



NOTICE OF INTENT FOR MASSACHUSETTS REMEDIATION GENERAL PERMIT

COLBEA-SHELL GASOLINE STATION
1833 WILBUR AVENUE
SOMERSET, MA
RTN 4-16959

Prepared for:
COLBEA ENTERPRISES LLC
2050 PLAINFIELD PIKE
CRANSTON, RI 02921

May 19, 2020

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1.0 INTRODUCTION

Tg2 Solutions, LLC (Tg2) prepared Notice of Intent (NOI) for a Massachusetts Remediation General Permit (RGP) for construction dewatering at the Shell-branded gasoline station located at 1833 Wilbur Avenue, in Somerset, Massachusetts on behalf of the site owner, Colbea Enterprises LLC (Colbea). This NOI is being submitted to the United State Environmental Protection Agency (USEPA) in accordance with the requirements of the Massachusetts General Permit No. MAG070000. This site was formerly identified by Massachusetts Department of Environmental Protection (MassDEP) as Release Tracking Number (RTN) 4-16959 and is regulated in accordance with Massachusetts Contingency Plan (MCP) 310 CMR 40.0000. The site is presently in Phase V Remedy Operation Status.

This NOI for a RGP is being submitted to account for site renovation activities being conducted at the facility. A portion of these activities include the dewatering of an excavation to allow for the removal and replacement of gasoline underground storage tanks (USTs). For the purpose of this NOI, the "facility" is defined as the area located within the property boundaries of 1833 Wilbur Avenue in Somerset, Massachusetts. A Site Locus Map is presented as **Figure 1**. A Site Plan is presented as **Figure 2**. A copy of the NOI is included as **Attachment A**.

2.0 GENERAL FACILITY INFORMATION

General site information for which this Phase I applies includes the following:

Property Owner/Facility Operator:	Angelo Ruo Operator Colbea Enterprises LLC 2050 Plainfield Pike Cranston, RI 02920 Tel: (401) 943-0005
Owner/Facility Operator Contact:	Eric D. Simpson, Environmental Program Director Esimpson@eastsideenterprise.com Tel: (401) 943-0005
USGS Quadrangle:	Somerset, Massachusetts
Longitude, Latitude: (approximate)	71° 11' 23.33" W, 41° 43' 37.74" N
Site Zoning:	Business/Residential
County:	Bristol

2.1 Facility Description

The facility is a Shell-branded service station located at 1833 Wilbur Avenue in a residential/light commercial area of Somerset, Massachusetts. In 2008, Motiva Enterprises

LLC, the former owner/operator of the property and original responsible party for the RTN, sold the facility to Colbea. The property is improved with a single-story building, which includes a convenience store and two pump islands. Subsurface structures include three 10,000 gallon, double-walled, fiberglass gasoline USTs, located to the east of the station building. The facility is located on a 0.32-acre parcel. Refer to **Figure 2** - Site Plan, for the location of existing UST systems, dispensers, sampling locations, and pertinent facility features.

2.2 Sensitive Environmental Receptors

The nearest surface water body is Lee's River, located approximately 400 feet to the west (cross-gradient) of the facility. Depth to water at the site ranges from approximately 12 to 20 feet below ground surface (bgs), depending on measurement location. Groundwater does not intersect surface water or wetland areas within the boundaries of the facility. The nearest wetland area is located greater than 500 feet to the east and cross-gradient of the site. A waterbody assessment and TMDL status relative to the facility location is provided in **Figure 3**.

The facility is not located within a Zone II area, Interim Wellhead Protection Area (IWPA), or a Zone A or a Potentially Productive Aquifer. Areas of Critical Environmental Concern are not located within 500 feet of the site. Areas of Priority Habitats of Rare Species, Habitats of Rare Wildlife, or Certified Vernal Pools are not located within 500 feet of the facility. Areas of Concern in relation to the facility are located on **Figure 4**. **Figure 5** provides a Bureau of Waste Site Cleanup Receptor Map identifying potential environmental receptors within a 500 foot and ½ mile radius from the site.

2.3 National Pollutant Discharge Elimination System (NPDES) Status

A NPDES permit has not been previously applied for or granted for this discharge. Site redevelopment construction activities have not yet begun at the facility; however, they are planned for late summer 2018. The facility is not covered by an individual NPDES permit and there are no pending applications on file for any other permit with US EPA for this facility. As defined by 40 CFR Section 122.2, a new discharger means any building, structure, facility, or installation:

- A) From which there is or may be a "discharge of pollutants;"
- B) That did not commence the "discharge of pollutants" at a particular "site" prior to August 13, 1979;
- C) Which is not a "new source;" and,
- D) Which has never received a finally effected NPDES permit for discharges at that "site."

Based on groundwater samples collected at the facility, this site is not considered a new discharge.

3.0 DISCHARGE INFORMATION

This NOI for a RGP is being applied for groundwater discharge necessary during site redevelopment construction activities. These activities include the raze and rebuild of the facility building, and removal and replacement of the existing USTs and associated piping, and dispenser islands. The proposed discharge location for treated groundwater is a catch basin located adjacent to the property to the north off Wilbur Avenue, as depicted on **Figure 2A**. This catch basin discharges to the Lee River (freshwater) located approximately 400 feet to the west of the site. The latitude and longitude of the catch basin discharge and outfall point are:

Catch Basin Discharge Point:

Latitude: 41.727310
Longitude: -71.189836

Outfall (Lee River) Point:

Latitude: 41.728048
Longitude: -71.191448

The dewatering and treatment system anticipated for this work includes a 20,000-gallon baffled settling fractionation tank, sediment bag filters, a greensand filter vessel for iron removal, and two activated carbon filter vessels for remaining contaminant removal. This system is designed to meet the required effluent limits for this permit. A diagram of the treatment system is provided on **Figure 6**.

Only one discharge point, described above, will be necessary for dewatering activities. The estimated maximum daily flow is 40 gallons per minute (gpm), with a design flow of 60 gpm. These estimations are expected to decrease once the excavation has been dewatered, and do not include surface run-off following precipitation events. The pH of onsite groundwater was measured at 7.67 (s.u.) and site activities are not anticipated to alter this pH. Discharge activities will only occur during site redevelopment, which is expected to occur between June and July 2020. The discharge point for these dewatering activities is a catch basin located immediately adjacent to the facility to the north off Wilbur Avenue. Areas of Concern in relation to the facility are located on **Figure 4**. **Figure 5** provides a Bureau of Waste Site Cleanup Receptor Map identifying potential environmental receptors within a 500 foot and ½ mile radius from the site.

If needed, modifications to the system will be made. Modifications to the system will be submitted for approval via a Notice of Change (NOC).

3.1 Receiving Water Information

The receiving water for the indirect discharge of groundwater from the facility is Lee River. StreamStats 4.0 was consulted and it was determined based on a location on Lee River where the discharge outfall location is, that the 7Q10 is 0.0795 cubic feet per second

(cfs). The StreamStats Report is provided in **Attachment B**. Per the Waterbody Assessment and TMDL Status Map (**Figure 3**), Lee River was assigned a TMDL status of 5 – Impaired – TMDL required.

3.2.1 Receiving Water Classification

Based on the MassDEP Division of Water Pollution Control the discharge (outfall) point is Lee River. Lee River is classified as Class SA:

<https://www.epa.gov/sites/production/files/2020-01/documents/2016-ma-303d-list-report.pdf>,

The Lee River segment ID is MA61-02.

4.0 CONTAMINANT INFORMATION

On February 26, 2020, groundwater samples were collected from on-site monitoring well RGP Well MW-6 and the outfall discharge location at the Lee River outfall at Wilbur Avenue (Discharge). Groundwater samples collected from RGP Well MW-6 and the Discharge location during February 2002 were submitted to ESS Laboratory, Cranston, Rhode Island (ESS) for analysis of metals, hardness, ethanol, chloride, total cyanide, total petroleum hydrocarbons (TPH), total suspended solids (TSS), total residual chlorine (TRC), ammonia, hexavalent chromium, trivalent chromium, phenol, 1,4-dioxane, ethylene dibromide, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PBCs), tert-butyl alcohol (TBA), and tert-amyl methyl ether (TAME). Surface water samples from the discharge location, Discharge, during February 2020 were submitted to ESS for analysis of ammonia, hexavalent chromium, metals, iron, pH, hardness, and salinity.

Results from the groundwater sampling of MW-6 demonstrated concentrations of copper, iron, zinc, toluene, ethylbenzene, xylenes, naphthalene, ammonia, chloride, and hardness above method detection limits but below the technology-based effluent limitations (TBELs). Additionally, no contaminants of concern were detected above Massachusetts Department of Environmental Protection (MassDEP) reportable concentrations for groundwater (RCGW-2). The facility has previously been, and is currently, a gasoline and service station, and does not use any pH neutralization or dechlorination chemicals. Based on the summarized groundwater sampling results there are potential water-quality issues in the vicinity of the discharge.

Results from the surface water sample (Receiving Water) did not demonstrate concentrations of potential contaminants of concern (pCOCs) exceeding TBELs. **Table 1** provides a summary of detected pCOCs from groundwater collected at the facility (influent) and the surface water sample. Groundwater and surface water laboratory analytical reports are provided in **Attachment C**.

5.0 DILUTION FACTOR

MassDEP was contacted on May 5, 2020 to confirm the 7Q10 flow and determine a dilution factor. Final correspondence received on May 8, 2020 confirmed a dilution factor of 1.59. The Dilution Factor and Effluent Limitation Calculations fillable electronic spreadsheet was subsequently completed. Copies of the Dilution Factor and Effluent Limitation Calculations fillable electronic spreadsheet, StreamStats Report, and MassDEP correspondence are provided in **Attachment B**.

6.0 DETERMINATION OF ENDANGERED SPECIES ACT ELIGIBILITY (ESA)

The United States Department of the Interior Fish and Wildlife Service – New England Ecological Services Field Office was contacted regarding the determination of endangered species act eligibility (ESA) on March 25, 2020. There are no endangered or candidate species and no critical habitats within the project area for this NOI. There is one threatened species, the Northern Long-eared Bat (*Myotis septentrionalis*), on the list for this facility. However, no critical habitat has been designated for this species. Per the U.S. Fish and Wildlife Services, the Northern Long-eared Bat hibernates in caves and mines, swarming in surrounded wooded areas in autumn, and foraging in upland forests in late spring and summer. Based on the location and scope of this work (i.e. 0.32-acre facility being redeveloped into another gasoline station), it is unlikely that dewatering activities associated with the redevelopment of this facility will adversely affect the Northern Long-eared Bat. Therefore, this ESA determination is FWS Criterion C. Fish and Wildlife Service – New England Service Field Office Correspondence is provided as **Attachment D**.

7.0 DOCUMENTATION OF NATION HISTORIC PRESERVATION ACT (NHPA) REQUIREMENTS

Listings of historic places within the Town of Somerset were obtained from the Massachusetts Cultural Resources Information System (MARCIS) online database:

<http://mhc-macris.net/Towns.aspx?Page=towns.asp>

A site vicinity map showing historic places within a quarter mile of the facility is provided on **Figure 7**. One historic places are located within 500 feet of the facility. Based on the scope of this work, it is unlikely that dewatering activities associated with the redevelopment of this facility will adversely affect any historic places.

8.0 SUPPLEMENTAL INFORMATION

At this time no additional supplemental information is necessary to meet the requirements of the NOI for the RGP.

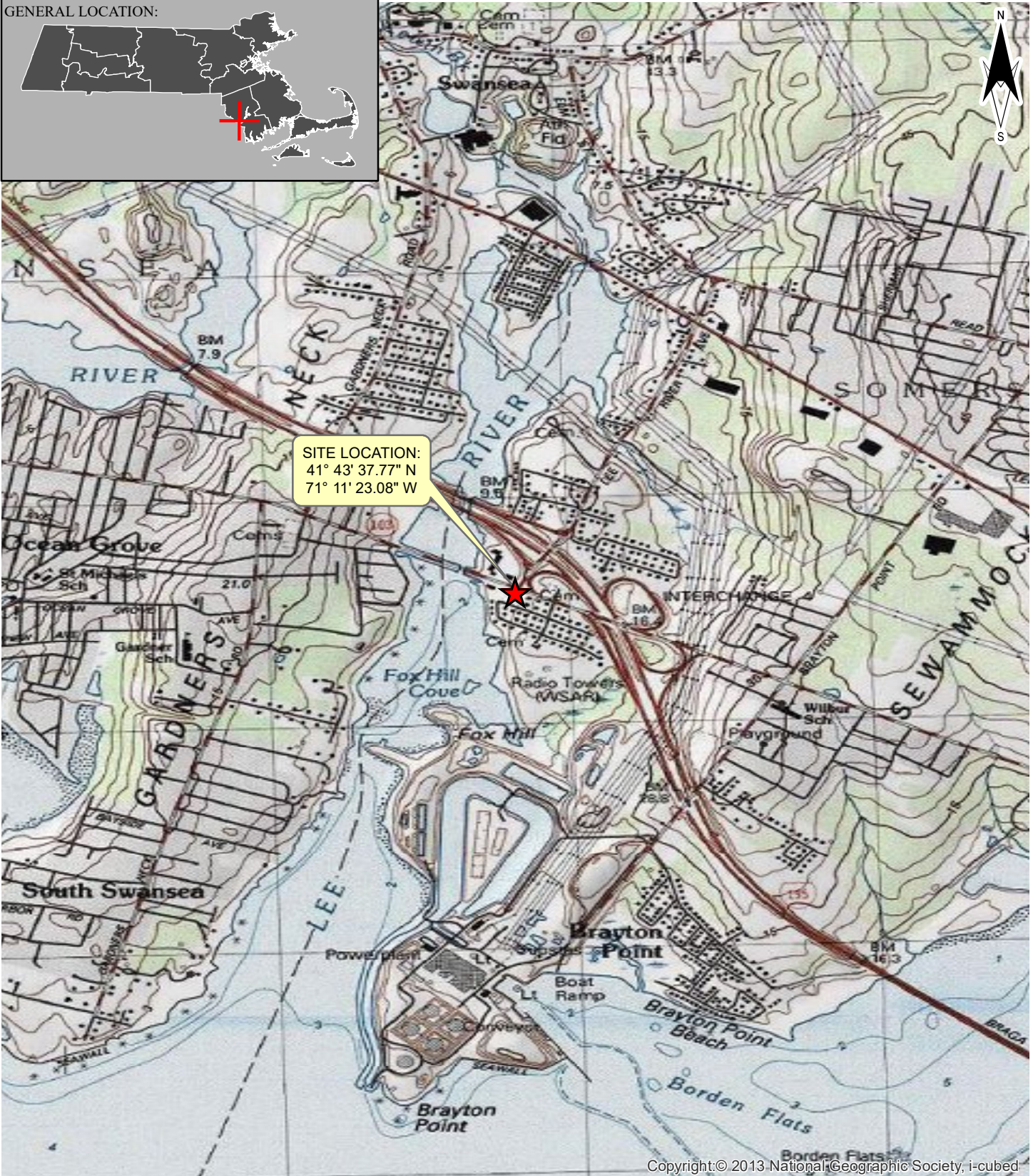
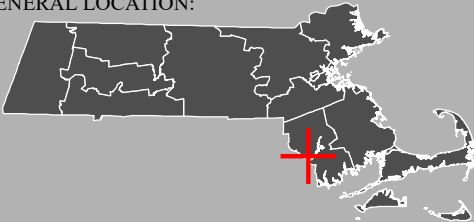
9.0 REDEVELOPMENT CONSTRUCTION SCHEDULE

Redevelopment construction activities requiring dewatering are anticipated to begin in April/May 2020 and are anticipated to be complete by August 2020.

FIGURES



GENERAL LOCATION:



SITE LOCATION:
 41° 43' 37.77" N
 71° 11' 23.08" W

Copyright © 2013 National Geographic Society, i-cubed

LEGEND

★ SITE LOCATION

NOTES:

- 1) NAD 83
- 2) LOCATION IS APPROXIMATE.

