



via email: alvarez.victor@epa.gov

March 9, 2011

United States Environmental Protection Agency
RGP-NOC Processing
One Congress Street
Boston, Massachusetts 02114-2023
Attn: Mr. Victor Alvarez

RE: Remediation General Permit (RGP) Notice of Intent (NOI)
Athol Getty
223 Main Street, Athol, Massachusetts 01331
MADEP RTN 1-20000880

Dear Mr. Alvarez:

On behalf of JEMS of New England, EnTact Solutions, Inc. (ETS) submits this *Remediation General Permit Notice of Intent* for the above-referenced location (the "Site"). The purpose of this Permit request is to allow for the discharge of treated groundwater associated with a groundwater recovery and treatment system, currently operating as part of ongoing environmental remediation activities as described in the *Phase IV Remedy Implementation Plan (RIP)* previously submitted to the MADEP in April 2003. An executed Notice of Intent is included as **Appendix A**.

As described in the attached Notice of Intent, groundwater will be recovered from up to eight groundwater recovery wells and processed through an oil/water separator prior to treatment via two 500-pound liquid phase granular activated carbon vessels plumbed in series. The treated discharge is directed to the local storm drain located on Main Street which ultimately discharges to Miller River. Figures depicting the site location, the treatment system layout, the approximate location of the discharge outfall into Millers River and a System Description narrative are included in **Appendix B**.

Laboratory reports for groundwater samples collected from the influent and effluent points of the groundwater pump and treatment (GWPT) system are included in **Appendix C**, and the USGS StreamStats Steamflow Statistics Report used to derive the low-flow dilution at the outfall is included as **Appendix D**. The applicable endangered species report is included as **Appendix E**, and a Massachusetts DEP Priority Resource Map for the Site and surroundings is included as **Appendix F**.

If you have any questions regarding the contents of this submittal or our request for a Remediation General Permit to continue discharge under the guidelines of the Massachusetts

RGP Notice of Intent Submittal
March 9, 2011

223 Main Street, Athol, MA 01331
MADEP Site #1-20000880

Contingency Plan (MCP), please do not hesitate to contact the undersigned. Thank you for your consideration.

Sincerely,

ETS

A handwritten signature in blue ink, appearing to read 'RHA', is written over the printed name.

Reginald H. Achilles, P.E.
President

cc: JEMS of New England, Inc.

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/Formerly 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) ____
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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:_____ Metal:_____DF:_____ Metal:_____DF:_____ Metal:_____DF:_____ Etc.	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:

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:						
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:



Printed Name & Title:

Date:



NOTES:

SITE FEATURES TAKEN FROM IT PLAN ENTITLED "SITE PLAN" DATED 3/29/01.

ALL PROPERTY LINES, SITE FEATURES AND UTILITIES ARE APPROXIMATE AND SHOULD NOT BE USED AS A SUBSTITUTE FOR ASSESSOR'S INFORMATION, DIGSAFE CLEARANCE OR ANY OTHER USE NOT PERMITTED BY OVO TECHNOLOGIES, INC.

