: 01-Jun-17					
Chloride	**129**	GS1, D	mg/l	3.00		125			3	20
Matrix Spike (1709037-MS1)			**Source: SC35221-03**		Prepared: 31-May-17 Analyzed: 01-Jun-17					
Chloride	**150**		mg/l	2.94	23.5	125	107	90-110		
Matrix Spike Dup (1709037-MSD1)			**Source: SC35221-03**		Prepared: 31-May-17 Analyzed: 01-Jun-17					
Chloride	**150**		mg/l	2.94	23.5	125	108	90-110	0.1	20
Reference (1709037-SRM1)					Prepared: 31-May-17 Analyzed: 01-Jun-17					
Chloride	**25.9**		mg/l	1.00	25.0		103	90-110		

Notes and Definitions

D	Data reported from a dilution
E	This flag indicates the concentration for this analyte is an estimated value due to exceeding the calibration range or interferences resulting in a biased final concentration.
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
O01	This compound is a common laboratory contaminant.
QR2	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
R06	MRL raised to correlate to batch QC reporting limits.
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Sc 35221

eurofins | Spectrum Analytical

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:

- [X] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed: _____

All TATs subject to laboratory approval
Min. 24-hr notification needed for rushes
Samples disposed after 30 days unless otherwise instructed.

Report To: AECOM
250 APOLLO DRIVE
CHELMSFORD MA

Telephone #: MELISSA CANNON
Project Mgr: 978-400-1213

Invoice To:

P.O No.: _____ Quote #: 5049

Project No: 60537294
Site Name: Textron
Location: Mansfield State: MA
Sampler(s): Floyd Bust

F=Field Filtered 1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH3OH 8=$NaHSO_4$ 9=Deionized Water 10=H_3PO_4 11=_____ 12=_____

DW=Drinking Water GW=Groundwater SW=Surface Water WW=Waste Water
O=Oil SO=Soil SL=Sludge A=Indoor/Ambient Air SG=Soil Gas
X1=_____ X2=_____ X3=_____

G= Grab C=Composite

Lab ID:	Sample ID:	Date:	Time:	Type	Matrix	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analysis: VOC's 8260	Fe/Zn	Total Phthalates	Chloride	Pentachlorophenol	Check if chlorinated
35221-01	INF	5/25/17	1530	G	GW	3	1		2	X	X	X	X	X	
-02	MID	"	1515	"	"	3				X					
-03	EFF	"	1500	"	"	3	2		2	X	X	X	X	X	
-04	TB	5/25/17	1430	G	GW	2				X					

List Preservative Code below: 2 4

QA/QC Reporting Notes:
* additional charges may appply

MA DEP MCP CAM Report? [ ] Yes [ ] No
CT DPH RCP Report? [ ] Yes [ ] No
[ ] Standard [ ] No QC
[ ] DQA*
[ ] ASP A* [ ] ASP B*
[ ] NJ Reduced* [ ] NJ Full*
[ ] Tier II* [ ] Tier IV*
[X] Other: ~~NPDES~~
State-specific reporting standards:

*Detection limits for PCP and Phthalates need to meet 1ppb.
*Please report acetone and 1,4 Dioxane
*Low Detection limits required for Metals EPA: 200.8 200.7

Relinquished by:	Received by:	Date:	Time:
[signature]	[signature]	5-30-17	1315
[signature]	[signature]	5/30/17	1515

Temp °C: Observed 1.8; Correction Factor 0; Corrected 1.8; IR ID # 01

[ ] EDD format: Melissa.Cannon@aecom.com
[X] E-mail to:

Condition upon receipt: Custody Seals: [ ] Present [ ] Intact [ ] Broken
[ ] Ambient [ ] Iced [X] Refrigerated [ ] DI VOA Frozen [ ] Soil Jar Frozen

Batch Summary

1709028

Total Metals by EPA 200/6000 Series Methods

SC35221-01 (INF)
SC35221-03 (EFF)

1709037

General Chemistry Parameters

1709037-BLK1
1709037-BS1
1709037-DUP1
1709037-MS1
1709037-MSD1
1709037-SRM1
SC35221-01 (INF)
SC35221-03 (EFF)

1709046

Semivolatile Organic Compounds by GCMS

1709046-BLK1
1709046-BLK2
1709046-BS1
1709046-BS2
1709046-BSD1
1709046-BSD2
SC35221-01 (INF)
SC35221-03 (EFF)

1709062

Total Metals by EPA 200 Series Methods

1709062-BLK1
1709062-BS1
1709062-DUP1
1709062-MS1
1709062-PS1
SC35221-01 (INF)
SC35221-03 (EFF)

1709262

Volatile Organic Compounds

1709262-BLK1
1709262-BS1
1709262-BSD1
SC35221-01 (INF)
SC35221-03 (EFF)
SC35221-04 (TB)

1709320

Volatile Organic Compounds

1709320-BLK1
1709320-BS1
1709320-BSD1
SC35221-01RE1 (INF)

1709424

Volatile Organic Compounds

1709424-BLK1
1709424-BS1
1709424-BSD1
SC35221-02 (MID)

S703654

Semivolatile Organic Compounds by GCMS

S703654-CAL1
S703654-CAL2
S703654-CAL3
S703654-CAL4
S703654-CAL5
S703654-CAL6
S703654-CAL7
S703654-CAL8
S703654-CAL9
S703654-CALA
S703654-CALB
S703654-ICV1
S703654-LCV1
S703654-LCV2
S703654-TUN1