DATE: JUNE 19, 2018

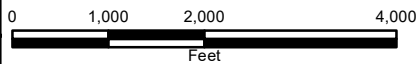


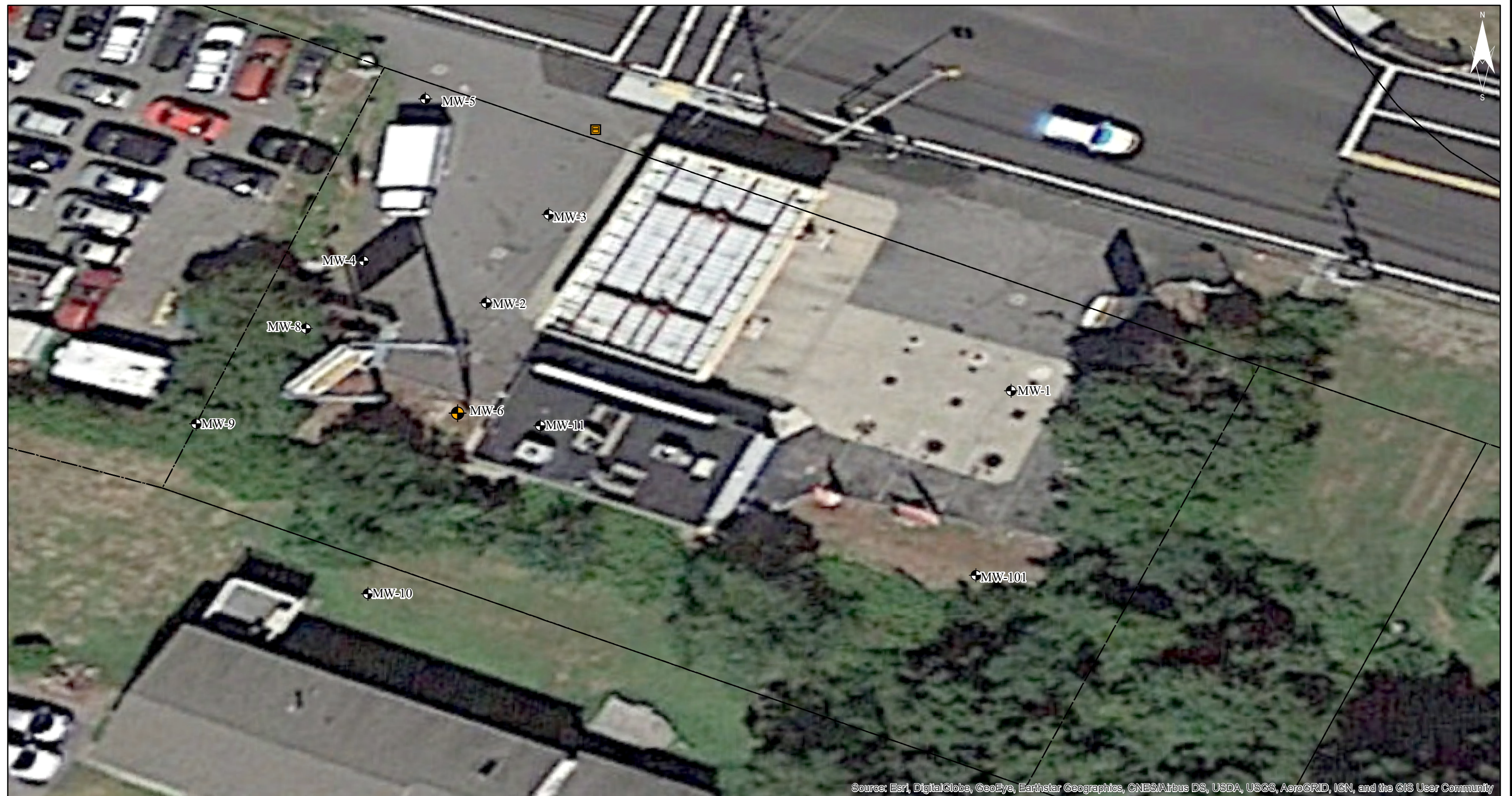
FIGURE 1

SITE LOCUS MAP







PREPARED BY:
 TG2 SOLUTIONS LLC
 231 ELM STREET
 BLACKSTONE, MA 01504

SHELL-BRANDED STATION
 1833 WILBUR AVENUE
 SOMERSET, MA



LEGEND

-  RGP SAMPLE LOCATION
-  MONITORING WELL
-  CATCH BASIN
-  PROPERTY BOUNDARY (APPROXIMATE)



NOTES:

- 1) NAD 83
- 2) PARCEL BOUNDARIES PROVIDED BY MASS GIS - LEVEL 3 ASSESSOR'S PARCELS (2015). ALL BOUNDARIES ARE APPROXIMATE AND SHOULD NOT BE USED TO DETERMINE LEGAL OWNERSHIP.
- 3) ALL FEATURE LOCATIONS ARE APPROXIMATE.

DATE: MARCH 24, 2020 BY: ROV



231 ELM STREET
BLACKSTONE, MA 01504

FIGURE 2






SITE PLAN

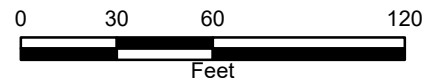
SHELL-BRANDED STATION
1833 WILBUR AVENUE
SOMERSET, MA



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

LEGEND

-  RGP SAMPLE LOCATION
-  MONITORING WELL
-  CATCH BASIN
-  OUTFALL
-  PROPERTY BOUNDARY (APPROXIMATE)



NOTES:

- 1) NAD 83
- 2) PARCEL BOUNDARIES PROVIDED BY MASS GIS - LEVEL 3 ASSESSOR'S PARCELS (2015). ALL BOUNDARIES ARE APPROXIMATE AND SHOULD NOT BE USED TO DETERMINE LEGAL OWNERSHIP.
- 3) ALL FEATURE LOCATIONS ARE APPROXIMATE.

DATE: MARCH 24, 2020 BY: ROV

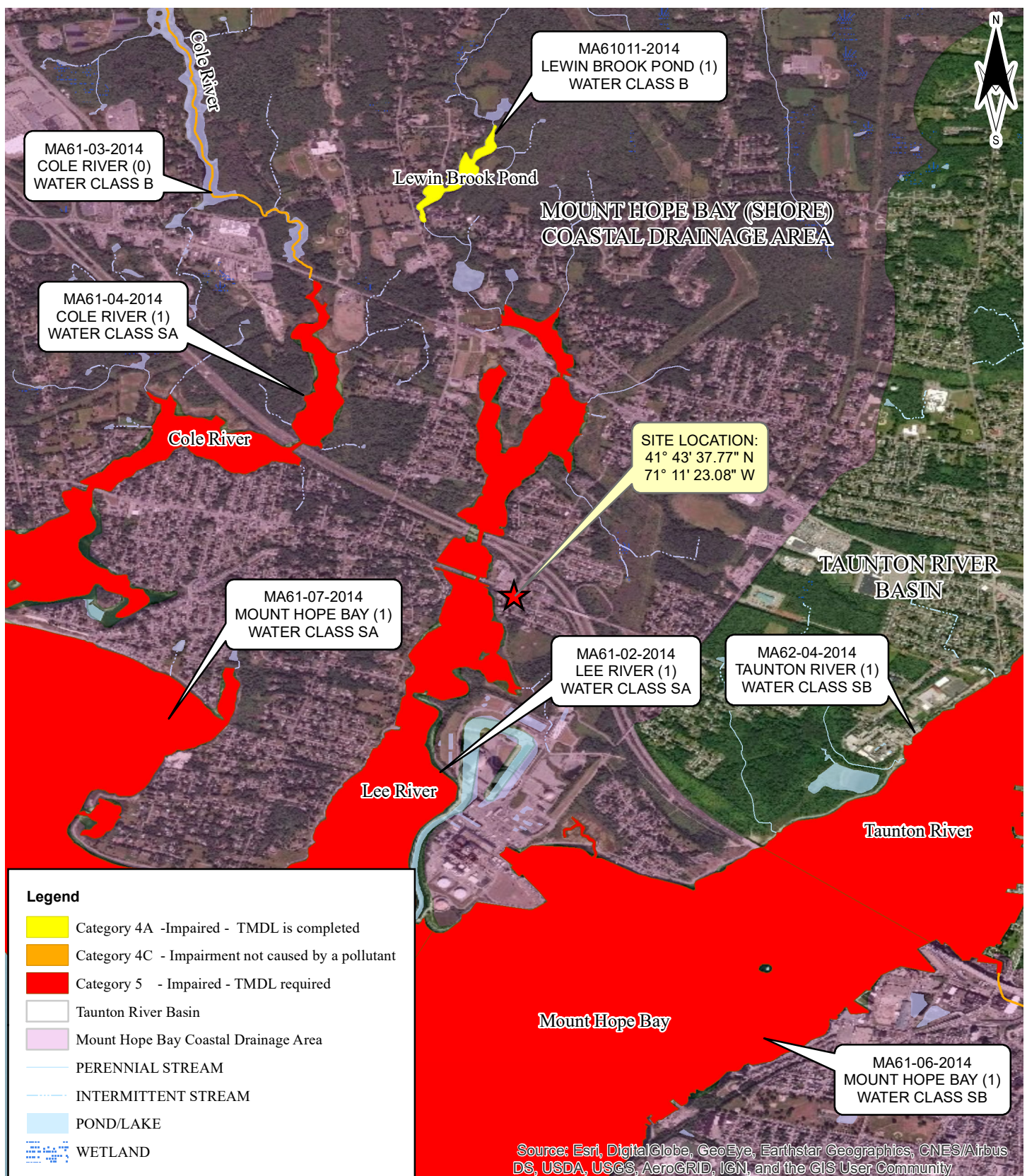


231 ELM STREET
BLACKSTONE, MA 01504

FIGURE 2a

EXTENDED SITE PLAN

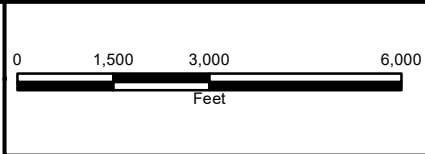
SHELL-BRANDED STATION
1833 WILBUR AVENUE
SOMERSET, MA



Legend

- Category 4A -Impaired - TMDL is completed
- Category 4C - Impairment not caused by a pollutant
- Category 5 - Impaired - TMDL required
- Taunton River Basin
- Mount Hope Bay Coastal Drainage Area
- PERENNIAL STREAM
- INTERMITTENT STREAM
- POND/LAKE
- WETLAND

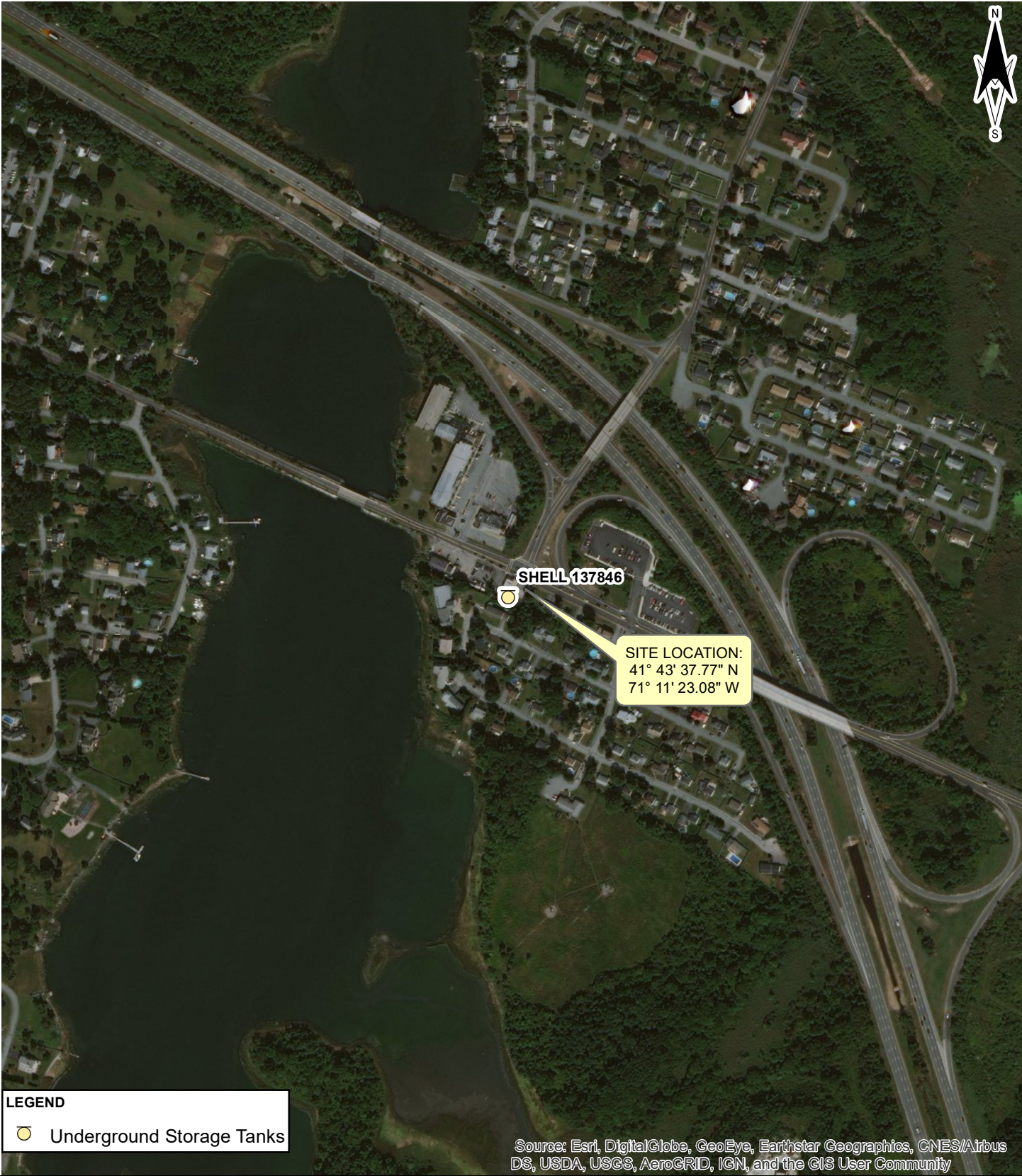
NOTES:
 1) NAD 83
 2) MassDEP 2014 INTEGRATED LIST OF WATERS (305(b)/303(d)) (2016) AND MassDEP HYDROGRAPHY (2010) TAKEN FROM MASSGIS.
 3. MA61-02_2014: ASSESSMENT ID WITH REPORTING CYCLE YEAR
 4. LEE RIVER: WATERBODY NAME BASED ON SARIS, PALIS, OR CAMIS.
 5: (2): NUMBER OF UNIQUE DWM/WPP TMDLs ASSOCIATED FOR ASSOCIATED REPORTING YEAR.
 6: CLASS B: CLASS LISTED IN 314 CMR 4.05(3) AND (4).



Tg SOLUTIONS
 PREPARED BY:
 TG2 SOLUTIONS LLC
 231 ELM STREET
 BLACKSTONE, MA 01504

FIGURE 3
 WATERBODY ASSESSMENT
 & TMDL STATUS


SHELL-BRANDED STATION
 1833 WILBUR AVENUE
 SOMERSET, MA



SHELL 137846

SITE LOCATION:
41° 43' 37.77" N
71° 11' 23.08" W

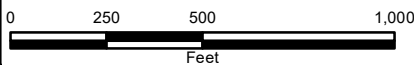
LEGEND

 Underground Storage Tanks

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

NOTES:

- 1) NAD 83
- 2) NO AREAS OF ENVIRONMENTAL CONCERN ARE SHOWN AT THIS SCALE. PLEASE REFER TO FIGURE 5.
- 3) ALL DATA LAYERS TAKEN FROM MASSGIS.