LEGEND

— 3" PVC DRAIN LINE

— 3" PVC PIPE CONTAINING 1/2" AND 3/4" TUBING

■ RW-5 RECOVERY WELL

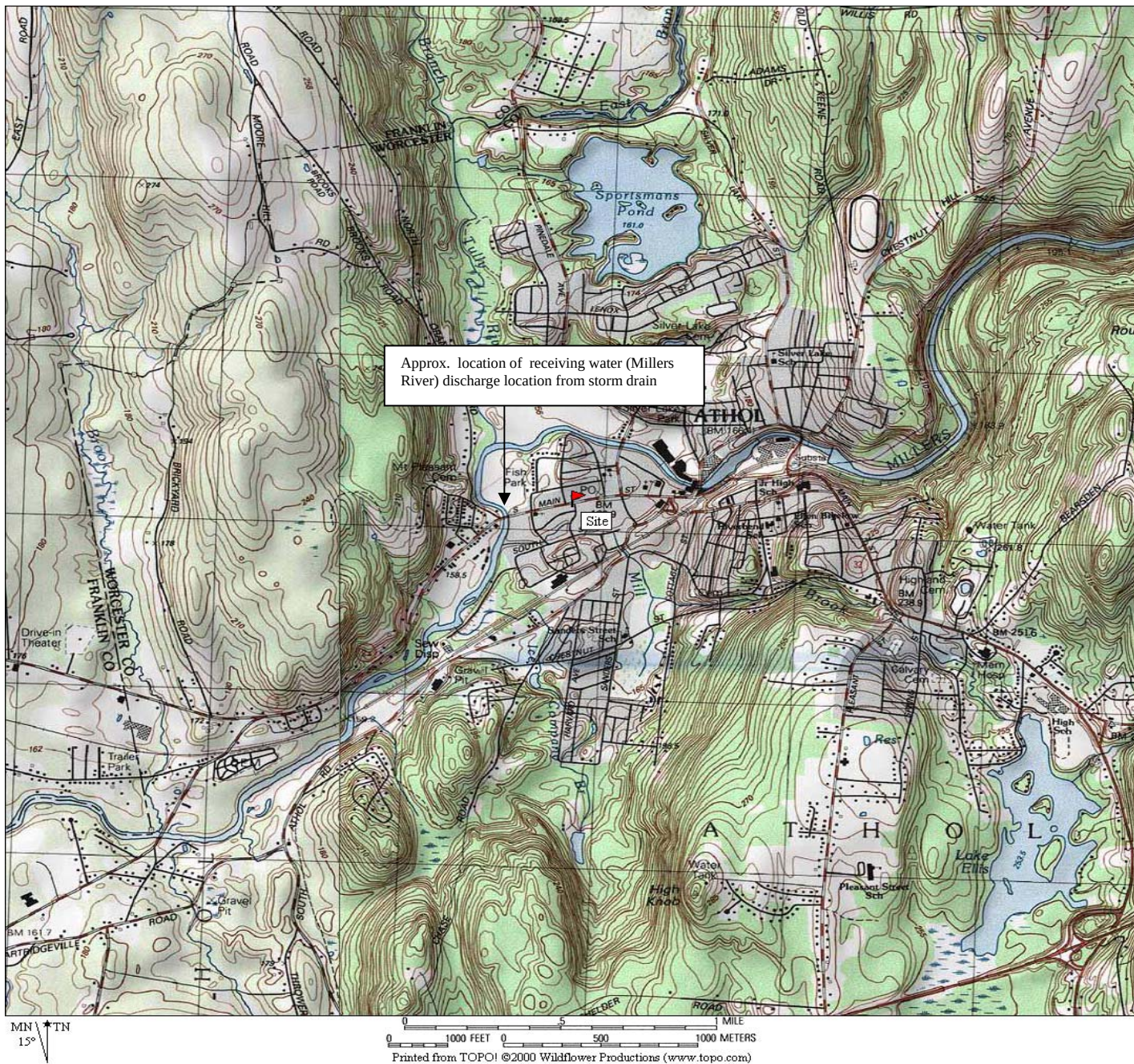


ETS
ENVIRONMENTAL CONSULTING and MANAGEMENT SERVICES

FIGURE 6

GWPT PIPING DIAGRAM

LOCATION	223 MAIN STREET ATHOL, MA	
SCALE	AS NOTED	G06-GWPT



Site Locus Map	
LOCATION	223 Main Street
	Athol, Massachusetts
JOB NO.	J014

GWPT System

A GWPT system consisting of submersible pneumatic NAPL/groundwater pumps located within eight recovery wells and powered by a reciprocating air compressor; the extracted groundwater and NAPL are pumped back to a common OHM treatment area via a network of subsurface tubing and PVC piping through an oil-water-separator (OWS), then pumped through a particulate bag filter into an air stripper, and finally pumped through two 500-pound liquid-phase granular activated carbon (LGAC) units aligned in series prior to discharge into the local storm sewer; the system is designed to collect light non-aqueous phase liquid (LNAPL) within a double-walled steel above-ground storage tank (AST) after phase separation within the OWS; off-gas generated via the air stripping process is treated via a single, 2,000-pound VGAC vessel.