S704674

Volatile Organic Compounds

S704674-CAL1
S704674-CAL2
S704674-CAL3
S704674-CAL4
S704674-CAL5
S704674-CAL6
S704674-CAL7
S704674-CAL8
S704674-CAL9
S704674-ICV1
S704674-LCV1
S704674-LCV2
S704674-LCV3
S704674-TUN1

S704839

Semivolatile Organic Compounds by GCMS

S704839-CAL1
S704839-CAL2
S704839-CAL3
S704839-CAL4
S704839-CAL5
S704839-CAL6
S704839-CAL7
S704839-CAL8
S704839-CAL9
S704839-CALA
S704839-ICV1
S704839-LCV1
S704839-LCV2
S704839-TUN1

S704986

Semivolatile Organic Compounds by GCMS

S704986-CCV1
S704986-TUN1

S705041

Volatile Organic Compounds

S705041-CCV1
S705041-TUN1

S705054

Semivolatile Organic Compounds by GCMS

S705054-CCV1
S705054-TUN1

S705081

Volatile Organic Compounds

S705081-CCV1
S705081-TUN1

S705115

Volatile Organic Compounds

S705115-CCV1
S705115-TUN1

S705228

Semivolatile Organic Compounds by GCMS

S705228-CCV1
S705228-TUN1

TEXTRON

ATTACHMENT 4

DOCUMENTATION OF ESA ELIGIBILITY

Documentation of Results of Endangered Species Act Eligibility Determination

An endangered species consultation per the U.S. Fish and Wildlife Service ("USFWS") New England Field Office ECOS IPaC webpage identified one species which may be present in the area of the Project. The Northern long-eared bat (*Myotis septentrionalis*) was identified. No critical habitat has been designated for this threatened species. According to USFWS, the bats spend winter hibernating in caves and mines, and roost during the summer underneath bark, in cavities or in crevices of both live trees and snags. The bats emerge at dusk to feed on insects in the understory of forested areas. A review of the Massachusetts Natural Heritage and Endangered Species Program ("NHESP") Northern Long-eared Bat Locations mapping, last updated November 2016, confirmed that the Project is not near any known hibernacula or maternity roost trees. The project is located within a densely developed area and does not require the removal of any trees or other vegetation. Therefore, Textron has determined that the proposed dewatering activities will have no effect on the Northern long-eared bat, and the discharges are eligible for coverage under Criterion C. USFWS correspondence and NHESP mapping is attached.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
http://www.fws.gov/newengland

In Reply Refer To: June 15, 2017
Consultation Code: 05E1NE00-2017-SLI-1889
Event Code: 05E1NE00-2017-E-04125
Project Name: Textron, Inc., former Gorham Silver Company Facility Site

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the

human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

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

Project Summary

Consultation Code: 05E1NE00-2017-SLI-1889

Event Code: 05E1NE00-2017-E-04125

Project Name: Textron, Inc., former Gorham Silver Company Facility Site

Project Type: Superfund Site Remediation

Project Description: Multi-phase high-vacuum extraction (MHPVE) system installed to treat VOC contaminated groundwater (GW). GW routed to GW treatment system and discharged to local storm drainage system, which ultimately discharges to a wetland located west of the site.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/42.01358292723763N71.21245371519097W

Counties: Bristol, MA

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area. Please contact the designated FWS office if you have questions.

Mammals

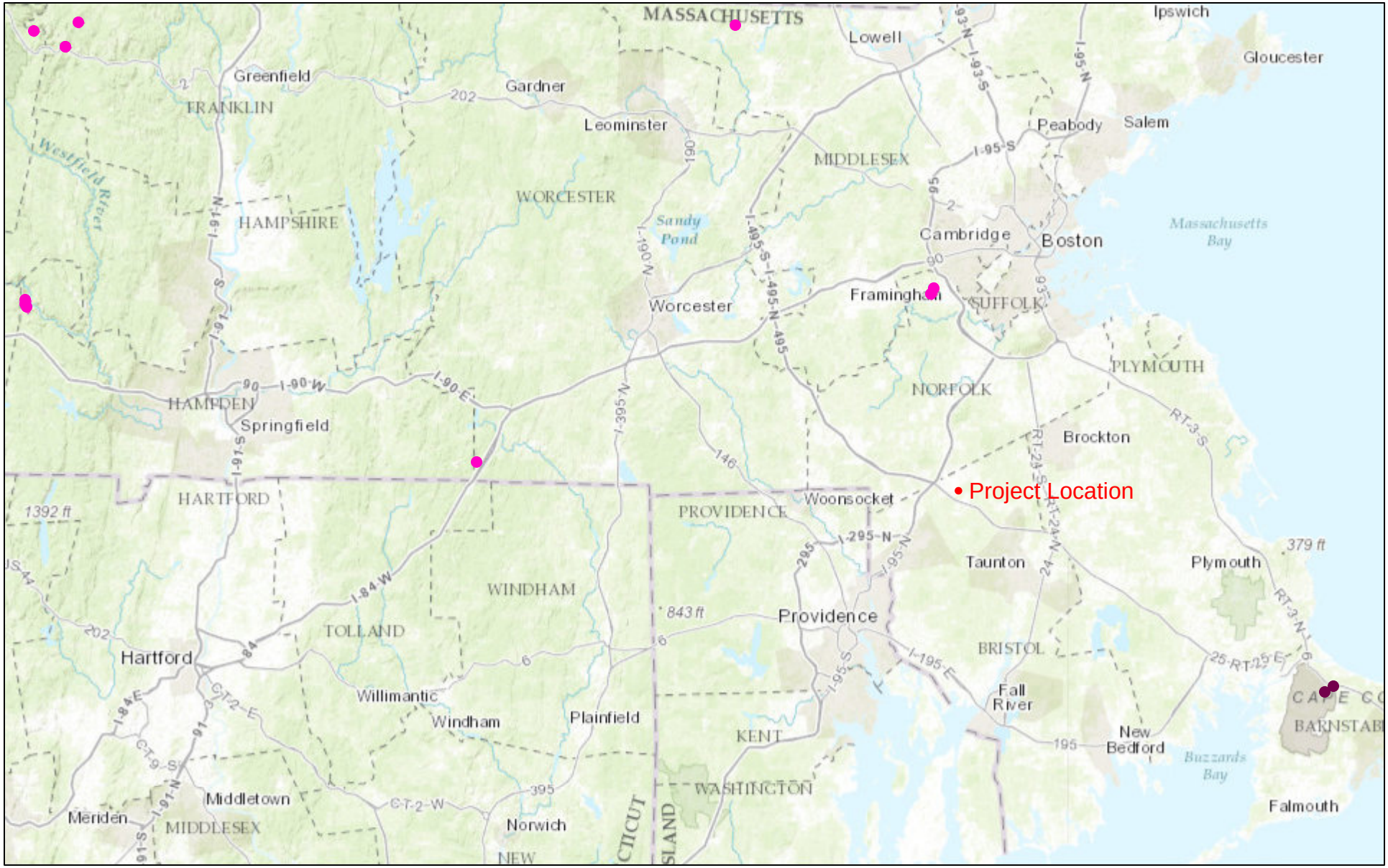
NAME	STATUS
Northern Long-eared Bat *(Myotis septentrionalis)*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/9045