DATE: JULY 21, 2018

FIGURE 4

AREAS OF ENVIRONMENTAL CONCERN



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TG2 SOLUTIONS LLC
231 ELM STREET
BLACKSTONE, MA 01504

1833 WILBUR AVENUE
SOMERSET, MA

MassDEP - Bureau of Waste Site Cleanup

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

Site Information:

SHELL-BRANDED SERVICE STATION
1833 WILBUR AVE SOMERSET, MA
4-000016959

NAD83 UTM Meters:

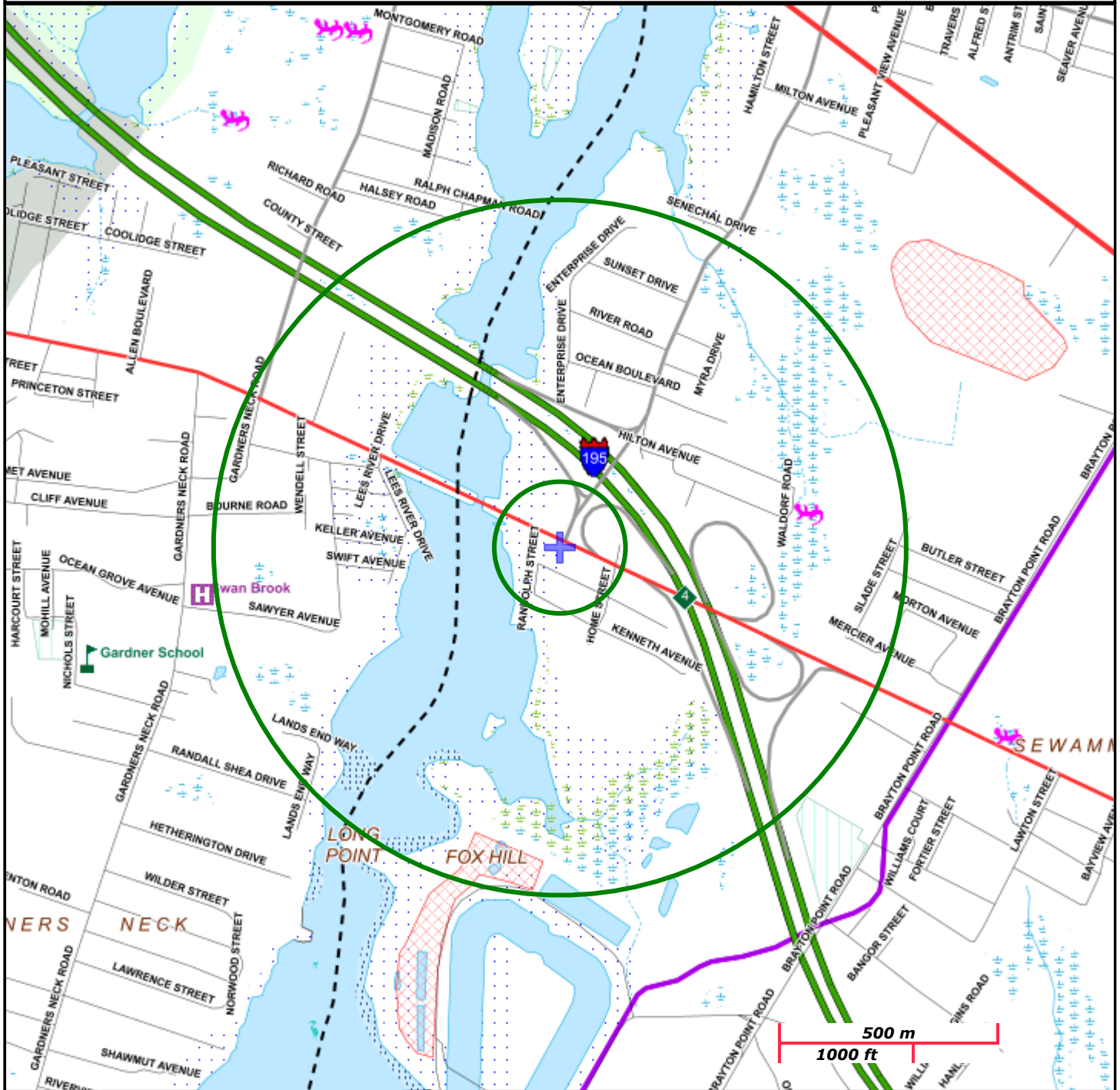
4621799mN , 317874mE (Zone: 19)
February 28, 2020

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



MassDEP

Commonwealth of Massachusetts
Department of Environmental Protection



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

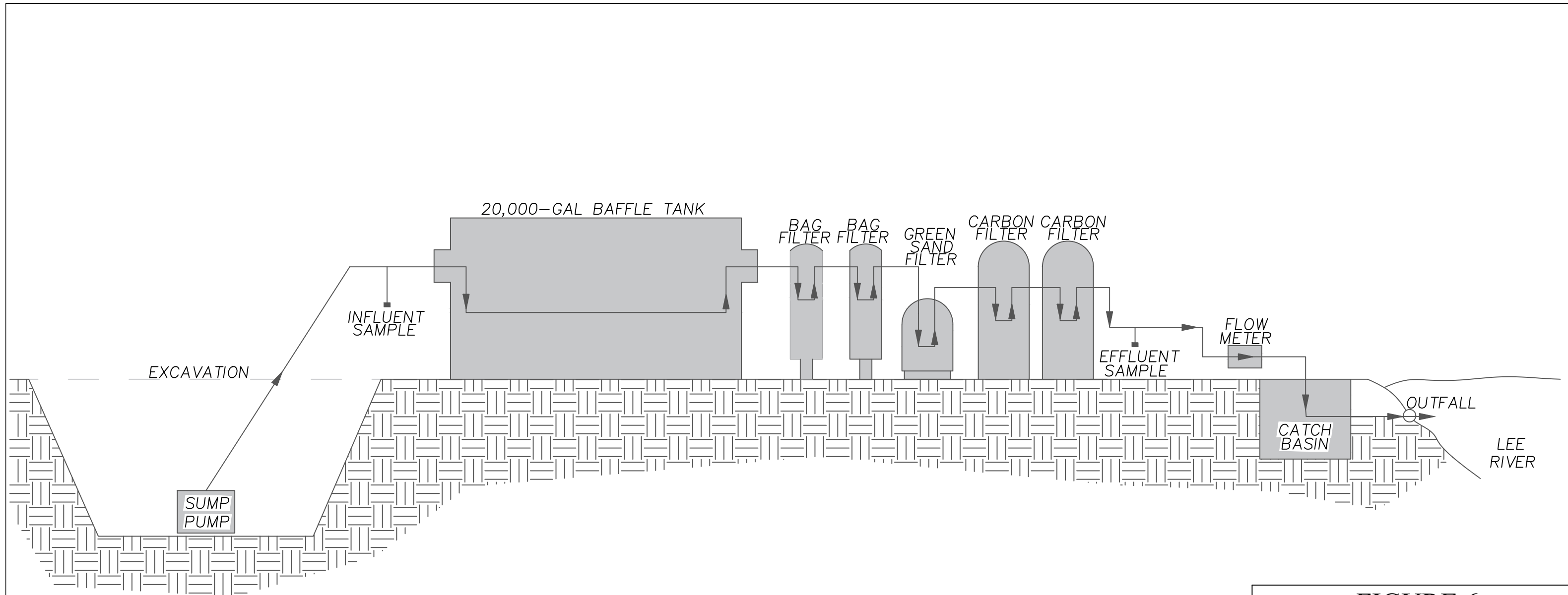



FIGURE 6

**GROUNDWATER DEWATERING
INSTALLATION DIAGRAM**

SHELL-BRANDED SERVICE STATION
LOCATED AT
1833 WILBUR AVENUE
SOMERSET, MA
PREPARED FOR
COLBEA ENTERPRISES LLC


TG2 SOLUTIONS, LLC
 231 ELM STREET
 BLACKSTONE, MA 0154

DATE: JULY 22, 2018 REVISED:

NOTES:
 1) NOT TO SCALE.
 2) THE DISTANCE FROM THE CATCH BASIN/DISCHARGE LOCATION
 TO THE LEE RIVER OUTFALL IS APPROXIMATELY 482 FEET.

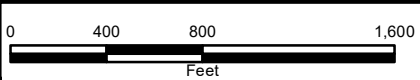


LEGEND

- 7 MHC HISTORIC INVENTORY
- HALF MILE SITE RADIUS
- 500 FOOT SITE RADUIS

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

NOTES:
 1) NAD 83 STATE PLANE MASSACHUSETTS (METERS)
 2) MASSGIS - MHC HISTORIC INVENTORY (UPDATED CONTINUALLY). The MACRIS MAPS ONLINE MAPPING APPLICATION DISPLAYS HISTORIC RESOURCES INCLUDED IN THE MASSACHUSETTS CULTURAL RESOURCE INFORMATION SYSTEM MAINTAINED BY THE MASSACHUSETTS HISTORICAL COMMISSION.
 3) NUMBERS SHOWN ON MAP CORRESPOND TO "OBJECTID" IN TABLE. ALL NUMBERS MAY NOT BE SHOWN. PLEASE SEE TABLE FOR COMPLETE LIST.



DATE: MARCH 24, 2020

Tg SOLUTIONS
 PREPARED BY:
 TG2 SOLUTIONS LLC
 231 ELM STREET
 BLACKSTONE, MA 01504

FIGURE 7

EXTENDED AREA MAP
 WITH MARCIS INVENTORY

1833 WILBUR AVENUE
 SOMERSET, MA

TABLES



TABLE 1
SUMMARY OF GROUNDWATER ANALYTICAL DATA
Colbea Shell-Branded Service Station
1833 Wilbur Avenue
Somerset, Massachusetts

	Copper (µg/L)	Iron (µg/L)	Zinc (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	Total BTEX* (µg/L)	Naphthalene (µg/L)	Ammonia (as N) (mg/L)	Chloride (mg/L)	Chlorine (mg/L)	Total Suspended Solids (mg/L)	Hardness (mg/L)	pH	
MassDEP Reportable Concentrations (RCGW-2)	100,000	NA	900	40,000	5,000	3,000	NA	700	NA	NA	NA	NA	NA	NA	
Effluent Limitations - TBEL	242	5,000	420	100*	100*	100*	NA	20	Report	Report	0.2	30	NA	NA	
Well ID	Sample Date														
Discharge (Lee River)	02/26/20	<20	<250	<5	--	--	--	--	0.15	12,000	<0.020	23	4,010	6.7	
RGF Well MW-6	02/26/20	2.4	1,550	11.8	1.8	36.9	40.4	79.1	11.6	0.97	763	<0.020	<5	120	6.8

Notes:
µg/L - micrograms per liter
mg/L - milligram per liter
<5.0 - Not detected above method detection limit (MDL). MDL included.
MassDEP - Massachusetts Department of Environmental Protection
NA - not available
TBEL - Technology-Based Effluent Limitations
"--" - not sampled
MTBE - Methyl tert-Butyl Ether
* - total benzene, toluene, ethylbenzene, and xylenes.

Bold - above method detection limits
Bold & Shaded - above RCGW-2 and/or TBEL Effluent Limitations

ATTACHMENT A



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

A. General site information:

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

B. Receiving water information:

1. Name of receiving water(s):	Waterbody identification of receiving water(s):	Classification of receiving water(s):
Receiving water is (check any that apply): <input type="checkbox"/> Outstanding Resource Water <input type="checkbox"/> Ocean Sanctuary <input type="checkbox"/> territorial sea <input type="checkbox"/> Wild and Scenic River		
2. Has the operator attached a location map in accordance with the instructions in B, above? (check one): <input type="checkbox"/> Yes <input type="checkbox"/> No Are sensitive receptors present near the site? (check one): <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, specify:		
3. Indicate if the receiving water(s) is listed in the State’s Integrated List of Waters (i.e., CWA Section 303(d)). Include which designated uses are impaired, and any pollutants indicated. Also, indicate if a final TMDL is available for any of the indicated pollutants. For more information, contact the appropriate State as noted in Part 4.6 of the RGP.		
4. Indicate the seven day-ten-year low flow (7Q10) of the receiving water determined in accordance with the instructions in Appendix V for sites located in Massachusetts and Appendix VI for sites located in New Hampshire.		
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. Has the operator received confirmation from the appropriate State for the 7Q10 and dilution factor indicated? (check one): <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, indicate date confirmation received:		
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): <input type="checkbox"/> Yes <input type="checkbox"/> No		

C. Source water information:

1. Source water(s) is (check any that apply):			
<input type="checkbox"/> 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): <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> 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): <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> The receiving water <input type="checkbox"/> A surface water other than the receiving water; if so, indicate waterbody:	<input type="checkbox"/> Potable water; if so, indicate municipality or origin: <input type="checkbox"/> Other; if so, specify:

2. Source water contaminants:	
a. For source waters that are contaminated groundwater or contaminated surface water, indicate are any contaminants present that are not included in the RGP? (check one): <input type="checkbox"/> Yes <input type="checkbox"/> 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): <input type="checkbox"/> Yes <input type="checkbox"/> No
3. Has the source water been previously chlorinated or otherwise contains residual chlorine? (check one): <input type="checkbox"/> Yes <input type="checkbox"/> No	

D. Discharge information

1.The discharge(s) is a(n) (check any that apply): <input type="checkbox"/> Existing discharge <input type="checkbox"/> New discharge <input type="checkbox"/> New source	
Outfall(s):	Outfall location(s): (Latitude, Longitude)
Discharges enter the receiving water(s) via (check any that apply): <input type="checkbox"/> Direct discharge to the receiving water <input type="checkbox"/> Indirect discharge, if so, specify: <input type="checkbox"/> A private storm sewer system <input type="checkbox"/> 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): <input type="checkbox"/> Yes <input type="checkbox"/> No Has the operator has received permission from the owner to use such system for discharges? (check one): <input type="checkbox"/> Yes <input type="checkbox"/> 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): <input type="checkbox"/> Yes <input type="checkbox"/> No	
Provide the expected start and end dates of discharge(s) (month/year):	
Indicate if the discharge is expected to occur over a duration of: <input type="checkbox"/> less than 12 months <input type="checkbox"/> 12 months or more <input type="checkbox"/> is an emergency discharge	
Has the operator attached a site plan in accordance with the instructions in D, above? (check one): <input type="checkbox"/> Yes <input type="checkbox"/> No	

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

4. Influent and Effluent Characteristics

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								Report mg/L	---
Chloride								Report µg/l	---
Total Residual Chlorine								0.2 mg/L	
Total Suspended Solids								30 mg/L	---
Antimony								206 µg/L	
Arsenic								104 µg/L	
Cadmium								10.2 µg/L	
Chromium III								323 µg/L	
Chromium VI								323 µg/L	
Copper								242 µg/L	
Iron								5,000 µg/L	
Lead								160 µg/L	
Mercury								0.739 µg/L	
Nickel								1,450 µg/L	
Selenium								235.8 µg/L	
Silver								35.1 µg/L	
Zinc								420 µg/L	
Cyanide								178 mg/L	
B. Non-Halogenated VOCs									
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	

E. Treatment system information

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

F. Chemical and additive information

<p>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)</p> <p><input type="checkbox"/> Algaeicides/biocides <input type="checkbox"/> Antifoams <input type="checkbox"/> Coagulants <input type="checkbox"/> Corrosion/scale inhibitors <input type="checkbox"/> Disinfectants <input type="checkbox"/> Flocculants <input type="checkbox"/> Neutralizing agents <input type="checkbox"/> Oxidants <input type="checkbox"/> Oxygen <input type="checkbox"/> scavengers <input type="checkbox"/> pH conditioners <input type="checkbox"/> Bioremedial agents, including microbes <input type="checkbox"/> Chlorine or chemicals containing chlorine <input type="checkbox"/> Other; if so, specify:</p>
<p>2. Provide the following information for each chemical/additive, using attachments, if necessary:</p> <p>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)).</p>
<p>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): <input type="checkbox"/> Yes <input type="checkbox"/> 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): <input type="checkbox"/> Yes <input type="checkbox"/> No</p>

G. Endangered Species Act eligibility determination

<p>1. Indicate under which criterion the discharge(s) is eligible for coverage under this general permit:</p> <p><input type="checkbox"/> 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".</p> <p><input type="checkbox"/> 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): <input type="checkbox"/> Yes <input type="checkbox"/> No; if no, is consultation underway? (check one): <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><input type="checkbox"/> 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) <input type="checkbox"/> the operator <input type="checkbox"/> EPA <input type="checkbox"/> Other; if so, specify:</p>

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

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

Does the supporting documentation include any written concurrence or finding provided by the Services? (check one): Yes No; if yes, attach.

H. National Historic Preservation Act eligibility determination

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

- Criterion A:** No historic properties are present. The discharges and discharge-related activities (e.g., BMPs) do not have the potential to cause effects on historic properties.
- Criterion B:** Historic properties are present. Discharges and discharge related activities do not have the potential to cause effects on historic properties.
- Criterion C:** Historic properties are present. The discharges and discharge-related activities have the potential to have an effect or will have an adverse effect on historic properties.

2. Has the operator attached supporting documentation of NHPA eligibility in accordance with the instructions in H, above? (check one): Yes No

Does the supporting documentation include any written agreement with the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (TPHO), or other tribal representative that outlines measures the operator will carry out to mitigate or prevent any adverse effects on historic properties? (check one): Yes No

I. Supplemental information

Describe any supplemental information being provided with the NOI. Include attachments if required or otherwise necessary.

Has the operator attached data, including any laboratory case narrative and chain of custody used to support the application? (check one): Yes No

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

J. Certification requirement

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

A BMPP meeting the requirements of this general permit will be developed and implemented upon
BMPP certification statement: initiation of discharge.