The GWPT system piping and tubing manifold, and all equipment associated with the GWPT system, with the exception of the 2,000-pound VGAC vessel and the LNAPL AST, are located within an 18-foot by 12-foot wooden enclosure situated adjacent to the concrete equipment pad. The VGAC vessel and the AST are located atop the concrete pad along with the SVE system components. The wooden enclosure has been subdivided into an explosion proof (XP) area and a non-XP area. The non-XP area houses the air compressor and the chemical metering pump that delivers the iron-sequestering agent into the water processing stream. All other GWPT system components are located in the XP area of the enclosure.

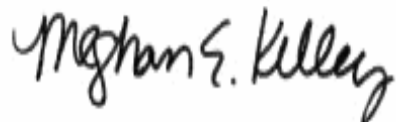
January 4, 2011

Reggie Achilles
Entact Solutions, Inc.
One Dix Street
Worcester, MA 01609

Project Location: 233 Main St, Athol, MA
Client Job Number:
Project Number: GET-06
Laboratory Work Order Number: 10K0450

Enclosed are results of analyses for samples received by the laboratory on November 10, 2010. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Meghan E. Kelley
Project Manager

Entact Solutions, Inc.
One Dix Street
Worcester, MA 01609
ATTN: Reggie Achilles

REPORT DATE: 1/4/2011

PURCHASE ORDER NUMBER:

PROJECT NUMBER: GET-06

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 10K0450

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

PROJECT LOCATION: 233 Main St, Athol, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Effluent	10K0450-01	Ground Water	System Effluent	EPA 1664A EPA 504.1 SM18-20 2540D SW-846 6010B SW-846 8260B	
Midfluent	10K0450-02	Ground Water	System Midfluent	SW-846 8260B	
Influent	10K0450-03	Ground Water	System Influent	EPA 1664A EPA 504.1 SM18-20 2540D SW-846 6010B SW-846 8260B	

CASE NARRATIVE SUMMARY

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

REVISED REPORT - 01/04/2011 - Naphthalene added to all samples per clients request.

SW-846 6010B

Qualifications:

Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

Analyte & Samples(s) Qualified:

Iron

10K0450-03[Influent], B022346-MS1

SW-846 8260B

Qualifications:

Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy are associated with reported result.

Analyte & Samples(s) Qualified:

tert-Butyl Alcohol (TBA)

10K0450-01[Effluent], 10K0450-02[Midfluent], 10K0450-03[Influent], B022361-BLK1, B022361-BS1, B022361-BSD1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Daren J. Damboragian
Laboratory Manager

Project Location: 233 Main St, Athol, MA

Sample Description: System Effluent

Work Order: 10K0450

Date Received: 11/10/2010

Field Sample #: Effluent

Sampled: 11/8/2010 11:45

Sample ID: 10K0450-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260B	11/16/10	11/17/10 2:14	MFF
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1	V-16	SW-846 8260B	11/16/10	11/17/10 2:14	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260B	11/16/10	11/17/10 2:14	MFF
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260B	11/16/10	11/17/10 2:14	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260B	11/16/10	11/17/10 2:14	MFF
Naphthalene	ND	2.0	µg/L	1		SW-846 8260B	11/16/10	11/17/10 2:14	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260B	11/16/10	11/17/10 2:14	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260B	11/16/10	11/17/10 2:14	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260B	11/16/10	11/17/10 2:14	MFF
Surrogates	% Recovery	Recovery Limits	Flag						
1,2-Dichloroethane-d4	90.9	70-130							
Toluene-d8	95.8	70-130							
4-Bromofluorobenzene	97.5	70-130							

Project Location: 233 Main St, Athol, MA

Sample Description: System Effluent

Work Order: 10K0450

Date Received: 11/10/2010

Field Sample #: Effluent

Sampled: 11/8/2010 11:45

Sample ID: 10K0450-01

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Iron	0.23	0.050	mg/L	1		SW-846 6010B	11/18/10	11/18/10 15:21	OP
Lead	ND	0.010	mg/L	1		SW-846 6010B	11/18/10	11/18/10 15:21	OP

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

Project Location: 233 Main St, Athol, MA

Sample Description: System Effluent

Work Order: 10K0450

Date Received: 11/10/2010

Field Sample #: Effluent

Sampled: 11/8/2010 11:45

Sample ID: 10K0450-01

Sample Matrix: Ground Water

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

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Suspended Solids	21	6.7	mg/L	1		SM18-20 2540D	11/12/10	11/12/10 12:00	LL
Silica Gel Treated HEM (SGT-HEM)	ND	1.6	mg/L	1		EPA 1664A	11/15/10	11/15/10 13:45	LL

