



Tyree Environmental Corp.

7 Viking Road, Webster, MA 01570

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www.tyreeorg.com

July 14, 2014

Submitted via email{alvarez.victor@epa.gov}
{puleo.shelly@epa.gov}

Mr. Victor Alvarez
U.S. Environmental Protection Agency
EPA-Region 1
5 Post Office Square
Mail Code OEP06-4
Boston, MA 02109-3912

RE: Notice of Intent for Remediation General Permit
Former Getty Service Station 30339
350 Pleasant Street
Belmont, Massachusetts
MassDEP RTN 3-29709

Dear Mr. Alvarez:

On behalf of Getty Properties Corporation (GPC), Tyree Environmental Corp. (Tyree) has prepared the attached Notice of Intent (NOI) for Remediation General Permit (RGP) for the former Getty Service Station No. 30339, located at 350 Pleasant Street in Belmont, Massachusetts (the Site). The following submittal has been prepared pursuant to RGP Appendix V NOI Suggested Forms and Instructions. This NOI is being submitted in order to obtain a permit for the operation of a groundwater recovery and treatment system (GWTS) at the Site. The GWTS is to be operated at the Site in order to remediate petroleum impacted soil and groundwater which resulted from the former leaking underground storage tanks (USTs).

The Standard Industrial Classification code is "5541 - Gasoline Service Stations".

An Outfall Location Map prepared with the topographic map of the area is provided as Figure 1. A copy of the RGP permit application is included as Appendix A.

System Design

Groundwater treatment will occur prior to the discharge to the Town of Belmont catch basin located at the corner of Pleasant Street and Brighton Street in front of 350 Pleasant Street. The proposed discharge catch basin and receiving water body are depicted in Figure 1. A Site Plan detailing the discharge location is included in Figure 2.

The groundwater treatment system will be located on Site and will utilize the following components in the order as listed:

- 150- 200 cubic feet per minute (cfm) liquid ring pump that will draw groundwater and soil vapors from various 2-inch to 6- inch PVC dual phase extraction (DPE) wells within the impacted area;
- 60 gallon knockout tank with transfer pump & controls;

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350 Pleasant Street
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- Two (2) particulate filters (10-25 micron each):
- Two (2) 500-pound liquid phase granular activated carbon (GAC) units for the treatment of recovered liquids.

The process and instrumentation diagram of the groundwater treatment system is provided as Figure 3. If required, additional filters may be added prior to discharge to treat the dissolved phase metals. According to Ara Yogurtian, the town Engineer, the catch basin discharges via an outfall to Spy Pond located to the northeast of the Site. The average flow rate of discharged treated groundwater from the system to the catch basin is expected to be approximately 2 gallons per minute (GPM). The design capacity of the groundwater treatment system is 25 GPM based upon data collected from comparable systems installed at other remedial sites operated/designed by Tyree.

Influent Sample Analysis

The DPE system was started in December 2013 and the extracted groundwater is pumped into a fractionation tank for off-Site disposal. Samples were collected from the system influent on March 12, 2014. The samples were submitted to Accutest Laboratories of Marlborough, MA under chain of custody protocol for the following analysis.

- Semi-volatiles by Environmental Protection Agency (EPA) Method 8270 (regular low level methods)
- Metals by EPA Method 200.8
- Chloride by SM18 4500
- Trivalent Chromium by EPA Method 6010
- Total Petroleum Hydrocarbons by EPA Method 1664
- Polychlorinated bi-phenyls by EPA Method 608
- Phenols by EPA Method 420.1
- Total Residual Chlorine by SM21 4500
- Total Suspended Solids by SM 21 2540D
- Ethylene di-bromide by EPA Method 8260
- Volatile organic compounds by EPA Method 8260
- Hexavalent chromium by Method 7196
- Cyanide by EPA Method 335.4 and
- Mercury by EPA Method 245.1

A copy of the laboratory analytical report is included as Appendix B.

Appendix III of the 2010 RGP under the National Pollutant Discharge Elimination System (NPDES) sets the effluent limitations for groundwater treatment system discharges. Petroleum constituents, total suspended solids, total residual chlorine, ethylene di-bromide, acetone, naphthalene, pentachlorophenol (PCP), chloride and total metals (lead, iron, mercury, cadmium, and copper) were detected at concentrations that exceeded the levels identified in Appendix III.

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Receiving Waters Information

The receiving water for the treated groundwater is Spy Pond located approximately 750 feet northeast of the Site. Tyree consulted United States Geological Survey (USGS) to determine the 7Q10 flow rate of the discharge location to Spy Pond. According to the EPA, Spy Pond is considered stationary water and to use the 1-5 dilution factor from Appendix IV. Concentrations of cadmium, copper, lead, zinc, mercury and iron present in the untreated sample were compared to the column corresponding to the dilution factor (1-5 dilution) in Appendix IV table. The discharge limits are exceeded; therefore, the compounds listed above are subject to the permit limitations and monitoring requirements for this discharge.

Receiving Water Classification

Tyree consulted the Massachusetts Department of Environmental Protection (MassDEP) Division of Water Pollution Control to determine the classification for the receiving waters. Spy Pond is listed as a Class B surface water body.

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

According to the Massachusetts Geographic Information Systems (MassGIS) online maps for the Natural Heritage Endangered Species Program (NHESP) (2008), Estimated Habitats of Rare Wildlife are located within the proposed discharge area. There are no Areas of Critical Environmental Concern (ACEC) or Endangered Species known to exist within the discharge area. However, the discharge location (Spy Pond) is listed as a Priority Habitat of Rare Species (PH 1180). A copy of the MassGIS Resource Priority and NHESP maps are included in Appendix C.

A Massachusetts Endangered Species Act (MESA) Project Review by the Massachusetts Division of Fisheries and Wildlife is required as the discharge location is in a protected habitat. The draft application has been filled out and is included in Appendix D. The MESA Review checklist is required to be signed by the property owner. The Town of Arlington is the owner of Spy Pond. The draft MESA package was submitted to the Town of Arlington Conservation Commission. In a letter dated June 12, 2014, the Conservation Commission has made the recommendation not sign the MESA Project Review form without a full NOI submittal to the Conservation Commission. A copy of the letter is included in Appendix E.

Review of National Register of Historic Places

Listings of Historic Places at 350 Pleasant Street Belmont and the intersection of Pleasant Street and Concord Turnpike in Arlington in the vicinity of the Site and discharge locations were obtained from the Massachusetts Cultural Resources Information System (MACRIS) online database on April 7, 2014. A copy of the MACRIS printout is provided in Appendix F. The data base indicated that there are no historic places located in close proximity to the Site and proposed discharge area. This project does not involve the demolition or rehabilitation of existing structures and historic properties.

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Should you have any questions or concerns regarding the contents of this letter or the NOI for the RGP, please do not hesitate to contact either of the undersigned at (508) 640-0300.

Sincerely,

Tyree Environmental Corp.



Jennifer Snay
Environmental Scientist II

CC: Mr. Kevin Shea, Getty Properties Corp.

Figures

Figure 1	Outfall Location Map
Figure 2	Site Layout Discharge
Figure 3	Process and Instrumentation Diagram

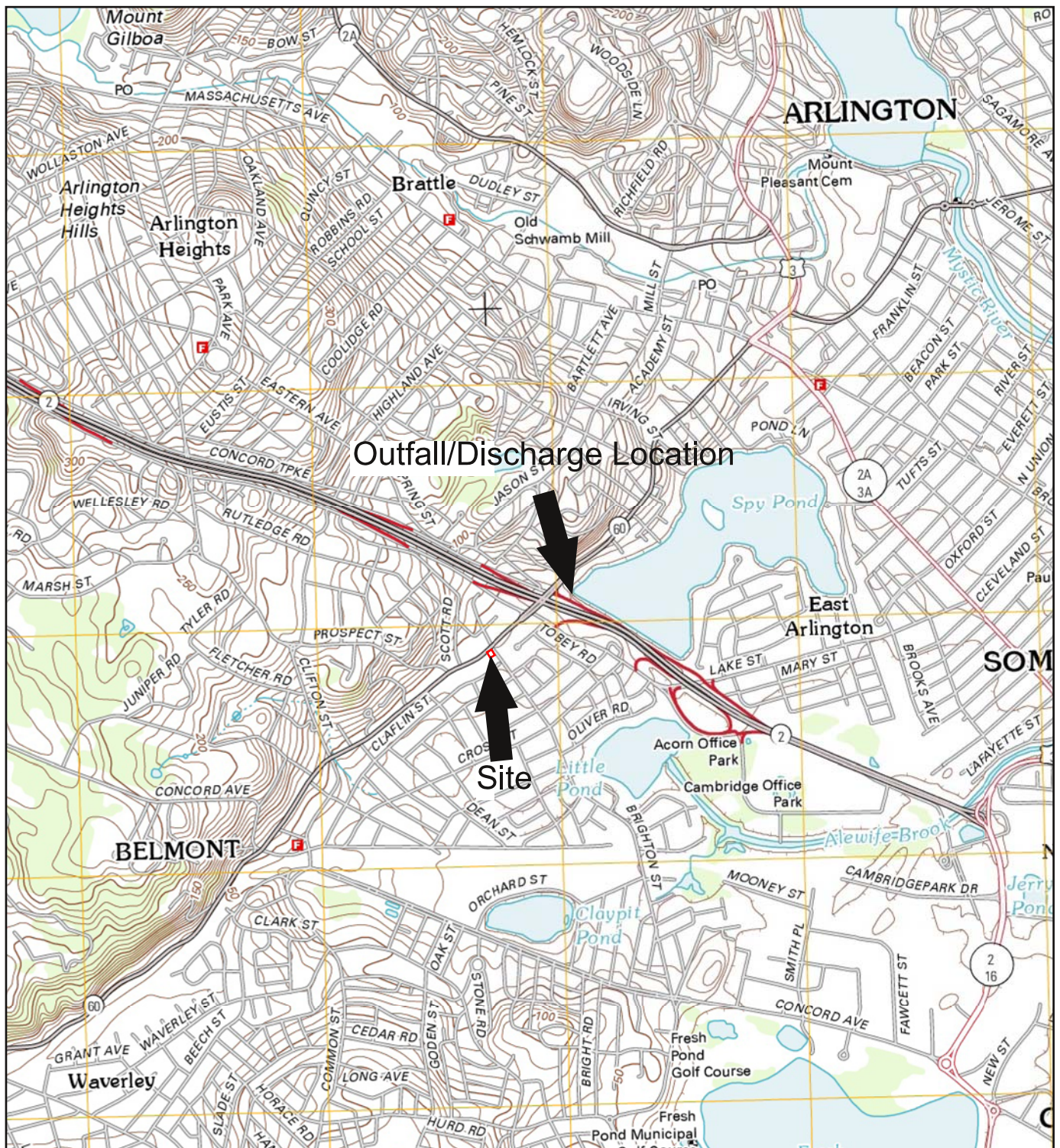
Appendices

Appendix A	RGP Permit Application
Appendix B	Laboratory Analytical Report
Appendix C	Natural Resource Maps
Appendix D	MESA Project Review Package
Appendix E	Town of Arlington Letter
Appendix F	List of Historic Places

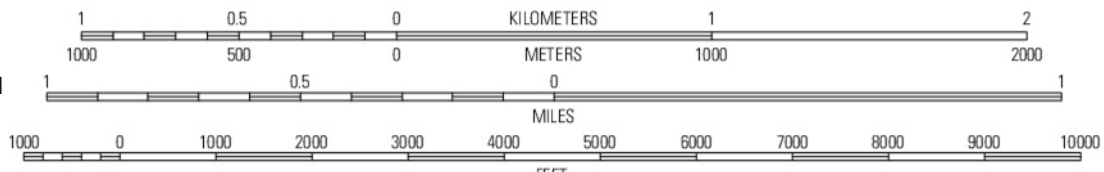


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FIGURES



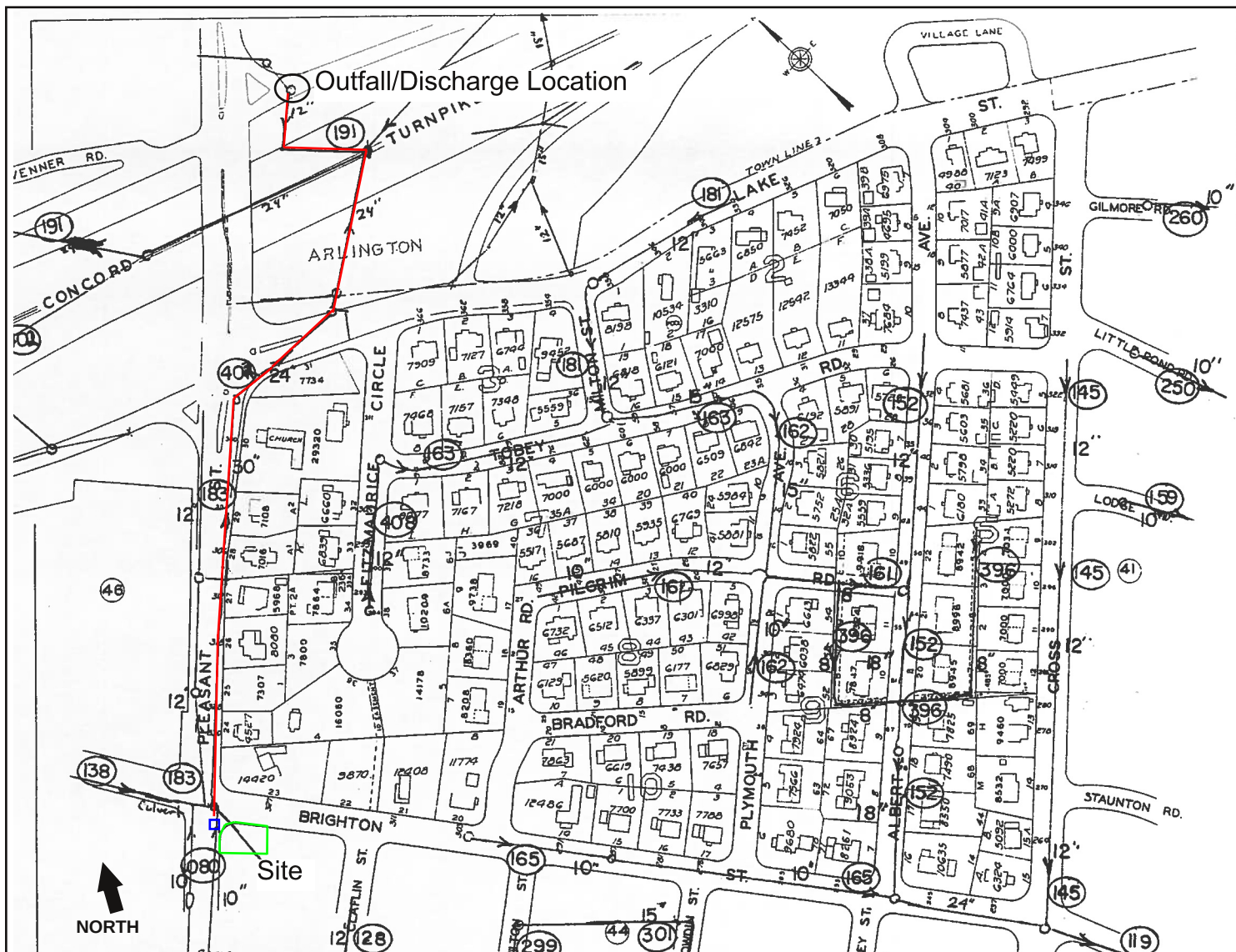
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Tyree
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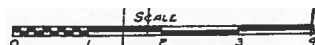
Getty Service Station No. 30339
350 Pleasant St. Belmont, MA
Figure 1: Outfall Location Map

Adapted from USGS Lexington 7.5 minute series quadrangle

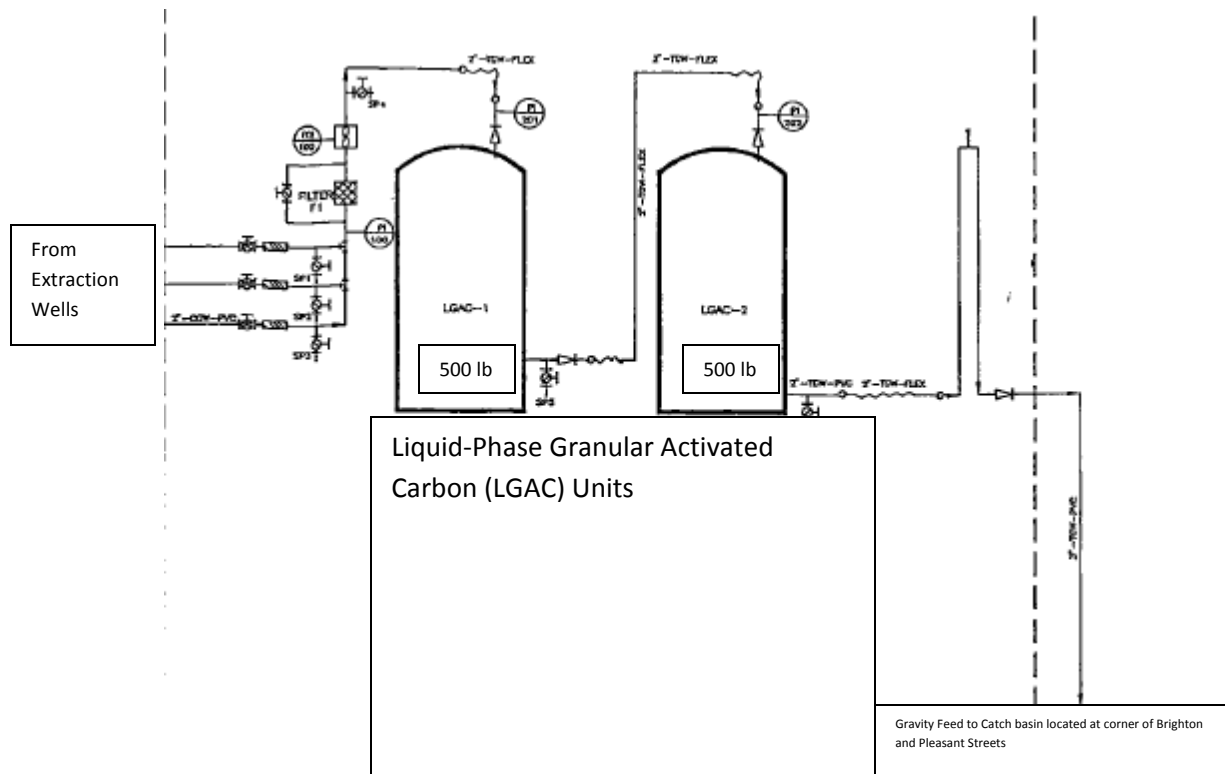


Legend

- : Approximate Property Boundary
- : Catch Basin
- : Stormwater Drainage Line



Getty Service Station No. 30339
350 Pleasant St. Belmont, MA
Figure 2: Site Layout



Process and Instrumentation Diagram

PROJECT: GETTY STATION # 30339		
LOCATION: 350 PLEASANT STREET BELMONT, MA		
DESIGNED BY: KCP	CHECKED BY: KCP	APPROVED BY: KCP
DRAWING DATE: 4/11/2014	SHEET NUMBER: SHEET 1 OF 1	
PROJECT NUMBER: 2140042-421	DRAWING NAME: VICINITY PLAN	

Figure 3

APPENDIX A

B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General facility/site information. Please provide the following information about the site:

a) Name of facility/site :		Facility/site mailing address:	
Location of facility/site : longitude: _____ latitude: _____	Facility SIC code(s):	Street:	
b) Name of facility/site owner :		Town:	
Email address of facility/site owner:	State:	Zip:	County:
Telephone no. of facility/site owner :			
Fax no. of facility/site owner :	Owner is (check one): 1. Federal____ 2. State/Tribal____ 3. Private____ 4. Other ____ if so, describe:		
Address of owner (if different from site):			
Street:			
Town:	State:	Zip:	County:
c) Legal name of operator :	Operator telephone no:		
	Operator fax no.:		Operator email:
Operator contact name and title:			
Address of operator (if different from owner):	Street:		
Town:	State:	Zip:	County:

d) Check Y for “yes” or N for “no” for the following: 1. Has a prior NPDES permit exclusion been granted for the discharge? Y___ N___, if Y, number:_____ 2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Y___ N___, if Y, date and tracking #:_____ 3. Is the discharge a “new discharge” as defined by 40 CFR 122.2? Y___ N___ 4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y___ N___	
e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y___ N___ If Y, please list: 1. site identification # assigned by the state of NH or MA: _____ 2. permit or license # assigned: _____ 3. state agency contact information: name, location, and telephone number: _____	f) Is the site/facility covered by any other EPA permit, including: 1. Multi-Sector General Permit? Y___ N___, if Y, number: _____ 2. Final Dewatering General Permit? Y___ N___, if Y, number: _____ 3. EPA Construction General Permit? Y___ N___, if Y, number: _____ 4. Individual NPDES permit? Y___ N___, if Y, number: _____ 5. Any other water quality related individual or general permit? Y___ N___, if Y, number: _____
g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y___ N___	
h) Based on the facility/site information and any historical sampling data, identify the sub-category into which the potential discharge falls.	
<u>Activity Category</u>	<u>Activity Sub-Category</u>
I - Petroleum Related Site Remediation	A. Gasoline Only Sites _____ B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) _____ C. Petroleum Sites with Additional Contamination _____
II - Non Petroleum Site Remediation	A. Volatile Organic Compound (VOC) Only Sites _____ B. VOC Sites with Additional Contamination _____ C. Primarily Heavy Metal Sites _____
III - Contaminated Construction Dewatering	A. General Urban Fill Sites _____ B. Known Contaminated Sites _____

IV - Miscellaneous Related Discharges	A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites ____ B. Well Development/Rehabilitation at Contaminated/Formely Contaminated Sites ____ C. Hydrostatic Testing of Pipelines and Tanks ____ D. Long-Term Remediation of Contaminated Sumps and Dikes ____ E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) ____
---------------------------------------	--

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as necessary) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage:	
b) Provide the following information about each discharge:	
1) Number of discharge points:	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft ³ /s)? Max. flow _____ Is maximum flow a design value ? Y ____ N ____ Average flow (include units) _____ Is average flow a design value or estimate? _____
3) Latitude and longitude of each discharge within 100 feet: pt.1: lat. _____ long. _____; pt.2: lat. _____ long. _____; pt.3: lat. _____ long. _____; pt.4: lat. _____ long. _____; pt.5: lat. _____ long. _____; pt.6: lat. _____ long. _____; pt.7: lat. _____ long. _____; pt.8: lat. _____ long. _____; etc.	
4) If hydrostatic testing, total volume of the discharge (gals): _____	5) Is the discharge intermittent ____ or seasonal ____? Is discharge ongoing? Y ____ N ____
c) Expected dates of discharge (mm/dd/yy): start _____ end _____	
d) Please attach a line drawing or flow schematic showing water flow through the facility including: 1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).	