Critical habitats

There are no critical habitats within your project area.

Textron, Inc. - Former Gorham Silver Company



June 20, 2017

Statewide NLEB Symbology

- Maternity Roost Tree
- Hibernaculum
- MA Northern Long-eared Bat Maternity Roost Trees (with 150ft buffer)
- MA Northern Long-eared Bat Winter Hibernacula (with ¼ mile buffer)

1:1,155,581

0 5 10 20 mi

0 10 20 40 km

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey,

TEXTRON

ATTACHMENT 5

DOCUMENTATION OF NHPA ELIGIBILITY

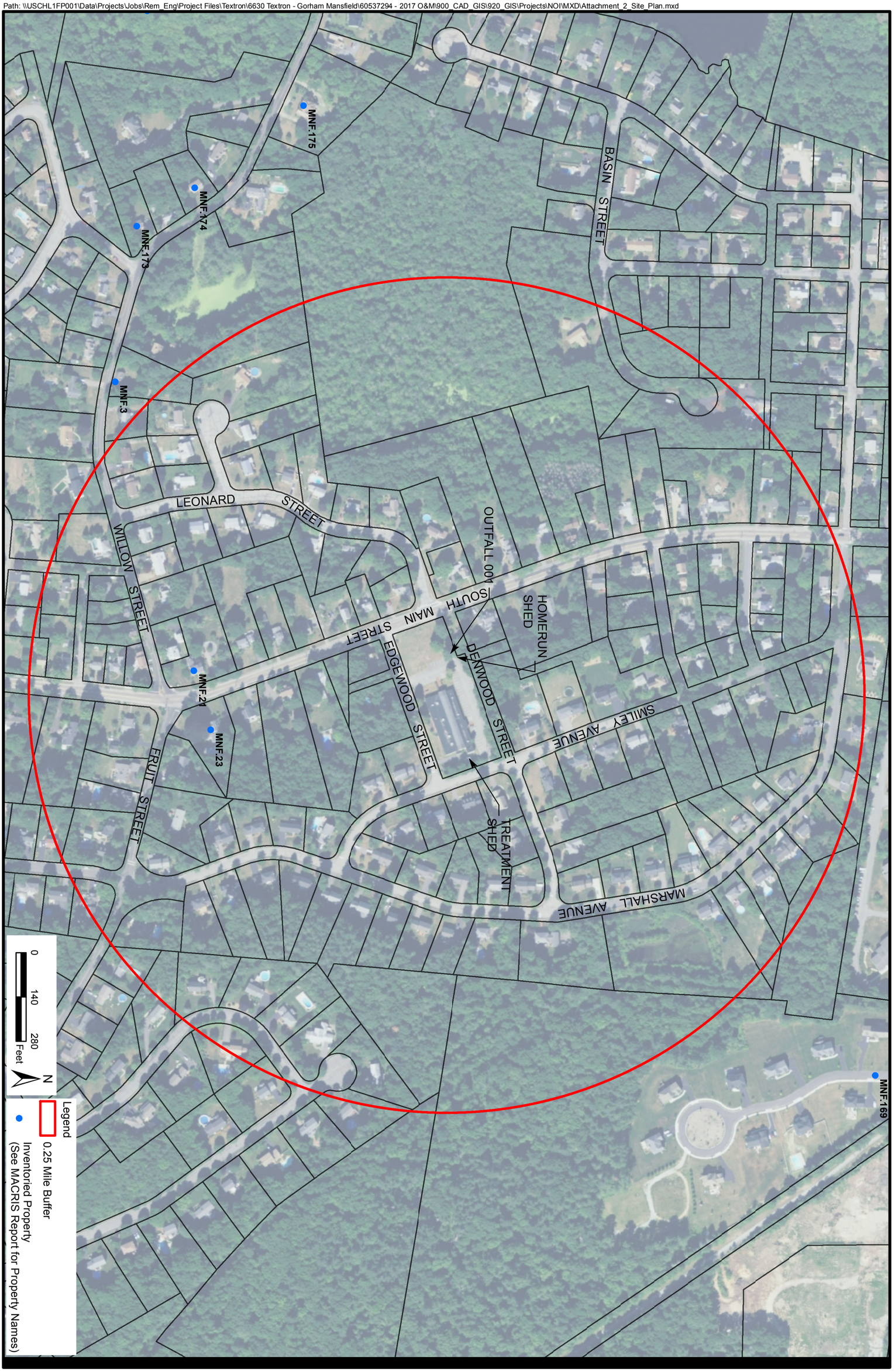
Documentation of Results of National Historic Preservation Act Eligibility Determination