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

Project Location: 233 Main St, Athol, MA

Sample Description: System Effluent

Work Order: 10K0450

Date Received: 11/10/2010

Field Sample #: Effluent

Sampled: 11/8/2010 11:45

Sample ID: 10K0450-01

Sample Matrix: Ground Water

Drinking Water Organics EPA 504.1

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
1,2-Dibromoethane (EDB) (1)	ND	0.020	µg/L	1		EPA 504.1	11/12/10	11/12/10 16:03	JB
Surrogates	% Recovery	Recovery Limits			Flag				
1,3-Dibromopropane (1)	97.9	70-130						11/12/10 16:03	
1,3-Dibromopropane (2)	95.8	70-130						11/12/10 16:03	

Project Location: 233 Main St, Athol, MA

Sample Description: System Midfluent

Work Order: 10K0450

Date Received: 11/10/2010

Field Sample #: Midfluent

Sampled: 11/8/2010 12:00

Sample ID: 10K0450-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260B	11/16/10	11/17/10 2:46	MFF
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1	V-16	SW-846 8260B	11/16/10	11/17/10 2:46	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260B	11/16/10	11/17/10 2:46	MFF
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260B	11/16/10	11/17/10 2:46	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260B	11/16/10	11/17/10 2:46	MFF
Naphthalene	ND	2.0	µg/L	1		SW-846 8260B	11/16/10	11/17/10 2:46	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260B	11/16/10	11/17/10 2:46	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260B	11/16/10	11/17/10 2:46	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260B	11/16/10	11/17/10 2:46	MFF
Surrogates	% Recovery	Recovery Limits	Flag						
1,2-Dichloroethane-d4	94.2	70-130							
Toluene-d8	96.5	70-130							
4-Bromofluorobenzene	95.5	70-130							

Project Location: 233 Main St, Athol, MA

Sample Description: System Influent

Work Order: 10K0450

Date Received: 11/10/2010

Field Sample #: Influent

Sampled: 11/8/2010 12:15

Sample ID: 10K0450-03

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
tert-Amyl Methyl Ether (TAME)	ND	10	µg/L	20		SW-846 8260B	11/16/10	11/17/10 4:22	MFF
tert-Butyl Alcohol (TBA)	ND	400	µg/L	20	V-16	SW-846 8260B	11/16/10	11/17/10 4:22	MFF
Benzene	220	20	µg/L	20		SW-846 8260B	11/16/10	11/17/10 4:22	MFF
Ethylbenzene	920	20	µg/L	20		SW-846 8260B	11/16/10	11/17/10 4:22	MFF
Methyl tert-Butyl Ether (MTBE)	ND	20	µg/L	20		SW-846 8260B	11/16/10	11/17/10 4:22	MFF
Naphthalene	470	40	µg/L	20		SW-846 8260B	11/16/10	11/17/10 4:22	MFF
Toluene	4300	200	µg/L	200		SW-846 8260B	11/16/10	11/17/10 18:37	MFF
m+p Xylene	4400	40	µg/L	20		SW-846 8260B	11/16/10	11/17/10 4:22	MFF
o-Xylene	2100	20	µg/L	20		SW-846 8260B	11/16/10	11/17/10 4:22	MFF

Surrogates	% Recovery	Recovery Limits	Flag
1,2-Dichloroethane-d4	92.9	70-130	11/17/10 4:22
1,2-Dichloroethane-d4	105	70-130	11/17/10 18:37
Toluene-d8	97.1	70-130	11/17/10 4:22
Toluene-d8	95.7	70-130	11/17/10 18:37
4-Bromofluorobenzene	98.2	70-130	11/17/10 4:22
4-Bromofluorobenzene	98.5	70-130	11/17/10 18:37

Project Location: 233 Main St, Athol, MA

Sample Description: System Influent

Work Order: 10K0450

Date Received: 11/10/2010

Field Sample #: Influent

Sampled: 11/8/2010 12:15

Sample ID: 10K0450-03

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Iron	30	0.050	mg/L	1	MS-19	SW-846 6010B	11/16/10	11/17/10 14:18	OP
Lead	0.062	0.010	mg/L	1		SW-846 6010B	11/16/10	11/17/10 14:18	OP