Notification provided to the appropriate State, including a copy of this NOI, if required. Check one: Yes No

Notification provided to the municipality in which the discharge is located, including a copy of this NOI, if requested. Check one: Yes No

Notification provided to the owner of a private or municipal storm sewer system, if such system is used for site discharges, including a copy of this NOI, if requested. Check one: Yes No NA

Permission obtained from the owner of a private or municipal storm sewer system, if such system is used for site discharges. If yes, attach additional conditions. If no, attach explanation and timeframe for obtaining permission. Check one: Yes No NA

Notification provided to the owner/operator of the area associated with activities covered by an additional discharge permit(s). Additional discharge permit is (check one): RGP DGP CGP MSGP Individual NPDES permit Other; if so, specify: Check one: Yes No NA

Signature: 

Date: 5/18/20

Print Name and Title: Eric Simpson - Environmental Manager

ATTACHMENT B



StreamStats Report

Region ID:

MA

Workspace ID:

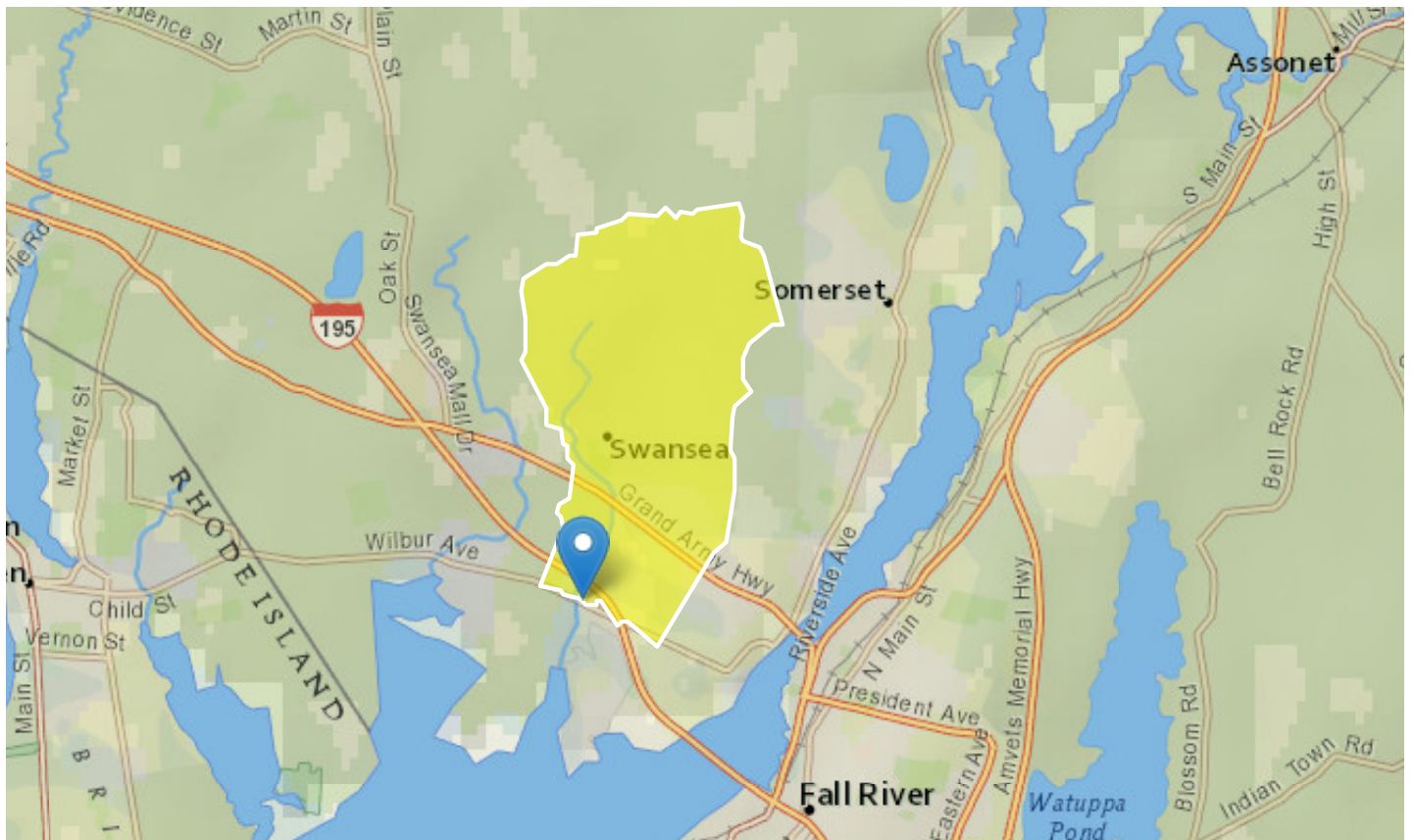
MA20180808224444921000

Clicked Point (Latitude, Longitude):

41.72828, -71.19143

Time:

2018-08-08 18:45:00 -0400



Colbea Gasoline Station, 1833 Wilbur Ave, Somerset

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	5.39	square miles
BSLDEM250	Mean basin slope computed from 1:250K DEM	1.217	percent
DRFTPERSTR	Area of stratified drift per unit of stream length	0.0718	square mile per mile
MAREGION	Region of Massachusetts 0 for Eastern 1 for Western	0	dimensionless

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

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	5.39	square miles	1.61	149
BSLDEM250	Mean Basin Slope from 250K DEM	1.217	percent	0.32	24.6
DRFTPERSTR	Stratified Drift per Stream Length	0.0718	square mile per mile	0	1.29
MAREGION	Massachusetts Region	0	dimensionless	0	1

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

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

Statistic	Value	Unit	PII	Plu	SE	SEp
7 Day 2 Year Low Flow	0.27	ft ³ /s	0.0748	0.939	49.5	49.5
7 Day 10 Year Low Flow	0.0795	ft ³ /s	0.0171	0.345	70.8	70.8

Low-Flow Statistics Citations

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

Subject: Re: 1833 Wilbur Ave - RGP NOI
Date: Friday, May 8, 2020 at 4:01:28 PM Eastern Daylight Time
From: Ruan, Xiaodan (DEP)
To: Jason Sherburne
CC: Leah Smith, Vakalopoulos, Catherine (DEP)

Hi Jason,

Thanks for providing the information. However, I did not find the dilution factor (DF) calculation. I can confirm the 7Q10 of 0.0795 cfs, which equals to 0.051 MGD, for the Lee River at the discharge for the project at 1833 Wilbur Ave in Somerset, MA is correct.
Using the provided design flow rate (maximum flow rate) of 60 gpm (0.0864 MGD), the DF I calculated would be: $(0.051 + 0.0864) / 0.0864 = 1.59$.

Here is some information to use in the NOI:

Waterbody ID: MA61-02 (within Mount Hope Bay Watershed)

Classification: SA

Outstanding Resource Water?: no

State's most recent Integrated List is located here: <https://www.epa.gov/sites/production/files/2020-01/documents/2016-ma-303d-list-report.pdf>, search for "MA61-02" to see the causes of impairments.

TMDLs: there is one approved pathogen TMDL for this segment

As this is an *active* MCP site, you do not need to apply with MassDEP.

Please let me know if you have any questions.

Thanks,
Xiaodan

From: Jason Sherburne <jsherburne@tg2solutions.com>
Sent: Tuesday, May 5, 2020 1:31:07 PM
To: Vakalopoulos, Catherine (DEP)
Cc: Leah Smith
Subject: 1833 Wilbur Ave - RGP NOI

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Good afternoon,

I'm working on a RGP on behalf of a client to complete a NOI for a RGP for redevelopment activities at 1833 Wilbur Ave in Somerset, MA. This facility is an active gasoline station with an RTN (4-0016959) and is being redeveloped into an updated gasoline station facility with new tanks, etc.

Attached please find the dilution factor spreadsheet and effluent limit calculations, as well as the StreamStats output. The discharge location is an outfall that discharges to the Lee River west of the property – see Figure 2A. The discharge flow was calculated based on the design flow: $(60 \text{ gpm} \times 60 \text{ mph} \times 24\text{h}) / 1 \text{ million} = 0.0864 \text{ mgd}$. The latitude and longitude of the catch basin discharge and outfall point are:

Catch Basin Discharge Point:

Latitude: 41.727310
Longitude: -71.189836

Outfall (Lee River) Point:

Latitude: 41.728048
Longitude: -71.191448

I've also attached a table with the summary of contaminants detected in the influent sample (site groundwater) and the outfall surface water sample.

Could you verify the 7Q10 information and dilution factor? Please let me know if you require any additional information.

Thanks for your help and please let me know if you need anything else.

Jason

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

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USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.2.1

ATTACHMENT C





CERTIFICATE OF ANALYSIS

Eric D. Simpson
 Tg2 Solutions
 231 Elm Street
 Blackstone, MA 01504

RE: 1833 Wilbur Ave Somerset MA - RGP (N/A)
ESS Laboratory Work Order Number: 20B0763

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
 Laboratory Director

REVIEWED
By ESS Laboratory at 1:14 pm, Mar 10, 2020

Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with TNI and relative state standards, and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions

Client Project ID: 1833 Wilbur Ave Somerset MA - RGP

ESS Laboratory Work Order: 20B0763

SAMPLE RECEIPT

The following samples were received on February 26, 2020 for the analyses specified on the enclosed Chain of Custody Record.

The samples and analyses listed below were analyzed in accordance with the 2017 Remediation General Permit under the National Pollutant Discharge Elimination System (NPDES).

ESS Laboratory is unable to achieve the required detection limit of 0.4 mg/L for Ethanol for the RGP permit. We have also been unable to procure a subcontract laboratory that is able to achieve this limit. The data for Ethanol has been reported using our current method reporting limit.

<u>Lab Number</u>	<u>Sample Name</u>	<u>Matrix</u>	<u>Analysis</u>
20B0763-01	MW-6	Ground Water	1664A, 200.7, 245.1, 2540D, 300.0, 350.1, 3500Cr B-2009, 420.1, 4500 CN CE, 4500Cl D, 504.1, 524.2, 608.3, 625.1 SIM, 8270D SIM, ASTM D3695
20B0763-02	Discharge	Ground Water	1664A, 200.7, 200.8, 245.1, 2540D, 300.0, 350.1, 3500Cr B-2009, 420.1, 4500 CN CE, 4500Cl D, 504.1, 524.2, 608.3, 625.1 SIM, 8270D SIM, ASTM D3695



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions

Client Project ID: 1833 Wilbur Ave Somerset MA - RGP

ESS Laboratory Work Order: 20B0763

PROJECT NARRATIVE

524.2 Volatile Organic Compounds

DB02728-BSD1

1,1-Dichloroethane (21% @ 20%)

625.1(SIM) Semi-Volatile Organic Compounds

20B0763-01

2,4,6-Tribromophenol (140% @ 15-110%)

20B0763-02

2,4,6-Tribromophenol (115% @ 15-110%)

D0C0024-CCV1

2,4,6-Tribromophenol (149% @ 80-120%), Pentachlorophenol (90% @ 80-120%)

D0C0026-CCV1

2,4,6-Tribromophenol (122% @ 80-120%), Pentachlorophenol (88% @ 80-120%)

D0C0026-CCV1

2,4,6-Tribromophenol (22% @ 20%)

DC00203-BLK1

2,4,6-Tribromophenol (111% @ 15-110%)

DC00203-BS1

2,4,6-Tribromophenol (176% @ 15-110%)

DC00203-BSD1

2,4,6-Tribromophenol (167% @ 15-110%)

Classical Chemistry

20B0763-01

20B0763-02

Dissolved Metals

20B0763-02

Copper

Total Metals

20B0763-02

Arsenic , Copper

No other observations noted.

End of Project Narrative.



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions

Client Project ID: 1833 Wilbur Ave Somerset MA - RGP

ESS Laboratory Work Order: 20B0763

DATA USABILITY LINKS

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CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

- 1010A - Flashpoint
- 6010C - ICP
- 6020A - ICP MS
- 7010 - Graphite Furnace
- 7196A - Hexavalent Chromium
- 7470A - Aqueous Mercury
- 7471B - Solid Mercury
- 8011 - EDB/DBCP/TCP
- 8015C - GRO/DRO
- 8081B - Pesticides
- 8082A - PCB
- 8100M - TPH
- 8151A - Herbicides
- 8260B - VOA
- 8270D - SVOA
- 8270D SIM - SVOA Low Level
- 9014 - Cyanide
- 9038 - Sulfate
- 9040C - Aqueous pH
- 9045D - Solid pH (Corrosivity)
- 9050A - Specific Conductance
- 9056A - Anions (IC)
- 9060A - TOC
- 9095B - Paint Filter
- MADEP 04-1.1 - EPH
- MADEP 18-2.1 - VPH

Prep Methods

- 3005A - Aqueous ICP Digestion
- 3020A - Aqueous Graphite Furnace / ICP MS Digestion
- 3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
- 3060A - Solid Hexavalent Chromium Digestion
- 3510C - Separatory Funnel Extraction
- 3520C - Liquid / Liquid Extraction
- 3540C - Manual Soxhlet Extraction
- 3541 - Automated Soxhlet Extraction
- 3546 - Microwave Extraction
- 3580A - Waste Dilution
- 5030B - Aqueous Purge and Trap
- 5030C - Aqueous Purge and Trap
- 5035A - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: 1833 Wilbur Ave Somerset MA - RGP
Client Sample ID: MW-6
Date Sampled: 02/26/20 13:30
Percent Solids: N/A

ESS Laboratory Work Order: 20B0763
ESS Laboratory Sample ID: 20B0763-01
Sample Matrix: Ground Water
Units: ug/L

Extraction Method: 3005A/200.7

Dissolved Metals

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Antimony	ND (5.0)		200.7		1	KJK	02/27/20 12:44	100	10	DB02603
Arsenic	ND (5.00)		200.7		1	KJK	02/27/20 12:44	100	10	DB02603
Cadmium	ND (1.00)		200.7		1	KJK	02/27/20 12:44	100	10	DB02603
Chromium	ND (2.0)		200.7		1	KJK	02/27/20 12:44	100	10	DB02603
Copper	ND (2.0)		200.7		1	KJK	02/27/20 12:44	100	10	DB02603
Iron	945 (10.0)		200.7		1	KJK	02/27/20 12:44	100	10	DB02603
Lead	ND (2.0)		200.7		1	KJK	02/27/20 12:44	100	10	DB02603
Mercury	ND (0.20)		245.1		1	MKS	02/27/20 9:23	20	40	DB02653
Nickel	ND (5.0)		200.7		1	KJK	02/27/20 12:44	100	10	DB02603
Selenium	ND (5.0)		200.7		1	KJK	02/27/20 12:44	100	10	DB02603
Silver	ND (0.5)		200.7		1	KJK	02/27/20 12:44	100	10	DB02603
Zinc	10.9 (5.0)		200.7		1	KJK	02/27/20 12:44	100	10	DB02603



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: 1833 Wilbur Ave Somerset MA - RGP
Client Sample ID: MW-6
Date Sampled: 02/26/20 13:30
Percent Solids: N/A

ESS Laboratory Work Order: 20B0763
ESS Laboratory Sample ID: 20B0763-01
Sample Matrix: Ground Water
Units: ug/L

Extraction Method: 3005A/200.7

Total Metals

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Antimony	ND (5.0)		200.7		1	KJK	02/27/20 12:55	100	10	DB02603
Arsenic	ND (5.0)		200.7		1	KJK	02/27/20 12:55	100	10	DB02603
Cadmium	ND (1.00)		200.7		1	KJK	02/27/20 12:55	100	10	DB02603
Chromium	ND (2.0)		200.7		1	KJK	02/27/20 12:55	100	10	DB02603
Chromium III	ND (10.0)		200.7		1	CCP	02/27/20 12:55	1	1	[CALC]
Copper	2.4 (2.0)		200.7		1	KJK	02/27/20 12:55	100	10	DB02603
Hardness	120000 (82.4)		200.7		1	KJK	02/27/20 12:55	1	1	[CALC]
Iron	1550 (10.0)		200.7		1	KJK	02/27/20 12:55	100	10	DB02603
Lead	ND (2.0)		200.7		1	KJK	02/27/20 12:55	100	10	DB02603
Mercury	ND (0.2)		245.1		1	MKS	02/27/20 9:21	20	40	DB02653
Nickel	ND (5.0)		200.7		1	KJK	02/27/20 12:55	100	10	DB02603
Selenium	ND (5.0)		200.7		1	KJK	02/27/20 12:55	100	10	DB02603
Silver	ND (0.5)		200.7		1	KJK	02/27/20 12:55	100	10	DB02603
Zinc	11.8 (5.0)		200.7		1	KJK	02/27/20 12:55	100	10	DB02603



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: 1833 Wilbur Ave Somerset MA - RGP
Client Sample ID: MW-6
Date Sampled: 02/26/20 13:30
Percent Solids: N/A
Initial Volume: 25
Final Volume: 25
Extraction Method: 524.2

ESS Laboratory Work Order: 20B0763
ESS Laboratory Sample ID: 20B0763-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: MD

524.2 Volatile Organic Compounds

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
1,1,1-Trichloroethane	ND (0.5)		524.2		1	02/27/20 12:59	D0B0442	DB02728
1,1,2-Trichloroethane	ND (0.5)		524.2		1	02/27/20 12:59	D0B0442	DB02728
1,1-Dichloroethane	ND (0.5)		524.2		1	02/27/20 12:59	D0B0442	DB02728
1,1-Dichloroethene	ND (0.5)		524.2		1	02/27/20 12:59	D0B0442	DB02728
1,2-Dichlorobenzene	ND (0.5)		524.2		1	02/27/20 12:59	D0B0442	DB02728
1,2-Dichloroethane	ND (0.5)		524.2		1	02/27/20 12:59	D0B0442	DB02728
1,3-Dichlorobenzene	ND (0.5)		524.2		1	02/27/20 12:59	D0B0442	DB02728
1,4-Dichlorobenzene	ND (0.5)		524.2		1	02/27/20 12:59	D0B0442	DB02728
Acetone	ND (5.0)		524.2		1	02/27/20 12:59	D0B0442	DB02728
Benzene	ND (0.5)		524.2		1	02/27/20 12:59	D0B0442	DB02728
Carbon Tetrachloride	ND (0.3)		524.2		1	02/27/20 12:59	D0B0442	DB02728
cis-1,2-Dichloroethene	ND (0.5)		524.2		1	02/27/20 12:59	D0B0442	DB02728
Ethylbenzene	39.6 (0.5)		524.2		1	02/27/20 12:59	D0B0442	DB02728
Methyl tert-Butyl Ether	ND (0.5)		524.2		1	02/27/20 12:59	D0B0442	DB02728
Methylene Chloride	ND (0.5)		524.2		1	02/27/20 12:59	D0B0442	DB02728
Naphthalene	11.6 (0.5)		524.2		1	02/27/20 12:59	D0B0442	DB02728
Tertiary-amyl methyl ether	ND (1.0)		524.2		1	02/27/20 12:59	D0B0442	DB02728
Tertiary-butyl Alcohol	ND (25.0)		524.2		1	02/27/20 12:59	D0B0442	DB02728
Tetrachloroethene	ND (0.5)		524.2		1	02/27/20 12:59	D0B0442	DB02728
Toluene	1.8 (0.5)		524.2		1	02/27/20 12:59	D0B0442	DB02728
Trichloroethene	ND (0.5)		524.2		1	02/27/20 12:59	D0B0442	DB02728
Vinyl Chloride	ND (0.2)		524.2		1	02/27/20 12:59	D0B0442	DB02728
Xylene O	12.2 (0.5)		524.2		1	02/27/20 12:59	D0B0442	DB02728
Xylene P,M	28.2 (0.5)		524.2		1	02/27/20 12:59	D0B0442	DB02728