A review of the National Register of Historic Places ("NRHP") database identified four properties registered in the NRHP in Mansfield, none of which are located within 0.25 miles of the Project. A review of the Massachusetts Cultural Resource Information System ("MACRIS") Database identified two historic properties within 0.25 miles of the Project in Mansfield. These properties are identified in the table below. The sites, the Allen Micah House and the Allen Micah Inn, are located approximately 720 feet (0.14 miles) south of the Project. None of the NRHP or MACRIS properties are in the vicinity of the Textron site, the discharge location, or the receiving water. Therefore, the proposed dewatering activities do not have the potential to cause effects on historic properties, and the discharges are eligible for coverage under Criterion A. A copy of the MARCIS report and a map showing the historic places in Mansfield is attached.

Historic Properties Located Within 0.25 miles of the Textron – Former Gorham Silver Site

Site Name	Address	Year	Distance from Project (direction)
Allen, Micah House	395 South Main St., Mansfield, MA	c. 1790	720 feet (south)
Allen, Micah Inn	396 South Main St., Mansfield, MA	1800	775 feet (south)

Path: \\USCHL1FP001\Data\Projects\Jobs\Rem_Eng\Project Files\Textron\6630 Textron - Gorham Mansfield\60537294 - 2017 O&M\900_CAD_GIS\920_GIS\Projects\NOI\MXD\Attachment_2_Site_Plan.mxd



SITE PLAN
TEXTRON INC., - FORMER GORHAM SILVER COMPANY
340 SOUTH MAIN STREET
MANSFIELD MA
Project No.: 60537294.6
Date: 2017-06-29

AECOM

Attachment 2

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

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

Inv. No.	Property Name	Street	Town	Year
MNF.A	East Mansfield Village		Mansfield	
MNF.B	North Reservoir Prehistoric District		Mansfield	
MNF.C	Spring Brook Cemetery		Mansfield	
MNF.D	Lowney Chocolate Factory		Mansfield	
MNF.910	School Street Site		Mansfield	
MNF.170	Mystic Club	Balcom St	Mansfield	c 1902
MNF.30	Berry, John School	40 Balcom St	Mansfield	1915
MNF.31	Packard, Martin House	180 Balcom St	Mansfield	r 1860
MNF.169	Shaw, Marshall House	253 Branch St	Mansfield	c 1797
MNF.26	Goward, Israel House	480 Branch St	Mansfield	1772
MNF.168	Lane, Margaret House	38 Central St	Mansfield	c 1831
MNF.167	Cobb, Frank M. House	50 Central St	Mansfield	c 1894
MNF.166	Babbitt, George - Cox, Alfred T. House	57 Central St	Mansfield	c 1870
MNF.165	Codding, S. Chester House	71 Central St	Mansfield	c 1850
MNF.164	Greene, James House	90-92 Central St	Mansfield	c 1840
MNF.163	Shepard, George - Grant, Ira L. House	108 Central St	Mansfield	c 1843
MNF.162	Grover, Simeon House	176 Central St	Mansfield	c 1789
MNF.192	Skinner, Charles - Billings, Willard House	Chauncy St	Mansfield	c 1810
MNF.194	Cleveland Twist Drill Bay State Plant	75 Chauncy St	Mansfield	r 1905
MNF.92	Paine, Nelson House	200 Chauncy St	Mansfield	1810
MNF.85	Davis, William G. House	3 Cherry St	Mansfield	c 1800
MNF.161	Saint Mary's Roman Catholic Church	22 Church St	Mansfield	1914
MNF.160	Saint Mary's Roman Catholic Church Rectory	23 Church St	Mansfield	c 1895
MNF.915	Spring Brook Cemetery - Coral Street Gate	Coral St	Mansfield	1964
MNF.159	Bessom, Betsey Cobb House	16 Coral St	Mansfield	c 1875
MNF.158	Bessom, Betsey Cobb House	18 Coral St	Mansfield	c 1875
MNF.157	Boston and Providence Railroad Freight Shed	County St	Mansfield	c 1883