3. Contaminant information.

a) Based on the sub-category selected (see Appendix III), indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
1. Total Suspended Solids (TSS)											
2. Total Residual Chlorine (TRC)											
3. Total Petroleum Hydrocarbons (TPH)											
4. Cyanide (CN)	57125										
5. Benzene (B)	71432										
6. Toluene (T)	108883										
7. Ethylbenzene (E)	100414										
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207										
9. Total BTEX ²	n/a										
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) ³	106934										
11. Methyl-tert-Butyl Ether (MtBE)	1634044										
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650										

* Numbering system is provided to allow cross-referencing to Effluent Limits and Monitoring Requirements by Sub-Category included in Appendix III, as well as the Test Methods and Minimum Levels associated with each parameter provided in Appendix VI.

² BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

³ EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
13. tert-Amyl Methyl Ether (TAME)	9940508										
14. Naphthalene	91203										
15. Carbon Tetrachloride	56235										
16. 1,2 Dichlorobenzene (o-DCB)	95501										
17. 1,3 Dichlorobenzene (m-DCB)	541731										
18. 1,4 Dichlorobenzene (p-DCB)	106467										
18a. Total dichlorobenzene											
19. 1,1 Dichloroethane (DCA)	75343										
20. 1,2 Dichloroethane (DCA)	107062										
21. 1,1 Dichloroethene (DCE)	75354										
22. cis-1,2 Dichloroethene (DCE)	156592										
23. Methylene Chloride	75092										
24. Tetrachloroethene (PCE)	127184										
25. 1,1,1 Trichloro-ethane (TCA)	71556										
26. 1,1,2 Trichloro-ethane (TCA)	79005										
27. Trichloroethene (TCE)	79016										

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
28. Vinyl Chloride (Chloroethene)	75014										
29. Acetone	67641										
30. 1,4 Dioxane	123911										
31. Total Phenols	108952										
32. Pentachlorophenol (PCP)	87865										
33. Total Phthalates (Phthalate esters) ⁴											
34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	117817										
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)											
a. Benzo(a) Anthracene	56553										
b. Benzo(a) Pyrene	50328										
c. Benzo(b)Fluoranthene	205992										
d. Benzo(k)Fluoranthene	207089										
e. Chrysene	21801										
f. Dibenzo(a,h)anthracene	53703										
g. Indeno(1,2,3-cd) Pyrene	193395										
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)											

⁴The sum of individual phthalate compounds.

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
h. Acenaphthene	83329										
i. Acenaphthylene	208968										
j. Anthracene	120127										
k. Benzo(ghi) Perylene	191242										
l. Fluoranthene	206440										
m. Fluorene	86737										
n. Naphthalene	91203										
o. Phenanthrene	85018										
p. Pyrene	129000										
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.										
38. Chloride	16887006										
39. Antimony	7440360										
40. Arsenic	7440382										
41. Cadmium	7440439										
42. Chromium III (trivalent)	16065831										
43. Chromium VI (hexavalent)	18540299										
44. Copper	7440508										
45. Lead	7439921										
46. Mercury	7439976										
47. Nickel	7440020										
48. Selenium	7782492										
49. Silver	7440224										
50. Zinc	7440666										
51. Iron	7439896										
Other (describe):											

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>

b) For discharges where **metals** are believed present, please fill out the following (attach results of any calculations):

<i>Step 1:</i> Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y_____ N_____	If yes, which metals?
<i>Step 2:</i> For any metals which exceed the Appendix III limits, calculate the dilution factor (DF) using the formula in Part I.A.3.c (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metal:_____ DF:_____ No 7Q10 as receiving water is stagnant. Metal:_____ DF:_____ Can't use dilution factor. Metal:_____ DF:_____ Metal:_____ DF:_____ Etc. mercury	Look up the limit calculated at the corresponding dilution factor in Appendix IV. Do any of the metals in the influent have the potential to exceed the corresponding effluent limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y_____ N_____ If Y, list which metals: No 7Q10 as receiving water is stagnant. Can't use dilution factor.

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:						
b) Identify each applicable treatment unit (check all that apply):	Frac. tank	Air stripper	Oil/water separator	Equalization tanks	Bag filter	GAC filter
	Chlorination	De-chlorination	Other (please describe):			

c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate(s)** (gallons per minute) of the treatment system:

Average flow rate of discharge _____ gpm Maximum flow rate of treatment system _____ gpm

Design flow rate of treatment system _____ gpm

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	Direct to receiving water _____	Within facility (sewer) _____	Storm drain _____	Wetlands _____	Other (describe): _____
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:					
c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water: 1. For multiple discharges, number the discharges sequentially. 2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.					
d) Provide the state water quality classification of the receiving water _____					
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water _____ cfs Please attach any calculation sheets used to support stream flow and dilution calculations.					
f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y____ N____ If yes, for which pollutant(s)? _____					
Is there a final TMDL? Y____ N____ If yes, for which pollutant(s)? _____					

6. ESA and NHPA Eligibility.

Please provide the following information according to requirements of Permit Parts I.A.4 and I.A.5 Appendices II and VII.

- a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?
A ____ B ____ C ____ D ____ E ____ F ____
- b) If you selected Criterion D or F, has consultation with the federal services been completed? Y ____ N ____ Underway ____
- c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is “not likely to adversely affect” listed species or critical habitat received? Y ____ N ____
- d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.
- e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?
1 ____ 2 ____ 3 ____
- f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

7. Supplemental information.

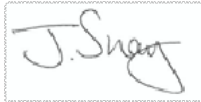
Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

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 gather and evaluate 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, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility/Site Name:

Operator signature:

A rectangular box containing a handwritten signature in black ink that reads "J. Sherry".

Printed Name & Title:

Date:

APPENDIX B



03/25/14

Technical Report for

Tyree Organization Ltd.

GTY 30339, 350 Pleasant Street, Belmont, MA

2140042-421

Accutest Job Number: MC28841

Sampling Date: 03/12/14

Report to:

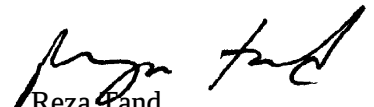
Tyree Organization Ltd.
7 Viking Road
Webster, MA 01570
RCarmosino@tyreeorg.com

ATTN: Rich Carmosino

Total number of pages in report: **63**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.


Reza Pand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136, SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) DoD ELAP (L-A-B L2235)

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Test results relate only to samples analyzed.

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Sample Summary

Tyree Organization Ltd.

Job No: MC28841

GTY 30339, 350 Pleasant Street, Belmont, MA
Project No: 2140042-421

Sample Number	Collected		Matrix Code Type	Client	
	Date	Time By	Received	Sample ID	
MC28841-1	03/12/14	09:00 SH	03/12/14	AQ Influent	INFLUENT
MC28841-1A	03/12/14	09:00 SH	03/12/14	AQ Influent	INFLUENT

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Tyree Organization Ltd.

Job No MC28841

Site: GTY 30339, 350 Pleasant Street, Belmont, MA

Report Date 3/25/2014 11:39:46 AM

1 Sample was collected on 03/12/2014 and were received at Accutest on 03/12/2014 properly preserved, at 0.8 Deg. C and intact. These Samples received an Accutest job number of MC28841. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ

Batch ID: MSK2476

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Only selected compounds requested.
- The response factor (RF) for the acetone at low point (0.067) and at average point (0.065) in the initial calibration MSK2463-ICC2463 are less than the required RF of 0.1 as noted in Table 4 of SW846 8260C.
- Continuing calibration check standard MSK2476-CC2469 for 1,4-dioxane exceed 20% Difference. This check standard met MCP criteria.

Extractables by GCMS By Method SW846 8270D

Matrix: AQ

Batch ID: OP37145

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- Sample(s) MC28841-1 have compound(s) reported with a "B" qualifier, indicating analyte is found in the associated method blank.
- Only selected compounds requested.

Extractables by GCMS By Method SW846 8270D BY SIM

Matrix: AQ

Batch ID: OP37143

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Only PAHs requested.

Volatiles by GC By Method SW846 8011

Matrix: AQ

Batch ID: OP37147

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Extractables by GC By Method EPA 608

Matrix: AQ

Batch ID: OP37173

- All samples were extracted within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Metals By Method EPA 245.1

Matrix: AQ

Batch ID: MP22659

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Metals By Method SW846 6010C

Matrix: AQ

Batch ID: MP22687

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC28830-2SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Antimony, Arsenic, Cadmium, Nickel, Selenium are outside control limits for sample MP22687-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- Only selected metals requested.

Wet Chemistry By Method 6010/7196A M/200.7

Matrix: AQ

Batch ID: R34660

- MC28841-1 for Chromium, Trivalent: Calculated as: (Chromium) - (Chromium, Hexavalent)

Wet Chemistry By Method EPA 1664A

Matrix: AQ

Batch ID: GP17344

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method EPA 335.4

Matrix: AQ

Batch ID: GP17324

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method EPA 420.1

Matrix: AQ

Batch ID: GP17337

- All samples were distilled within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SM 2540D-11**Matrix:** AQ**Batch ID:** GN46207

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SM21 4500CL C**Matrix:** AQ**Batch ID:** GN46193

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Wet Chemistry By Method SM21 4500CL F**Matrix:** AQ**Batch ID:** GN46167

- All method blanks for this batch meet method specific criteria.
- MC28841-1 for Total Residual Chlorine: Analysis performed past the required 15 minutes of collection time/holding time.

Wet Chemistry By Method SW846 7196A**Matrix:** AQ**Batch ID:** GN46169

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

Accutest may not have met all requested limits due to methodology limitations, sample matrix, dilutions, or percents solids.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report (MC28841).

Summary of Hits

Job Number: MC28841
Account: Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA
Collected: 03/12/14



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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MC28841-1 INFLUENT

Acetone	11.8	10	2.8	ug/l	SW846 8260C
Benzene	106	0.50	0.45	ug/l	SW846 8260C
Ethylbenzene	110	1.0	0.38	ug/l	SW846 8260C
Methyl Tert Butyl Ether	3.1	1.0	0.43	ug/l	SW846 8260C
Naphthalene	104	5.0	0.79	ug/l	SW846 8260C
Toluene	394	1.0	0.46	ug/l	SW846 8260C
m,p-Xylene	348	1.0	0.91	ug/l	SW846 8260C
o-Xylene	173	1.0	0.41	ug/l	SW846 8260C
Xylene (total)	520	1.0	0.41	ug/l	SW846 8260C
3&4-Methylphenol	12.8	10	2.1	ug/l	SW846 8270D
Di-n-butyl phthalate	0.99 JB	5.2	0.40	ug/l	SW846 8270D
Naphthalene	51.0	2.1	0.17	ug/l	SW846 8270D
Phenanthrene	0.53 J	2.1	0.22	ug/l	SW846 8270D
Arsenic	8.4	4.0	2.9	ug/l	SW846 6010C
Copper	16.1 B	25	7.0	ug/l	SW846 6010C
Iron	48500	100	20	ug/l	SW846 6010C
Lead	2.0 B	5.0	1.7	ug/l	SW846 6010C
Nickel	1.0 B	40	0.57	ug/l	SW846 6010C
Zinc	45.9	20	0.50	ug/l	SW846 6010C
Chloride	767	10	3.8	mg/l	SM21 4500CL C
Chromium, Hexavalent	0.0055 B	0.010	0.0017	mg/l	SW846 7196A
Cyanide	0.0026 B	0.010	0.0025	mg/l	EPA 335.4
HEM Petroleum Hydrocarbons	1.0 B	4.1	0.73	mg/l	EPA 1664A
Phenols	0.17	0.050	0.013	mg/l	EPA 420.1
Solids, Total Suspended	60.0	4.0	1.5	mg/l	SM 2540D-11
Total Residual Chlorine ^a	0.050	0.050	0.030	mg/l	SM21 4500CL F

MC28841-1A INFLUENT

Acenaphthene	0.12	0.10	0.071	ug/l	SW846 8270D BY SIM
Fluorene	0.28	0.10	0.10	ug/l	SW846 8270D BY SIM
Naphthalene	43.4	0.10	0.042	ug/l	SW846 8270D BY SIM
Phenanthrene	0.44	0.052	0.013	ug/l	SW846 8270D BY SIM

(a) Analysis performed past the required 15 minutes of collection time/holding time.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	INFLUENT	Date Sampled:	03/12/14
Lab Sample ID:	MC28841-1	Date Received:	03/12/14
Matrix:	AQ - Influent	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	GTY 30339, 350 Pleasant Street, Belmont, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K77612.D	1	03/19/14	JM	n/a	n/a	MSK2476
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	11.8	10	2.8	ug/l	
71-43-2	Benzene	106	0.50	0.45	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
123-91-1	1,4-Dioxane	ND	25	16	ug/l	
100-41-4	Ethylbenzene	110	1.0	0.38	ug/l	
1634-04-4	Methyl Tert Butyl Ether	3.1	1.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	104	5.0	0.79	ug/l	
994-05-8	tert-Amyl Methyl Ether	ND	2.0	1.9	ug/l	
75-65-0	Tert Butyl Alcohol	ND	20	13	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	394	1.0	0.46	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	348	1.0	0.91	ug/l	
95-47-6	o-Xylene	173	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	520	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		70-130%
2037-26-5	Toluene-D8	100%		70-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	INFLUENT	Date Sampled:	03/12/14
Lab Sample ID:	MC28841-1	Date Received:	03/12/14
Matrix:	AQ - Influent	Percent Solids:	n/a
Method:	SW846 8260C		
Project:	GTY 30339, 350 Pleasant Street, Belmont, MA		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	94%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	INFLUENT	Date Sampled:	03/12/14
Lab Sample ID:	MC28841-1	Date Received:	03/12/14
Matrix:	AQ - Influent	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	GTY 30339, 350 Pleasant Street, Belmont, MA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R37552.D	1	03/18/14	KR	03/14/14	OP37145	MSR1386
Run #2							

Run #	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

ABN Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.2	0.40	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.51	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.34	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.2	ug/l	
51-28-5	2,4-Dinitrophenol	ND	21	2.6	ug/l	
87-65-0	2,6-Dichlorophenol	ND	10	0.43	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	12.8	10	2.1	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.52	ug/l	
100-02-7	4-Nitrophenol	ND	21	0.60	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.2	0.53	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	10	0.65	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.59	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.33	ug/l	
83-32-9	Acenaphthene	ND	2.1	0.24	ug/l	
208-96-8	Acenaphthylene	ND	2.1	0.58	ug/l	
120-12-7	Anthracene	ND	2.1	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.1	0.22	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.1	0.22	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.1	0.24	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.1	0.26	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.1	0.28	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.2	0.88	ug/l	
218-01-9	Chrysene	ND	2.1	0.21	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.1	0.22	ug/l	
84-74-2	Di-n-butyl phthalate	0.99	5.2	0.40	ug/l	JB
117-84-0	Di-n-octyl phthalate	ND	5.2	0.45	ug/l	
84-66-2	Diethyl phthalate	ND	5.2	0.52	ug/l	
131-11-3	Dimethyl phthalate	ND	5.2	0.52	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	2.1	0.50	ug/l	

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	INFLUENT	Date Sampled:	03/12/14
Lab Sample ID:	MC28841-1	Date Received:	03/12/14
Matrix:	AQ - Influent	Percent Solids:	n/a
Method:	SW846 8270D SW846 3510C		
Project:	GTY 30339, 350 Pleasant Street, Belmont, MA		

ABN Appendix IX List

CAS No.	Compound	Result	RL	MDL	Units	Q
206-44-0	Fluoranthene	ND	2.1	0.23	ug/l	
86-73-7	Fluorene	ND	2.1	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.1	0.28	ug/l	
91-20-3	Naphthalene	51.0	2.1	0.17	ug/l	
85-01-8	Phenanthrene	0.53	2.1	0.22	ug/l	J
129-00-0	Pyrene	ND	2.1	0.23	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	18%		15-110%
4165-62-2	Phenol-d5	15%		15-110%
118-79-6	2,4,6-Tribromophenol	74%		15-110%
4165-60-0	Nitrobenzene-d5	55%		30-130%
321-60-8	2-Fluorobiphenyl	57%		30-130%
1718-51-0	Terphenyl-d14	79%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Page 1 of 1

Client Sample ID:	INFLUENT	
Lab Sample ID:	MC28841-1	Date Sampled: 03/12/14
Matrix:	AQ - Influent	Date Received: 03/12/14
Method:	SW846 8011 SW846 8011	Percent Solids: n/a
Project:	GTY 30339, 350 Pleasant Street, Belmont, MA	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88640.D	1	03/14/14	AP	03/11/14	OP37147	GYZ7518
Run #2							

	Initial Volume	Final Volume
Run #1	34.4 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.015	0.012	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	Bromofluorobenzene (S)	59%		36-173%
460-00-4	Bromofluorobenzene (S)	66%		36-173%

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	INFLUENT		
Lab Sample ID:	MC28841-1	Date Sampled:	03/12/14
Matrix:	AQ - Influent	Date Received:	03/12/14
Method:	EPA 608 EPA 608	Percent Solids:	n/a
Project:	GTY 30339, 350 Pleasant Street, Belmont, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	YZ88667.D	1	03/17/14	SZ	03/14/14	OP37173	GYZ7520
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.26	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.26	0.16	ug/l	
11141-16-5	Aroclor 1232	ND	0.26	0.11	ug/l	
53469-21-9	Aroclor 1242	ND	0.26	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.26	0.15	ug/l	
11097-69-1	Aroclor 1254	ND	0.26	0.14	ug/l	
11096-82-5	Aroclor 1260	ND	0.26	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.26	0.085	ug/l	
11100-14-4	Aroclor 1268	ND	0.26	0.12	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	68%		31-154%
877-09-8	Tetrachloro-m-xylene	72%		31-154%
2051-24-3	Decachlorobiphenyl	64%		10-148%
2051-24-3	Decachlorobiphenyl	64%		10-148%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: INFLUENT
Lab Sample ID: MC28841-1
Matrix: AQ - Influent

Date Sampled: 03/12/14
Date Received: 03/12/14
Percent Solids: n/a

Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Total Metals Analysis

Analyte	Result	RL	MDL	Units	DF	Prep	Analyzed By	Method	Prep Method	
Antimony	1.9 U	6.0	1.9	ug/l	1	03/18/14	03/18/14	EAL	SW846 6010C ²	SW846 3010A ⁴
Arsenic	8.4	4.0	2.9	ug/l	1	03/18/14	03/18/14	EAL	SW846 6010C ²	SW846 3010A ⁴
Cadmium	0.50 U	4.0	0.50	ug/l	1	03/18/14	03/18/14	EAL	SW846 6010C ²	SW846 3010A ⁴
Chromium	1.4 U	10	1.4	ug/l	1	03/18/14	03/18/14	EAL	SW846 6010C ²	SW846 3010A ⁴
Copper	16.1 B	25	7.0	ug/l	1	03/18/14	03/18/14	EAL	SW846 6010C ²	SW846 3010A ⁴
Iron	48500	100	20	ug/l	1	03/18/14	03/18/14	EAL	SW846 6010C ²	SW846 3010A ⁴
Lead	2.0 B	5.0	1.7	ug/l	1	03/18/14	03/18/14	EAL	SW846 6010C ²	SW846 3010A ⁴
Mercury	0.10 U	0.20	0.10	ug/l	1	03/14/14	03/14/14	SA	EPA 245.1 ¹	EPA 245.1 ³
Nickel	1.0 B	40	0.57	ug/l	1	03/18/14	03/18/14	EAL	SW846 6010C ²	SW846 3010A ⁴
Selenium	4.8 U	10	4.8	ug/l	1	03/18/14	03/18/14	EAL	SW846 6010C ²	SW846 3010A ⁴
Silver	1.0 U	5.0	1.0	ug/l	1	03/18/14	03/18/14	EAL	SW846 6010C ²	SW846 3010A ⁴
Zinc	45.9	20	0.50	ug/l	1	03/18/14	03/18/14	EAL	SW846 6010C ²	SW846 3010A ⁴

(1) Instrument QC Batch: MA16860

(2) Instrument QC Batch: MA16892

(3) Prep QC Batch: MP22659

(4) Prep QC Batch: MP22687

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID: INFLUENT
Lab Sample ID: MC28841-1
Matrix: AQ - Influent

Date Sampled: 03/12/14
Date Received: 03/12/14
Percent Solids: n/a

Project: GTY 30339, 350 Pleasant Street, Belmont, MA

General Chemistry

Analyte	Result	RL	MDL	Units	DF	Analyzed	By	Method
Chloride	767	10	3.8	mg/l	10	03/14/14	MC	SM21 4500CL C
Chromium, Hexavalent	0.0055 B	0.010	0.0017	mg/l	1	03/12/14 19:00 CF	SW846	7196A
Chromium, Trivalent ^a	0.0031 U	0.020	0.0031	mg/l	1	03/18/14 18:29 EAL	6010/7196A	M/200.7
Cyanide	0.0026 B	0.010	0.0025	mg/l	1	03/14/14 13:12 MA	EPA	335.4
HEM Petroleum Hydrocarbons	1.0 B	4.1	0.73	mg/l	1	03/20/14	BF	EPA 1664A
Phenols	0.17	0.050	0.013	mg/l	1	03/18/14 13:10 BF	EPA	420.1
Solids, Total Suspended	60.0	4.0	1.5	mg/l	1	03/17/14	BF	SM 2540D-11
Total Residual Chlorine ^b	0.050	0.050	0.030	mg/l	1	03/12/14 16:30 CF	SM21 4500CL	F

(a) Calculated as: (Chromium) - (Chromium, Hexavalent)

(b) Analysis performed past the required 15 minutes of collection time/holding time.