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	90 %		80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	105 %		80-120



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: 1833 Wilbur Ave Somerset MA - RGP
Client Sample ID: MW-6
Date Sampled: 02/26/20 13:30
Percent Solids: N/A
Initial Volume: 1070
Final Volume: 1
Extraction Method: 3510C

ESS Laboratory Work Order: 20B0763
ESS Laboratory Sample ID: 20B0763-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: MJV
Prepared: 2/28/20 11:54

608.3 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (0.09)		608.3		1	02/28/20 14:53		DB02810
Aroclor 1221	ND (0.09)		608.3		1	02/28/20 14:53		DB02810
Aroclor 1232	ND (0.09)		608.3		1	02/28/20 14:53		DB02810
Aroclor 1242	ND (0.09)		608.3		1	02/28/20 14:53		DB02810
Aroclor 1248	ND (0.09)		608.3		1	02/28/20 14:53		DB02810
Aroclor 1254	ND (0.09)		608.3		1	02/28/20 14:53		DB02810
Aroclor 1260	ND (0.09)		608.3		1	02/28/20 14:53		DB02810
Aroclor 1262	ND (0.09)		608.3		1	02/28/20 14:53		DB02810
Aroclor 1268	ND (0.09)		608.3		1	02/28/20 14:53		DB02810

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: Decachlorobiphenyl</i>	77 %		30-150
<i>Surrogate: Decachlorobiphenyl [2C]</i>	79 %		30-150
<i>Surrogate: Tetrachloro-m-xylene</i>	80 %		30-150
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	93 %		30-150



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: 1833 Wilbur Ave Somerset MA - RGP
Client Sample ID: MW-6
Date Sampled: 02/26/20 13:30
Percent Solids: N/A
Initial Volume: 1060
Final Volume: 0.25
Extraction Method: 3510C

ESS Laboratory Work Order: 20B0763
ESS Laboratory Sample ID: 20B0763-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: VSC
Prepared: 3/2/20 15:03

625.1(SIM) Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Acenaphthene	ND (0.19)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Acenaphthylene	ND (0.19)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Anthracene	ND (0.19)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Benzo(a)anthracene	ND (0.05)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Benzo(a)pyrene	ND (0.05)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Benzo(b)fluoranthene	ND (0.05)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Benzo(g,h,i)perylene	ND (0.19)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Benzo(k)fluoranthene	ND (0.05)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
bis(2-Ethylhexyl)phthalate	ND (2.36)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Butylbenzylphthalate	ND (2.36)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Chrysene	ND (0.05)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Dibenzo(a,h)Anthracene	ND (0.05)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Diethylphthalate	ND (2.36)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Dimethylphthalate	ND (2.36)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Di-n-butylphthalate	ND (2.36)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Di-n-octylphthalate	ND (2.36)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Fluoranthene	ND (0.19)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Fluorene	ND (0.19)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Indeno(1,2,3-cd)Pyrene	ND (0.05)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Naphthalene	1.13 (0.19)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Pentachlorophenol	ND (0.85)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Phenanthrene	ND (0.19)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203
Pyrene	ND (0.19)		625.1 SIM		1	03/03/20 2:03	D0C0026	DC00203

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	64 %		30-130
<i>Surrogate: 2,4,6-Tribromophenol</i>	140 %	S+	15-110
<i>Surrogate: 2-Fluorobiphenyl</i>	76 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	94 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	104 %		30-130



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: 1833 Wilbur Ave Somerset MA - RGP
Client Sample ID: MW-6
Date Sampled: 02/26/20 13:30
Percent Solids: N/A
Initial Volume: 500
Final Volume: 0.5
Extraction Method: 3535A

ESS Laboratory Work Order: 20B0763
ESS Laboratory Sample ID: 20B0763-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: VSC
Prepared: 2/27/20 15:30

8270D(SIM) Semi-Volatile Organic Compounds w/ Isotope Dilution

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
1,4-Dioxane	ND (0.250)		8270D SIM		1	02/29/20 9:04	D0B0460	DB02750
		<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				
<i>Surrogate: 1,4-Dioxane-d8</i>		61 %		15-115				



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: 1833 Wilbur Ave Somerset MA - RGP
Client Sample ID: MW-6
Date Sampled: 02/26/20 13:30
Percent Solids: N/A

ESS Laboratory Work Order: 20B0763
ESS Laboratory Sample ID: 20B0763-01
Sample Matrix: Ground Water

Classical Chemistry

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>Units</u>	<u>Batch</u>
Ammonia as N	0.97 (0.10)		350.1		1	JLK	03/03/20 16:49	mg/L	DC00218
Chloride	763 (50.0)		300.0		100	EEM	02/28/20 16:48	mg/L	DB02823
Hexavalent Chromium	ND (10.0)		3500Cr B-2009		1	CCP	02/26/20 16:45	ug/L	DB02639
Phenols	ND (50)		420.1		1	EEM	02/28/20 13:45	ug/L	DB02822
Total Cyanide	ND (5.00)		4500 CN CE		1	JLK	02/27/20 16:48	ug/L	DB02739
Total Petroleum Hydrocarbon	ND (5)		1664A		1	LAB	02/28/20 16:02	mg/L	DB02805
Total Residual Chlorine	ND (20.0)		4500Cl D		1	CCP	02/26/20 17:22	ug/L	DB02640
Total Suspended Solids	ND (5)		2540D		1	CCP	02/27/20 16:13	mg/L	DB02732



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
 Client Project ID: 1833 Wilbur Ave Somerset MA - RGP
 Client Sample ID: MW-6
 Date Sampled: 02/26/20 13:30
 Percent Solids: N/A
 Initial Volume: 35
 Final Volume: 2
 Extraction Method: 504/8011

ESS Laboratory Work Order: 20B0763
 ESS Laboratory Sample ID: 20B0763-01
 Sample Matrix: Ground Water
 Units: ug/L
 Analyst: CAD
 Prepared: 2/27/20 9:15

504.1 1,2-Dibromoethane / 1,2-Dibromo-3-chloropropane

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
1,2-Dibromo-3-Chloropropane	ND (0.015)		504.1		1	02/27/20 11:13		DB02638
1,2-Dibromoethane	ND (0.015)		504.1		1	02/27/20 11:13		DB02638

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: Pentachloroethane</i>	81 %		30-150
<i>Surrogate: Pentachloroethane [2C]</i>	87 %		30-150



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: 1833 Wilbur Ave Somerset MA - RGP
Client Sample ID: MW-6
Date Sampled: 02/26/20 13:30
Percent Solids: N/A
Initial Volume: 1
Final Volume: 1
Extraction Method: No Prep

ESS Laboratory Work Order: 20B0763
ESS Laboratory Sample ID: 20B0763-01
Sample Matrix: Ground Water
Units: mg/L
Analyst: ZLC
Prepared: 3/3/20 8:02

Alcohol Scan by GC/FID

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Ethanol	ND (10)		ASTM D3695		1	ZLC	03/03/20 9:54		DC00301



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: 1833 Wilbur Ave Somerset MA - RGP
Client Sample ID: Discharge
Date Sampled: 02/26/20 14:30
Percent Solids: N/A

ESS Laboratory Work Order: 20B0763
ESS Laboratory Sample ID: 20B0763-02
Sample Matrix: Ground Water
Units: ug/L

Extraction Method: 3005A/200.7

Dissolved Metals

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Antimony	ND (25.0)		200.7		5	KJK	02/27/20 13:22	100	10	DB02603
Arsenic	ND (25.0)		200.7		5	KJK	02/27/20 13:22	100	10	DB02603
Cadmium	ND (1.00)		200.7		1	KJK	02/27/20 12:49	100	10	DB02603
Chromium	ND (2.0)		200.7		1	KJK	02/27/20 12:49	100	10	DB02603
Copper	EL ND (10.0)		200.7		5	KJK	02/27/20 13:22	100	10	DB02603
Iron	ND (250)		200.7		25	KJK	02/27/20 14:16	100	10	DB02603
Lead	ND (1.0)		200.8		50	KJK	02/28/20 11:39	100	10	DB02603
Mercury	ND (0.20)		245.1		1	MKS	02/27/20 9:42	20	40	DB02653
Nickel	ND (5.0)		200.7		1	KJK	02/27/20 12:49	100	10	DB02603
Selenium	ND (25.0)		200.7		5	KJK	02/27/20 13:22	100	10	DB02603
Silver	ND (0.5)		200.7		1	KJK	02/27/20 12:49	100	10	DB02603
Zinc	ND (5.0)		200.7		1	KJK	02/27/20 12:49	100	10	DB02603



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: 1833 Wilbur Ave Somerset MA - RGP
Client Sample ID: Discharge
Date Sampled: 02/26/20 14:30
Percent Solids: N/A

ESS Laboratory Work Order: 20B0763
ESS Laboratory Sample ID: 20B0763-02
Sample Matrix: Ground Water
Units: ug/L

Extraction Method: 3005A/200.7

Total Metals

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>I/V</u>	<u>F/V</u>	<u>Batch</u>
Antimony	ND (50.0)		200.7		10	KJK	02/27/20 14:29	100	10	DB02603
Arsenic	EL ND (50.0)		200.7		10	KJK	02/27/20 14:29	100	10	DB02603
Cadmium	ND (1.00)		200.7		1	KJK	02/27/20 13:00	100	10	DB02603
Chromium	ND (2.0)		200.7		1	KJK	02/27/20 13:00	100	10	DB02603
Chromium III	ND (10.0)		200.7		1	CCP	02/27/20 13:00	1	1	[CALC]
Copper	EL ND (20.0)		200.7		10	KJK	02/27/20 14:29	100	10	DB02603
Hardness	4010000 (8240)		200.7		100	KJK	02/27/20 15:45	1	1	[CALC]
Iron	ND (250)		200.7		25	KJK	02/27/20 14:24	100	10	DB02603
Lead	ND (5.0)	1.0	200.8		50	KJK	02/28/20 11:34	100	10	DB02603
Mercury	ND (0.2)		245.1		1	MKS	02/27/20 9:26	20	40	DB02653
Nickel	ND (5.0)		200.7		1	KJK	02/27/20 13:00	100	10	DB02603
Selenium	ND (50.0)		200.7		10	KJK	02/27/20 14:29	100	10	DB02603
Silver	ND (0.5)		200.7		1	KJK	02/27/20 13:00	100	10	DB02603
Zinc	ND (5.0)		200.7		1	KJK	02/27/20 13:00	100	10	DB02603



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: 1833 Wilbur Ave Somerset MA - RGP
Client Sample ID: Discharge
Date Sampled: 02/26/20 14:30
Percent Solids: N/A
Initial Volume: 25
Final Volume: 25
Extraction Method: 524.2

ESS Laboratory Work Order: 20B0763
ESS Laboratory Sample ID: 20B0763-02
Sample Matrix: Ground Water
Units: ug/L
Analyst: MD

524.2 Volatile Organic Compounds

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
1,1,1-Trichloroethane	ND (0.5)		524.2		1	02/27/20 13:33	D0B0442	DB02728
1,1,2-Trichloroethane	ND (0.5)		524.2		1	02/27/20 13:33	D0B0442	DB02728
1,1-Dichloroethane	ND (0.5)		524.2		1	02/27/20 13:33	D0B0442	DB02728
1,1-Dichloroethene	ND (0.5)		524.2		1	02/27/20 13:33	D0B0442	DB02728
1,2-Dichlorobenzene	ND (0.5)		524.2		1	02/27/20 13:33	D0B0442	DB02728
1,2-Dichloroethane	ND (0.5)		524.2		1	02/27/20 13:33	D0B0442	DB02728
1,3-Dichlorobenzene	ND (0.5)		524.2		1	02/27/20 13:33	D0B0442	DB02728
1,4-Dichlorobenzene	ND (0.5)		524.2		1	02/27/20 13:33	D0B0442	DB02728
Acetone	ND (5.0)		524.2		1	02/27/20 13:33	D0B0442	DB02728
Benzene	ND (0.5)		524.2		1	02/27/20 13:33	D0B0442	DB02728
Carbon Tetrachloride	ND (0.3)		524.2		1	02/27/20 13:33	D0B0442	DB02728
cis-1,2-Dichloroethene	ND (0.5)		524.2		1	02/27/20 13:33	D0B0442	DB02728
Ethylbenzene	ND (0.5)		524.2		1	02/27/20 13:33	D0B0442	DB02728
Methyl tert-Butyl Ether	ND (0.5)		524.2		1	02/27/20 13:33	D0B0442	DB02728
Methylene Chloride	ND (0.5)		524.2		1	02/27/20 13:33	D0B0442	DB02728
Naphthalene	ND (0.5)		524.2		1	02/27/20 13:33	D0B0442	DB02728
Tertiary-amyl methyl ether	ND (1.0)		524.2		1	02/27/20 13:33	D0B0442	DB02728
Tertiary-butyl Alcohol	ND (25.0)		524.2		1	02/27/20 13:33	D0B0442	DB02728
Tetrachloroethene	ND (0.5)		524.2		1	02/27/20 13:33	D0B0442	DB02728
Toluene	ND (0.5)		524.2		1	02/27/20 13:33	D0B0442	DB02728
Trichloroethene	ND (0.5)		524.2		1	02/27/20 13:33	D0B0442	DB02728
Vinyl Chloride	ND (0.2)		524.2		1	02/27/20 13:33	D0B0442	DB02728
Xylene O	ND (0.5)		524.2		1	02/27/20 13:33	D0B0442	DB02728
Xylene P,M	ND (0.5)		524.2		1	02/27/20 13:33	D0B0442	DB02728

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	95 %		80-120
<i>Surrogate: 4-Bromofluorobenzene</i>	115 %		80-120



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: 1833 Wilbur Ave Somerset MA - RGP
Client Sample ID: Discharge
Date Sampled: 02/26/20 14:30
Percent Solids: N/A
Initial Volume: 1070
Final Volume: 1
Extraction Method: 3510C

ESS Laboratory Work Order: 20B0763
ESS Laboratory Sample ID: 20B0763-02
Sample Matrix: Ground Water
Units: ug/L
Analyst: MJV
Prepared: 2/28/20 11:54

608.3 Polychlorinated Biphenyls (PCB)

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Aroclor 1016	ND (0.09)		608.3		1	02/28/20 15:12		DB02810
Aroclor 1221	ND (0.09)		608.3		1	02/28/20 15:12		DB02810
Aroclor 1232	ND (0.09)		608.3		1	02/28/20 15:12		DB02810
Aroclor 1242	ND (0.09)		608.3		1	02/28/20 15:12		DB02810
Aroclor 1248	ND (0.09)		608.3		1	02/28/20 15:12		DB02810
Aroclor 1254	ND (0.09)		608.3		1	02/28/20 15:12		DB02810
Aroclor 1260	ND (0.09)		608.3		1	02/28/20 15:12		DB02810
Aroclor 1262	ND (0.09)		608.3		1	02/28/20 15:12		DB02810
Aroclor 1268	ND (0.09)		608.3		1	02/28/20 15:12		DB02810

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: Decachlorobiphenyl</i>	80 %		30-150
<i>Surrogate: Decachlorobiphenyl [2C]</i>	79 %		30-150
<i>Surrogate: Tetrachloro-m-xylene</i>	73 %		30-150
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	87 %		30-150



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: 1833 Wilbur Ave Somerset MA - RGP
Client Sample ID: Discharge
Date Sampled: 02/26/20 14:30
Percent Solids: N/A
Initial Volume: 1050
Final Volume: 0.25
Extraction Method: 3510C

ESS Laboratory Work Order: 20B0763
ESS Laboratory Sample ID: 20B0763-02
Sample Matrix: Ground Water
Units: ug/L
Analyst: VSC
Prepared: 3/2/20 15:03

625.1(SIM) Semi-Volatile Organic Compounds

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Acenaphthene	ND (0.19)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Acenaphthylene	ND (0.19)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Anthracene	ND (0.19)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Benzo(a)anthracene	ND (0.05)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Benzo(a)pyrene	ND (0.05)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Benzo(b)fluoranthene	ND (0.05)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Benzo(g,h,i)perylene	ND (0.19)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Benzo(k)fluoranthene	ND (0.05)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
bis(2-Ethylhexyl)phthalate	ND (2.38)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Butylbenzylphthalate	ND (2.38)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Chrysene	ND (0.05)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Dibenzo(a,h)Anthracene	ND (0.05)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Diethylphthalate	ND (2.38)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Dimethylphthalate	ND (2.38)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Di-n-butylphthalate	ND (2.38)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Di-n-octylphthalate	ND (2.38)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Fluoranthene	ND (0.19)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Fluorene	ND (0.19)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Indeno(1,2,3-cd)Pyrene	ND (0.05)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Naphthalene	ND (0.19)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Pentachlorophenol	ND (0.86)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Phenanthrene	ND (0.19)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203
Pyrene	ND (0.19)		625.1 SIM		1	03/03/20 2:51	D0C0026	DC00203