Inv. No.	Property Name	Street	Town	Year
MNF.190	Mansfield Railroad Station	Crocker St	Mansfield	c 1910
MNF.156	Spaulding School	58 Crocker St	Mansfield	c 1905
MNF.155		24 Dean St	Mansfield	c 1875
MNF.154	Green, Roland Elemenatary School	31 Dean St	Mansfield	1924
MNF.153	Perry, Dr. Frederick House	81 Dean St	Mansfield	c 1880
MNF.800	Leonard, Ephraim Family Burial Ground	East St	Mansfield	1740
MNF.10	Lovell, Samuel Crocker House	23 East St	Mansfield	1894
MNF.8	Billings, Dr. Benjamin House	31 East St	Mansfield	1775
MNF.28	Pratt, Amasa House	450 East St	Mansfield	1830
MNF.84	Newland, Jacob House	575 East St	Mansfield	1762
MNF.73	Keith, A. House	710 East St	Mansfield	c 1831
MNF.29	Clap, Maj. Elkanah House	754 East St	Mansfield	1770
MNF.83	Flint, Benjamin K. House	801 East St	Mansfield	1870
MNF.77	Burt, Frederick W. House	890 East St	Mansfield	c 1851
MNF.74	Snow, N. House	928 East St	Mansfield	c 1858
MNF.75	Burt, Frederick A. House	962 East St	Mansfield	c 1858
MNF.24	Day, Capt. Charles House	974 East St	Mansfield	1802
MNF.82	East Mansfield Methodist Church	1001 East St	Mansfield	1842
MNF.76	East Mansfield Methodist Church Parsonage	1012 East St	Mansfield	c 1842
MNF.152		25 Eddy St	Mansfield	c 1914
MNF.911	Elm Street Bridge over Amtrak	Elm St	Mansfield	1937
MNF.32	Paul, Enoch House	131 Elm St	Mansfield	r 1855
MNF.33	Skinner, Thomas House	517 Elm St	Mansfield	r 1750
MNF.34	Grover, C. House	666 Elm St	Mansfield	
MNF.151	Wilbur, D. House	175 Essex St	Mansfield	c 1831
MNF.9	Chilson Iron Foundry	Foundry St	Mansfield	1855
MNF.150	White, Hiram House	240 Franklin St	Mansfield	c 1851
MNF.149	White, Simeon House	263 Franklin St	Mansfield	c 1831
MNF.148	Dunham, William House	334 Franklin St	Mansfield	c 1784
MNF.147	Fuller House	369 Franklin St	Mansfield	c 1871
MNF.146	Sweeting - Copeland - Fuller House	440 Franklin St	Mansfield	c 1766
MNF.801	Mansfield Furnace Cemetery	440 Franklin St	Mansfield	
MNF.145	White, Caroline House	200 Fruit St	Mansfield	c 1875
MNF.144	Dean, Darwin House	255 Fruit St	Mansfield	c 1825
MNF.143	Wood, William House	358 Fruit St	Mansfield	c 1887
MNF.142	Lovell House	432 Fruit St	Mansfield	c 1790
MNF.72	Fuller, Jonathan House	986 Fuller St	Mansfield	c 1831
MNF.141		15 Fulton St	Mansfield	c 1896

Inv. No.	Property Name	Street	Town	Year
MNF.140	Fulton and Morin Knife Factory Boarding House	27 Fulton St	Mansfield	c 1844
MNF.70	George, Thomas M. House	48 George St	Mansfield	1858
MNF.906	Old Colony Railroad Bridge #119	Gilbert St	Mansfield	1892
MNF.35	Balcom, Alonzo House	100 Gilbert St	Mansfield	c 1860
MNF.17	Hodges, Elijah House	150 Gilbert St	Mansfield	r 1750
MNF.36	Sweet, Otis Jr. House	270 Gilbert St	Mansfield	c 1851
MNF.22	Sweet, Benjamin House	330 Gilbert St	Mansfield	1811
MNF.38	Pitman, James House	380 Gilbert St	Mansfield	c 1851
MNF.139	Hall, Charles - Elkanah House	50 Hall St	Mansfield	r 1850
MNF.4	White, Nicholas III House	87 Hall St	Mansfield	r 1765
MNF.903	High Street Bridge over Rumford River	High St	Mansfield	1932
MNF.138	Babcock Shoe Shop	147 High St	Mansfield	c 1850
MNF.137		23 Horace St	Mansfield	c 1875
MNF.39	Williams, John House	5 Jewell St	Mansfield	c 1788
MNF.40	Richardson, Eben House	97 Jewell St	Mansfield	c 1797
MNF.136	Fisher, Daniel Jr. House	Judy's Ln	Mansfield	c 1820
MNF.135	Rogers, Joanna E. House	3 Linden St	Mansfield	c 1897
MNF.134	Mansfield Water Pumping Station	Maple St	Mansfield	1888
MNF.133	Snow, J. C. House	7 Mill St	Mansfield	c 1851
MNF.132		21 Mill St	Mansfield	c 1851
MNF.131	Quigle, Elias House	29 Mill St	Mansfield	c 1851
MNF.130		44 Mill St	Mansfield	c 1851
MNF.129	Hartwell School	71 Mill St	Mansfield	1881
MNF.12	Lovell's Hall	4 North Main St	Mansfield	c 1870
MNF.78	Robinson, W. and W. L. Store	5 North Main St	Mansfield	c 1895
MNF.128	Mansfield Baptist Church	50 North Main St	Mansfield	1838
MNF.127	Harden, David E. House	55 North Main St	Mansfield	c 1850
MNF.95	Allen, Dr. William G. House	70 North Main St	Mansfield	1869
MNF.191	U. S. Post Office - Mansfield Main Branch	140 North Main St	Mansfield	1937
MNF.80		179 North Main St	Mansfield	c 1855
MNF.71	Stearns, W. L. Store	262 North Main St	Mansfield	c 1871
MNF.79	Mansfield Fire Station	291 North Main St	Mansfield	1930
MNF.126	Macomber House	536 North Main St	Mansfield	c 1880
MNF.125	Dunham, W. D. House	647 North Main St	Mansfield	c 1860
MNF.802	Happy Hollow Cemetery	Oak St	Mansfield	1776
MNF.124	Mansfield District #8 Schoolhouse	44 Oak St	Mansfield	c 1855
MNF.41	Hodges, John House	49 Oak St	Mansfield	c 1780
MNF.123	Shields, Patrick House	71 Oakland St	Mansfield	1885