RL = Reporting Limit
MDL = Method Detection Limit

U = Indicates a result < MDL
B = Indicates a result > = MDL but < RL

Report of Analysis

Client Sample ID:	INFLUENT	Date Sampled:	03/12/14
Lab Sample ID:	MC28841-1A	Date Received:	03/12/14
Matrix:	AQ - Influent	Percent Solids:	n/a
Method:	SW846 8270D BY SIM SW846 3510C		
Project:	GTY 30339, 350 Pleasant Street, Belmont, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	I87984.D	1	03/17/14	MR	03/14/14	OP37143	MSI3276
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.12	0.10	0.071	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.051	ug/l	
120-12-7	Anthracene	ND	0.10	0.095	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.052	0.020	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.030	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.052	0.033	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.028	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.040	ug/l	
218-01-9	Chrysene	ND	0.10	0.025	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.033	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.042	ug/l	
86-73-7	Fluorene	0.28	0.10	0.10	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.032	ug/l	
91-20-3	Naphthalene	43.4	0.10	0.042	ug/l	
85-01-8	Phenanthrene	0.44	0.052	0.013	ug/l	
129-00-0	Pyrene	ND	0.10	0.040	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	47%		30-130%
321-60-8	2-Fluorobiphenyl	49%		30-130%
1718-51-0	Terphenyl-d14	76%		30-130%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

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Custody Documents and Other Forms

Includes the following where applicable:

- Parameter Certifications (MA)
- Chain of Custody
- MCP Form
- Sample Tracking Chronicle

Parameter Certifications

Page 1 of 1

Job Number: MC28841
Account: TYREEMA Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

The following parameters included in this report are certified by the state of MA.

Parameter	CAS#	Method	Mat	Certification Status
Aroclor 1016	12674-11-2	EPA 608	AQ	Accutest is certified for this parameter.
Aroclor 1221	11104-28-2	EPA 608	AQ	Accutest is certified for this parameter.
Aroclor 1232	11141-16-5	EPA 608	AQ	Accutest is certified for this parameter.
Aroclor 1242	53469-21-9	EPA 608	AQ	Accutest is certified for this parameter.
Aroclor 1248	12672-29-6	EPA 608	AQ	Accutest is certified for this parameter.
Aroclor 1254	11097-69-1	EPA 608	AQ	Accutest is certified for this parameter.
Aroclor 1260	11096-82-5	EPA 608	AQ	Accutest is certified for this parameter.
Aroclor 1262	37324-23-5	EPA 608	AQ	Accutest is certified for this parameter.
Aroclor 1268	11100-14-4	EPA 608	AQ	Accutest is certified for this parameter.
Mercury	7439-97-6	EPA 245.1	AQ	Accutest is certified for this parameter.
Chloride	16887-00-6	SM21 4500CL C	AQ	Accutest is certified for this parameter.
Cyanide	57-12-5	EPA 335.4	AQ	Accutest is certified for this parameter.
Phenols		EPA 420.1	AQ	Accutest is certified for this parameter.
Solids, Total Suspended		SM 2540D-11	AQ	Accutest is certified for this parameter.
Total Residual Chlorine		SM21 4500CL F	AQ	Accutest is certified for this parameter.

Client / Reporting Information Company Name: TYREE Street Address: 7 Viking Rd City: Webster MA Project Contact: R. Carmosino Phone #: 508-640-0300 Fax #: 640-0301 Sampler(s) Name(s): STEPHEN HEBENSTREIT		Project Information Project Name: GT 30339 Street: 350 Pleasant St City: BELMONT MA Project#: 2140042-421 Client PO#: R. Carmosino Attention: R. Carmosino		Requested Analysis (see TEST CODE sheet) Matrix Codes: SEM Voc's, TPH, BOD, TSS, TRC, CN, METALS, CHLORIDE, CR IV, MERCURY, PAH'S, PCB'S, PHENOLS Matrix Codes Legend: DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OL - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Field ID / Point of Collection Field ID: -1 Point of Collection: INFILTRANT MECH/DI: 1A Date: 3-12-14 Time: 9:00 AM		Collection Date: 3-12-14 Time: 9:00 AM		Number of preserved Bottles # of bottles: 15 VOC: X SVOC: X PCB: X METALS: X CHLORIDE: X MERCURY: X PAH'S: X PHENOLS: X	
Turnaround Time (Business days) ☒ Std. 10 Business Days ☐ Std. 5 Business Days (By Contract only) ☐ 5 Day RUSH ☐ 3 Day EMERGENCY ☐ 2 Day EMERGENCY ☐ 1 Day EMERGENCY		Approved By (Accutest PM): / Date: _____		Data Deliverable Information ☐ Commercial "A" (Level 1) ☐ Commercial "B" (Level 2) ☐ FULL T1 (Level 3+4) ☐ CT RCP ☒ MA MCP Commercial "A" = Results Only Commercial "B" = Results + QC Summary	
Comments / Special Instructions TYREE = CLIENT SAMPLES RECEIVED DIRECTLY FROM FIELD SAMPLING					
Emergency & Rush T/A data available VIA Lablink					
Relinquished By Sampler: Stephen Hebenstreit Date Time: 3-12-14 12:00		Received By: [Signature] Date Time: 3-12-14 12:00		Relinquished By: [Signature] Date Time: 3-12-14 12:00	
Relinquished By Sampler: 3		Received By: 3		Relinquished By: 4	
Relinquished By: 5		Received By: 5		Custody Seal # ☐ Intact ☐ Not Intact Preserved where applicable ☐ On Ice ☒ Cooler Temp. 0.8 C	

MC28841: Chain of Custody

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Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC28841 **Client:** TYREEE **Immediate Client Services Action Required:** No
Date / Time Received: 3/12/2014 **Delivery Method:** **Client Service Action Required at Login:** No
Project: GTY 30339 **No. Coolers:** 1 **Airbill #'s:**

Cooler Security **Y or N** **Y or N**
1. Custody Seals Present: ☒ ☐ 3. COC Present: ☒ ☐
2. Custody Seals Intact: ☒ ☐ 4. Smpl Dates/Time OK ☒ ☐

Cooler Temperature **Y or N**
1. Temp criteria achieved: ☒ ☐
2. Cooler temp verification: Infrared gun
3. Cooler media: Ice (bag)

Quality Control Preservation **Y or N** **N/A**
1. Trip Blank present / cooler: ☐ ☒ ☐
2. Trip Blank listed on COC: ☐ ☒ ☐
3. Samples preserved properly: ☒ ☐
4. VOCs headspace free: ☒ ☐ ☐

Sample Integrity - Documentation **Y or N**
1. Sample labels present on bottles: ☒ ☐
2. Container labeling complete: ☒ ☐
3. Sample container label / COC agree: ☒ ☐

Sample Integrity - Condition **Y or N**
1. Sample recvd within HT: ☒ ☐
2. All containers accounted for: ☒ ☐
3. Condition of sample: Intact

Sample Integrity - Instructions **Y or N** **N/A**
1. Analysis requested is clear: ☒ ☐
2. Bottles received for unspecified tests: ☐ ☒
3. Sufficient volume recvd for analysis: ☒ ☐
4. Compositing instructions clear: ☐ ☐ ☒
5. Filtering instructions clear: ☐ ☐ ☒

Comments



Massachusetts Department
of Environmental Protection
Bureau of Waste Site Cleanup

WSC-CAM

Exhibit VII A

July 1, 2010

Revision No. 1

Final

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Exhibit VII A-2: MassDEP Analytical Protocol Certification Form

MassDEP Analytical Protocol Certification Form

Laboratory Name:	Accutest Laboratories of New England	Project #:	MC28841
Project Location:	GTY 30339, 350 Pleasant Street, Belmont, MA	MADEP RTN	None
This form provides certifications for the following data set: list Laboratory Sample ID Numbers(s) MC28841-1,MC28841-1A			
Matrices: Groundwater/Surface Water () Soil/Sediment () Drinking Water () Air () Other (X)			
CAM Protocol (check all that apply below):			
8260 VOC (X) CAM IIA	7470/7471 Hg () CAM III B	MassDEP VPH () CAM IV A	8081 Pesticides () CAM V B
8270 SVOC (X) CAM II B	7010 Metals () CAM III C	MassDEP EPH () CAM IV B	8151 Herbicides () CAM V C
6010 Metals (X) CAM III A	6020 Metals () CAM III D	8082 PCB () CAM V A	9014 Total Cyanide/PAC () CAM VI A
7196 Hex Cr (X) CAM VI B			
Mass DEP APH () CAM IX A			
8330 Explosives () CAM VIII A			
TO-15 VOC () CAM IX B			
6860 Perchlorate () CAM VIII B			
Affirmative Responses to Questions A Through F are required for "Presumptive Certainty status			
A	Were all samples received in a condition consistent with those described on the Chain-of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?		
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?		
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?		
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?		
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?		
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?		
Responses to questions G, H, and I below is required for "Presumptive Certainty" status			
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocols		
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data useability and representativeness requirements described in 310 CMR 40.1056(2)(k) and WSC-07-350.			
H	Were all QC performance standards specified in the CAM protocol(s) achieved?		
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?		
All Negative responses must be addressed in an attached Environmental Laboratory case narrative.			
I the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.			
Signature:	Position: Laboratory Director		
Printed Name:	Date: 03/25/2014		

Internal Sample Tracking Chronicle

Tyree Organization Ltd.

Job No: MC28841

GTY 30339, 350 Pleasant Street, Belmont, MA
Project No: 2140042-421

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC28841-1 Collected: 12-MAR-14 09:00 By: SH Received: 12-MAR-14 By: INFLUENT						
MC28841-1	SM21 4500CL F	12-MAR-14 16:30	CF			TRC
MC28841-1	SW846 7196A	12-MAR-14 19:00	CF			XCR
MC28841-1	SM21 4500CL C	14-MAR-14	MC			CHL
MC28841-1	SW846 8011	14-MAR-14 04:44	AP	11-MAR-14 MT		V8011EDB
MC28841-1	EPA 245.1	14-MAR-14 12:24	SA	14-MAR-14 EM		HG
MC28841-1	EPA 335.4	14-MAR-14 13:12	MA	14-MAR-14 MA		CN
MC28841-1	SM 2540D-11	17-MAR-14	BF			TSS
MC28841-1	EPA 608	17-MAR-14 19:07	SZ	14-MAR-14 MD		P608PCB
MC28841-1	EPA 420.1	18-MAR-14 13:10	BF	18-MAR-14 BF		PN
MC28841-1	SW846 8270D	18-MAR-14 14:35	KR	14-MAR-14 KR		AB8270SL
MC28841-1	SW846 6010C	18-MAR-14 18:29	EAL	18-MAR-14 EM		AG,AS,CD,CR,CU,FE,NI,PB,SB,SE,ZN
MC28841-1	6010/7196A M/200.7	18-MAR-14 18:29	EAL			CR3
MC28841-1	SW846 8260C	19-MAR-14 19:48	JM			V8260SL
MC28841-1	EPA 1664A	20-MAR-14	BF	20-MAR-14 BF		PHC1664
MC28841-1A Collected: 12-MAR-14 09:00 By: SH Received: 12-MAR-14 By: INFLUENT						
MC28841-1A	SW846 8270D BY SIM	17-MAR-14 14:43	MR	14-MAR-14 PA		B8270SIMSL

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

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Job Number: MC28841**Account:** TYREEMA Tyree Organization Ltd.**Project:** GTY 30339, 350 Pleasant Street, Belmont, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2476-MB	K77593.D	1	03/19/14	JM	n/a	n/a	MSK2476

The QC reported here applies to the following samples:**Method:** SW846 8260C

MC28841-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	2.8	ug/l	
71-43-2	Benzene	ND	0.50	0.45	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.62	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.38	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.35	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.30	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.26	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.37	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.35	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.67	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.54	ug/l	
123-91-1	1,4-Dioxane	ND	25	16	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.38	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.43	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.41	ug/l	
91-20-3	Naphthalene	ND	5.0	0.79	ug/l	
994-05-8	tert-Amyl Methyl Ether	ND	2.0	1.9	ug/l	
75-65-0	Tert Butyl Alcohol	ND	20	13	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.61	ug/l	
108-88-3	Toluene	ND	1.0	0.46	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.94	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.49	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.45	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.61	ug/l	
	m,p-Xylene	ND	1.0	0.91	ug/l	
95-47-6	o-Xylene	ND	1.0	0.41	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.41	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	105% 70-130%
2037-26-5	Toluene-D8	97% 70-130%
460-00-4	4-Bromofluorobenzene	94% 70-130%

Blank Spike/Blank Spike Duplicate Summary

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Job Number: MC28841

Account: TYREEMA Tyree Organization Ltd.

Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2476-BS	K77590.D	1	03/19/14	JM	n/a	n/a	MSK2476
MSK2476-BSD	K77591.D	1	03/19/14	JM	n/a	n/a	MSK2476

The QC reported here applies to the following samples:

Method: SW846 8260C

MC28841-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	40.4	81	35.5	71	13	70-130/25
71-43-2	Benzene	50	53.1	106	51.6	103	3	70-130/25
56-23-5	Carbon tetrachloride	50	57.4	115	54.9	110	4	70-130/25
106-93-4	1,2-Dibromoethane	50	53.9	108	53.8	108	0	70-130/25
95-50-1	1,2-Dichlorobenzene	50	50.1	100	48.6	97	3	70-130/25
541-73-1	1,3-Dichlorobenzene	50	51.0	102	49.7	99	3	70-130/25
106-46-7	1,4-Dichlorobenzene	50	49.7	99	48.6	97	2	70-130/25
75-34-3	1,1-Dichloroethane	50	50.7	101	50.0	100	1	70-130/25
107-06-2	1,2-Dichloroethane	50	51.4	103	50.3	101	2	70-130/25
75-35-4	1,1-Dichloroethene	50	56.9	114	55.3	111	3	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	50.1	100	49.2	98	2	70-130/25
123-91-1	1,4-Dioxane	250	303	121	284	114	6	70-130/25
100-41-4	Ethylbenzene	50	55.1	110	55.0	110	0	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	51.4	103	50.3	101	2	70-130/25
75-09-2	Methylene chloride	50	52.7	105	51.4	103	2	70-130/25
91-20-3	Naphthalene	50	52.4	105	50.1	100	4	70-130/25
994-05-8	tert-Amyl Methyl Ether	50	49.3	99	48.3	97	2	70-130/25
75-65-0	Tert Butyl Alcohol	500	517	103	548	110	6	70-130/25
127-18-4	Tetrachloroethene	50	57.6	115	58.2	116	1	70-130/25
108-88-3	Toluene	50	55.0	110	52.9	106	4	70-130/25
71-55-6	1,1,1-Trichloroethane	50	54.0	108	52.1	104	4	70-130/25
79-00-5	1,1,2-Trichloroethane	50	51.5	103	50.4	101	2	70-130/25
79-01-6	Trichloroethene	50	54.7	109	53.5	107	2	70-130/25
75-01-4	Vinyl chloride	50	48.3	97	44.0	88	9	70-130/25
	m,p-Xylene	100	113	113	111	111	2	70-130/25
95-47-6	o-Xylene	50	55.6	111	54.1	108	3	70-130/25
1330-20-7	Xylene (total)	150	168	112	165	110	2	70-130/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	98%	99%	70-130%
2037-26-5	Toluene-D8	106%	105%	70-130%
460-00-4	4-Bromofluorobenzene	96%	98%	70-130%

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Page 1 of 1

Job Number: MC28841
Account: TYREEMA Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Check Std: MSK2476-CC2469	Injection Date: 03/19/14
Lab File ID: K77590.D	Injection Time: 09:41
Instrument ID: GCMSK	Method: SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	151283	8.78	218254	9.63	108063	12.89	123766	15.45	58057	6.39
Upper Limit ^a	302566	9.28	436508	10.13	216126	13.39	247532	15.95	116114	6.89
Lower Limit ^b	75642	8.28	109127	9.13	54032	12.39	61883	14.95	29029	5.89

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
MSK2476-BS	151283	8.78	218254	9.63	108063	12.89	123766	15.45	58057	6.39
MSK2476-BSD	163818	8.79	237917	9.64	115061	12.89	134829	15.45	62349	6.40
MSK2476-MB	162923	8.79	229807	9.63	99900	12.89	125752	15.45	59542	6.39
ZZZZZZ	145336	8.79	209250	9.63	93974	12.89	121225	15.45	50481	6.39
ZZZZZZ	146626	8.79	212794	9.63	96788	12.89	122942	15.45	54264	6.39
ZZZZZZ	147164	8.79	211280	9.63	90187	12.89	120336	15.45	54177	6.39
ZZZZZZ	152010	8.79	216113	9.64	95078	12.89	119986	15.45	53696	6.39
ZZZZZZ	146625	8.79	209428	9.63	90411	12.89	116634	15.45	53385	6.39
ZZZZZZ	138478	8.79	198990	9.63	89258	12.89	114632	15.45	54703	6.39
ZZZZZZ	141420	8.79	204182	9.63	92262	12.89	121197	15.45	52126	6.39
ZZZZZZ	147129	8.79	211365	9.64	95377	12.89	123855	15.45	52106	6.40
MC28875-10	141603	8.79	206444	9.63	94017	12.89	122419	15.45	53438	6.40
MC28875-10MS	146990	8.79	217646	9.64	106214	12.89	122207	15.45	52906	6.40
MC28875-10MSD	150950	8.79	220326	9.63	106326	12.89	122675	15.45	58633	6.39
ZZZZZZ	143863	8.79	207086	9.63	92993	12.89	121558	15.45	55276	6.39
ZZZZZZ	142078	8.79	201782	9.63	90506	12.89	117876	15.45	54411	6.39
ZZZZZZ	135784	8.79	196603	9.64	87167	12.89	113064	15.45	51277	6.39
ZZZZZZ	149985	8.79	218719	9.64	102003	12.89	133266	15.45	59409	6.40
ZZZZZZ	142963	8.79	204091	9.64	92082	12.89	119779	15.45	51378	6.40
ZZZZZZ	140750	8.79	203469	9.64	95252	12.89	126628	15.45	54607	6.40
MC28841-1	147345	8.79	215274	9.64	100505	12.89	123595	15.45	54170	6.40
ZZZZZZ	147976	8.79	218264	9.63	100464	12.89	127031	15.45	53762	6.39
ZZZZZZ	154178	8.79	220750	9.63	100120	12.89	128715	15.45	54669	6.39

IS 1 = Pentafluorobenzene
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5
IS 4 = 1,4-Dichlorobenzene-d4
IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: MC28841
Account: TYREEMA Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Method: SW846 8260C	Matrix: AQ
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC28841-1	K77612.D	108.0	100.0	94.0
MSK2476-BS	K77590.D	98.0	106.0	96.0
MSK2476-BSD	K77591.D	99.0	105.0	98.0
MSK2476-MB	K77593.D	105.0	97.0	94.0

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	70-130%
S2 = Toluene-D8	70-130%
S3 = 4-Bromofluorobenzene	70-130%

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Page 1 of 2

Job Number: MC28841

Account: TYREEMA Tyree Organization Ltd.

Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP37145-MB	R37485.D	1	03/14/14	KR	03/12/14	OP37145	MSR1384

The QC reported here applies to the following samples:

Method: SW846 8270D

MC28841-1

CAS No.	Compound	Result	RL	MDL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	0.38	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	0.49	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	0.33	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	1.1	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	2.5	ug/l	
87-65-0	2,6-Dichlorophenol	ND	10	0.41	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	10	1.2	ug/l	
95-48-7	2-Methylphenol	ND	10	1.3	ug/l	
	3&4-Methylphenol	ND	10	2.0	ug/l	
88-75-5	2-Nitrophenol	ND	10	0.50	ug/l	
100-02-7	4-Nitrophenol	ND	20	0.58	ug/l	
87-86-5	Pentachlorophenol	ND	10	1.3	ug/l	
108-95-2	Phenol	ND	5.0	0.51	ug/l	
58-90-2	2,3,4,6-Tetrachlorophenol	ND	10	0.63	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	0.57	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	0.32	ug/l	
83-32-9	Acenaphthene	ND	2.0	0.23	ug/l	
208-96-8	Acenaphthylene	ND	2.0	0.56	ug/l	
120-12-7	Anthracene	ND	2.0	0.21	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.0	0.21	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.0	0.21	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.0	0.23	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	0.25	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.0	0.27	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	0.85	ug/l	
218-01-9	Chrysene	ND	2.0	0.20	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	0.21	ug/l	
84-74-2	Di-n-butyl phthalate	1.2	5.0	0.39	ug/l	J
117-84-0	Di-n-octyl phthalate	ND	5.0	0.43	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	0.50	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	0.50	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	0.59	2.0	0.49	ug/l	J
206-44-0	Fluoranthene	ND	2.0	0.22	ug/l	
86-73-7	Fluorene	ND	2.0	0.24	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	0.27	ug/l	
91-20-3	Naphthalene	ND	2.0	0.17	ug/l	

Method Blank Summary

Page 2 of 2

Job Number: MC28841

Account: TYREEMA Tyree Organization Ltd.

Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP37145-MB	R37485.D	1	03/14/14	KR	03/12/14	OP37145	MSR1384

The QC reported here applies to the following samples:

Method: SW846 8270D

MC28841-1

CAS No.	Compound	Result	RL	MDL	Units	Q
85-01-8	Phenanthrene	ND	2.0	0.21	ug/l	
129-00-0	Pyrene	ND	2.0	0.22	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	43% 15-110%
4165-62-2	Phenol-d5	30% 15-110%
118-79-6	2,4,6-Tribromophenol	79% 15-110%
4165-60-0	Nitrobenzene-d5	75% 30-130%
321-60-8	2-Fluorobiphenyl	72% 30-130%
1718-51-0	Terphenyl-d14	93% 30-130%

Method Blank Summary

Page 1 of 1

Job Number: MC28841

Account: TYREEMA Tyree Organization Ltd.

Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP37143-MB	I87953.D	1	03/14/14	MR	03/12/14	OP37143	MSI3275

The QC reported here applies to the following samples:

Method: SW846 8270D BY SIM

MC28841-1A

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.10	0.069	ug/l	
208-96-8	Acenaphthylene	ND	0.10	0.050	ug/l	
120-12-7	Anthracene	ND	0.10	0.092	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	0.020	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.029	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	0.032	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.027	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.039	ug/l	
218-01-9	Chrysene	ND	0.10	0.024	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.032	ug/l	
206-44-0	Fluoranthene	ND	0.10	0.041	ug/l	
86-73-7	Fluorene	ND	0.10	0.099	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.031	ug/l	
91-20-3	Naphthalene	0.071	0.10	0.041	ug/l	J
85-01-8	Phenanthrene	0.019	0.050	0.013	ug/l	J
129-00-0	Pyrene	ND	0.10	0.038	ug/l	

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	63% 30-130%
321-60-8	2-Fluorobiphenyl	61% 30-130%
1718-51-0	Terphenyl-d14	87% 30-130%

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 2

Job Number: MC28841

Account: TYREEMA Tyree Organization Ltd.

Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP37145-BS	R37486.D	1	03/14/14	KR	03/12/14	OP37145	MSR1384
OP37145-BSD	R37551.D	1	03/18/14	KR	03/12/14	OP37145	MSR1386

The QC reported here applies to the following samples:

Method: SW846 8270D

MC28841-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	50	35.5	71	37.3	75	5	30-130/20
59-50-7	4-Chloro-3-methyl phenol	50	41.5	83	41.5	83	0	30-130/20
120-83-2	2,4-Dichlorophenol	50	41.0	82	42.3	85	3	30-130/20
105-67-9	2,4-Dimethylphenol	50	36.8	74	33.5	67	9	30-130/20
51-28-5	2,4-Dinitrophenol	50	34.8	70	37.6	75	8	30-130/20
87-65-0	2,6-Dichlorophenol	50	39.0	78	41.2	82	5	30-130/20
534-52-1	4,6-Dinitro-o-cresol	50	45.1	90	50.2	100	11	30-130/20
95-48-7	2-Methylphenol	50	35.1	70	34.0	68	3	30-130/20
	3&4-Methylphenol	100	63.7	64	63.1	63	1	30-130/20
88-75-5	2-Nitrophenol	50	39.9	80	42.2	84	6	30-130/20
100-02-7	4-Nitrophenol	50	19.0	38	17.7	35	7	30-130/20
87-86-5	Pentachlorophenol	50	34.8	70	38.1	76	9	30-130/20
108-95-2	Phenol	50	16.0	32	16.4	33	2	30-130/20
58-90-2	2,3,4,6-Tetrachlorophenol	50	42.4	85	44.0	88	4	30-130/20
95-95-4	2,4,5-Trichlorophenol	50	41.7	83	44.3	89	6	30-130/20
88-06-2	2,4,6-Trichlorophenol	50	40.4	81	42.7	85	6	30-130/20
83-32-9	Acenaphthene	50	42.7	85	43.9	88	3	40-140/20
208-96-8	Acenaphthylene	50	33.2	66	34.2	68	3	40-140/20
120-12-7	Anthracene	50	45.1	90	46.0	92	2	40-140/20
56-55-3	Benzo(a)anthracene	50	50.6	101	50.6	101	0	40-140/20
50-32-8	Benzo(a)pyrene	50	43.5	87	44.0	88	1	40-140/20
205-99-2	Benzo(b)fluoranthene	50	51.0	102	51.8	104	2	40-140/20
191-24-2	Benzo(g,h,i)perylene	50	49.8	100	50.7	101	2	40-140/20
207-08-9	Benzo(k)fluoranthene	50	46.3	93	47.5	95	3	40-140/20
85-68-7	Butyl benzyl phthalate	50	49.2	98	49.5	99	1	40-140/20
218-01-9	Chrysene	50	46.5	93	47.0	94	1	40-140/20
53-70-3	Dibenzo(a,h)anthracene	50	51.6	103	52.4	105	2	40-140/20
84-74-2	Di-n-butyl phthalate	50	49.0	98	48.7	97	1	40-140/20
117-84-0	Di-n-octyl phthalate	50	51.2	102	52.0	104	2	40-140/20
84-66-2	Diethyl phthalate	50	43.8	88	41.2	82	6	40-140/20
131-11-3	Dimethyl phthalate	50	32.6	65	28.0	56	15	40-140/20
117-81-7	bis(2-Ethylhexyl)phthalate	50	52.8	106	53.1	106	1	40-140/20
206-44-0	Fluoranthene	50	50.2	100	49.8	100	1	40-140/20
86-73-7	Fluorene	50	45.7	91	46.1	92	1	40-140/20
193-39-5	Indeno(1,2,3-cd)pyrene	50	51.3	103	52.3	105	2	40-140/20
91-20-3	Naphthalene	50	37.5	75	38.9	78	4	40-140/20

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 2 of 2

Job Number: MC28841

Account: TYREEMA Tyree Organization Ltd.

Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP37145-BS	R37486.D	1	03/14/14	KR	03/12/14	OP37145	MSR1384
OP37145-BSD	R37551.D	1	03/18/14	KR	03/12/14	OP37145	MSR1386

The QC reported here applies to the following samples:

Method: SW846 8270D

MC28841-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
85-01-8	Phenanthrene	50	46.7	93	47.4	95	1	40-140/20
129-00-0	Pyrene	50	45.8	92	47.6	95	4	40-140/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	45%	46%	15-110%
4165-62-2	Phenol-d5	31%	31%	15-110%
118-79-6	2,4,6-Tribromophenol	85%	93%	15-110%
4165-60-0	Nitrobenzene-d5	76%	78%	30-130%
321-60-8	2-Fluorobiphenyl	73%	78%	30-130%
1718-51-0	Terphenyl-d14	89%	92%	30-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: MC28841

Account: TYREEMA Tyree Organization Ltd.

Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP37143-BS	I87954.D	1	03/14/14	MR	03/12/14	OP37143	MSI3275
OP37143-BSD	I87983.D	1	03/17/14	MR	03/12/14	OP37143	MSI3276

The QC reported here applies to the following samples:

Method: SW846 8270D BY SIM

MC28841-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	50	34.8	70	35.6	71	2	40-140/30
208-96-8	Acenaphthylene	50	26.8	54	27.3	55	2	40-140/30
120-12-7	Anthracene	50	36.8	74	36.5	73	1	40-140/30
56-55-3	Benzo(a)anthracene	50	42.1	84	42.7	85	1	40-140/30
50-32-8	Benzo(a)pyrene	50	39.6	79	39.9	80	1	40-140/30
205-99-2	Benzo(b)fluoranthene	50	42.0	84	43.6	87	4	40-140/30
191-24-2	Benzo(g,h,i)perylene	50	44.6	89	45.5	91	2	40-140/30
207-08-9	Benzo(k)fluoranthene	50	42.7	85	42.4	85	1	40-140/30
218-01-9	Chrysene	50	40.7	81	40.5	81	0	40-140/30
53-70-3	Dibenzo(a,h)anthracene	50	47.3	95	48.4	97	2	40-140/30
206-44-0	Fluoranthene	50	38.3	77	38.5	77	1	40-140/30
86-73-7	Fluorene	50	38.3	77	38.5	77	1	40-140/30
193-39-5	Indeno(1,2,3-cd)pyrene	50	46.1	92	47.0	94	2	40-140/30
91-20-3	Naphthalene	50	32.2	64	32.0	64	1	40-140/30
85-01-8	Phenanthrene	50	37.4	75	37.0	74	1	40-140/30
129-00-0	Pyrene	50	38.1	76	39.4	79	3	40-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-60-0	Nitrobenzene-d5	67%	68%	30-130%
321-60-8	2-Fluorobiphenyl	62%	66%	30-130%
1718-51-0	Terphenyl-d14	84%	87%	30-130%

* = Outside of Control Limits.

Semivolatiles Internal Standard Area Summary

Page 1 of 2

Job Number: MC28841
Account: TYREEMA Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Check Std: MSI3275-CC3238	Injection Date: 03/14/14
Lab File ID: I87952.D	Injection Time: 08:13
Instrument ID: GCMSI	Method: SW846 8270D BY SIM

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	316032	4.17	756409	5.23	456882	6.76	788689	8.16	592566	10.93	1469839	12.42
Upper Limit ^a	632064	4.67	1512818	5.73	913764	7.26	1577378	8.66	1185132	11.43	2939678	12.92
Lower Limit ^b	158016	3.67	378205	4.73	228441	6.26	394345	7.66	296283	10.43	734920	11.92

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP37143-MB	279292	4.17	644515	5.22	390622	6.75	677350	8.15	508129	10.93	1252239	12.42
OP37143-BS	306383	4.15	703011	5.22	441164	6.76	741189	8.16	564088	10.93	1398071	12.42
OP37143-MS	293014	4.17	702342	5.23	419976	6.76	697742	8.16	516862	10.93	1311764	12.42
OP37143-MSD	293434	4.17	693283	5.23	424589	6.76	725444	8.16	539344	10.93	1330192	12.42
MC28896-2	270206	4.17	628394	5.22	389231	6.75	663782	8.15	492250	10.93	1253865	12.42
ZZZZZZ	299118	4.17	706007	5.22	416564	6.75	692364	8.15	500823	10.93	1251738	12.42
ZZZZZZ	291599	4.18	695487	5.23	417592	6.76	704352	8.15	512357	10.93	1279270	12.42
ZZZZZZ	287366	4.18	684105	5.23	409712	6.75	691504	8.15	498449	10.93	1259624	12.42
ZZZZZZ	300567	4.18	711627	5.23	429918	6.76	734723	8.15	539379	10.93	1328725	12.42
ZZZZZZ	296196	4.17	693490	5.23	417692	6.75	713188	8.16	512144	10.93	1283395	12.42
ZZZZZZ	337439	4.17	773277	5.23	468179	6.76	807913	8.16	619707	10.94	1451767	12.44
ZZZZZZ	295036	4.17	696043	5.23	411990	6.76	690454	8.16	500285	10.93	1284520	12.42
ZZZZZZ	310660	4.17	737139	5.23	433399	6.76	721886	8.16	529764	10.93	1321918	12.42
OP37158-MB	284587	4.17	692133	5.22	409999	6.76	681358	8.16	478805	10.93	1225026	12.42
OP37158-BS	301571	4.17	730772	5.23	434346	6.76	739566	8.16	529927	10.93	1303362	12.42
OP37158-MS	300025	4.17	727855	5.23	431903	6.76	741003	8.16	540702	10.93	1283956	12.42
OP37158-MSD	306881	4.18	756227	5.23	450515	6.76	757015	8.16	558845	10.93	1327528	12.42
MC28896-8	317738	4.17	767245	5.23	463178	6.76	792449	8.16	578866	10.93	1406185	12.42
ZZZZZZ	294724	4.17	729299	5.23	431908	6.76	730377	8.16	520252	10.93	1271938	12.42
ZZZZZZ	326633	4.17	785558	5.23	464180	6.76	787397	8.16	561130	10.93	1403095	12.42
ZZZZZZ	327579	4.17	816203	5.23	479850	6.76	809735	8.16	576686	10.93	1430620	12.42
ZZZZZZ	303761	4.17	701290	5.23	428267	6.76	729145	8.16	519670	10.93	1316831	12.42
ZZZZZZ	290675	4.17	702200	5.22	413848	6.76	691176	8.16	501833	10.93	1220345	12.42
ZZZZZZ	308724	4.17	741798	5.23	437051	6.76	744430	8.16	522294	10.93	1309712	12.42
ZZZZZZ	305039	4.17	722618	5.23	434733	6.76	725084	8.16	531608	10.93	1286030	12.42
ZZZZZZ	268541	4.17	658600	5.22	394874	6.76	660492	8.16	484048	10.93	1188255	12.42

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC28841
Account: TYREEMA Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Check Std:	MSI3275-CC3238	Injection Date:	03/14/14
Lab File ID:	I87952.D	Injection Time:	08:13
Instrument ID:	GCMSI	Method:	SW846 8270D BY SIM

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Page 1 of 1

Job Number: MC28841
Account: TYREEMA Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Check Std: MSI3276-CC3238	Injection Date: 03/17/14
Lab File ID: I87982.D	Injection Time: 13:56
Instrument ID: GCMSI	Method: SW846 8270D BY SIM

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	316578	4.16	752660	5.21	446656	6.74	753958	8.14	550941	10.92	1363877	12.41
Upper Limit ^a	633156	4.66	1505320	5.71	893312	7.24	1507916	8.64	1101882	11.42	2727754	12.91
Lower Limit ^b	158289	3.66	376330	4.71	223328	6.24	376979	7.64	275471	10.42	681939	11.91

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT
OP37143-BSD	317401	4.16	737653	5.21	441085	6.75	729382	8.14	537297	10.92	1296003	12.41
MC28841-1A	289166	4.16	672350	5.21	402393	6.75	679296	8.14	502700	10.92	1250444	12.41
OP37159-MB	322401	4.16	777558	5.21	466074	6.74	775339	8.14	567187	10.92	1418587	12.41
OP37159-BS	343690	4.16	791784	5.21	472899	6.75	790122	8.14	587245	10.92	1402362	12.41
ZZZZZZ	346373	4.16	837776	5.21	488962	6.75	826213	8.14	607173	10.92	1515578	12.41
ZZZZZZ	300418	4.16	729037	5.21	433164	6.74	735166	8.14	521722	10.92	1307776	12.40
ZZZZZZ	315913	4.16	754639	5.21	455484	6.74	775450	8.14	563119	10.92	1392822	12.41
OP37184-MB	300535	4.16	723230	5.21	422517	6.74	704446	8.14	502696	10.91	1246027	12.40
OP37184-BS	309024	4.16	731937	5.21	431558	6.75	712304	8.14	529679	10.92	1273093	12.41
OP37184-MS	289755	4.16	694028	5.21	410958	6.75	695446	8.14	505515	10.92	1226690	12.41
OP37184-MSD	313773	4.16	747295	5.21	446465	6.75	728313	8.14	550000	10.92	1331472	12.41
D55827-2	280978	4.16	667182	5.21	398205	6.74	685903	8.14	488956	10.91	1219600	12.40
ZZZZZZ	278690	4.16	665108	5.21	401588	6.74	671947	8.14	482653	10.91	1210387	12.40
ZZZZZZ	318085	4.16	745256	5.21	446649	6.74	740323	8.14	529311	10.92	1327900	12.40
ZZZZZZ	293494	4.16	701599	5.21	424390	6.74	714422	8.14	508577	10.92	1270002	12.40
ZZZZZZ	294820	4.16	692462	5.21	411213	6.74	676389	8.14	496172	10.91	1217675	12.40
ZZZZZZ	299624	4.16	718925	5.21	424472	6.74	714768	8.14	517441	10.91	1268029	12.40
ZZZZZZ	268440	4.16	638300	5.21	380728	6.74	647229	8.14	468656	10.91	1157190	12.40
ZZZZZZ	290549	4.16	698659	5.21	418411	6.74	694736	8.14	499998	10.92	1241509	12.40
ZZZZZZ	292553	4.16	697713	5.21	414876	6.74	710412	8.14	503948	10.91	1240086	12.40
ZZZZZZ	287513	4.16	689675	5.21	407421	6.74	685920	8.14	501568	10.91	1228990	12.40
ZZZZZZ	287646	4.16	678372	5.21	406075	6.74	689353	8.14	498247	10.91	1214063	12.40
ZZZZZZ	296616	4.16	715081	5.21	416289	6.74	701305	8.14	504612	10.92	1235842	12.41
ZZZZZZ	314379	4.16	730099	5.21	435679	6.74	726184	8.14	514626	10.92	1290264	12.41
ZZZZZZ	290643	4.16	688678	5.21	400307	6.75	672416	8.14	503391	10.92	1189825	12.41

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Page 1 of 2

Job Number: MC28841
Account: TYREEMA Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Check Std: MSR1384-CC1374	Injection Date: 03/14/14
Lab File ID: R37484.D	Injection Time: 10:26
Instrument ID: GCMSR	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	94745	4.25	384536	5.30	224091	6.82	388389	8.13	391440	10.73	371591	12.43
Upper Limit ^a	189490	4.75	769072	5.80	448182	7.32	776778	8.63	782880	11.23	743182	12.93
Lower Limit ^b	47373	3.75	192268	4.80	112046	6.32	194195	7.63	195720	10.23	185796	11.93

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP37145-MB	74608	4.25	294656	5.30	166871	6.82	285668	8.12	283889	10.72	272250	12.43
OP37145-BS	78796	4.25	308733	5.30	177444	6.82	307601	8.13	311163	10.72	301473	12.43
OP37145-MS	75347	4.25	297724	5.30	168310	6.82	291167	8.13	291331	10.72	281590	12.43
OP37145-MSD	75131	4.25	298622	5.30	169686	6.82	291818	8.13	294146	10.72	284274	12.43
MC28896-3	68150	4.25	273289	5.30	156818	6.82	267442	8.12	272208	10.72	264595	12.43
ZZZZZZ	76821	4.25	300716	5.30	171049	6.82	291892	8.12	292808	10.72	288855	12.42
ZZZZZZ	75843	4.25	297527	5.30	171557	6.82	295191	8.12	297041	10.72	290524	12.43
ZZZZZZ	71733	4.25	285164	5.30	162744	6.82	281245	8.12	280770	10.72	274100	12.43
ZZZZZZ	71834	4.25	285010	5.30	163636	6.82	280533	8.12	286870	10.72	268333	12.43
OP37157-MB	77253	4.25	304678	5.30	175957	6.82	300630	8.12	299462	10.72	293891	12.43
OP37157-BS	80679	4.25	318525	5.30	181194	6.82	312106	8.13	314359	10.72	300340	12.43
OP37157-MS	80785	4.25	322643	5.30	187655	6.82	322889	8.13	320875	10.72	308781	12.43
OP37157-MSD	80399	4.25	321319	5.30	184400	6.82	317891	8.13	317936	10.72	303236	12.43
MC28896-7	84088	4.25	333669	5.30	192931	6.82	333227	8.12	334422	10.72	326027	12.43
ZZZZZZ	79670	4.25	314758	5.30	180010	6.82	308152	8.12	308427	10.72	299636	12.43
ZZZZZZ	85019	4.25	337606	5.30	193420	6.82	330463	8.12	331242	10.72	319285	12.43
ZZZZZZ	90222	4.25	352212	5.30	202478	6.82	349556	8.12	350669	10.72	343903	12.43
ZZZZZZ	78401	4.25	316085	5.30	179269	6.82	311050	8.12	315409	10.72	305826	12.43
ZZZZZZ	78774	4.25	313633	5.30	182897	6.82	311388	8.12	311333	10.72	305908	12.43
ZZZZZZ	88066	4.25	352228	5.30	201932	6.82	341750	8.12	334562	10.72	320265	12.43
ZZZZZZ	79496	4.25	317383	5.30	180641	6.82	308743	8.12	307720	10.72	302106	12.43
ZZZZZZ	72085	4.25	288184	5.30	164505	6.82	285309	8.12	285454	10.72	277557	12.42
ZZZZZZ	74520	4.25	301430	5.30	173693	6.82	297457	8.12	297574	10.72	288550	12.42
ZZZZZZ	76470	4.25	303753	5.30	176725	6.82	306872	8.12	312450	10.72	299078	12.42
ZZZZZZ	76933	4.25	299465	5.30	174846	6.82	300380	8.12	304227	10.72	300345	12.43
ZZZZZZ	74177	4.25	292061	5.30	168524	6.82	291801	8.12	292799	10.72	287099	12.42
ZZZZZZ	72361	4.25	287343	5.30	167844	6.82	291119	8.12	299890	10.72	286523	12.42

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

Semivolatile Internal Standard Area Summary

Job Number: MC28841
Account: TYREEMA Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Check Std:	MSR1384-CC1374	Injection Date:	03/14/14
Lab File ID:	R37484.D	Injection Time:	10:26
Instrument ID:	GCMSR	Method:	SW846 8270D

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT

- (a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

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Semivolatile Internal Standard Area Summary

Page 1 of 1

Job Number: MC28841
Account: TYREEMA Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Check Std: MSR1386-CC1374	Injection Date: 03/18/14
Lab File ID: R37550.D	Injection Time: 13:49
Instrument ID: GCMSR	Method: SW846 8270D

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	74190	4.22	290125	5.27	163121	6.79	280532	8.10	280853	10.69	261295	12.39
Upper Limit ^a	148380	4.72	580250	5.77	326242	7.29	561064	8.60	561706	11.19	522590	12.89
Lower Limit ^b	37095	3.72	145063	4.77	81561	6.29	140266	7.60	140427	10.19	130648	11.89

Lab Sample ID	IS 1 AREA	IS 1 RT	IS 2 AREA	IS 2 RT	IS 3 AREA	IS 3 RT	IS 4 AREA	IS 4 RT	IS 5 AREA	IS 5 RT	IS 6 AREA	IS 6 RT
OP37145-BSD	84521	4.22	326373	5.27	183316	6.79	308344	8.10	301111	10.69	286005	12.39
MC28841-1	81308	4.22	315159	5.27	176864	6.79	295012	8.09	287845	10.68	269281	12.39
OP37204-MB	101640	4.22	392873	5.27	219580	6.79	363512	8.10	345479	10.68	324369	12.39
OP37204-BS	107313	4.22	411709	5.27	228522	6.79	376050	8.10	352601	10.69	327884	12.39
OP37206-MB	85784	4.22	326078	5.27	181032	6.79	301749	8.10	290478	10.68	265809	12.39
OP37206-BS	76578	4.22	296000	5.27	168323	6.79	281872	8.10	270585	10.69	254850	12.39
OP37206-BSD	75686	4.22	291370	5.27	163884	6.79	276509	8.09	270055	10.69	259401	12.39
ZZZZZZ	78270	4.22	301456	5.27	169163	6.79	281188	8.10	277319	10.68	266866	12.39
OP37199-MB	80236	4.22	316064	5.27	181162	6.79	306103	8.09	300671	10.68	289196	12.39
OP37199-BS	88508	4.22	342177	5.27	193670	6.79	327754	8.10	321184	10.69	307943	12.39
OP37199-MS	80929	4.22	315030	5.27	179611	6.79	304613	8.10	294142	10.69	280063	12.39
OP37199-MSD	90626	4.22	352274	5.27	198248	6.79	341021	8.10	333467	10.69	317634	12.39
MC28919-1	78414	4.22	305494	5.27	172493	6.79	288370	8.10	284397	10.68	272905	12.39
ZZZZZZ	82853	4.22	322005	5.27	185412	6.79	310956	8.10	306919	10.68	290992	12.39
ZZZZZZ	84457	4.22	330124	5.27	187016	6.79	320093	8.09	322247	10.68	306279	12.39
ZZZZZZ	88608	4.22	348167	5.27	195082	6.79	330996	8.10	328038	10.68	310018	12.39
ZZZZZZ	95172	4.22	372043	5.27	210971	6.79	349583	8.10	331183	10.68	307434	12.39
ZZZZZZ	86806	4.22	338683	5.27	190993	6.79	319588	8.09	305857	10.68	291936	12.39
ZZZZZZ	90839	4.22	355925	5.27	200707	6.79	336621	8.09	323424	10.68	304790	12.39
ZZZZZZ	85087	4.22	330249	5.27	189634	6.79	322396	8.09	324564	10.68	307859	12.39
OP37204-MS	87652	4.22	332391	5.27	184911	6.79	307241	8.10	274671	10.68	259960	12.39
OP37204-MSD	79263	4.22	311241	5.27	175672	6.79	296436	8.09	282322	10.68	273843	12.39
MC28735-6	73531	4.22	290931	5.27	166335	6.79	286394	8.09	282670	10.68	274963	12.39
ZZZZZZ	90662	4.22	347513	5.27	193702	6.79	311631	8.10	292491	10.69	289563	12.40