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: 1,2-Dichlorobenzene-d4</i>	70 %		30-130
<i>Surrogate: 2,4,6-Tribromophenol</i>	115 %	S+	15-110
<i>Surrogate: 2-Fluorobiphenyl</i>	84 %		30-130
<i>Surrogate: Nitrobenzene-d5</i>	99 %		30-130
<i>Surrogate: p-Terphenyl-d14</i>	104 %		30-130



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: 1833 Wilbur Ave Somerset MA - RGP
Client Sample ID: Discharge
Date Sampled: 02/26/20 14:30
Percent Solids: N/A
Initial Volume: 500
Final Volume: 0.5
Extraction Method: 3535A

ESS Laboratory Work Order: 20B0763
ESS Laboratory Sample ID: 20B0763-02
Sample Matrix: Ground Water
Units: ug/L
Analyst: VSC
Prepared: 2/27/20 15:30

8270D(SIM) Semi-Volatile Organic Compounds w/ Isotope Dilution

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
1,4-Dioxane	ND (0.250)		8270D SIM		1	02/29/20 9:51	D0B0460	DB02750
		<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>				
<i>Surrogate: 1,4-Dioxane-d8</i>		<i>52 %</i>		<i>15-115</i>				



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: 1833 Wilbur Ave Somerset MA - RGP
Client Sample ID: Discharge
Date Sampled: 02/26/20 14:30
Percent Solids: N/A

ESS Laboratory Work Order: 20B0763
ESS Laboratory Sample ID: 20B0763-02
Sample Matrix: Ground Water

Classical Chemistry

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>Units</u>	<u>Batch</u>
Ammonia as N	0.15 (0.10)		350.1		1	JLK	03/03/20 16:52	mg/L	DC00218
Chloride	12000 (5000)		300.0		10000	EEM	02/28/20 17:38	mg/L	DB02823
Hexavalent Chromium	ND (10.0)		3500Cr B-2009		1	CCP	02/26/20 16:45	ug/L	DB02639
Phenols	ND (50)		420.1		1	EEM	02/28/20 13:45	ug/L	DB02822
Total Cyanide	ND (5.00)		4500 CN CE		1	JLK	02/27/20 16:48	ug/L	DB02739
Total Petroleum Hydrocarbon	ND (5)		1664A		1	LAB	02/28/20 16:02	mg/L	DB02805
Total Residual Chlorine	ND (20.0)		4500Cl D		1	CCP	02/26/20 17:22	ug/L	DB02640
Total Suspended Solids	23 (5)		2540D		1	CCP	02/27/20 16:13	mg/L	DB02732



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
 Client Project ID: 1833 Wilbur Ave Somerset MA - RGP
 Client Sample ID: Discharge
 Date Sampled: 02/26/20 14:30
 Percent Solids: N/A
 Initial Volume: 35
 Final Volume: 2
 Extraction Method: 504/8011

ESS Laboratory Work Order: 20B0763
 ESS Laboratory Sample ID: 20B0763-02
 Sample Matrix: Ground Water
 Units: ug/L
 Analyst: CAD
 Prepared: 2/27/20 9:15

504.1 1,2-Dibromoethane / 1,2-Dibromo-3-chloropropane

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
1,2-Dibromo-3-Chloropropane	ND (0.015)		504.1		1	02/27/20 11:41		DB02638
1,2-Dibromoethane	ND (0.015)		504.1		1	02/27/20 11:41		DB02638

	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>
<i>Surrogate: Pentachloroethane</i>	112 %		30-150
<i>Surrogate: Pentachloroethane [2C]</i>	114 %		30-150



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: 1833 Wilbur Ave Somerset MA - RGP
Client Sample ID: Discharge
Date Sampled: 02/26/20 14:30
Percent Solids: N/A
Initial Volume: 1
Final Volume: 1
Extraction Method: No Prep

ESS Laboratory Work Order: 20B0763
ESS Laboratory Sample ID: 20B0763-02
Sample Matrix: Ground Water
Units: mg/L
Analyst: ZLC
Prepared: 3/3/20 8:02

Alcohol Scan by GC/FID

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>Sequence</u>	<u>Batch</u>
Ethanol	ND (10)		ASTM D3695		1	ZLC	03/03/20 10:39		DC00301



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions

Client Project ID: 1833 Wilbur Ave Somerset MA - RGP

ESS Laboratory Work Order: 20B0763

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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Dissolved Metals

Batch DB02603 - 3005A/200.7

Blank

Antimony	ND	5.0	ug/L
Arsenic	ND	5.00	ug/L
Cadmium	ND	1.00	ug/L
Chromium	ND	2.0	ug/L
Copper	ND	2.0	ug/L
Iron	ND	10.0	ug/L
Lead	ND	2.0	ug/L
Nickel	ND	5.0	ug/L
Selenium	ND	5.0	ug/L
Silver	ND	0.5	ug/L
Zinc	ND	5.0	ug/L

Blank

Lead	ND	0.1	ug/L
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LCS

Antimony	44.9	5.0	ug/L	50.00	90	85-115
Arsenic	42.9	5.00	ug/L	50.00	86	85-115
Cadmium	21.4	1.00	ug/L	25.00	86	85-115
Chromium	44.2	2.0	ug/L	50.00	88	85-115
Copper	45.6	2.0	ug/L	50.00	91	85-115
Iron	218	10.0	ug/L	250.0	87	85-115
Lead	44.5	2.0	ug/L	50.00	89	80-120
Nickel	43.3	5.0	ug/L	50.00	87	85-115
Selenium	87.4	5.0	ug/L	100.0	87	80-120
Silver	22.4	0.5	ug/L	25.00	90	85-115
Zinc	50.9	5.0	ug/L	50.00	102	85-115

LCS

Lead	43.6	0.5	ug/L	50.00	87	85-115
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Batch DB02653 - 245.1/7470A

Blank

Mercury	ND	0.20	ug/L
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LCS

Mercury	6.01	0.20	ug/L	6.042	99	85-115
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LCS Dup

Mercury	6.13	0.20	ug/L	6.042	102	85-115	2	20
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Total Metals

Batch DB02603 - 3005A/200.7

Blank

Antimony	ND	5.0	ug/L
Arsenic	ND	5.0	ug/L
Cadmium	ND	1.00	ug/L
Chromium	ND	2.0	ug/L



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions

Client Project ID: 1833 Wilbur Ave Somerset MA - RGP

ESS Laboratory Work Order: 20B0763

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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Total Metals

Batch DB02603 - 3005A/200.7

Copper	ND	2.0	ug/L							
Iron	ND	10.0	ug/L							
Lead	ND	2.0	ug/L							
Nickel	ND	5.0	ug/L							
Selenium	ND	5.0	ug/L							
Silver	ND	0.5	ug/L							
Zinc	ND	5.0	ug/L							

Blank

Lead	ND	0.5	ug/L							
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LCS

Antimony	44.9	5.0	ug/L	50.00		90	85-115			
Arsenic	42.9	5.0	ug/L	50.00		86	85-115			
Cadmium	21.4	1.00	ug/L	25.00		86	85-115			
Chromium	44.2	2.0	ug/L	50.00		88	85-115			
Copper	45.6	2.0	ug/L	50.00		91	85-115			
Iron	218	10.0	ug/L	250.0		87	85-115			
Lead	44.5	2.0	ug/L	50.00		89	85-115			
Nickel	43.3	5.0	ug/L	50.00		87	85-115			
Selenium	87.4	5.0	ug/L	100.0		87	85-115			
Silver	22.4	0.5	ug/L	25.00		90	85-115			
Zinc	50.9	5.0	ug/L	50.00		102	85-115			

LCS

Lead	43.6	2.5	ug/L	50.00		87	85-115			
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Batch DB02653 - 245.1/7470A

Blank

Mercury	ND	0.2	ug/L							
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LCS

Mercury	6.0	0.2	ug/L	6.042		99	85-115			
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LCS Dup

Mercury	6.1	0.2	ug/L	6.042		102	85-115	2	20	
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524.2 Volatile Organic Compounds

Batch DB02728 - 524.2

Blank

1,1,1-Trichloroethane	ND	0.5	ug/L							
1,1,2-Trichloroethane	ND	0.5	ug/L							
1,1-Dichloroethane	ND	0.5	ug/L							
1,1-Dichloroethene	ND	0.5	ug/L							
1,2-Dichlorobenzene	ND	0.5	ug/L							
1,2-Dichloroethane	ND	0.5	ug/L							
1,3-Dichlorobenzene	ND	0.5	ug/L							
1,4-Dichlorobenzene	ND	0.5	ug/L							
Acetone	ND	5.0	ug/L							



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions

Client Project ID: 1833 Wilbur Ave Somerset MA - RGP

ESS Laboratory Work Order: 20B0763

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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524.2 Volatile Organic Compounds

Batch DB02728 - 524.2

Benzene	ND	0.5	ug/L							
Carbon Tetrachloride	ND	0.3	ug/L							
cis-1,2-Dichloroethene	ND	0.5	ug/L							
Ethylbenzene	ND	0.5	ug/L							
Methyl tert-Butyl Ether	ND	0.5	ug/L							
Methylene Chloride	ND	0.5	ug/L							
Naphthalene	ND	0.5	ug/L							
Tertiary-amyl methyl ether	ND	1.0	ug/L							
Tertiary-butyl Alcohol	ND	25.0	ug/L							
Tetrachloroethene	ND	0.5	ug/L							
Toluene	ND	0.5	ug/L							
Trichloroethene	ND	0.5	ug/L							
Vinyl Chloride	ND	0.2	ug/L							
Xylene O	ND	0.5	ug/L							
Xylene P,M	ND	0.5	ug/L							
Surrogate: 1,2-Dichlorobenzene-d4	4.48		ug/L	5.000		90	80-120			
Surrogate: 4-Bromofluorobenzene	5.09		ug/L	5.000		102	80-120			

LCS

1,1,1-Trichloroethane	9.7		ug/L	10.00		97	70-130			
1,1,2-Trichloroethane	10.4		ug/L	10.00		104	70-130			
1,1-Dichloroethane	9.6		ug/L	10.00		96	70-130			
1,1-Dichloroethene	9.4		ug/L	10.00		94	70-130			
1,2-Dichlorobenzene	8.3		ug/L	10.00		83	70-130			
1,2-Dichloroethane	11.3		ug/L	10.00		113	70-130			
1,3-Dichlorobenzene	8.4		ug/L	10.00		84	70-130			
1,4-Dichlorobenzene	8.3		ug/L	10.00		83	70-130			
Acetone	53.5		ug/L	50.00		107	70-130			
Benzene	9.7		ug/L	10.00		97	70-130			
Carbon Tetrachloride	8.8		ug/L	10.00		88	70-130			
cis-1,2-Dichloroethene	9.7		ug/L	10.00		97	70-130			
Ethylbenzene	9.2		ug/L	10.00		92	70-130			
Methyl tert-Butyl Ether	10.7		ug/L	10.00		107	70-130			
Methylene Chloride	10.3		ug/L	10.00		103	70-130			
Naphthalene	7.9		ug/L	10.00		79	70-130			
Tertiary-amyl methyl ether	10.6		ug/L	10.00		106	70-130			
Tertiary-butyl Alcohol	54.2		ug/L	50.00		108	70-130			
Tetrachloroethene	7.0		ug/L	10.00		70	70-130			
Toluene	8.9		ug/L	10.00		89	70-130			
Trichloroethene	9.4		ug/L	10.00		94	70-130			
Vinyl Chloride	8.8		ug/L	10.00		88	70-130			
Xylene O	9.1		ug/L	10.00		91	70-130			
Xylene P,M	18.0		ug/L	20.00		90	70-130			
Surrogate: 1,2-Dichlorobenzene-d4	4.16		ug/L	5.000		83	80-120			
Surrogate: 4-Bromofluorobenzene	4.72		ug/L	5.000		94	80-120			

LCS Dup



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions

Client Project ID: 1833 Wilbur Ave Somerset MA - RGP

ESS Laboratory Work Order: 20B0763

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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524.2 Volatile Organic Compounds

Batch DB02728 - 524.2

1,1,1-Trichloroethane	10.7		ug/L	10.00		107	70-130	9	20	
1,1,2-Trichloroethane	11.8		ug/L	10.00		118	70-130	12	20	
1,1-Dichloroethane	11.8		ug/L	10.00		118	70-130	21	20	D+
1,1-Dichloroethene	10.2		ug/L	10.00		102	70-130	8	20	
1,2-Dichlorobenzene	9.3		ug/L	10.00		93	70-130	11	20	
1,2-Dichloroethane	12.5		ug/L	10.00		125	70-130	11	20	
1,3-Dichlorobenzene	9.1		ug/L	10.00		91	70-130	8	20	
1,4-Dichlorobenzene	9.7		ug/L	10.00		97	70-130	16	20	
Acetone	56.1		ug/L	50.00		112	70-130	5	20	
Benzene	11.7		ug/L	10.00		117	70-130	18	20	
Carbon Tetrachloride	10.8		ug/L	10.00		108	70-130	20	20	
cis-1,2-Dichloroethene	11.1		ug/L	10.00		111	70-130	13	20	
Ethylbenzene	10.7		ug/L	10.00		107	70-130	14	20	
Methyl tert-Butyl Ether	11.9		ug/L	10.00		119	70-130	11	20	
Methylene Chloride	11.1		ug/L	10.00		111	70-130	7	20	
Naphthalene	9.6		ug/L	10.00		96	70-130	19	20	
Tertiary-amyl methyl ether	11.5		ug/L	10.00		115	70-130	8	20	
Tertiary-butyl Alcohol	57.2		ug/L	50.00		114	70-130	5	25	
Tetrachloroethene	8.2		ug/L	10.00		82	70-130	15	20	
Toluene	10.8		ug/L	10.00		108	70-130	19	20	
Trichloroethene	10.8		ug/L	10.00		108	70-130	14	20	
Vinyl Chloride	9.9		ug/L	10.00		99	70-130	12	20	
Xylene O	10.0		ug/L	10.00		100	70-130	9	20	
Xylene P,M	19.1		ug/L	20.00		95	70-130	6	20	
Surrogate: 1,2-Dichlorobenzene-d4	4.26		ug/L	5.000		85	80-120			
Surrogate: 4-Bromofluorobenzene	5.04		ug/L	5.000		101	80-120			

608.3 Polychlorinated Biphenyls (PCB)

Batch DB02810 - 3510C

Blank										
Aroclor 1016	ND	0.10	ug/L							
Aroclor 1016 [2C]	ND	0.10	ug/L							
Aroclor 1221	ND	0.10	ug/L							
Aroclor 1221 [2C]	ND	0.10	ug/L							
Aroclor 1232	ND	0.10	ug/L							
Aroclor 1232 [2C]	ND	0.10	ug/L							
Aroclor 1242	ND	0.10	ug/L							
Aroclor 1242 [2C]	ND	0.10	ug/L							
Aroclor 1248	ND	0.10	ug/L							
Aroclor 1248 [2C]	ND	0.10	ug/L							
Aroclor 1254	ND	0.10	ug/L							
Aroclor 1254 [2C]	ND	0.10	ug/L							
Aroclor 1260	ND	0.10	ug/L							
Aroclor 1260 [2C]	ND	0.10	ug/L							
Aroclor 1262	ND	0.10	ug/L							



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions

Client Project ID: 1833 Wilbur Ave Somerset MA - RGP

ESS Laboratory Work Order: 20B0763

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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608.3 Polychlorinated Biphenyls (PCB)

Batch DB02810 - 3510C

Aroclor 1262 [2C]	ND	0.10	ug/L							
Aroclor 1268	ND	0.10	ug/L							
Aroclor 1268 [2C]	ND	0.10	ug/L							
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.0379</i>		ug/L	<i>0.05000</i>		<i>76</i>	<i>30-150</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.0377</i>		ug/L	<i>0.05000</i>		<i>75</i>	<i>30-150</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.0336</i>		ug/L	<i>0.05000</i>		<i>67</i>	<i>30-150</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.0409</i>		ug/L	<i>0.05000</i>		<i>82</i>	<i>30-150</i>			

LCS

Aroclor 1016	0.83	0.10	ug/L	1.000		83	50-140			
Aroclor 1016 [2C]	0.84	0.10	ug/L	1.000		84	50-140			
Aroclor 1260	0.87	0.10	ug/L	1.000		87	1-164			
Aroclor 1260 [2C]	0.85	0.10	ug/L	1.000		85	1-164			
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.0420</i>		ug/L	<i>0.05000</i>		<i>84</i>	<i>30-150</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.0421</i>		ug/L	<i>0.05000</i>		<i>84</i>	<i>30-150</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.0335</i>		ug/L	<i>0.05000</i>		<i>67</i>	<i>30-150</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.0375</i>		ug/L	<i>0.05000</i>		<i>75</i>	<i>30-150</i>			