Inv. No.	Property Name	Street	Town	Year
MNF.122	Shields, Caroline and Helen E. House	91 Oakland St	Mansfield	
MNF.121	Jackson, Lawrence House	97 Oakland St	Mansfield	c 1895
MNF.2	O'Rourke, Patrick House	104 Oakland St	Mansfield	1846
MNF.120	Lowney, Walter M. Chocolate Factory - Building 1	150 Oakland St	Mansfield	1903
MNF.197	Lowney, Walter M. Chocolate Factory - Building 2	150 Oakland St	Mansfield	1910
MNF.198	Lowney, Walter M. Chocolate Factory - Building 3	150 Oakland St	Mansfield	1942
MNF.199	Lowney, Walter M. Chocolate Factory - Building 4	150 Oakland St	Mansfield	1983
MNF.200	Lowney, Walter M. Chocolate Factory - Building 5	150 Oakland St	Mansfield	1987
MNF.201	Lowney, Walter M. Chocolate Factory Pump House	150 Oakland St	Mansfield	1995
MNF.202	Lowney, Walter M. Chocolate Factory Sewage Test Hs	150 Oakland St	Mansfield	c 1970
MNF.934	Lowney, Walter M. Chocolate Factory Reservoir	150 Oakland St	Mansfield	c 1975
MNF.119	Kingman, Henry W. House	477 Oakland St	Mansfield	c 1851
MNF.45	Harden, Amasa House	15 Old Elm St	Mansfield	c 1835
MNF.118	Grover, Jacob House	55 Old Elm St	Mansfield	c 1800
MNF.46	Harden, Alfred House	95 Old Elm St	Mansfield	1835
MNF.47	Grover, Hosea House	177 Old Elm St	Mansfield	1803
MNF.48		191-193 Old Elm St	Mansfield	c 1851
MNF.117	Grover, Ephraim Jr. House	223 Old Elm St	Mansfield	c 1750
MNF.19	Harding House	400 Old School St	Mansfield	c 1795
MNF.116	West Mansfield First Christian Church	11 Otis St	Mansfield	c 1921
MNF.42	Sweet, Benjamin F. House	263 Otis St	Mansfield	c 1872
MNF.43	Richardson Shuttle Irons Shop	330 Otis St	Mansfield	1923
MNF.44	Sweet, Henry E. House	355 Otis St	Mansfield	1862
MNF.1	Soldiers' Memorial Library Building	Park Row	Mansfield	c 1901
MNF.115	Mansfield High School	Park Row	Mansfield	c 1911
MNF.114	Hallett, Capt. Charles House	51 Park St	Mansfield	c 1858
MNF.907	Route 140 Bridge over Rumford River	Rt 140	Mansfield	1928
MNF.7	Card, Simon W. Mill	Rumford Ave	Mansfield	1900
MNF.86	Copeland, Jennie House	53 Rumford Ave	Mansfield	c 1906
MNF.113		69 Rumford Ave	Mansfield	
MNF.112	Dinsmore, Otis F. House	79 Rumford Ave	Mansfield	1890
MNF.87	Fox, Thomas J. House	80 Rumford Ave	Mansfield	c 1888
MNF.111	Paine, Edward - Harrington, Lewis House	86 Rumford Ave	Mansfield	c 1875
MNF.88	Mansfield Universalist Church	96 Rumford Ave	Mansfield	c 1889
MNF.89	Paine, Jahlin House	102 Rumford Ave	Mansfield	c 1890
MNF.90	Bragg, George House	111 Rumford Ave	Mansfield	c 1875