IS 1 = 1,4-Dichlorobenzene-d4
IS 2 = Naphthalene-d8
IS 3 = Acenaphthene-D10
IS 4 = Phenanthrene-d10
IS 5 = Chrysene-d12
IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Surrogate Recovery Summary

Job Number: MC28841
Account: TYREEMA Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Method: SW846 8270D	Matrix: AQ
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
MC28841-1	R37552.D	18.0	15.0	74.0	55.0	57.0	79.0
OP37145-BS	R37486.D	45.0	31.0	85.0	76.0	73.0	89.0
OP37145-BSD	R37551.D	46.0	31.0	93.0	78.0	78.0	92.0
OP37145-MB	R37485.D	43.0	30.0	79.0	75.0	72.0	93.0

Surrogate Compounds	Recovery Limits
S1 = 2-Fluorophenol	15-110%
S2 = Phenol-d5	15-110%
S3 = 2,4,6-Tribromophenol	15-110%
S4 = Nitrobenzene-d5	30-130%
S5 = 2-Fluorobiphenyl	30-130%
S6 = Terphenyl-d14	30-130%

Semivolatile Surrogate Recovery Summary

Job Number: MC28841
Account: TYREEMA Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Method: SW846 8270D BY SIM	Matrix: AQ
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC28841-1A	I87984.D	47.0	49.0	76.0
OP37143-BS	I87954.D	67.0	62.0	84.0
OP37143-BSD	I87983.D	68.0	66.0	87.0
OP37143-MB	I87953.D	63.0	61.0	87.0

Surrogate Compounds	Recovery Limits
S1 = Nitrobenzene-d5	30-130%
S2 = 2-Fluorobiphenyl	30-130%
S3 = Terphenyl-d14	30-130%

7.4.2
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GC Volatiles

QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC28841
Account: TYREEMA Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP37147-MB	YZ88635.D	1	03/14/14	AP	03/11/14	OP37147	GYZ7518

The QC reported here applies to the following samples: Method: SW846 8011

MC28841-1

CAS No.	Compound	Result	RL	MDL	Units	Q
106-93-4	1,2-Dibromoethane	ND	0.015	0.011	ug/l	

CAS No.	Surrogate Recoveries	Limits
460-00-4	Bromofluorobenzene (S)	92% 36-173%
460-00-4	Bromofluorobenzene (S)	100% 36-173%

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC28841
Account: TYREEMA Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP37147-BS	YZ88636.D	1	03/14/14	AP	03/11/14	OP37147	GYZ7518
OP37147-BSD	YZ88637.D	1	03/14/14	AP	03/12/14	OP37147	GYZ7518

The QC reported here applies to the following samples: Method: SW846 8011

MC28841-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
106-93-4	1,2-Dibromoethane	0.071	0.064	90	0.060	85	6	60-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	Bromofluorobenzene (S)	66%	73%	36-173%
460-00-4	Bromofluorobenzene (S)	71%	84%	36-173%

* = Outside of Control Limits.

Volatile Surrogate Recovery Summary

Job Number: MC28841
Account: TYREEMA Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Method: SW846 8011	Matrix: AQ
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Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b
MC28841-1	YZ88640.D	59.0	66.0
OP37147-BS	YZ88636.D	66.0	71.0
OP37147-BSD	YZ88637.D	73.0	84.0
OP37147-MB	YZ88635.D	92.0	100.0

Surrogate Compounds
Recovery Limits

S1 = Bromofluorobenzene (S)
36-173%

(a) Recovery from GC signal #2
(b) Recovery from GC signal #1

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Page 1 of 1

Job Number: MC28841

Account: TYREEMA Tyree Organization Ltd.

Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP37173-MB	YZ88662.D	1	03/17/14	SZ	03/14/14	OP37173	GYZ7520

The QC reported here applies to the following samples:

Method: EPA 608

MC28841-1

CAS No.	Compound	Result	RL	MDL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	0.13	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	0.16	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	0.11	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	0.11	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	0.14	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	0.13	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	0.12	ug/l	
37324-23-5	Aroclor 1262	ND	0.25	0.083	ug/l	
11100-14-4	Aroclor 1268	ND	0.25	0.12	ug/l	

CAS No.	Surrogate Recoveries	Limits
877-09-8	Tetrachloro-m-xylene	72% 31-154%
877-09-8	Tetrachloro-m-xylene	71% 31-154%
2051-24-3	Decachlorobiphenyl	50% 10-148%
2051-24-3	Decachlorobiphenyl	46% 10-148%

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Blank Spike Summary

Page 1 of 1

Job Number: MC28841

Account: TYREEMA Tyree Organization Ltd.

Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP37173-BS	YZ88663.D	1	03/17/14	SZ	03/14/14	OP37173	GYZ7520

The QC reported here applies to the following samples:

Method: EPA 608

MC28841-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
12674-11-2	Aroclor 1016	2	1.6	80	50-114
11104-28-2	Aroclor 1221		ND		15-178
11141-16-5	Aroclor 1232		ND		10-215
53469-21-9	Aroclor 1242		ND		39-150
12672-29-6	Aroclor 1248		ND		38-158
11097-69-1	Aroclor 1254		ND		29-131
11096-82-5	Aroclor 1260	2	1.7	85	8-127
37324-23-5	Aroclor 1262		ND		40-140
11100-14-4	Aroclor 1268		ND		40-140

CAS No.	Surrogate Recoveries	BSP	Limits
877-09-8	Tetrachloro-m-xylene	73%	31-154%
877-09-8	Tetrachloro-m-xylene	78%	31-154%
2051-24-3	Decachlorobiphenyl	65%	10-148%
2051-24-3	Decachlorobiphenyl	58%	10-148%

* = Outside of Control Limits.

Semivolatile Surrogate Recovery Summary

Job Number: MC28841
Account: TYREEMA Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Method: EPA 608	Matrix: AQ
-----------------	------------

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a	S1 ^b	S2 ^a	S2 ^b
MC28841-1	YZ88667.D	68.0	72.0	64.0	64.0
OP37173-BS	YZ88663.D	73.0	78.0	65.0	58.0
OP37173-MB	YZ88662.D	72.0	71.0	50.0	46.0

Surrogate Compounds	Recovery Limits
S1 = Tetrachloro-m-xylene	31-154%
S2 = Decachlorobiphenyl	10-148%

(a) Recovery from GC signal #1
(b) Recovery from GC signal #2

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC28841
Account: TYREEMA - Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

QC Batch ID: MP22659
Matrix Type: AQUEOUS

Methods: EPA 245.1
Units: ug/l

Prep Date: 03/14/14

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.042	.1	-0.019	<0.20

Associated samples MP22659: MC28841-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC28841
 Account: TYREEMA - Tyree Organization Ltd.
 Project: GTY 30339, 350 Pleasant Street, Belmont, MA

QC Batch ID: MP22659
 Matrix Type: AQUEOUS

Methods: EPA 245.1
 Units: ug/l

Prep Date: 03/14/14

Metal	BSP Result	SpikeLot HGRWS1	% Rec	QC Limits
Mercury	3.1	3	103.3	85-115

Associated samples MP22659: MC28841-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC28841
Account: TYREEMA - Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

QC Batch ID: MP22687
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/18/14 03/18/14

Metal	RL	IDL	MDL	MB raw	final	MB raw	final
Aluminum	200	7.3	40				
Antimony	6.0	.71	1.9	0.60	<6.0	-0.10	<6.0
Arsenic	4.0	1.2	2.9	0.90	<4.0	0.10	<4.0
Barium	50	.67	.81				
Beryllium	4.0	.14	.25				
Boron	100	.7	1.4				
Cadmium	4.0	.091	.5	0.0	<4.0	0.0	<4.0
Calcium	5000	4.2	38				
Chromium	10	.25	1.4	0.0	<10	0.0	<10
Cobalt	50	.1	.4				
Copper	25	3.3	7	0.0	<25	0.20	<25
Gold	50	.98	5				
Iron	100	2.9	20	5.1	<100	9.2	<100
Lead	5.0	1.2	1.7	0.10	<5.0	0.0	<5.0
Lithium	500	54	100				
Magnesium	5000	61	59				
Manganese	15	.079	.81				
Molybdenum	100	.4	.77				
Nickel	40	.41	.57	0.10	<40	0.10	<40
Palladium	50	1.2	7.6				
Platinum	50	2.9	14				
Potassium	5000	28	160				
Selenium	10	1.3	4.8	-0.10	<10	1.3	<10
Silicon	100	1.6	45				
Silver	5.0	.39	1	-0.20	<5.0	0.10	<5.0
Sodium	5000	7.8	60				
Sulfur	50	3	8				
Strontium	10	.04	.26				
Thallium	5.0	.75	1.9				
Tin	100	.53	1.4				
Titanium	50	.29	1.8				
Tungsten	100	.98	16				
Vanadium	10	.32	2.8				

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC28841
Account: TYREEMA - Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

QC Batch ID: MP22687
Matrix Type: AQUEOUS

Methods: SW846 6010C
Units: ug/l

Prep Date: 03/18/14 03/18/14

Metal	RL	IDL	MDL	MB raw	final	MB raw	final
-------	----	-----	-----	-----------	-------	-----------	-------

Zinc	20	.63	.5	1.1	<20	0.90	<20
Zirconium	50	1.3	2.2				

Associated samples MP22687: MC28841-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC28841
 Account: TYREEMA - Tyree Organization Ltd.
 Project: GTY 30339, 350 Pleasant Street, Belmont, MA

QC Batch ID: MP22687
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 03/18/14 03/18/14

Metal	BSP Result	SpikeLot MPICP	% Rec	QC Limits	BSD Result	SpikeLot MPICP	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony	504	500	100.8	80-120	505	500	101.0	0.2	20
Arsenic	512	500	102.4	80-120	509	500	101.8	0.6	20
Barium	anr								
Beryllium									
Boron	anr								
Cadmium	509	500	101.8	80-120	508	500	101.6	0.2	20
Calcium									
Chromium	495	500	99.0	80-120	494	500	98.8	0.2	20
Cobalt									
Copper	480	500	96.0	80-120	483	500	96.6	0.6	20
Gold									
Iron	2090	2000	104.5	80-120	2080	2000	104.0	0.5	20
Lead	996	1000	99.6	80-120	999	1000	99.9	0.3	20
Lithium									
Magnesium									
Manganese	anr								
Molybdenum									
Nickel	494	500	98.8	80-120	493	500	98.6	0.2	20
Palladium									
Platinum									
Potassium									
Selenium	508	500	101.6	80-120	507	500	101.4	0.2	20
Silicon									
Silver	193	200	96.5	80-120	192	200	96.0	0.5	20
Sodium									
Sulfur									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC28841
 Account: TYREEMA - Tyree Organization Ltd.
 Project: GTY 30339, 350 Pleasant Street, Belmont, MA

QC Batch ID: MP22687
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 03/18/14 03/18/14

Metal	BSP Result	SpikeLot MPICP	% Rec	QC Limits	BSD Result	SpikeLot MPICP	% Rec	BSD RPD	QC Limit
Zinc	492	500	98.4	80-120	492	500	98.4	0.0	20

Zirconium

Associated samples MP22687: MC28841-1

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

10.2.2
10

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC28841
 Account: TYREEMA - Tyree Organization Ltd.
 Project: GTY 30339, 350 Pleasant Street, Belmont, MA

QC Batch ID: MP22687
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 03/18/14

Metal	MC28830-2 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	0.900	0.00	100.0(a)	0-10
Arsenic	2.50	9.40	276.0(a)	0-10
Barium	anr			
Beryllium				
Boron	anr			
Cadmium	0.200	0.00	100.0(a)	0-10
Calcium				
Chromium	4.60	4.80	4.3	0-10
Cobalt				
Copper	0.00	0.00	NC	0-10
Gold				
Iron	72.1	77.8	7.9	0-10
Lead	0.00	0.00	NC	0-10
Lithium				
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	1.10	0.00	100.0(a)	0-10
Palladium				
Platinum				
Potassium				
Selenium	1.50	0.00	100.0(a)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Sulfur				
Strontium				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC28841
 Account: TYREEMA - Tyree Organization Ltd.
 Project: GTY 30339, 350 Pleasant Street, Belmont, MA

QC Batch ID: MP22687
 Matrix Type: AQUEOUS

Methods: SW846 6010C
 Units: ug/l

Prep Date: 03/18/14

Metal	MC28830-2		%DIF	QC Limits
	Original	SDL 1:5		

Zinc	34.6	36.0	4.0	0-10
------	------	------	-----	------

Zirconium

Associated samples MP22687: MC28841-1

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

10.2.3
10

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC28841
Account: TYREEMA - Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GN46193	1.0	0.0	mg/l	10	10.8	108.0	80-120%
Chromium, Hexavalent	GN46169	0.010	0.0	mg/l	.1	0.10	100.0	85-115%
Cyanide	GP17324/GN46195	0.010	0.0	mg/l	0.1	0.104	104.0	90-110%
Cyanide	GP17324/GN46195			mg/l	0.2	0.210	105.0	90-110%
HEM Petroleum Hydrocarbons	GP17344/GN46236	4.0	0.0	mg/l	20.0	17.5	87.5	64-132%
Phenols	GP17337/GN46221	0.050	0.0	mg/l	0.20	0.19	95.0	80-120%
Solids, Total Suspended	GN46207	4.0	0.0	mg/l				
Total Residual Chlorine	GN46167	0.050	0.0	mg/l	1	0.95	95.0	80-120%

Associated Samples:

Batch GN46167: MC28841-1
Batch GN46169: MC28841-1
Batch GN46193: MC28841-1
Batch GN46207: MC28841-1
Batch GP17324: MC28841-1
Batch GP17337: MC28841-1
Batch GP17344: MC28841-1
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: MC28841
Account: TYREEMA - Tyree Organization Ltd.
Project: GTY 30339, 350 Pleasant Street, Belmont, MA

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
Chromium, Hexavalent	GN46169	mg/l	.1	0.10	0.0	20%

Associated Samples:
Batch GN46169: MC28841-1
(*) Outside of QC limits

APPENDIX C

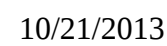
Site Information: MCP Numerical Ranking System Map: 500 feet & 0.5 Mile Radii

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



MassDEP

Commonwealth of Massachusetts
Department of Environmental Protection

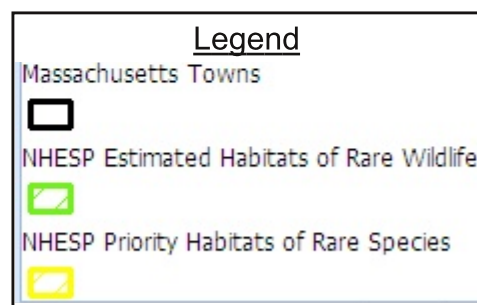




Tyree
7 Viking Road
Webster, MA 01570
Tel. (508) 640-0300 Fax. (508) 640-0301

Getty Serve Station No. 30339
350 Belmont St. Belmont, MA
Figure 4: National Heritage Map

Image adapted from MassGIS 2008 Priority and Estimated Habitat map
created by NHESP



APPENDIX D



Tyree Environmental Corp.

7 Viking Road, Webster, MA 01570

Phone: 508-640-0300 • Fax: 508-640-0301

Tyreeorg.com

May , 2014

Regulatory Review
National Heritage & Endangered Species
100 Hartwell Street, Suite 230
West Boylston, MA 01583

RE: Massachusetts Endangered Species Act Review
Former Getty Service Station 30339
350 Pleasant Street
Belmont, Massachusetts
MassDEP RTN 3-29709

To Whom it May Concern:

On behalf of Getty Properties Corporation (GPC), Tyree is submitting the attached Massachusetts Endangered Species Act (MESA) Review checklist and review fee of \$300 for the discharge of treated groundwater to outfall number 6585 located near the intersection of Concord Turnpike (Route 2) and Pleasant Street in Arlington. The check list is included as Appendix A.

Project Description

Tyree is proposing to discharge treated groundwater from a dual phase extraction (DPE) remediation system located 350 Pleasant Street in Belmont, Massachusetts (the Site). Treated groundwater will be discharged under a US Environmental Protection Agency (EPA) Remedial General Permit (RGP). The standard EPA discharge limits are included Appendix B.

The DPE system is expected to discharge at an average of less than 2 gallons per minute (gpm) with a maximum flow rate of 4 gpm. The DPE will discharged at to a catchbasin located at the intersection of Pleasant Street and Brighton Street in Belmont, MA located approximately 750 feet northeast from the outfall location. According to the Town of Belmont Department of Public Works, the catchbasin is connected to a storm drain that runs along Pleasant Street into Arlington, Massachusetts. The storm drain enters Spy Pond at outfall number 6585. A Site Locus Map depicting the Site and outfall location are included in Figure 1. The Site location and discharge location are depicted in Figure 2. A Town of Arlington Assessor's Map with the outfall location is included as Figure 3. According to the Natural Heritage Endangered Species Program (NHESP) online map dated 2008, (Figure 4), Spy Pond is listed as Priority Habitat 1180. Photographs of the outfall location and the 350 Pleasant Street property are included in Appendix C.

Former Getty Station No. 30339
350 Pleasant Street
Belmont, MA 02478
MassDEP RTN 3-29709



According to the Town of Arlington's Assessor's office Spy Pond is owned by the Town of Arlington. The MESA Review package was submitted to the Town of Arlington Conservation Commission located at Arlington Town Hall, 730 Massachusetts Avenue, Arlington, Massachusetts, prior to submittal. A copy of proof of ownership and signatory authority is included in Appendix D.

If you have any questions regarding the attached submittal, please contact the undersigned at 508-835-8822.

Sincerely,
Tyree Environmental Corp.



Jennifer Snay
Environmental Scientist II



Richard Carmosino
Project Manager

CC: Mr. Kevin Shea, Getty Properties Corp.

Enclosures:

Review Fee (Check No.____)

Figures

Figure 1	Site Locus
Figure 2	Site Layout
Figure 3	Town of Arlington Assessor's Map
Figure 4	2008 Online Natural Heritage Map

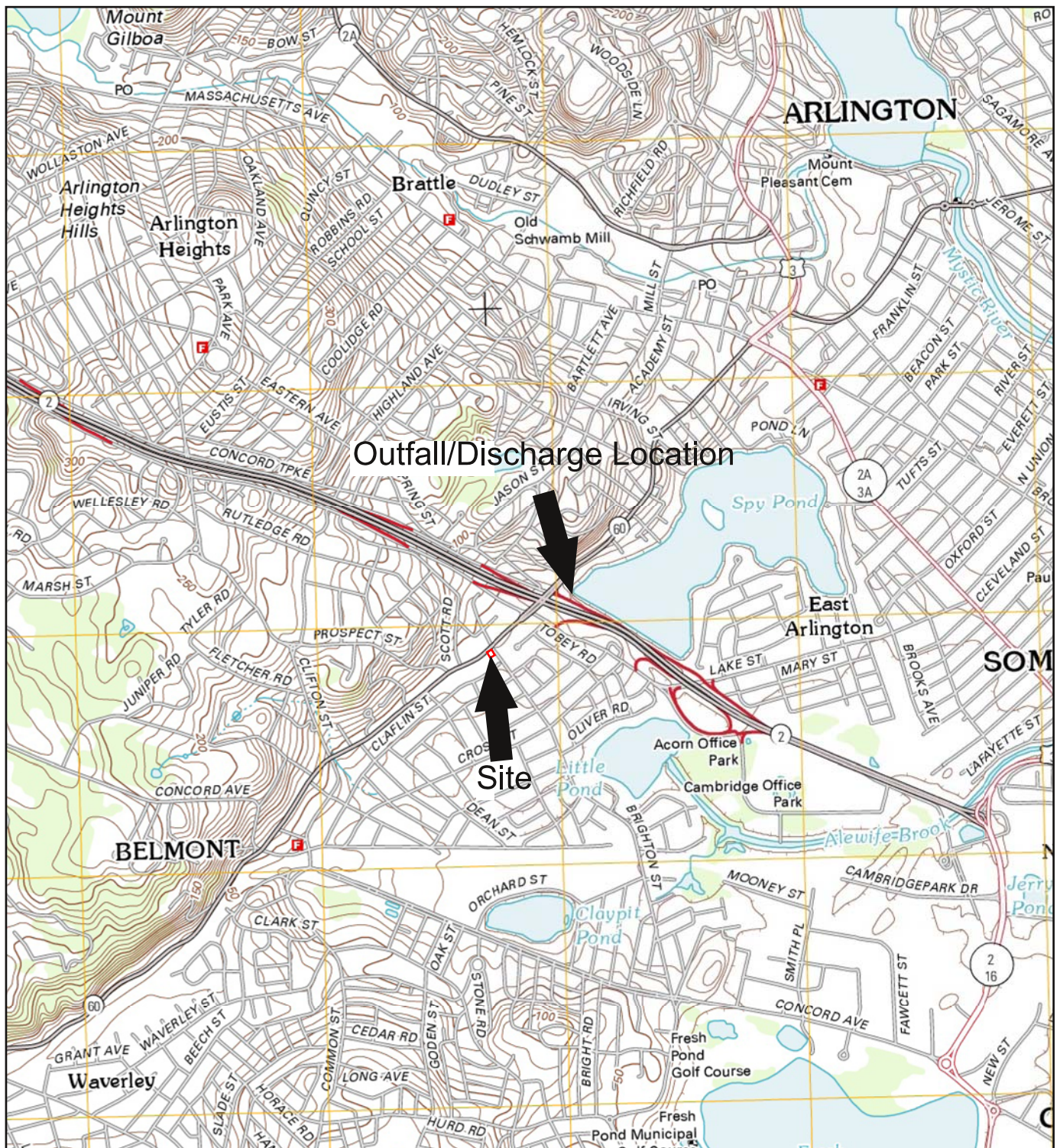
Appendices

Appendix A	MEPA Review Checklist
Appendix B	US EPA Discharge Standards
Appendix C	Photographic Documentation
Appendix D	Proof of Ownership/Signatory Authority