LCS Dup

Aroclor 1016	0.93	0.10	ug/L	1.000		93	50-140	11	36	
Aroclor 1016 [2C]	0.95	0.10	ug/L	1.000		95	50-140	12	36	
Aroclor 1260	0.98	0.10	ug/L	1.000		98	1-164	12	38	
Aroclor 1260 [2C]	0.95	0.10	ug/L	1.000		95	1-164	11	38	
<i>Surrogate: Decachlorobiphenyl</i>	<i>0.0418</i>		ug/L	<i>0.05000</i>		<i>84</i>	<i>30-150</i>			
<i>Surrogate: Decachlorobiphenyl [2C]</i>	<i>0.0422</i>		ug/L	<i>0.05000</i>		<i>84</i>	<i>30-150</i>			
<i>Surrogate: Tetrachloro-m-xylene</i>	<i>0.0362</i>		ug/L	<i>0.05000</i>		<i>72</i>	<i>30-150</i>			
<i>Surrogate: Tetrachloro-m-xylene [2C]</i>	<i>0.0395</i>		ug/L	<i>0.05000</i>		<i>79</i>	<i>30-150</i>			

625.1(SIM) Semi-Volatile Organic Compounds

Batch DC00203 - 3510C

Blank

Acenaphthene	ND	0.20	ug/L							
Acenaphthylene	ND	0.20	ug/L							
Anthracene	ND	0.20	ug/L							
Benzo(a)anthracene	ND	0.05	ug/L							
Benzo(a)pyrene	ND	0.05	ug/L							
Benzo(b)fluoranthene	ND	0.05	ug/L							
Benzo(g,h,i)perylene	ND	0.20	ug/L							
Benzo(k)fluoranthene	ND	0.05	ug/L							
bis(2-Ethylhexyl)phthalate	ND	2.50	ug/L							
Butylbenzylphthalate	ND	2.50	ug/L							
Chrysene	ND	0.05	ug/L							
Dibenzo(a,h)Anthracene	ND	0.05	ug/L							
Diethylphthalate	ND	2.50	ug/L							



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625.1(SIM) Semi-Volatile Organic Compounds

Batch DC00203 - 3510C

Dimethylphthalate	ND	2.50	ug/L							
Di-n-butylphthalate	ND	2.50	ug/L							
Di-n-octylphthalate	ND	2.50	ug/L							
Fluoranthene	ND	0.20	ug/L							
Fluorene	ND	0.20	ug/L							
Indeno(1,2,3-cd)Pyrene	ND	0.05	ug/L							
Naphthalene	ND	0.20	ug/L							
Pentachlorophenol	ND	0.90	ug/L							
Phenanthrene	ND	0.20	ug/L							
Pyrene	ND	0.20	ug/L							
Surrogate: 1,2-Dichlorobenzene-d4	1.35		ug/L	2.500		54	30-130			
Surrogate: 2,4,6-Tribromophenol	4.16		ug/L	3.750		111	15-110			S+
Surrogate: 2-Fluorobiphenyl	1.75		ug/L	2.500		70	30-130			
Surrogate: Nitrobenzene-d5	2.08		ug/L	2.500		83	30-130			
Surrogate: p-Terphenyl-d14	2.17		ug/L	2.500		87	30-130			

LCS

Acenaphthene	3.75	0.20	ug/L	4.000		94	40-140			
Acenaphthylene	3.53	0.20	ug/L	4.000		88	40-140			
Anthracene	3.93	0.20	ug/L	4.000		98	40-140			
Benzo(a)anthracene	3.86	0.05	ug/L	4.000		96	40-140			
Benzo(a)pyrene	4.28	0.05	ug/L	4.000		107	40-140			
Benzo(b)fluoranthene	4.30	0.05	ug/L	4.000		108	40-140			
Benzo(g,h,i)perylene	4.20	0.20	ug/L	4.000		105	40-140			
Benzo(k)fluoranthene	4.25	0.05	ug/L	4.000		106	40-140			
bis(2-Ethylhexyl)phthalate	5.15	2.50	ug/L	4.000		129	40-140			
Butylbenzylphthalate	5.00	2.50	ug/L	4.000		125	40-140			
Chrysene	4.00	0.05	ug/L	4.000		100	40-140			
Dibenzo(a,h)Anthracene	4.27	0.05	ug/L	4.000		107	40-140			
Diethylphthalate	4.43	2.50	ug/L	4.000		111	40-140			
Dimethylphthalate	4.28	2.50	ug/L	4.000		107	40-140			
Di-n-butylphthalate	4.44	2.50	ug/L	4.000		111	40-140			
Di-n-octylphthalate	4.84	2.50	ug/L	4.000		121	40-140			
Fluoranthene	4.42	0.20	ug/L	4.000		110	40-140			
Fluorene	4.09	0.20	ug/L	4.000		102	40-140			
Indeno(1,2,3-cd)Pyrene	4.52	0.05	ug/L	4.000		113	40-140			
Naphthalene	3.33	0.20	ug/L	4.000		83	40-140			
Pentachlorophenol	4.53	0.90	ug/L	4.000		113	30-130			
Phenanthrene	3.96	0.20	ug/L	4.000		99	40-140			
Pyrene	4.45	0.20	ug/L	4.000		111	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	1.67		ug/L	2.500		67	30-130			
Surrogate: 2,4,6-Tribromophenol	6.60		ug/L	3.750		176	15-110			S+
Surrogate: 2-Fluorobiphenyl	2.21		ug/L	2.500		88	30-130			
Surrogate: Nitrobenzene-d5	2.37		ug/L	2.500		95	30-130			
Surrogate: p-Terphenyl-d14	2.62		ug/L	2.500		105	30-130			

LCS Dup



CERTIFICATE OF ANALYSIS

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625.1(SIM) Semi-Volatile Organic Compounds

Batch DC00203 - 3510C

Acenaphthene	3.92	0.20	ug/L	4.000		98	40-140	4	20	
Acenaphthylene	3.72	0.20	ug/L	4.000		93	40-140	5	20	
Anthracene	4.06	0.20	ug/L	4.000		102	40-140	3	20	
Benzo(a)anthracene	3.55	0.05	ug/L	4.000		89	40-140	8	20	
Benzo(a)pyrene	3.94	0.05	ug/L	4.000		99	40-140	8	20	
Benzo(b)fluoranthene	3.96	0.05	ug/L	4.000		99	40-140	8	20	
Benzo(g,h,i)perylene	3.84	0.20	ug/L	4.000		96	40-140	9	20	
Benzo(k)fluoranthene	3.77	0.05	ug/L	4.000		94	40-140	12	20	
bis(2-Ethylhexyl)phthalate	4.83	2.50	ug/L	4.000		121	40-140	6	20	
Butylbenzylphthalate	4.71	2.50	ug/L	4.000		118	40-140	6	20	
Chrysene	3.83	0.05	ug/L	4.000		96	40-140	4	20	
Dibenzo(a,h)Anthracene	3.86	0.05	ug/L	4.000		97	40-140	10	20	
Diethylphthalate	4.59	2.50	ug/L	4.000		115	40-140	4	20	
Dimethylphthalate	4.45	2.50	ug/L	4.000		111	40-140	4	20	
Di-n-butylphthalate	4.57	2.50	ug/L	4.000		114	40-140	3	20	
Di-n-octylphthalate	4.51	2.50	ug/L	4.000		113	40-140	7	20	
Fluoranthene	4.41	0.20	ug/L	4.000		110	40-140	0.05	20	
Fluorene	4.19	0.20	ug/L	4.000		105	40-140	2	20	
Indeno(1,2,3-cd)Pyrene	4.10	0.05	ug/L	4.000		103	40-140	10	20	
Naphthalene	3.43	0.20	ug/L	4.000		86	40-140	3	20	
Pentachlorophenol	4.71	0.90	ug/L	4.000		118	30-130	4	20	
Phenanthrene	4.01	0.20	ug/L	4.000		100	40-140	1	20	
Pyrene	4.17	0.20	ug/L	4.000		104	40-140	6	20	
Surrogate: 1,2-Dichlorobenzene-d4	1.71		ug/L	2.500		68	30-130			
Surrogate: 2,4,6-Tribromophenol	6.27		ug/L	3.750		167	15-110			S+
Surrogate: 2-Fluorobiphenyl	2.26		ug/L	2.500		90	30-130			
Surrogate: Nitrobenzene-d5	2.48		ug/L	2.500		99	30-130			
Surrogate: p-Terphenyl-d14	2.47		ug/L	2.500		99	30-130			

8270D(SIM) Semi-Volatile Organic Compounds w/ Isotope Dilution

Batch DB02750 - 3535A

Blank										
1,4-Dioxane	ND	0.250	ug/L							
Surrogate: 1,4-Dioxane-d8	3.23		ug/L	5.000		65	15-115			
LCS										
1,4-Dioxane	10.6	0.250	ug/L	10.00		106	40-140			
Surrogate: 1,4-Dioxane-d8	2.45		ug/L	5.000		49	15-115			
LCS Dup										
1,4-Dioxane	10.2	0.250	ug/L	10.00		102	40-140	5	20	
Surrogate: 1,4-Dioxane-d8	2.67		ug/L	5.000		53	15-115			

Classical Chemistry

Batch DB02639 - General Preparation

Blank										
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CERTIFICATE OF ANALYSIS

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ESS Laboratory Work Order: 20B0763

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Classical Chemistry										
Batch DB02639 - General Preparation										
Hexavalent Chromium	ND	10.0	ug/L							
LCS										
Hexavalent Chromium	522	10.0	ug/L	499.8		105	90-110			
LCS Dup										
Hexavalent Chromium	518	10.0	ug/L	499.8		104	90-110	0.8	20	
Batch DB02640 - General Preparation										
Blank										
Total Residual Chlorine	ND	20.0	ug/L							
LCS										
Total Residual Chlorine	1.30		mg/L	1.300		100	85-115			
Batch DB02732 - General Preparation										
Blank										
Total Suspended Solids	ND	5	mg/L							
LCS										
Total Suspended Solids	88		mg/L	90.70		97	80-120			
Batch DB02739 - TCN Prep										
Blank										
Total Cyanide	ND	5.00	ug/L							
LCS										
Total Cyanide	20.7	5.00	ug/L	20.06		103	90-110			
LCS										
Total Cyanide	147	5.00	ug/L	150.4		97	90-110			
LCS Dup										
Total Cyanide	146	5.00	ug/L	150.4		97	90-110	0.7	20	
Batch DB02805 - General Preparation										
Blank										
Total Petroleum Hydrocarbon	ND	5	mg/L							
LCS										
Total Petroleum Hydrocarbon	16	5	mg/L	19.38		81	66-114			
Batch DB02822 - General Preparation										
Blank										
Phenols	ND	50	ug/L							
LCS										
Phenols	98	50	ug/L	100.0		98	80-120			
LCS										
Phenols	1070	50	ug/L	1000		107	80-120			
Batch DB02823 - General Preparation										
Blank										
Chloride	ND	0.5	mg/L							
LCS										



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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
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Classical Chemistry

Batch DB02823 - General Preparation

Chloride	9.6		mg/L	10.00		96	90-110			
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Batch DC00218 - NH4 Prep

Blank

Ammonia as N	ND	0.10	mg/L							
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LCS

Ammonia as N	0.10	0.10	mg/L	0.09994		95	80-120			
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LCS

Ammonia as N	0.87	0.10	mg/L	0.9994		87	80-120			
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504.1 1,2-Dibromoethane / 1,2-Dibromo-3-chloropropane

Batch DB02638 - 504/8011

Blank

1,2-Dibromo-3-Chloropropane	ND	0.015	ug/L							
1,2-Dibromo-3-Chloropropane [2C]	ND	0.015	ug/L							
1,2-Dibromoethane	ND	0.015	ug/L							
1,2-Dibromoethane [2C]	ND	0.015	ug/L							

Surrogate: Pentachloroethane	0.213		ug/L	0.2000		106	30-150			
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Surrogate: Pentachloroethane [2C]	0.206		ug/L	0.2000		103	30-150			
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LCS

1,2-Dibromo-3-Chloropropane	0.070	0.015	ug/L	0.08000		87	70-130			
1,2-Dibromo-3-Chloropropane [2C]	0.072	0.015	ug/L	0.08000		90	70-130			
1,2-Dibromoethane	0.069	0.015	ug/L	0.08000		87	70-130			
1,2-Dibromoethane [2C]	0.066	0.015	ug/L	0.08000		82	70-130			

Surrogate: Pentachloroethane	0.0571		ug/L	0.08000		71	30-150			
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Surrogate: Pentachloroethane [2C]	0.0560		ug/L	0.08000		70	30-150			
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LCS

1,2-Dibromo-3-Chloropropane	0.199	0.015	ug/L	0.2000		100	70-130			
1,2-Dibromo-3-Chloropropane [2C]	0.203	0.015	ug/L	0.2000		102	70-130			
1,2-Dibromoethane	0.206	0.015	ug/L	0.2000		103	70-130			
1,2-Dibromoethane [2C]	0.184	0.015	ug/L	0.2000		92	70-130			

Surrogate: Pentachloroethane	0.211		ug/L	0.2000		106	30-150			
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Surrogate: Pentachloroethane [2C]	0.198		ug/L	0.2000		99	30-150			
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Alcohol Scan by GC/FID

Batch DC00301 - No Prep

Blank

Ethanol	ND	10	mg/L							
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LCS

Ethanol	748	10	mg/L	952.8		78	60-140			
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LCS Dup



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Alcohol Scan by GC/FID

Batch DC00301 - No Prep

Ethanol	716	10	mg/L	952.8		75	60-140	4	30	
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CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions

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ESS Laboratory Work Order: 20B0763

Notes and Definitions

- U Analyte included in the analysis, but not detected
- S+ Surrogate recovery(ies) above upper control limit (S+).
- Q Calibration required quadratic regression (Q).
- HT The maximum holding time listed in 40 CFR Part 136 Table II for pH, Dissolved Oxygen, Sulfite and Residual Chlorine is fifteen minutes.
- EL Elevated Method Reporting Limits due to sample matrix (EL).
- D+ Relative percent difference for duplicate is outside of criteria (D+).
- D Diluted.
- CD+ Continuing Calibration %Diff/Drift is above control limit (CD+).
- ND Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- MDL Method Detection Limit
- MRL Method Reporting Limit
- LOD Limit of Detection
- LOQ Limit of Quantitation
- DL Detection Limit
- I/V Initial Volume
- F/V Final Volume
- § Subcontracted analysis; see attached report
- 1 Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
- 2 Range result excludes concentrations of target analytes eluting in that range.
- 3 Range result excludes the concentration of the C9-C10 aromatic range.
- Avg Results reported as a mathematical average.
- NR No Recovery
- [CALC] Calculated Analyte
- SUB Subcontracted analysis; see attached report
- RL Reporting Limit
- EDL Estimated Detection Limit
- MF Membrane Filtration
- MPN Most Probably Number
- TNTC Too numerous to Count
- CFU Colony Forming Units



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions

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ESS Laboratory Work Order: 20B0763

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179

<http://www.health.ri.gov/find/labs/analytical/ESS.pdf>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750

http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutOfStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI00002

<http://www.maine.gov/dhhs/mecdc/environmental-health/dwp/partners/labCert.shtml>

Massachusetts Potable and Non Potable Water: M-RI002

<http://public.dep.state.ma.us/Labcert/Labcert.aspx>

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424

<http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm>

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313

<http://www.wadsworth.org/labcert/elap/comm.html>

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006

http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752

<http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx>

ESS Laboratory Sample and Cooler Receipt Checklist

Client: Tg2 Solutions - TB

ESS Project ID: 20B0763

Date Received: 2/26/2020

1	17790	Yes	N/A	Yes	500 mL Poly	HNO3	
1	17791	Yes	N/A	Yes	500 mL Poly	HNO3	
1	17794	Yes	N/A	Yes	250 mL Poly	NP	
1	17796	Yes	N/A	Yes	250 mL Poly	HNO3	
1	17798	Yes	N/A	Yes	250 mL Poly	NaOH	pH > 12
2	17757	Yes	No	Yes	VOA Vial	HCl	
2	17758	Yes	No	Yes	VOA Vial	HCl	
2	17759	Yes	No	Yes	VOA Vial	HCl	
2	17760	Yes	No	Yes	VOA Vial	HCl	
2	17761	Yes	No	Yes	VOA Vial	HCl	
2	17762	Yes	No	Yes	VOA Vial	HCl	
2	17764	Yes	No	Yes	VOA Vial	NP	
2	17767	Yes	N/A	Yes	1L Amber	H2SO4	
2	17768	Yes	N/A	Yes	1L Amber	H2SO4	
2	17777	Yes	N/A	Yes	1L Amber	NP	
2	17778	Yes	N/A	Yes	1L Amber	NP	
2	17779	Yes	N/A	Yes	1L Amber	NP	
2	17780	Yes	N/A	Yes	1L Amber	NP	
2	17781	Yes	N/A	Yes	1L Amber	NP	
2	17782	Yes	N/A	Yes	1L Amber	NP	
2	17784	Yes	N/A	Yes	1L Poly	NP	
2	17789	Yes	N/A	Yes	500 mL Poly	H2SO4	
2	17792	Yes	N/A	Yes	500 mL Poly	HNO3	
2	17793	Yes	N/A	Yes	500 mL Poly	HNO3	
2	17795	Yes	N/A	Yes	250 mL Poly	NP	
2	17797	Yes	N/A	Yes	250 mL Poly	HNO3	
2	17799	Yes	N/A	Yes	250 mL Poly	NaOH	pH > 12

2nd Review

Were all containers scanned into storage/lab?