Inv. No.	Property Name	Street	Town	Year
MNF.91	Paine, Frederick House	122 Rumford Ave	Mansfield	1871
MNF.110	Vernon, Joseph I. House	141 Rumford Ave	Mansfield	c 1885
MNF.109	Cobb, Stella House	151 Rumford Ave	Mansfield	c 1910
MNF.108	Smith, Jane M. House	157 Rumford Ave	Mansfield	c 1887
MNF.905	Boston and Providence Railroad Bridge #25.09	Rumford River	Mansfield	1954
MNF.15	Mackenzie and Winslow Grain Store	1 Samoset Ave	Mansfield	c 1918
MNF.908	School Street Bridge over PC Railroad	School St	Mansfield	1936
MNF.107	Sheperd, Capt. Schuyler House	229 School St	Mansfield	c 1831
MNF.49	Paine, Rufus Jinks House	243 School St	Mansfield	c 1878
MNF.106	Bailey, George P. House	279 School St	Mansfield	c 1890
MNF.105	Stearns - White House	280 School St	Mansfield	r 1750
MNF.14	Skinner, Apollos House	430 School St	Mansfield	c 1803
MNF.13	Glory Farm, Old	440 School St	Mansfield	c 1736
MNF.901	Doughboy World War I Monument	5 South Main St	Mansfield	1937
MNF.104		18-22 South Main St	Mansfield	c 1879
MNF.11	Mansfield Temperance Hall	36 South Main St	Mansfield	1853
MNF.94		39 South Main St	Mansfield	c 1895
MNF.21	Allen, Micah House	395 South Main St	Mansfield	c 1790
MNF.23	Allen, Micah Inn	396 South Main St	Mansfield	1800
MNF.103	Hall, Herman House	600 South Main St	Mansfield	c 1831
MNF.102	Parker, Betsy House	605 South Main St	Mansfield	c 1851
MNF.50	Brintnell, Samuel House	91 South St	Mansfield	c 1745
MNF.5	Spring Brook Cemetery - Card Memorial Chapel	Spring St	Mansfield	1898
MNF.195	Spring Brook Cemetery Receiving Vault	Spring St	Mansfield	1889
MNF.196	Spring Brook Cemetery Maintenance Garage - Office	Spring St	Mansfield	1988
MNF.803	Spring Brook Cemetery	Spring St	Mansfield	c 1790
MNF.912	Spring Brook Cemetery West Entrance	Spring St	Mansfield	c 1860
MNF.913	Spring Brook Cemetery East Entrance and Gate	Spring St	Mansfield	c 1860
MNF.914	Spring Brook Cemetery Stone Wall	Spring St	Mansfield	c 1860
MNF.916	Spring Brook Cemetery - Allen Mausoleum	Spring St	Mansfield	c 1912
MNF.917	Spring Brook Cemetery - Granite Sign	Spring St	Mansfield	1998
MNF.918	Spring Brook Cemetery - Dean Family Marker	Spring St	Mansfield	
MNF.919	Spring Brook Cemetery - Allen, Samuel Marker	Spring St	Mansfield	
MNF.920	Spring Brook Cemetery - Tolman, Betsy Marker	Spring St	Mansfield	
MNF.921	Spring Brook Cemetery - Mowry, George Monument	Spring St	Mansfield	
MNF.922	Spring Brook Cemetery - Wilcox, George Monument	Spring St	Mansfield	

Inv. No.	Property Name	Street	Town	Year
MNF.923	Spring Brook Cemetery - Rogers, John Monument	Spring St	Mansfield	
MNF.924	Spring Brook Cemetery - Chilson, Gardner Monument	Spring St	Mansfield	
MNF.925	Spring Brook Cemetery - Harding, David Monument	Spring St	Mansfield	
MNF.926	Spring Brook Cemetery - Hunnewell, Wm. Monument	Spring St	Mansfield	
MNF.927	Spring Brook Cemetery - King, Andrew Monument	Spring St	Mansfield	
MNF.928	Spring Brook Cemetery - Booth, Charles Monument	Spring St	Mansfield	
MNF.929	Spring Brook Cemetery - Card Family Monument	Spring St	Mansfield	
MNF.930	Spring Brook Cemetery - Cobb, Anson Monument	Spring St	Mansfield	
MNF.931	Spring Brook Cemetery - Frost, Charles Monument	Spring St	Mansfield	
MNF.932	Spring Brook Cemetery - Unknown Soldiers Monument	Spring St	Mansfield	1913
MNF.933	Spring Brook Cemetery - Manuel Markers	Spring St	Mansfield	
MNF.101	Holmes, Rufus T. House	24 Spring St	Mansfield	c 1850
MNF.100		46 Spring St	Mansfield	1804
MNF.99	Mansfield Cotton Manufacturing Co. Worker Housing	56 Spring St	Mansfield	1811
MNF.54	Kingman and Hodges Jewelry Factory	68 Spring St	Mansfield	1870
MNF.193	Kingman and Hodges Factory	68 Spring St	Mansfield	1896
MNF.55	Shepard, Seth C. House	207 Spring St	Mansfield	
MNF.27	Mud House	82 Stearns Ave	Mansfield	1855
MNF.98	Stearns, Isaac House	98 Stearns Ave	Mansfield	c 1831
MNF.18	Spaulding, Dolliver House	10 Thomas St	Mansfield	1880
MNF.97	Billings Building	18 Thomas St	Mansfield	1921
MNF.51	Mansfield House	23 Thomas St	Mansfield	c 1850
MNF.96	Grover, David B. House	31 Tremont St	Mansfield	c 1858
MNF.52	Skinner House	143 Tremont St	Mansfield	c 1801
MNF.53	Mansfield District #6 Schoolhouse	151 Tremont St	Mansfield	1852
MNF.16	Knap, Maj. Moses House	197 Tremont St	Mansfield	1763
MNF.93		53-55 Union St	Mansfield	c 1875
MNF.189		53-55 Union St	Mansfield	c 1875
MNF.188	Cobb, Justin L. House	54 Union St	Mansfield	c 1898
MNF.81	Sherman, Elbridge House	100 Union St	Mansfield	c 1900
MNF.187	LeBarron, Phineas House	105 Union St	Mansfield	c 1875