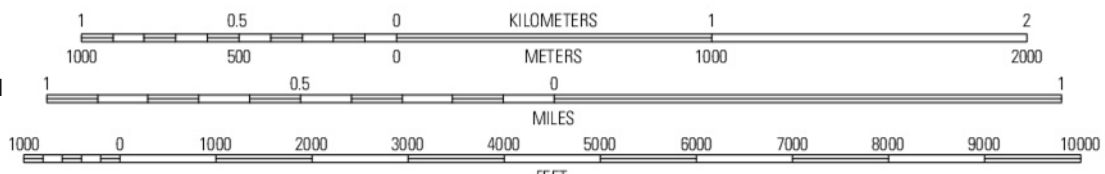


Former Getty Station No. 30339
350 Pleasant Street
Belmont, MA 02478
MassDEP RTN 3-29709

REVIEW FEE



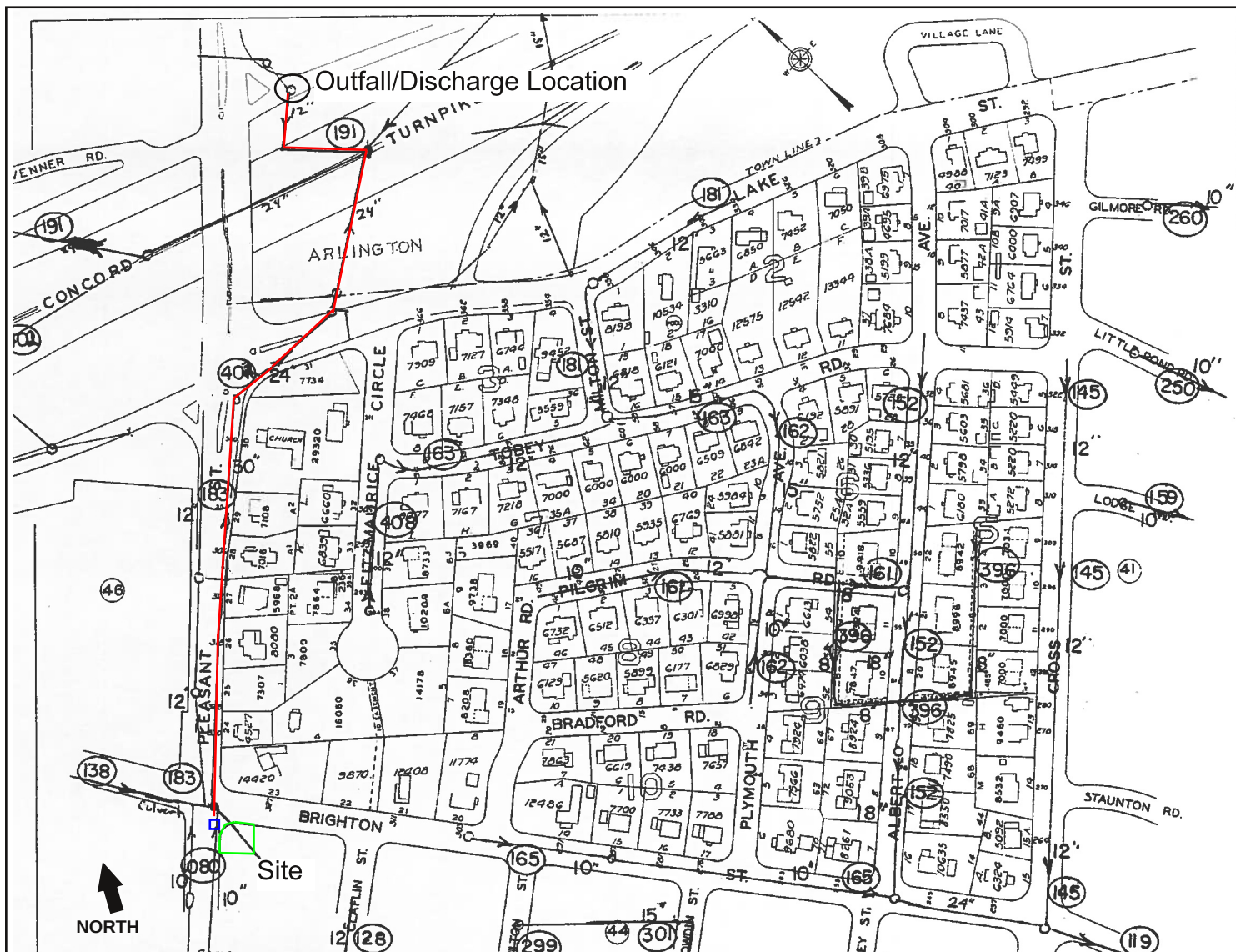
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Tyree
7 Viking Road
Webster, MA 01570
Tel. (508) 640-0300 Fax. (508) 640-0301

Getty Service Station No. 30339
350 Pleasant St. Belmont, MA
Figure 1: Outfall Location Map

Adapted from USGS Lexington 7.5 minute series quadrangle



Legend

- : Approximate Property Boundary
- : Catch Basin
- : Stormwater Drainage Line

Getty Service Station No. 30339
350 Pleasant St. Belmont, MA
Figure 2: Site Layout



- Places by Category
- Police Station
 - Fire Station
 - School
 - Recreational Facility
- Trails & Paths
- Minuteman Bikeway
 - Other Trail or Path
- Stormwater - Manhole
- Stormwater - CatchBasin
- Stormwater - Outfall
- Stormwater - Pipe
- Town Boundary
- MA Highways
- Interstate
 - US Highway
 - State Highway
- Abutting Towns
- Local Streets
- Major Local Streets
 - Local Streets
 - Other Streets
 - Cemetery Streets
- Streams
- Open Water
- Buildings
- Parcels



Getty Service Station No. 30339
350 Pleasant St. Belmont, MA

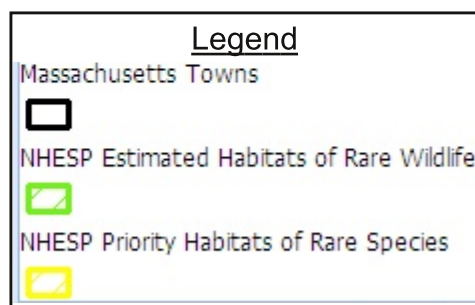
Figure 3: Town of Arlington Assessor's Map



Tyree
7 Viking Road
Webster, MA 01570
Tel. (508) 640-0300 Fax. (508) 640-0301

Getty Serve Station No. 30339
350 Belmont St. Belmont, MA
Figure 4: National Heritage Map

Image adapted from MassGIS 2008 Priority and Estimated Habitat map
created by NHESP



FIGURES

APPEDIX A



MESA PROJECT REVIEW CHECKLIST

Massachusetts Endangered Species Act M.G.L. c. 131A and Regulations (321 CMR 10.00)

Massachusetts Division of Fisheries & Wildlife
Natural Heritage & Endangered Species Program

~~~~ CONTACT INFORMATION ~~~~

If you already completed your Notice of Intent- Form 3, you can send page 1 of the NOI in place of questions 1 through 4 in this section

1. Project Location:

Street Address/Location	City/Town	Zip Code
Assessors Map/Plat Number	Parcel /Lot Number	

2. Applicant:

First Name	Last Name	Company
Mailing Address		
City/Town	State	Zip Code
Phone Number	Fax Number	Email address

3. Property owner (if different from applicant):

First Name	Last Name	Company
Mailing Address		
City/Town	State	Zip Code
Phone Number	Fax Number	Email address

4. Representative (if any):

Company		
Contact Person First Name	Contact Person Last Name	
Mailing Address		
City/Town	State	Zip Code
Phone Number	Fax Number	Email address

~~~~**ADDITIONAL INFORMATION**~~~~

1. Will this project require a filing with the Conservation Commission and/or DEP? ☐ No ☐ Yes
2. Will this project meet any threshold for a MA Environmental Policy Act (MEPA) filing  
(excluding rare species, 301 CMR 11.03 (2))? Discharging Treated Groundwater ☐ No ☐ Yes
3. Has this project previously been issued a NHESP Tracking Number (either by previous  
NOI Submittal or MESA Information Request Form)? ☐ No ☐ Yes

If Yes - Tracking No. \_\_\_\_\_

~~~~**PROJECT DESCRIPTION** (attach separate sheet, as needed)~~~~

Please note, certain projects or activities are exempt from review, see 321 CMR 10.14. The MESA does not allow project segmentation. Your filing must reflect all anticipated work associated with the proposed project (CMR 321 10.16).

~~~~**INCLUDE THE FOLLOWING INFORMATION**~~~~

***The NHESP will notify the applicant within 30 days if the materials submitted do not satisfy requirements for a filing and request submission of any missing materials (321 CMR 10.18(1)).***

**ALL Applicants must submit:**

- ☐ USGS map (1:24,000 or 1:25,000) with property boundary clearly outlined
- ☐ Project plans for entire site (including wetland Resource Areas, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work)
- ☐ Assessor's map or right-of-way plan of site
- ☐ Project description
- ☐ Statement/proof that applicant is the Record Owner or that applicant is a person authorized in writing by the record owner to submit this filing
- ☐ Photographs representative of the site

**Projects altering\* 10 or more acres, must also submit:**

- ☐ A vegetation cover type map of the site
- ☐ Project plans showing Priority Habitat boundaries

The NHESP may request additional information, such as, but not limited to, species and habitat surveys, wetland reports, soil map and reports, and stormwater management reports (321 CMR 10.16).

|                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>*Alteration:</b> Any physical alteration of land, soils, drainage or destruction of plant life, see "Project or Activity" (321 CMR 10.02).</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------|

~~~~ FILING FEES ~~~~

See Fee Schedule below

a. Total MESA Fee Paid _____ b. Acreage of Disturbance* _____ c. Total Site Acreage _____

~~~~ REQUIRED SIGNATURES ~~~~

I hereby certify under the penalties of perjury that the foregoing MESA filing and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

\_\_\_\_\_  
Signature of Property Owner/Record Owner of Property

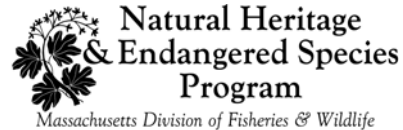
\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Applicant (required, if different from Owner)

\_\_\_\_\_  
Date

**Please send form, required information, and filing fee (payable to “Comm. of MA - NHESP”) to:**

Regulatory Review  
Natural Heritage & Endangered Species Program  
100 Hartwell Street, Suite 230  
West Boylston, MA 01583



**Questions regarding this form should be directed according to the county that the property is located:**

Berkshire, Essex, Franklin, Hampshire, Hampden, Middlesex & Worcester Counties call: 508-389-6361  
Barnstable, Bristol, Dukes, Nantucket, Norfolk, Plymouth & Suffolk Counties call: 508-389-6385

| PROJECT REVIEWS<br>321 CMR 10.18 |                                                                          |                                                |                                               |
|----------------------------------|--------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------|
| Project Definition               | Project Criteria                                                         | Fee                                            | Response Time                                 |
| Simple                           | Less than 5 acres of disturbance*                                        | \$ 300.00                                      | 60 days from determination of complete filing |
| Intermediate<br>(Moderate)       | 5 to 20 acres of disturbance*                                            | \$ 1800.00                                     | 60 days from determination of complete filing |
| Complex                          | More than 20 acres of disturbance* or project requires wetlands variance | \$ 4000.00                                     | 60 days from determination of complete filing |
| Linear                           | Projects greater than 1 mile in length.                                  | \$ 4000.00<br>per Priority Habitat intersected | 60 days from determination of complete filing |

\* Disturbance means direct physical disturbance of the land surface or waterbody, soil and/or vegetation, if only a portion of the project site is located within Priority Habitat, indicate total area of disturbance for site as a whole.

## **APPENDIX B**

---

## Remediation General Permit Appendix III

### Effluent Limits and Monitoring Requirements by Sub-Category

| <b>Category I - Petroleum Related Site Remediation</b>                       |                          |                                                                |                                                |  |
|------------------------------------------------------------------------------|--------------------------|----------------------------------------------------------------|------------------------------------------------|--|
| <b>Sub-category A - Gasoline Only Sites</b>                                  |                          |                                                                |                                                |  |
| <b>Parameter *</b>                                                           | <b>CAS<br/>Number(s)</b> | <b>Effluent Limit</b>                                          | <b>Limit type<br/>based<br/>monthly sample</b> |  |
| 1. Total Suspended Solids (TSS)                                              |                          | 30 milligrams/liter (mg/l),<br>50 mg/l for hydrostatic testing | monthly avera                                  |  |
| 3. Total Petroleum Hydrocarbons (TPH)                                        |                          | 5.0 mg/l                                                       | daily maxim                                    |  |
| 5. Benzene (B)                                                               | 71432                    | 5 ug/l , 50.0 ug/l for hydrostatic testing only                | daily maxim                                    |  |
| 9. Total Benzene, Toluene, Ethyl Benzene,<br>and Xylenes (BTEX) <sup>4</sup> |                          | 100 ug/l                                                       | daily maxim                                    |  |
| 10. Ethylene Dibromide (EDB) (1,2-<br>Dibromoethane)                         | 106-93-4                 | 0.05 ug/l                                                      | daily maxim                                    |  |
| 11. Methyl-tert-Butyl Ether (MtBE)                                           | 1634-04-4                | 70.0 ug/l                                                      | daily maxim                                    |  |
| 12. tert-Butyl Alcohol (TBA) (Tertiary-<br>Butanol)                          | 75-65-0                  | Monitor Only (ug/L)                                            | daily maxim                                    |  |
| 13. tert-Amyl Methyl Ether (TAME)                                            | 994-05-08                | Monitor Only (ug/L)                                            | daily maxim                                    |  |
| 14. Naphthalene <sup>5</sup>                                                 | 91-20-3                  | 20 ug/l                                                        | daily maxim                                    |  |

\* Numbering system is provided to allow cross-referencing to Part 3 of the Notice of Intent (Contaminant Information) in Appendix V, as Methods and Minimum Levels associated with each parameter provided in Appendix VI.

| Category I - Petroleum Related Site Remediation |                          |                                                                                                                                            |                  |                                                                                                                                            |                  |                                                |  |
|-------------------------------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------------------|--|
| Sub-category A - Gasoline Only Sites            |                          |                                                                                                                                            |                  |                                                                                                                                            |                  |                                                |  |
| <u>Metal parameters</u>                         | <u>CAS<br/>Number(s)</u> | <u>Total Recoverable<br/>Metal Limit @ H<sup>10</sup> = 50<br/>mg/l CaCO3 for<br/>discharges in<br/>Massachusetts (ug/l) <sup>11</sup></u> |                  | <u>Total Recoverable<br/>Metal Limit @ H<sup>10</sup> =<br/>25 mg/l CaCO3 for<br/>Discharges in New<br/>Hampshire (ug/l) <sup>11</sup></u> |                  | <u>Limit type<br/>based<br/>monthly sample</u> |  |
|                                                 |                          | <u>Freshwater</u>                                                                                                                          | <u>Saltwater</u> | <u>Freshwater</u>                                                                                                                          | <u>Saltwater</u> |                                                |  |
| 45. Lead                                        | 7439921                  | 1.3                                                                                                                                        | 8.5              | 0.5                                                                                                                                        | 8.5              | monthly avera                                  |  |
| 51. Iron                                        | 7439896                  | 1,000                                                                                                                                      |                  | 1,000                                                                                                                                      |                  | daily maxim                                    |  |

| Category I - Petroleum Related Site Remediation                                                            |                          |                                        |                                                |  |
|------------------------------------------------------------------------------------------------------------|--------------------------|----------------------------------------|------------------------------------------------|--|
| Sub-category B - Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) |                          |                                        |                                                |  |
| <u>Parameter</u>                                                                                           | <u>CAS<br/>Number(s)</u> | <u>Effluent Limit</u>                  | <u>Limit type<br/>based<br/>monthly sample</u> |  |
| 3. Total Petroleum Hydrocarbons (TPH)                                                                      |                          | 5.0 mg/l                               | daily maxim                                    |  |
| 5. Benzene (B)                                                                                             | 71432                    | 50.0 ug/l for hydrostatic testing only | daily maxim                                    |  |
| 9. Total Benzene, Toluene, Ethyl Benzene,<br>and Xylenes (BTEX) <sup>4</sup>                               |                          | 100 ug/l                               | daily maxim                                    |  |
| 14. Naphthalene <sup>5</sup>                                                                               | 91-20-3                  | 20 ug/l                                | daily maxim                                    |  |
| 29. Acetone                                                                                                | 67-64-1-                 | Monitor Only (ug/L)                    | daily maxim                                    |  |
| 35. Total Group I Polycyclic Aromatic<br>Hydrocarbons (PAH)                                                |                          | 10.0 ug/l                              | daily maxim                                    |  |
| a. Benzo(a) Anthracene <sup>7</sup>                                                                        | 56-55-3                  | 0.0038 ug/l                            | daily maxim                                    |  |
| b. Benzo(a) Pyrene <sup>7</sup>                                                                            | 50-32-8                  | 0.0038 ug/l                            | daily maxim                                    |  |
| c. Benzo(b)Fluoranthene <sup>7</sup>                                                                       | 205-99-2                 | 0.0038 ug/l                            | daily maxim                                    |  |
| d. Benzo(k)Fluoranthene <sup>7</sup>                                                                       | 207-08-9                 | 0.0038 ug/l                            | daily maxim                                    |  |
| e. Chrysene <sup>7</sup>                                                                                   | 218-01                   | 0.0038 ug/l                            | daily maxim                                    |  |
| f. Dibenzo(a,h)anthracene <sup>7</sup>                                                                     | 53-70-3                  | 0.0038 ug/l                            | daily maxim                                    |  |
| g. Indeno(1,2,3-cd) Pyrene <sup>7</sup>                                                                    | 193-39-5                 | 0.0038 ug/l                            | daily maxim                                    |  |

| <b>Category I - Petroleum Related Site Remediation</b>                                                            |                          |                                       |                                                |  |
|-------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------------------|------------------------------------------------|--|
| <b>Sub-category B - Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges)</b> |                          |                                       |                                                |  |
| <b>Parameter</b>                                                                                                  | <b>CAS<br/>Number(s)</b> | <b>Effluent Limit</b>                 | <b>Limit type<br/>based<br/>monthly sample</b> |  |
| 36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)                                                         |                          | 100 ug/l                              | daily maxim                                    |  |
| h. Acenaphthene                                                                                                   | 83-32-9                  | (limited as total ug/L Group II PAHs) | daily maxim                                    |  |
| i. Acenaphthylene                                                                                                 | 208-96-8                 | (limited as total ug/L Group II PAHs) | daily maxim                                    |  |
| j. Anthracene                                                                                                     | 120-12-7                 | (limited as total ug/L Group II PAHs) | daily maxi                                     |  |
| k. Benzo(ghi) Perylene                                                                                            | 191-24-2                 | (limited as total ug/L Group II PAHs) | daily maxim                                    |  |
| l. Fluoranthene                                                                                                   | 206-44-0                 | (limited as total ug/L Group II PAHs) | daily maxim                                    |  |
| m. Fluorene                                                                                                       | 86-73-7                  | (limited as total ug/L Group II PAHs) | daily maxim                                    |  |
| n. Naphthalene <sup>5</sup>                                                                                       | 91-20-3                  | 20 ug/l                               | daily maxim                                    |  |
| o. Phenanthrene                                                                                                   | 85-01-8                  | (limited as ug/L total Group II PAHs) | daily maxim                                    |  |
| p. Pyrene                                                                                                         | 129-00-0                 | (limited as ug/L total Group II PAHs) | daily maxim                                    |  |

| <b>Category I - Petroleum Related Site Remediation</b>                                                            |                          |                                                                                                                                            |                  |                                                                                                                                            |                  |                                                |
|-------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------------------|
| <b>Sub-category B - Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges)</b> |                          |                                                                                                                                            |                  |                                                                                                                                            |                  |                                                |
| <b>Metal parameters</b>                                                                                           | <b>CAS<br/>Number(s)</b> | <b>Total Recoverable<br/>Metal Limit @ H<sup>10</sup> = 50<br/>mg/l CaCO3 for<br/>discharges in<br/>Massachusetts (ug/l) <sup>11</sup></b> |                  | <b>Total Recoverable<br/>Metal Limit @ H<sup>10</sup> =<br/>25 mg/l CaCO3 for<br/>Discharges in New<br/>Hampshire (ug/l) <sup>11</sup></b> |                  | <b>Limit type<br/>based<br/>monthly sample</b> |
|                                                                                                                   |                          | <b>Freshwater</b>                                                                                                                          | <b>Saltwater</b> | <b>Freshwater</b>                                                                                                                          | <b>Saltwater</b> |                                                |
| 42. Chromium III (trivalent)                                                                                      | 16065831                 | 48.8                                                                                                                                       | 100              | 27.7                                                                                                                                       | 100              | monthly avera                                  |
| 43. Chromium VI (hexavalent)                                                                                      | 18540299                 | 11.4                                                                                                                                       | 50.3             | 11.4                                                                                                                                       | 50.3             | monthly avera                                  |
| 47. Nickel                                                                                                        | 7440020                  | 29                                                                                                                                         | 8.2              | 16.1                                                                                                                                       | 8.2              | monthly avera                                  |
| 50. Zinc                                                                                                          | 7440666                  | 66.6                                                                                                                                       | 85.6             | 37                                                                                                                                         | 85.6             | monthly avera                                  |
| 51. Iron                                                                                                          | 7439896                  | 1,000                                                                                                                                      |                  | 1,000                                                                                                                                      |                  | daily maxim                                    |