Initials na

Are barcode labels on correct containers?

Yes / No

Are all Flashpoint stickers attached/container ID # circled?

Yes / No / NA

Are all Hex Chrome stickers attached?

Yes / No / NA

Are all QC stickers attached?

Yes / No / NA

Are VOA stickers attached if bubbles noted?

Yes / No / NA

Completed

By: 

Date & Time:

2/26/20 16:05

Reviewed

By: 

Date & Time:

2/26/20 16:23

Delivered

By: 

Date & Time:

2/26/20 16:23

ESS Laboratory Sample and Cooler Receipt Checklist

Client: Tg2 Solutions - TB
 Shipped/Delivered Via: Client

ESS Project ID: 20B0763
 Date Received: 2/26/2020
 Project Due Date: 3/4/2020
 Days for Project: 5 Day

1. Air bill manifest present? No
 Air No.: NA
2. Were custody seals present? No
3. Is radiation count <100 CPM? Yes
4. Is a Cooler Present? Yes
 Temp: 1.8 Iced with: Ice
5. Was COC signed and dated by client? Yes

6. Does COC match bottles? Yes
7. Is COC complete and correct? Yes
8. Were samples received intact? Yes
9. Were labs informed about **short holds & rushes**? Yes / No / NA
10. Were any analyses received outside of hold time? Yes / No

11. Any Subcontracting needed? Yes / No
 ESS Sample IDs: _____
 Analysis: _____
 TAT: _____

12. Were VOAs received? Yes / No
 a. Air bubbles in aqueous VOAs? Yes / No
 b. Does methanol cover soil completely? Yes / No / NA

13. Are the samples properly preserved? Yes / No
 a. If metals preserved upon receipt: Date: _____ Time: _____ By: _____
 b. Low Level VOA vials frozen: Date: _____ Time: _____ By: _____

Sample Receiving Notes:

14. Was there a need to contact Project Manager? Yes / No
 a. Was there a need to contact the client? Yes / No
 Who was contacted? _____ Date: _____ Time: _____ By: _____

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
1	17751	Yes	No	Yes	VOA Vial	HCl	
1	17752	Yes	No	Yes	VOA Vial	HCl	
1	17753	Yes	No	Yes	VOA Vial	HCl	
1	17754	Yes	No	Yes	VOA Vial	HCl	
1	17755	Yes	No	Yes	VOA Vial	HCl	
1	17756	Yes	No	Yes	VOA Vial	HCl	
1	17763	Yes	No	Yes	VOA Vial	NP	
1	17765	Yes	N/A	Yes	1L Amber	H2SO4	
1	17766	Yes	N/A	Yes	1L Amber	H2SO4	
1	17771	Yes	N/A	Yes	1L Amber	NP	
1	17772	Yes	N/A	Yes	1L Amber	NP	
1	17773	Yes	N/A	Yes	1L Amber	NP	
1	17774	Yes	N/A	Yes	1L Amber	NP	
1	17775	Yes	N/A	Yes	1L Amber	NP	
1	17776	Yes	N/A	Yes	1L Amber	NP	
1	17783	Yes	N/A	Yes	1L Poly	NP	
1	17788	Yes	N/A	Yes	500 mL Poly	H2SO4	

ESS Laboratory

Division of Thielsch Engineering, Inc.
 185 Frances Avenue, Cranston, RI 02910-2211
 Tel. (401) 461-7181 Fax (401) 461-4486
 www.esslaboratory.com

CHAIN OF CUSTODY

ESS LAB PROJECT ID

20150763

Turn Time _____ Standard _____ Rush _____ Approved By: _____

Reporting Limits -

Discharge into: Fresh Water Salt Water

State where samples were collected: MA NH

Is this project for:

RGP

Electronic Deliverable Yes No _____

Format: Excel Access _____ PDF Other _____

Project Manager: Eric Simpson
 Company: Tox Solutions
 Address: 508-298-8686

Project # _____
 Project Name: 1833 Wilbur Ave. Somerset, MA
 PO # _____

ESS Lab Sample ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample Identification	# of Containers	Analysis	RGP Metals Total	RGP Metals Dissolved	Hardness (Calculation)	Ethanol ASTM D3695	Chloride 300.0"	Total Cyanide 4500 LL	TPH 1664	TSS 25400"	TRC 4500-CL D*	Ammonia 850.1	Tri Cr (Calc. MUST run T. Cr)	Hex Cr 3500	Phenol 420.1	RGP VOC Long List 524	1,4-Dioxane 8270-SIM	EDB 504.1	RGP SVOC Log List 625-SIM	PCB 608	Comment #
1	2/26/20	1330	G	GW	MW-6	22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1,2
2	2/26/20	1430	G	GW	Discharge	22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1,2

Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-_____

4 4 4 1 1 5 3 1 1 3 - 1 3 2 1 2 1 1
 P P P V P P AG P P P - P AG V AG V AG AG

Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present Yes _____ No _____
 Seals Intact _____ Yes _____ No NA: Y
 Cooler Temperature: 1.1 + 1.8

Sampled by:

Comments: 1) RGP Metals include Sb, As, Cd, Cu, Fe, Pb, Ni, Se, Ag and Zn by 200.7/3113B and Hg by 245.1

2) Parameters in **BOLD** have Short hold-time

PERMIT ATTACHED

* **TSS, TRC and Cl** taken from the same container

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Received by: (Signature)
<u>[Signature]</u>	<u>2/26/20 1515</u>	<u>[Signature]</u>	<u>2/26/20 1515</u>	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Received by: (Signature)

Please E-mail all changes to Chain of Custody in writing

Page ____ of ____



CERTIFICATE OF ANALYSIS

Eric D. Simpson
Tg2 Solutions
231 Elm Street
Blackstone, MA 01504

RE: Somerset - Analytical (N/A)
ESS Laboratory Work Order Number: 20C0833

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED

By ESS Laboratory at 2:28 pm, Apr 02, 2020

Analytical Summary

The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with TNI and relative state standards, and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibrations, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: Somerset - Analytical

ESS Laboratory Work Order: 20C0833

SAMPLE RECEIPT

The following samples were received on March 26, 2020 for the analyses specified on the enclosed Chain of Custody Record.

<u>Lab Number</u>	<u>Sample Name</u>	<u>Matrix</u>	<u>Analysis</u>
20C0833-01	Outfall	Ground Water	2520B, 9040



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: Somerset - Analytical

ESS Laboratory Work Order: 20C0833

PROJECT NARRATIVE

No unusual observations noted.

End of Project Narrative.

DATA USABILITY LINKS

To ensure you are viewing the most current version of the documents below, please clear your internet cookies for www.ESSLaboratory.com. Consult your IT Support personnel for information on how to clear your internet cookies.

[Redacted content]



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: Somerset - Analytical

ESS Laboratory Work Order: 20C0833

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

- 1010A - Flashpoint
- 6010C - ICP
- 6020A - ICP MS
- 7010 - Graphite Furnace
- 7196A - Hexavalent Chromium
- 7470A - Aqueous Mercury
- 7471B - Solid Mercury
- 8011 - EDB/DBCP/TCP
- 8015C - GRO/DRO
- 8081B - Pesticides
- 8082A - PCB
- 8100M - TPH
- 8151A - Herbicides
- 8260B - VOA
- 8270D - SVOA
- 8270D SIM - SVOA Low Level
- 9014 - Cyanide
- 9038 - Sulfate
- 9040C - Aqueous pH
- 9045D - Solid pH (Corrosivity)
- 9050A - Specific Conductance
- 9056A - Anions (IC)
- 9060A - TOC
- 9095B - Paint Filter
- MADEP 04-1.1 - EPH
- MADEP 18-2.1 - VPH

Prep Methods

- 3005A - Aqueous ICP Digestion
- 3020A - Aqueous Graphite Furnace / ICP MS Digestion
- 3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
- 3060A - Solid Hexavalent Chromium Digestion
- 3510C - Separatory Funnel Extraction
- 3520C - Liquid / Liquid Extraction
- 3540C - Manual Soxhlet Extraction
- 3541 - Automated Soxhlet Extraction
- 3546 - Microwave Extraction
- 3580A - Waste Dilution
- 5030B - Aqueous Purge and Trap
- 5030C - Aqueous Purge and Trap
- 5035A - Solid Purge and Trap

SW846 Reactivity Methods 7.3.3.2 (Reactive Cyanide) and 7.3.4.1 (Reactive Sulfide) have been withdrawn by EPA. These methods are reported per client request and are not NELAP accredited.



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: Somerset - Analytical
Client Sample ID: Outfall
Date Sampled: 03/26/20 11:10
Percent Solids: N/A

ESS Laboratory Work Order: 20C0833
ESS Laboratory Sample ID: 20C0833-01
Sample Matrix: Ground Water

Classical Chemistry

<u>Analyte</u>	<u>Results (MRL)</u>	<u>MDL</u>	<u>Method</u>	<u>Limit</u>	<u>DF</u>	<u>Analyst</u>	<u>Analyzed</u>	<u>Units</u>	<u>Batch</u>
pH	8.08 (N/A)		9040		1	CCP	03/26/20 18:33	S.U.	DC02631
pH Sample Temp	Aqueous pH measured in water at 21.1 °C. (N/A)								
Salinity	25.9 (0.1)		2520B		1	CCP	03/31/20 15:45	ppt	DC03132



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: Somerset - Analytical

ESS Laboratory Work Order: 20C0833

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
---------	--------	-----	-------	-------------	---------------	------	-------------	-----	-----------	-----------

Classical Chemistry

Batch DC03132 - General Preparation

LCS

Salinity	1.0		ppt	1.000		97	85-115			
----------	-----	--	-----	-------	--	----	--------	--	--	--



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: Somerset - Analytical

ESS Laboratory Work Order: 20C0833

Notes and Definitions

- Z16 Aqueous pH measured in water at 21.1 °C.
- ND Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- MDL Method Detection Limit
- MRL Method Reporting Limit
- LOD Limit of Detection
- LOQ Limit of Quantitation
- DL Detection Limit
- I/V Initial Volume
- F/V Final Volume
- § Subcontracted analysis; see attached report
- 1 Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
- 2 Range result excludes concentrations of target analytes eluting in that range.
- 3 Range result excludes the concentration of the C9-C10 aromatic range.
- Avg Results reported as a mathematical average.
- NR No Recovery
- [CALC] Calculated Analyte
- SUB Subcontracted analysis; see attached report
- RL Reporting Limit
- EDL Estimated Detection Limit
- MF Membrane Filtration
- MPN Most Probably Number
- TNTC Too numerous to Count
- CFU Colony Forming Units



CERTIFICATE OF ANALYSIS

Client Name: Tg2 Solutions
Client Project ID: Somerset - Analytical

ESS Laboratory Work Order: 20C0833

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Rhode Island Potable and Non Potable Water: LAI00179

<http://www.health.ri.gov/find/labs/analytical/ESS.pdf>

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750

http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutOfStateCommercialLaboratories.pdf

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<http://www.wadsworth.org/labcert/elap/comm.html>

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006

http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752

<http://www.dep.pa.gov/Business/OtherPrograms/Labs/Pages/Laboratory-Accreditation-Program.aspx>

ESS Laboratory Sample and Cooler Receipt Checklist

Client: Tg2 Solutions - TB
 Shipped/Delivered Via: Client

ESS Project ID: 20C0833
 Date Received: 3/26/2020
 Project Due Date: 4/2/2020
 Days for Project: 5 Day

- 1. Air bill manifest present? No
- Air No.: NA
- 2. Were custody seals present? No
- 3. Is radiation count <100 CPM? Yes
- 4. Is a Cooler Present? Yes
 Temp: 2.4 Iced with: Ice
- 5. Was COC signed and dated by client? Yes

- 6. Does COC match bottles? Yes
- 7. Is COC complete and correct? Yes
- 8. Were samples received intact? Yes
- 9. Were labs informed about short holds & rushes? Yes / No / NA
- 10. Were any analyses received outside of hold time? Yes No

11. Any Subcontracting needed? Yes No
 ESS Sample IDs: _____
 Analysis: _____
 TAT: _____

12. Were VOAs received? Yes / No
 a. Air bubbles in aqueous VOAs? Yes / No
 b. Does methanol cover soil completely? Yes / No NA

13. Are the samples properly preserved? Yes No
 a. If metals preserved upon receipt: Date: _____
 b. Low Level VOA vials frozen: Date: _____

Time: _____ By: _____
 Time: _____ By: _____

Sample Receiving Notes:

14. Was there a need to contact Project Manager? Yes No
 a. Was there a need to contact the client? Yes / No
 Who was contacted? _____ Date: _____ Time: _____ By: _____

Sample Number	Container ID	Proper Container	Air Bubbles Present	Sufficient Volume	Container Type	Preservative	Record pH (Cyanide and 608 Pesticides)
1	27296	Yes	N/A	Yes	250 mL Amber	NP	
1	27297	Yes	N/A	Yes	250 mL Poly	NP	

2nd Review

Were all containers scanned into storage/lab?

Initials: [Signature]
 Yes / No
 Yes / No / NA
 Yes / No / NA
 Yes / No / NA
 Yes / No / NA

- Are barcode labels on correct containers?
- Are all Flashpoint stickers attached/container ID # circled?
- Are all Hex Chrome stickers attached?
- Are all QC stickers attached?
- Are VOA stickers attached if bubbles noted?

Completed By: [Signature] Date & Time: 3/26/20 12:54
 Reviewed By: [Signature] Date & Time: 3/26/20 13:56
 Delivered By: [Signature] Date & Time: 3/26/20 13:56



185 Frances Avenue
 Cranston, RI 02921
 Phone: 401-461-7181
 Fax: 401-461-4486
 www.esslaboratory.com

CHAIN OF CUSTODY

ESS Lab # 20C0833 Page of

ELECTRONIC DELIVERABLES (Final Reports are PDF)

Limit Checker State Forms EQuIS
 Excel Hard Copy Enviro Data
 CLP-Like Package Other (Specify) →

Turn Time >5 5 4 3 2 1 Same Day

Regulatory State: _____ Criteria: _____

Is this project for any of the following?:

CT RCP MA MCP RGP Permit 401 WQ

CLIENT INFORMATION

Client: Tg2 Solutions
 Address: 231 Elm St.
Blackstone MA
 Phone: 508-298-8686
 Email Distribution List: _____

PROJECT INFORMATION

Project Name: Somerset
 Project Location: 1833 Wilbur Ave.
 Project Number: _____
 Project Manager: Eric Simpson
 Bill to: esimpson@Tg2Solutions.Com
 PO#: _____
 Quote#: _____

Client acknowledges that sampling is compliant with all EPA / State regulatory programs

REQUESTED ANALYSES

ESS Lab ID	Collection Date	Collection Time	Sample Type	Sample Matrix	Sample ID	PH	Salinity	Total Number of Bottles
1	3/26/20	1110	G	Gw	Outfall	X	X	

Container Type: AC-Air Cassette AG-Amber Glass B-BOD Bottle C-Cubitaiber J-Jar O-Other P-Poly S-Sterile V-Vial

Container Volume: 1-100 mL 2-2.5 gal 3-250 mL 4-300 mL 5-500 mL 6-1L 7-VOA 8-2 oz 9-4 oz 10-8 oz 11-Other*

Preservation Code: 1-Non Preserved 2-HCl 3-H2SO4 4-HNO3 5-NaOH 6-Methanol 7-Na2S2O3 8-ZnAce, NaOH 9-NH4Cl 10-DI H2O 11-Other*

Sampled by: _____

Comments: * Please specify "Other" preservative and containers types in this space

Relinquished by (Signature) Date 3/26/20 Time 1145

Relinquished by (Signature) _____ Date _____ Time _____

Chain needs to be filled out neatly and completely for on time delivery.

All samples submitted are subject to ESS Laboratory's payment terms and conditions.

Dissolved Filtration

Lab Filter

Received by (Signature) _____ Date _____ Time _____

Received by (Signature) _____ Date _____ Time _____

ATTACHMENT D





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:

March 25, 2020

Consultation Code: 05E1NE00-2020-SLI-1862

Event Code: 05E1NE00-2020-E-05551

Project Name: 1833 Wilbur Ave, Somerset

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: 05E1NE00-2020-SLI-1862

Event Code: 05E1NE00-2020-E-05551

Project Name: 1833 Wilbur Ave, Somerset

Project Type: DEVELOPMENT

Project Description: This facility has historically been an active gasoline station with underground storage tanks (USTs) and dispenser islands. Plans to upgrade the facility, including the USTs and dispenser islands are anticipated under a National Pollutant Discharge Elimination System (NPDES). Therefore, a determination of endangered species act eligibility is required.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/41.72713426474884N71.18980984349818W>



Counties: Bristol, MA

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this 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.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.