Inv. No.	Property Name	Street	Town	Year
MNF.186		110 Union St	Mansfield	c 1875
MNF.185	Evans, Frank J. House	126 Union St	Mansfield	c 1885
MNF.904	Boston and Providence Railroad Bridge #28.43	Wading River	Mansfield	c 1835
MNF.25	Copeland, Moses House	2 Ware St	Mansfield	c 1775
MNF.184	Belcher, Robert House	750 Ware St	Mansfield	c 1858
MNF.183	White, John House	776 Ware St	Mansfield	c 1800
MNF.902	West Church Street Bridge over Rumford River	West Church St	Mansfield	c 1920
MNF.182	Orthodox Congregational Church	17 West St	Mansfield	1838
MNF.6	Thunder Castle	31 West St	Mansfield	c 1831
MNF.56	MacMoran, Robert House	37 West St	Mansfield	1851
MNF.181	Perry, Dr. William F House	78 West St	Mansfield	c 1858
MNF.57	Church of the New Jerusalem	98-100 West St	Mansfield	1871
MNF.58	Gilbert, David House	131 West St	Mansfield	1818
MNF.59	Briggs, Alson House	136 West St	Mansfield	c 1850
MNF.60	Widow Paine House	331 West St	Mansfield	1765
MNF.20	White, Matthew House	971 West St	Mansfield	1710
MNF.61	Grover, George House	1101 West St	Mansfield	
MNF.62		1381 West St	Mansfield	
MNF.63		1551 West St	Mansfield	
MNF.64	Wetherell, Benjamin House	1650 West St	Mansfield	c 1805
MNF.65	Skinner, Joseph House	1766 West St	Mansfield	
MNF.66	Briggs, Solomon House	1818 West St	Mansfield	c 1872
MNF.909	Williams Street Bridge over Wading River	Williams St	Mansfield	1930
MNF.67	Grover, Thomas House	45 Williams St	Mansfield	r 1765
MNF.68	Sawyer, Benjamin F. House	76 Williams St	Mansfield	c 1870
MNF.69	Williams, Rufus House	340 Williams St	Mansfield	r 1840
MNF.900	Cobbler's Corner Boundary Marker	Willow St	Mansfield	1640
MNF.180	White, William House	52 Willow St	Mansfield	c 1854
MNF.179	Farrington, David R. House	92 Willow St	Mansfield	c 1887
MNF.178	Skinner House	106 Willow St	Mansfield	c 1871
MNF.177	Williams House	117 Willow St	Mansfield	c 1854
MNF.176	Cobb, Terrill, House	216 Willow St	Mansfield	c 1820
MNF.175	Cobb, James W. House	242 Willow St	Mansfield	c 1868
MNF.174	Harris, J. House	269 Willow St	Mansfield	c 1831
MNF.173		285 Willow St	Mansfield	c 1850
MNF.3	Fisher - Richardson House	354 Willow St	Mansfield	1743
MNF.172	Cobb, Salmon House	83 Winter St	Mansfield	c 1797
MNF.171	Austin, George M. House	155 Winter St	Mansfield	

TEXTRON

ATTACHMENT 6

MARCH 27, 2015 AUTHORIZATION LETTER, #MAG910022

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
BOSTON, MA 02109-3912

CERTIFIED MAIL RETURN RECEIPT REQUESTED

MAR 27 2015

Greg Simpson
Site Remediation Engineer
Textron Inc.
40 Westminster St.
Providence RI, 02903

Re: Authorization to discharge under the Remediation General Permit (RGP) – MAG910000. Textron Inc., former Gorham Silver Site located at 340 South Main Street, Mansfield, MA 02048, Bristol County; Authorization # MAG910022

Dear Mr. Simpson:

Based on the review of your Notice of Intent (NOI) submittal on behalf of Textron Inc., for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the Operator, to discharge in accordance with the provisions of the RGP at that site. Your authorization number is listed above.

The checklist enclosed with this RGP authorization indicates the pollutants which you are required to monitor. Also indicated on the checklist are the effluent limits, test methods and minimum levels (MLs) for each pollutant. Please note that the checklist does not represent the complete requirements of the RGP. Operators must comply with all of the applicable requirements of this permit, including influent and effluent monitoring, narrative water quality standards, record keeping, and reporting requirements, found in Parts I and II, and Appendices I – VIII of the RGP. See EPA's website for the complete RGP and other information at: http://www.epa.gov/region1/npdes/mass.html#dgp.

Please note the enclosed checklist includes parameters that exceeded Appendix III limits. The checklist also includes other parameters for which your laboratory reports indicated there was insufficient sensitivity to detect these parameters at the minimum levels established in Appendix VI of the RGP.

Also, please note that the metals included on the checklist are dilution dependent pollutants and subject to discharge limitations based on a dilution factor range (DFR). Because of the limited dilution at the wetland location where the effluent is discharged, EPA determined that the DFR for each parameter is in the one and five (1-5) range. (See

the RGP Appendix IV for Massachusetts facilities) Therefore, the limit for zinc of 66.6 ug/L, and iron of 1,000 ug/L, are required to achieve permit compliance at your site.

This EPA general permit and authorization to discharge will expire on September 9, 2015. You have reported this project will terminate also on September 9, 2015. You are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within 30 days of project completion.

Thank you in advance for your cooperation in this matter. Please contact Victor Alvarez at 617-918-1572 or Alvarez.Victor@epa.gov, if you have any questions.

Sincerely,

Thelma Murphy

Thelma Murphy, Chief
Storm Water and Construction
Permits Section

Enclosure

cc: Robert Kubit, MassDEP
Lee Azinheira, Town of Mansfield PWD
Luis A. Ferreira, AECOM