| <b>Category I - Petroleum Related Site Remediation</b>                                                        |                                                 |                                                                |                                                |              |
|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------|----------------------------------------------------------------|------------------------------------------------|--------------|
| <b>Sub-category C - Petroleum Sites with Additional Contamination</b>                                         |                                                 |                                                                |                                                |              |
| <b>Category II - Non Petroleum Site Remediation</b>                                                           |                                                 |                                                                |                                                |              |
| <b>Sub-category B - VOC Sites with Additional Contamination</b>                                               |                                                 |                                                                |                                                |              |
| <b>Category III - Contaminated Construction Dewatering</b>                                                    |                                                 |                                                                |                                                |              |
| <b>Sub-category A - General Urban Fill Sites</b>                                                              |                                                 |                                                                |                                                |              |
| <b>Sub-category B - Known Contaminated Sites</b>                                                              |                                                 |                                                                |                                                |              |
| <b>Category IV - Miscellaneous Related Discharges</b>                                                         |                                                 |                                                                |                                                |              |
| <b>Sub-category A - Aquifer Pump Testing to Evaluate Formerly Contaminated Sites</b>                          |                                                 |                                                                |                                                |              |
| <b>Sub-category B - Well Development/Rehabilitation at Contaminated/Formally Contaminated Sites</b>           |                                                 |                                                                |                                                |              |
| <b>Sub-category D - Long-Term Remediation of Contaminated Non-residential Sumps and Dikes</b>                 |                                                 |                                                                |                                                |              |
| <b>Sub-category E - Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit)</b> |                                                 |                                                                |                                                |              |
| <u>Parameter</u>                                                                                              | <u>CAS<br/>Number(s)</u>                        | <u>Effluent Limit</u>                                          | <u>Limit type<br/>based<br/>monthly sample</u> | <u>_____</u> |
| 1. Total Suspended Solids (TSS)                                                                               |                                                 | 30 milligrams/liter (mg/l),<br>50 mg/l for hydrostatic testing | monthly avera                                  |              |
| 2. Total Residual Chlorine (TRC) <sup>1</sup>                                                                 |                                                 | Freshwater = 11 ug/l Saltwater = 7.5 ug/l                      | monthly avera                                  |              |
| 3. Total Petroleum Hydrocarbons (TPH)                                                                         |                                                 | 5.0 mg/l                                                       | daily maxim                                    |              |
| 4. Cyanide (CN) <sup>2,3</sup>                                                                                | 57125                                           | Freshwater = 5.2 ug/l Saltwater = 1.0 ug/l                     | monthly avera                                  |              |
| 5. Benzene (B)                                                                                                | 71432                                           | 50.0 ug/l for hydrostatic testing only                         | daily maxim                                    |              |
| 6. Toluene (T)                                                                                                | 108883                                          | (limited as ug/L total BTEX)                                   | daily max                                      |              |
| 7. Ethylbenzene (E)                                                                                           | 100-41-4                                        | (limited as ug/L total BTEX)                                   | daily max                                      |              |
| 8. (m,p,o) Xylenes (X)                                                                                        | 108-88-3;<br>106-42-3;<br>95-47-6;<br>1330-20-7 | (limited as ug/L total BTEX)                                   | daily max                                      |              |
| 9. Total Benzene, Toluene, Ethyl Benzene,<br>and Xylenes (BTEX) <sup>4</sup>                                  |                                                 | 100 ug/l                                                       | daily maxim                                    |              |
| 10. Ethylene Dibromide (EDB) (1,2-<br>Dibromoethane)                                                          | 106-93-4                                        | 0.05 ug/l                                                      | daily maxim                                    |              |
| 11. Methyl-tert-Butyl Ether (MtBE)                                                                            | 1634-04-4                                       | 70.0 ug/l                                                      | daily maxim                                    |              |

| <b>Category I - Petroleum Related Site Remediation</b>                                                 |                          |                       |                                                |              |
|--------------------------------------------------------------------------------------------------------|--------------------------|-----------------------|------------------------------------------------|--------------|
| Sub-category C - Petroleum Sites with Additional Contamination                                         |                          |                       |                                                |              |
| <b>Category II - Non Petroleum Site Remediation</b>                                                    |                          |                       |                                                |              |
| Sub-category B - VOC Sites with Additional Contamination                                               |                          |                       |                                                |              |
| <b>Category III - Contaminated Construction Dewatering</b>                                             |                          |                       |                                                |              |
| Sub-category A - General Urban Fill Sites                                                              |                          |                       |                                                |              |
| Sub-category B - Known Contaminated Sites                                                              |                          |                       |                                                |              |
| <b>Category IV - Miscellaneous Related Discharges</b>                                                  |                          |                       |                                                |              |
| Sub-category A - Aquifer Pump Testing to Evaluate Formerly Contaminated Sites                          |                          |                       |                                                |              |
| Sub-category B - Well Development/Rehabilitation at Contaminated/Formally Contaminated Sites           |                          |                       |                                                |              |
| Sub-category D - Long-Term Remediation of Contaminated Non-residential Sumps and Dikes                 |                          |                       |                                                |              |
| Sub-category E - Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) |                          |                       |                                                |              |
| <u>Parameter</u>                                                                                       | <u>CAS<br/>Number(s)</u> | <u>Effluent Limit</u> | <u>Limit type<br/>based<br/>monthly sample</u> | <u>_____</u> |
| 12.tert-Butyl Alcohol (TBA) (TertiaryButanol)                                                          | 75-65-0                  | Monitor Only (ug/L)   | daily maxim                                    |              |
| 13. tert-Amyl Methyl Ether (TAME)                                                                      | 994-05-08                | Monitor Only (ug/L)   | daily maxim                                    |              |
| 14. Naphthalene <sup>5</sup>                                                                           | 91-20-3                  | 20 ug/l               | daily maxim                                    |              |
| 15. Carbon Tetrachloride                                                                               | 56-23-5                  | 4.4 ug/l              | daily maxim                                    |              |
| 16. 1,2 Dichlorobenzene (o-DCB)                                                                        | 95-50-1                  | 600 ug/l              | daily maxim                                    |              |
| 17. 1,3 Dichlorobenzene (m-DCB)                                                                        | 541-73-1                 | 320 ug/l              | daily maxim                                    |              |
| 18. 1,4 Dichlorobenzene (p-DCB)                                                                        | 106-46-7                 | 5.0 ug/l              | daily maxim                                    |              |
| 18a. Total dichlorobenzene                                                                             |                          | 763 ug/l - NH only    | daily maxim                                    |              |
| 19. 1,1 Dichloroethane (DCA)                                                                           | 75-34-3                  | 70 ug/l               | daily maxim                                    |              |
| 20. 1,2 Dichloroethane (DCA)                                                                           | 107-06-2                 | 5.0 ug/l              | daily maxim                                    |              |
| 21. 1,1 Dichloroethene (DCE)                                                                           | 75-35-4                  | 3.2 ug/l              | daily maxim                                    |              |
| 22. cis-1,2 Dichloroethene (DCE)                                                                       | 156-59-2                 | 70 ug/l               | daily maxim                                    |              |
| 23. Methylene Chloride                                                                                 | 75-09-2                  | 4.6 ug/l              | daily maxim                                    |              |
| 24. Tetrachloroethene (PCE)                                                                            | 127-18-4                 | 5.0 ug/l              | daily maxim                                    |              |
| 25. 1,1,1 Trichloro-ethane (TCA)                                                                       | 71-55-6                  | 200 ug/l              | daily maxim                                    |              |
| 26. 1,1,2 Trichloro-ethane (TCA)                                                                       | 79-00-5                  | 5.0 ug/l              | daily maxim                                    |              |
| 27. Trichloroethene (TCE)                                                                              | 79-01-6                  | 5.0 ug/l              | daily maxim                                    |              |

| <b>Category I - Petroleum Related Site Remediation</b>                                                 |                          |                       |                                                |              |
|--------------------------------------------------------------------------------------------------------|--------------------------|-----------------------|------------------------------------------------|--------------|
| Sub-category C - Petroleum Sites with Additional Contamination                                         |                          |                       |                                                |              |
| <b>Category II - Non Petroleum Site Remediation</b>                                                    |                          |                       |                                                |              |
| Sub-category B - VOC Sites with Additional Contamination                                               |                          |                       |                                                |              |
| <b>Category III - Contaminated Construction Dewatering</b>                                             |                          |                       |                                                |              |
| Sub-category A - General Urban Fill Sites                                                              |                          |                       |                                                |              |
| Sub-category B - Known Contaminated Sites                                                              |                          |                       |                                                |              |
| <b>Category IV - Miscellaneous Related Discharges</b>                                                  |                          |                       |                                                |              |
| Sub-category A - Aquifer Pump Testing to Evaluate Formerly Contaminated Sites                          |                          |                       |                                                |              |
| Sub-category B - Well Development/Rehabilitation at Contaminated/Formally Contaminated Sites           |                          |                       |                                                |              |
| Sub-category D - Long-Term Remediation of Contaminated Non-residential Sumps and Dikes                 |                          |                       |                                                |              |
| Sub-category E - Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) |                          |                       |                                                |              |
| <u>Parameter</u>                                                                                       | <u>CAS<br/>Number(s)</u> | <u>Effluent Limit</u> | <u>Limit type<br/>based<br/>monthly sample</u> | <u>_____</u> |
| 28. Vinyl Chloride (Chloroethene)                                                                      | 75-01-4                  | 2.0 ug/l              | daily maxim                                    |              |
| 29. Acetone                                                                                            | 67-64-1-                 | Monitor Only (ug/L)   | daily maxim                                    |              |
| 30. 1,4 Dioxane                                                                                        | 123-91-1                 | Monitor Only (ug/L)   | daily maxim                                    |              |
| 31. Total Phenols                                                                                      | 108-95-2                 | 300 ug/l              | daily maxim                                    |              |
| 32. Pentachlorophenol (PCP)                                                                            | 87-86-5                  | 1.0 ug/l              | daily maxim                                    |              |
| 33. Total Phthalates (Phthalate esters) <sup>6</sup>                                                   |                          | 3.0 ug/L              | monthly avera                                  |              |
| 34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]                                           | 117-81-7                 | 6.0 ug/l              | daily maxim                                    |              |
| 35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)                                               |                          | 10.0 ug/l             | daily maxim                                    |              |
| a. Benzo(a) Anthracene <sup>7</sup>                                                                    | 56-55-3                  | 0.0038 ug/l           | daily maxim                                    |              |
| b. Benzo(a) Pyrene <sup>7</sup>                                                                        | 50-32-8                  | 0.0038 ug/l           | daily maxim                                    |              |
| c. Benzo(b)Fluoranthene <sup>7</sup>                                                                   | 205-99-2                 | 0.0038 ug/l           | daily maxim                                    |              |
| d. Benzo(k)Fluoranthene <sup>7</sup>                                                                   | 207-08-9                 | 0.0038 ug/l           | daily maxim                                    |              |
| e. Chrysene <sup>7</sup>                                                                               | 218-01                   | 0.0038 ug/l           | daily maxim                                    |              |
| f. Dibenzo(a,h)anthracene <sup>7</sup>                                                                 | 53-70-3                  | 0.0038 ug/l           | daily maxim                                    |              |
| g. Indeno(1,2,3-cd) Pyrene <sup>7</sup>                                                                | 193-39-5                 | 0.0038 ug/l           | daily maxim                                    |              |

| <b>Category I - Petroleum Related Site Remediation</b>                                                 |                                                                         |                                       |                                                |              |
|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------|------------------------------------------------|--------------|
| Sub-category C - Petroleum Sites with Additional Contamination                                         |                                                                         |                                       |                                                |              |
| <b>Category II - Non Petroleum Site Remediation</b>                                                    |                                                                         |                                       |                                                |              |
| Sub-category B - VOC Sites with Additional Contamination                                               |                                                                         |                                       |                                                |              |
| <b>Category III - Contaminated Construction Dewatering</b>                                             |                                                                         |                                       |                                                |              |
| Sub-category A - General Urban Fill Sites                                                              |                                                                         |                                       |                                                |              |
| Sub-category B - Known Contaminated Sites                                                              |                                                                         |                                       |                                                |              |
| <b>Category IV - Miscellaneous Related Discharges</b>                                                  |                                                                         |                                       |                                                |              |
| Sub-category A - Aquifer Pump Testing to Evaluate Formerly Contaminated Sites                          |                                                                         |                                       |                                                |              |
| Sub-category B - Well Development/Rehabilitation at Contaminated/Formally Contaminated Sites           |                                                                         |                                       |                                                |              |
| Sub-category D - Long-Term Remediation of Contaminated Non-residential Sumps and Dikes                 |                                                                         |                                       |                                                |              |
| Sub-category E - Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) |                                                                         |                                       |                                                |              |
| <u>Parameter</u>                                                                                       | <u>CAS<br/>Number(s)</u>                                                | <u>Effluent Limit</u>                 | <u>Limit type<br/>based<br/>monthly sample</u> | <u>_____</u> |
| 36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)                                              |                                                                         | 100 ug/l                              | daily maxim                                    |              |
| h. Acenaphthene                                                                                        | 83-32-9                                                                 | (limited as total ug/L Group II PAHs) | daily maxim                                    |              |
| i. Acenaphthylene                                                                                      | 208-96-8                                                                | (limited as total ug/L Group II PAHs) | daily maxim                                    |              |
| j. Anthracene                                                                                          | 120-12-7                                                                | (limited as total ug/L Group II PAHs) | daily maxi                                     |              |
| k. Benzo(ghi) Perylene                                                                                 | 191-24-2                                                                | (limited as total ug/L Group II PAHs) | daily maxim                                    |              |
| l. Fluoranthene                                                                                        | 206-44-0                                                                | (limited as total ug/L Group II PAHs) | daily maxim                                    |              |
| m. Fluorene                                                                                            | 86-73-7                                                                 | (limited as total ug/L Group II PAHs) | daily maxim                                    |              |
| n. Naphthalene <sup>5</sup>                                                                            | 91-20-3                                                                 | 20 ug/l                               | daily maxim                                    |              |
| o. Phenanthrene                                                                                        | 85-01-8                                                                 | (limited as ug/L total Group II PAHs) | daily maxim                                    |              |
| p. Pyrene                                                                                              | 129-00-0                                                                | (limited as ug/L total Group II PAHs) | daily maxim                                    |              |
|                                                                                                        | 85-68-7;<br>84-74-2;<br>117-84-0;<br>84-66-2;<br>131-11-3;<br>117-81-7. |                                       |                                                |              |
| 37. Total Polychlorinated Biphenyls (PCBs) <sup>8,9</sup>                                              |                                                                         | 0.000064 ug/L                         | daily maxim                                    |              |
| 38. Chloride                                                                                           | 16887006                                                                | Monitor only                          | daily maxim                                    |              |

| <b>Category I - Petroleum Related Site Remediation</b>                                                        |                          |                                                                                                                                                      |                  |                                                                                                                                                      |                  |                                                |              |
|---------------------------------------------------------------------------------------------------------------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------------------|--------------|
| <b>Sub-category C - Petroleum Sites with Additional Contamination</b>                                         |                          |                                                                                                                                                      |                  |                                                                                                                                                      |                  |                                                |              |
| <b>Category II - Non Petroleum Site Remediation</b>                                                           |                          |                                                                                                                                                      |                  |                                                                                                                                                      |                  |                                                |              |
| <b>Sub-category B - VOC Sites with Additional Contamination</b>                                               |                          |                                                                                                                                                      |                  |                                                                                                                                                      |                  |                                                |              |
| <b>Category III - Contaminated Construction Dewatering</b>                                                    |                          |                                                                                                                                                      |                  |                                                                                                                                                      |                  |                                                |              |
| <b>Sub-category A - General Urban Fill Sites</b>                                                              |                          |                                                                                                                                                      |                  |                                                                                                                                                      |                  |                                                |              |
| <b>Sub-category B - Known Contaminated Sites</b>                                                              |                          |                                                                                                                                                      |                  |                                                                                                                                                      |                  |                                                |              |
| <b>Category IV - Miscellaneous Related Discharges</b>                                                         |                          |                                                                                                                                                      |                  |                                                                                                                                                      |                  |                                                |              |
| <b>Sub-category A - Aquifer Pump Testing to Evaluate Formerly Contaminated Sites</b>                          |                          |                                                                                                                                                      |                  |                                                                                                                                                      |                  |                                                |              |
| <b>Sub-category B - Well Development/Rehabilitation at Contaminated/Formally Contaminated Sites</b>           |                          |                                                                                                                                                      |                  |                                                                                                                                                      |                  |                                                |              |
| <b>Sub-category D - Long-Term Remediation of Contaminated Non-residential Sumps and Dikes</b>                 |                          |                                                                                                                                                      |                  |                                                                                                                                                      |                  |                                                |              |
| <b>Sub-category E - Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit)</b> |                          |                                                                                                                                                      |                  |                                                                                                                                                      |                  |                                                |              |
| <u>Metal parameters</u>                                                                                       | <u>CAS<br/>Number(s)</u> | <u>Total Recoverable<br/>Metal Limit @ H<sup>10</sup> = 50<br/>mg/l CaCO<sub>3</sub> for<br/>discharges in<br/>Massachusetts (ug/l)<sup>11</sup></u> |                  | <u>Total Recoverable<br/>Metal Limit @ H<sup>10</sup> =<br/>25 mg/l CaCO<sub>3</sub> for<br/>Discharges in New<br/>Hampshire (ug/l)<sup>11</sup></u> |                  | <u>Limit type<br/>based<br/>monthly sample</u> | <u>_____</u> |
|                                                                                                               |                          | <u>Freshwater</u>                                                                                                                                    | <u>Saltwater</u> | <u>Freshwater</u>                                                                                                                                    | <u>Saltwater</u> |                                                |              |
| 39. Antimony                                                                                                  | 7440360                  | 5.6                                                                                                                                                  |                  | 5.6                                                                                                                                                  |                  | daily maxim                                    |              |
| 40. Arsenic                                                                                                   | 7440382                  | 10                                                                                                                                                   | 36               | 10                                                                                                                                                   | 36               | monthly avera                                  |              |
| 41. Cadmium                                                                                                   | 7440439                  | 0.2                                                                                                                                                  | 8.9              | 0.8                                                                                                                                                  | 9.3              | monthly avera                                  |              |
| 42. Chromium III (trivalent)                                                                                  | 16065831                 | 48.8                                                                                                                                                 | 100              | 27.7                                                                                                                                                 | 100              | monthly avera                                  |              |
| 43. Chromium VI (hexavalent)                                                                                  | 18540299                 | 11.4                                                                                                                                                 | 50.3             | 11.4                                                                                                                                                 | 50.3             | monthly avera                                  |              |
| 44. Copper                                                                                                    | 7440508                  | 5.2                                                                                                                                                  | 3.7              | 2.9                                                                                                                                                  | 3.7              | monthly avera                                  |              |
| 45. Lead                                                                                                      | 7439921                  | 1.3                                                                                                                                                  | 8.5              | 0.5                                                                                                                                                  | 8.5              | monthly avera                                  |              |
| 46. Mercury                                                                                                   | 7439976                  | 0.9                                                                                                                                                  | 1.1              | 0.9                                                                                                                                                  | 1.1              | monthly avera                                  |              |
| 47. Nickel                                                                                                    | 7440020                  | 29                                                                                                                                                   | 8.2              | 16.1                                                                                                                                                 | 8.2              | monthly avera                                  |              |
| 48. Selenium                                                                                                  | 7782492                  | 5                                                                                                                                                    | 71               | 5                                                                                                                                                    | 71               | monthly avera                                  |              |
| 49. Silver                                                                                                    | 7440224                  | 1.2                                                                                                                                                  | 2.2              | 0.4                                                                                                                                                  | 2.2              | daily maxim                                    |              |
| 50. Zinc                                                                                                      | 7440666                  | 66.6                                                                                                                                                 | 85.6             | 37                                                                                                                                                   | 85.6             | monthly avera                                  |              |
| 51. Iron                                                                                                      | 7439896                  | 1,000                                                                                                                                                |                  | 1,000                                                                                                                                                |                  | daily maxim                                    |              |

| <b>Category II - Non Petroleum Site Remediation</b>                       |                          |                       |                                                |  |
|---------------------------------------------------------------------------|--------------------------|-----------------------|------------------------------------------------|--|
| <b>Sub-category A - Volatile Organic Compound (VOC) Only Sites</b>        |                          |                       |                                                |  |
| <b>Parameter</b>                                                          | <b>CAS<br/>Number(s)</b> | <b>Effluent Limit</b> | <b>Limit type<br/>based<br/>monthly sample</b> |  |
| 3. Total Petroleum Hydrocarbons (TPH)                                     |                          | 5.0 mg/l              | daily maxim                                    |  |
| 9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) <sup>4</sup> |                          | 100 ug/l              | daily maxim                                    |  |
| 15. Carbon Tetrachloride                                                  | 56-23-5                  | 4.4 ug/l              | daily maxim                                    |  |
| 16. 1,2 Dichlorobenzene (o-DCB)                                           | 95-50-1                  | 600 ug/l              | daily maxim                                    |  |
| 17. 1,3 Dichlorobenzene (m-DCB)                                           | 541-73-1                 | 320 ug/l              | daily maxim                                    |  |
| 18. 1,4 Dichlorobenzene (p-DCB)                                           | 106-46-7                 | 5.0 ug/l              | daily maxim                                    |  |
| 18a. Total dichlorobenzene                                                |                          | 763 ug/l - NH only    | daily maxim                                    |  |
| 19. 1,1 Dichloroethane (DCA)                                              | 75-34-3                  | 70 ug/l               | daily maxim                                    |  |
| 20. 1,2 Dichloroethane (DCA)                                              | 107-06-2                 | 5.0 ug/l              | daily maxim                                    |  |
| 21. 1,1 Dichloroethene (DCE)                                              | 75-35-4                  | 3.2 ug/               | daily maxim                                    |  |
| 22. cis-1,2 Dichloroethene (DCE)                                          | 156-59-2                 | 70 ug/l               | daily maxim                                    |  |
| 23. Methylene Chloride                                                    | 75-09-2                  | 4.6 ug/l              | daily maxim                                    |  |
| 24. Tetrachloroethene (PCE)                                               | 127-18-4                 | 5.0 ug/l              | daily maxim                                    |  |
| 25. 1,1,1 Trichloro-ethane (TCA)                                          | 71-55-6                  | 200 ug/l              | daily maxim                                    |  |
| 26. 1,1,2 Trichloro-ethane (TCA)                                          | 79-00-5                  | 5.0 ug/l              | daily maxim                                    |  |
| 27. Trichloroethene (TCE)                                                 | 79-01-6                  | 5.0 ug/l              | daily maxim                                    |  |
| 28. Vinyl Chloride (Chloroethene)                                         | 75-01-4                  | 2.0 ug/l              | daily maxim                                    |  |
| 29. Acetone                                                               | 67-64-1-                 | Monitor Only (ug/L)   | daily maxim                                    |  |
| 30. 1,4 Dioxane                                                           | 123-91-1                 | Monitor Only (ug/L)   | daily maxim                                    |  |
| 31. Total Phenols                                                         | 108-95-2                 | 300 ug/l              | daily maxim                                    |  |
| 32. Pentachlorophenol (PCP)                                               | 87-86-5                  | 1.0 ug/l              | daily maxim                                    |  |
| 33. Total Phthalates (Phthalate esthers) <sup>6</sup>                     |                          | 3.0 ug/L              | monthly avera                                  |  |
| 34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]              | 117-81-7                 | 6.0 ug/l              | daily maxim                                    |  |

| Category II - Non Petroleum Site Remediation                |                                                                         |                |                                 |  |
|-------------------------------------------------------------|-------------------------------------------------------------------------|----------------|---------------------------------|--|
| Sub-category A - Volatile Organic Compound (VOC) Only Sites |                                                                         |                |                                 |  |
| Parameter                                                   | CAS Number(s)                                                           | Effluent Limit | Limit type based monthly sample |  |
| 37. Total Polychlorinated Biphenyls (PCBs) <sup>8,9</sup>   | 85-68-7;<br>84-74-2;<br>117-84-0;<br>84-66-2;<br>131-11-3;<br>117-81-7. | 0.000064 ug/L  | daily maxim                     |  |

| Category II - Non Petroleum Site Remediation                |                      |                                                                                                                          |                  |                                                                                                                          |                  |                                        |
|-------------------------------------------------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------------|
| Sub-category A - Volatile Organic Compound (VOC) Only Sites |                      |                                                                                                                          |                  |                                                                                                                          |                  |                                        |
| <u>Metal parameters</u>                                     | <u>CAS Number(s)</u> | <u>Total Recoverable Metal Limit @ H<sup>10</sup>= 50 mg/l CaCO3 for discharges in Massachusetts (ug/l)<sup>11</sup></u> |                  | <u>Total Recoverable Metal Limit @ H<sup>10</sup>= 25 mg/l CaCO3 for Discharges in New Hampshire (ug/l)<sup>11</sup></u> |                  | <u>Limit type based monthly sample</u> |
|                                                             |                      | <u>Freshwater</u>                                                                                                        | <u>Saltwater</u> | <u>Freshwater</u>                                                                                                        | <u>Saltwater</u> |                                        |
| 51. Iron                                                    | 7439896              | 1,000                                                                                                                    |                  | 1,000                                                                                                                    |                  | daily maxim                            |

| Category II - Non Petroleum Site Remediation |               |                                                             |                                 |  |
|----------------------------------------------|---------------|-------------------------------------------------------------|---------------------------------|--|
| Sub-category C - Primarily Heavy Metal Sites |               |                                                             |                                 |  |
| Parameter                                    | CAS Number(s) | Effluent Limit                                              | Limit type based monthly sample |  |
| 1. Total Suspended Solids (TSS)              |               | 30 milligrams/liter (mg/l), 50 mg/l for hydrostatic testing | monthly avera                   |  |
| 4. Cyanide (CN) <sup>2,3</sup>               | 57125         | Freshwater = 5.2 ug/l Saltwater = 1.0 ug/l                  | monthly avera                   |  |
| 15. Carbon Tetrachloride                     | 56-23-5       | 4.4 ug/l                                                    | daily maxim                     |  |
| 16. 1,2 Dichlorobenzene (o-DCB)              | 95-50-1       | 600 ug/l                                                    | daily maxim                     |  |
| 17. 1,3 Dichlorobenzene (m-DCB)              | 541-73-1      | 320 ug/l                                                    | daily maxim                     |  |

| <b>Category II - Non Petroleum Site Remediation</b> |                                 |                              |                                                       |                     |
|-----------------------------------------------------|---------------------------------|------------------------------|-------------------------------------------------------|---------------------|
| <b>Sub-category C - Primarily Heavy Metal Sites</b> |                                 |                              |                                                       |                     |
| <b><u>Parameter</u></b>                             | <b><u>CAS<br/>Number(s)</u></b> | <b><u>Effluent Limit</u></b> | <b><u>Limit type<br/>based<br/>monthly sample</u></b> | <b><u>_____</u></b> |
| 18. 1,4 Dichlorobenzene (p-DCB)                     | 106-46-7                        | 5.0 ug/l                     | daily maxim                                           |                     |
| 18a. Total dichlorobenzene                          | n/a                             | 763 ug/l - NH only           | daily maxim                                           |                     |
| 19. 1,1 Dichloroethane (DCA)                        | 75-34-3                         | 70 ug/l                      | daily maxim                                           |                     |
| 20. 1,2 Dichloroethane (DCA)                        | 107-06-2                        | 5.0 ug/l                     | daily maxim                                           |                     |
| 21. 1,1 Dichloroethene (DCE)                        | 75-35-4                         | 3.2 ug/l                     | daily maxim                                           |                     |
| 22. cis-1,2 Dichloroethene (DCE)                    | 156-59-2                        | 70 ug/l                      | daily maxim                                           |                     |
| 23. Methylene Chloride                              | 75-09-2                         | 4.6 ug/l                     | daily maxim                                           |                     |
| 24. Tetrachloroethene (PCE)                         | 127-18-4                        | 5.0 ug/l                     | daily maxim                                           |                     |
| 25. 1,1,1 Trichloro-ethane (TCA)                    | 71-55-6                         | 200 ug/l                     | daily maxim                                           |                     |
| 26. 1,1,2 Trichloro-ethane (TCA)                    | 79-00-5                         | 5.0 ug/l                     | daily maxim                                           |                     |
| 27. Trichloroethene (TCE)                           | 79-01-6                         | 5.0 ug/l                     | daily maxim                                           |                     |
| 28. Vinyl Chloride (Chloroethene)                   | 75-01-4                         | 2.0 ug/l                     | daily maxim                                           |                     |

| <b>Category II - Non Petroleum Site Remediation</b> |                          |                                                                                                                                                      |                  |                                                                                                                                                      |                  |                                                |                              |
|-----------------------------------------------------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------------------|------------------------------|
| <b>Sub-category C - Primarily Heavy Metal Sites</b> |                          |                                                                                                                                                      |                  |                                                                                                                                                      |                  |                                                |                              |
| <u>Metal parameters</u>                             | <u>CAS<br/>Number(s)</u> | <u>Total Recoverable<br/>Metal Limit @ H<sup>10</sup> = 50<br/>mg/l CaCO<sub>3</sub> for<br/>discharges in<br/>Massachusetts (ug/l)<sup>11</sup></u> |                  | <u>Total Recoverable<br/>Metal Limit @ H<sup>10</sup> =<br/>25 mg/l CaCO<sub>3</sub> for<br/>Discharges in New<br/>Hampshire (ug/l)<sup>11</sup></u> |                  | <u>Limit type<br/>based<br/>monthly sample</u> | <u>_____</u><br><u>_____</u> |
|                                                     |                          | <u>Freshwater</u>                                                                                                                                    | <u>Saltwater</u> | <u>Freshwater</u>                                                                                                                                    | <u>Saltwater</u> |                                                |                              |
| 39. Antimony                                        | 7440360                  | 5.6                                                                                                                                                  |                  | 5.6                                                                                                                                                  |                  | daily maxim                                    |                              |
| 40. Arsenic                                         | 7440382                  | 10                                                                                                                                                   | 36               | 10                                                                                                                                                   | 36               | monthly avera                                  |                              |
| 41. Cadmium                                         | 7440439                  | 0.2                                                                                                                                                  | 8.9              | 0.8                                                                                                                                                  | 9.3              | monthly avera                                  |                              |
| 42. Chromium III (trivalent)                        | 16065831                 | 48.8                                                                                                                                                 | 100              | 27.7                                                                                                                                                 | 100              | monthly avera                                  |                              |
| 43. Chromium VI (hexavalent)                        | 18540299                 | 11.4                                                                                                                                                 | 50.3             | 11.4                                                                                                                                                 | 50.3             | monthly avera                                  |                              |
| 44. Copper                                          | 7440508                  | 5.2                                                                                                                                                  | 3.7              | 2.9                                                                                                                                                  | 3.7              | monthly avera                                  |                              |
| 45. Lead                                            | 7439921                  | 1.3                                                                                                                                                  | 8.5              | 0.5                                                                                                                                                  | 8.5              | monthly avera                                  |                              |
| 46. Mercury                                         | 7439976                  | 0.9                                                                                                                                                  | 1.1              | 0.9                                                                                                                                                  | 1.1              | monthly avera                                  |                              |
| 47. Nickel                                          | 7440020                  | 29                                                                                                                                                   | 8.2              | 16.1                                                                                                                                                 | 8.2              | monthly avera                                  |                              |
| 48. Selenium                                        | 7782492                  | 5                                                                                                                                                    | 71               | 5                                                                                                                                                    | 71               | monthly avera                                  |                              |
| 49. Silver                                          | 7440224                  | 1.2                                                                                                                                                  | 2.2              | 0.4                                                                                                                                                  | 2.2              | daily maxim                                    |                              |
| 50. Zinc                                            | 7440666                  | 66.6                                                                                                                                                 | 85.6             | 37                                                                                                                                                   | 85.6             | monthly avera                                  |                              |
| 51. Iron                                            | 7439896                  | 1,000                                                                                                                                                |                  | 1,000                                                                                                                                                |                  | daily maxim                                    |                              |

| <b>Category IV - Miscellaneous Related Discharges</b>              |                          |                                                             |  |                                                                                |
|--------------------------------------------------------------------|--------------------------|-------------------------------------------------------------|--|--------------------------------------------------------------------------------|
| <b>Sub-category C - Hydrostatic Testing of Pipelines and Tanks</b> |                          |                                                             |  |                                                                                |
| <u>Parameter</u>                                                   | <u>CAS<br/>Number(s)</u> | <u>Effluent Limit</u>                                       |  | <u>Limit type<br/>based<br/>monthly sample</u><br><u>_____</u><br><u>_____</u> |
| 1. Total Suspended Solids (TSS)                                    |                          | 30 milligrams/liter (mg/l), 50 mg/l for hydrostatic testing |  | monthly avera                                                                  |
| 2. Total Residual Chlorine (TRC) <sup>1</sup>                      |                          | Freshwater = 11 ug/l Saltwater = 7.5 ug/l                   |  | monthly avera                                                                  |
| 3. Total Petroleum Hydrocarbons (TPH)                              |                          | 5.0 mg/l                                                    |  | daily maxim                                                                    |

| <b>Category IV - Miscellaneous Related Discharges</b>                     |                      |                                            |                                        |  |
|---------------------------------------------------------------------------|----------------------|--------------------------------------------|----------------------------------------|--|
| <b>Sub-category C - Hydrostatic Testing of Pipelines and Tanks</b>        |                      |                                            |                                        |  |
| <b>Parameter</b>                                                          | <b>CAS Number(s)</b> | <b>Effluent Limit</b>                      | <b>Limit type based monthly sample</b> |  |
| 4. Cyanide (CN) <sup>2,3</sup>                                            | 57125                | Freshwater = 5.2 ug/l Saltwater = 1.0 ug/l | monthly avera                          |  |
| 5. Benzene (B)                                                            | 71432                | 50.0 ug/l for hydrostatic testing only     | daily maxim                            |  |
| 9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) <sup>4</sup> |                      | 100 ug/l                                   | daily maxim                            |  |
| 10. Ethylene Dibromide (EDB) (1,2-Dibromoethane)                          | 106-93-4             | 0.05 ug/l                                  | daily maxim                            |  |
| 11. Methyl-tert-Butyl Ether (MtBE)                                        | 1634-04-4            | 70.0 ug/l                                  | daily maxim                            |  |
| 12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)                           | 75-65-0              | Monitor Only (ug/L)                        | daily maxim                            |  |
| 13. tert-Amyl Methyl Ether (TAME)                                         | 994-05-08            | Monitor Only (ug/L)                        | daily maxim                            |  |
| 14. Naphthalene <sup>5</sup>                                              | 91-20-3              | 20 ug/l                                    | daily maxim                            |  |
| 35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)                  |                      | 10.0 ug/l                                  | daily maxim                            |  |
| a. Benzo(a) Anthracene <sup>7</sup>                                       | 56-55-3              | 0.0038 ug/l                                | daily maxim                            |  |
| b. Benzo(a) Pyrene <sup>7</sup>                                           | 50-32-8              | 0.0038 ug/l                                | daily maxim                            |  |
| c. Benzo(b)Fluoranthene <sup>7</sup>                                      | 205-99-2             | 0.0038 ug/l                                | daily maxim                            |  |
| d. Benzo(k)Fluoranthene <sup>7</sup>                                      | 207-08-9             | 0.0038 ug/l                                | daily maxim                            |  |
| e. Chrysene <sup>7</sup>                                                  | 218-01               | 0.0038 ug/l                                | daily maxim                            |  |
| f. Dibenzo(a,h)anthracene <sup>7</sup>                                    | 53-70-3              | 0.0038 ug/l                                | daily maxim                            |  |
| g. Indeno(1,2,3-cd) Pyrene <sup>7</sup>                                   | 193-39-5             | 0.0038 ug/l                                | daily maxim                            |  |
| 36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)                 |                      | 100 ug/l                                   | daily maxim                            |  |
| h. Acenaphthene                                                           | 83-32-9              | (limited as total ug/L Group II PAHs)      | daily maxim                            |  |
| i. Acenaphthylene                                                         | 208-96-8             | (limited as total ug/L Group II PAHs)      | daily maxim                            |  |
| j. Anthracene                                                             | 120-12-7             | (limited as total ug/L Group II PAHs)      | daily maxi                             |  |
| k. Benzo(ghi) Perylene                                                    | 191-24-2             | (limited as total ug/L Group II PAHs)      | daily maxim                            |  |
| l. Fluoranthene                                                           | 206-44-0             | (limited as total ug/L Group II PAHs)      | daily maxim                            |  |
| m. Fluorene                                                               | 86-73-7              | (limited as total ug/L Group II PAHs)      | daily maxim                            |  |

| <b>Category IV - Miscellaneous Related Discharges</b>              |                      |                                       |                                        |              |
|--------------------------------------------------------------------|----------------------|---------------------------------------|----------------------------------------|--------------|
| <b>Sub-category C - Hydrostatic Testing of Pipelines and Tanks</b> |                      |                                       |                                        |              |
| <u>Parameter</u>                                                   | <u>CAS Number(s)</u> | <u>Effluent Limit</u>                 | <u>Limit type based monthly sample</u> | <u>_____</u> |
| n. Naphthalene <sup>5</sup>                                        | 91-20-3              | 20 ug/l                               | daily maxim                            | _____        |
| o. Phenanthrene                                                    | 85-01-8              | (limited as ug/L total Group II PAHs) | daily maxim                            | _____        |
| p. Pyrene                                                          | 129-00-0             | (limited as ug/L total Group II PAHs) | daily maxim                            | _____        |

| <b>Category IV - Miscellaneous Related Discharges</b>              |                      |                                                                                                                       |                  |                                                                                                                               |                  |                                        |
|--------------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------|------------------|----------------------------------------|
| <b>Sub-category C - Hydrostatic Testing of Pipelines and Tanks</b> |                      |                                                                                                                       |                  |                                                                                                                               |                  |                                        |
| <u>Metal parameters</u>                                            | <u>CAS Number(s)</u> | <u>Total Recoverable Metal Limit @ H<sup>10</sup> = 50 mg/l CaCO3 for discharges in Mass. (ug/l) <sup>11-12</sup></u> |                  | <u>Total Recoverable Metal Limit @ H<sup>10</sup> = 25 mg/l CaCO3 for Discharges in New Hampshire (ug/l) <sup>11-12</sup></u> |                  | <u>Limit type based monthly sample</u> |
|                                                                    |                      | <u>Freshwater</u>                                                                                                     | <u>Saltwater</u> | <u>Freshwater</u>                                                                                                             | <u>Saltwater</u> |                                        |
| 42. Chromium III (trivalent)                                       | 16065831             | 48.8                                                                                                                  | 100              | 27.7                                                                                                                          | 100              | monthly avera                          |
| 43. Chromium VI (hexavalent)                                       | 18540299             | 11.4                                                                                                                  | 50.3             | 11.4                                                                                                                          | 50.3             | monthly avera                          |
| 45. Lead                                                           | 7439921              | 1.3                                                                                                                   | 8.5              | 0.5                                                                                                                           | 8.5              | monthly avera                          |
| 47. Nickel                                                         | 7440020              | 29                                                                                                                    | 8.2              | 16.1                                                                                                                          | 8.2              | monthly avera                          |
| 50. Zinc                                                           | 7440666              | 66.6                                                                                                                  | 85.6             | 37                                                                                                                            | 85.6             | monthly avera                          |
| 51. Iron                                                           | 7439896              | 1,000                                                                                                                 |                  | 1,000                                                                                                                         |                  | daily maxim                            |

#### Footnotes:

<sup>1</sup> Although the maximum values for TRC are 11ug/l and 7.5 ug/l for freshwater, and saltwater respectively, the compliance limits are equal to (ML) of the test method used as listed in Appendix VI (i.e., 20 ug/l).

<sup>2</sup> Limits for cyanide are based on EPA's water quality criteria expressed as micrograms (ug/L) of free cyanide per liter. There is currently no EPA method for free cyanide. Therefore, total cyanide must be reported.

<sup>3</sup> Although the maximum values for cyanide are 5.2 ug/l and 1.0 ug/l for freshwater and saltwater, respectively, the compliance limits are equal to the level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 ug/l).

<sup>4</sup> BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.

<sup>5</sup> Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the value from the analysis meeting the QC criteria must be used unless the QC criteria for one of the analyses is not met. In such cases, the value from the analysis meeting the QC criteria must

<sup>6</sup> The sum of individual phthalate compounds (not including the #34, Bis (2-Ethylhexyl) Phthalate). The compliance limits are equal to the level (ML) of the test method used as listed in Appendix VI.

*Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.*

<sup>7</sup> Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

<sup>8</sup> In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as *total PCBs is the sum of all homologues, all isomers, and all "Oroclor analyses."* *Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.*

<sup>9</sup> Although the maximum value for total PCBs is 0.000064 ug/l, the compliance limit is equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 0.5 ug/l for Method 608 or 0.00005 ug/l when Method 1668a is approved).

<sup>10</sup> Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.

<sup>11</sup> For a Dilution Factor (DF) from 1 to 5, metals limits are calculated using DF times the base limit for the metal. See Appendix IV. For example, if the base limit is 1,000 ug/L (the iron base limit), then DF 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit = 2,000 ug/L; DF 5, then iron limit = 5,000 ug/L.

<sup>12</sup> Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML is calculated by multiplying the determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B).

## **APPENDIX C**

---

Photographic Documentation  
Former Getty Service Station No. 30339  
350 Pleasant Street  
Belmont, MA



Outfall 6585 Located at Spy Pond, Arlington MA



System Enclosure located at 350 Pleasant Street

Photographic Documentation  
Former Getty Service Station No. 30339  
350 Pleasant Street  
Belmont, MA



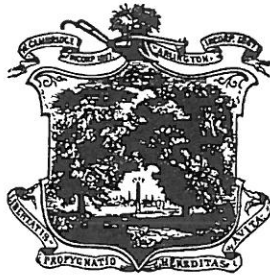
DPE System with temporary holding tank



350 Pleasant Street Property "Site"

## APPENDIX D

---



TOWN OF ARLINGTON

MASSACHUSETTS

CONSERVATION COMMISSION

June 12, 2014

Jennifer Snay  
Tyree Environmental Corp.  
7 Viking Road  
Webster, MA 01570

RE: discharge of treated groundwater to Spy Pond from Mass DEP RTN 3-29709,  
former Getty Service Station, 350 Pleasant St, Belmont

Dear Ms. Snay,

The Arlington Conservation Commission has reviewed the drafted MESA permit from your office required for the Remedial discharge permit under EPA's NPDES Remediation General Permit (RGP) program. The Commission has also reviewed the February 6, 2014 IRA status report for the gas station and adjacent properties where the groundwater contamination migrated.

The remediation you are proposing includes treating the groundwater with two large carbon filters and the effluent will be monitored monthly to ensure filter effectiveness. The flow rate to the stormdrain will be 2-4 gallons per minute (which by your estimate was 5,000 gallons per week, but this actually scales up to 10,080 – 20,160 gallons per week if the system runs continuously 7-days/week) and last for approximately 3-4 years.

It is the Commission's current recommendation to the Town Manager, Adam Chapdelaine, to **not** sign this permit application until the Commission receives further information from you about your proposed discharge to Spy Pond. Spy Pond is continually impacted by roadway and other runoff from this urban watershed

Related to this, Commission has ascertained that such a discharge must receive a permit from the Commission under the Town of Arlington Wetlands Protection Bylaw. A permit application, a Notice of Intent (NOI), should be filed by the potentially responsible party (PRP), to begin the project review process under the Bylaw.

TOWN HALL, 730 MASSACHUSETTS AVENUE, ARLINGTON, MA 02476  
(781) 316-3012

Through the NOI process, the Commission would review the additional information requested so as to be able to advise the Town Manager whether to sign the MESA/EPA permit application. The Commission may need additional information after the Notice of Intent is filed so as to make a decision under the Bylaw.

At this time, the Commission would like the following information:

- Additional information about the contamination and proposed treatment such as whether there is co-mingled contamination in the groundwater such that other contaminants besides those that are associated with the gasoline release remain in the treated discharge;?
- What were the testing results for the February 2014 groundwater samples?
- Do the pilot test results performed in December 2013 show that the current proposed remedial system is adequate to remove the contamination to levels below the 2014 MCP Method 1 Standards GW2 / GW3?
- What recourse is there if there is a problem in the future?

Please contact us by phone (below) or email [cbeckwith@town.arlington.ma.us](mailto:cbeckwith@town.arlington.ma.us) with any questions.

Sincerely,



Cori Beckwith  
Conservation Administrator

Cb/cc

Cc:Adam Chapdelaine, Town Manager

## APPENDIX E

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# Massachusetts Cultural Resource Information

## MACRIS

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**Town(s):** Belmont

**Street No:** 350

**Street Name:** Pleasant St

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# Massachusetts Cultural Resource Information

## MACRIS

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Below are the results of your search, using the following search criteria:

**Town(s):** Arlington

**Street Name:** Pleasant Street at Concord Tpk

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