Project Location: 233 Main St, Athol, MA

Sample Description: System Influent

Work Order: 10K0450

Date Received: 11/10/2010

Field Sample #: Influent

Sampled: 11/8/2010 12:15

Sample ID: 10K0450-03

Sample Matrix: Ground Water

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

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Suspended Solids	ND	5.0	mg/L	1		SM18-20 2540D	11/12/10	11/12/10 12:00	LL
Silica Gel Treated HEM (SGT-HEM)	ND	1.5	mg/L	1		EPA 1664A	11/15/10	11/15/10 13:45	LL

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

Project Location: 233 Main St, Athol, MA

Sample Description: System Influent

Work Order: 10K0450

Date Received: 11/10/2010

Field Sample #: Influent

Sampled: 11/8/2010 12:15

Sample ID: 10K0450-03

Sample Matrix: Ground Water

Drinking Water Organics EPA 504.1

Analyte	Results	RL	Units	Dilution	Flag	Method	Date Prepared	Date/Time Analyzed	Analyst
1,2-Dibromoethane (EDB) (1)	1.8	0.20	µg/L	10		EPA 504.1	11/12/10	11/13/10 6:59	JB
Surrogates	% Recovery		Recovery Limits		Flag				
1,3-Dibromopropane (1)	117		70-130			11/13/10 6:59			
1,3-Dibromopropane (2)	116		70-130			11/13/10 6:59			

Sample Extraction Data**EPA 1664A**

Lab Number [Field ID]	Batch	Initial [mL]	Date	
10K0450-01 [Effluent]	B022315	900	11/15/10	
10K0450-03 [Influent]	B022315	910	11/15/10	

Prep Method: EPA 504 water-EPA 504.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
10K0450-01 [Effluent]	B022194	35.0	35.0	11/12/10
10K0450-03 [Influent]	B022194	34.8	35.0	11/12/10

SM18-20 2540D

Lab Number [Field ID]	Batch	Initial [mL]	Date	
10K0450-01 [Effluent]	B022232	75.0	11/12/10	
10K0450-03 [Influent]	B022232	100	11/12/10	

Prep Method: SW-846 3005A-SW-846 6010B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
10K0450-03 [Influent]	B022346	50.0	50.0	11/16/10

Prep Method: SW-846 3005A-SW-846 6010B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
10K0450-01 [Effluent]	B022488	50.0	50.0	11/18/10

Prep Method: SW-846 5030B-SW-846 8260B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
10K0450-01 [Effluent]	B022361	5	5.00	11/16/10
10K0450-02 [Midfluent]	B022361	5	5.00	11/16/10
10K0450-03 [Influent]	B022361	0.25	5.00	11/16/10

Prep Method: SW-846 5030B-SW-846 8260B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
10K0450-03RE1 [Influent]	B022429	0.025	5.00	11/16/10

QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B022361 - SW-846 5030B
Blank (B022361-BLK1)

Prepared: 11/16/10 Analyzed: 11/17/10

tert-Amyl Methyl Ether (TAME)	0.0		µg/L				70-130		25	
tert-Butyl Alcohol (TBA)	0.0		µg/L				70-130		25	V-16
Benzene	ND	1.0	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Toluene	ND	1.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Surrogate: 1,2-Dichloroethane-d4	22.4		µg/L	25.0		89.7	70-130			
Surrogate: Toluene-d8	23.8		µg/L	25.0		95.2	70-130			
Surrogate: 4-Bromofluorobenzene	24.1		µg/L	25.0		96.3	70-130			

LCS (B022361-BS1)

Prepared: 11/16/10 Analyzed: 11/17/10

tert-Amyl Methyl Ether (TAME)	8.94		µg/L	10.0		89.4				
tert-Butyl Alcohol (TBA)	79.5		µg/L	100		79.5				V-16
Benzene	8.81	1.0	µg/L	10.0		88.1	70-130		25	
Ethylbenzene	10.4	1.0	µg/L	10.0		104	70-130		25	
Methyl tert-Butyl Ether (MTBE)	10.0	1.0	µg/L	10.0		100	70-130		25	
Toluene	9.37	1.0	µg/L	10.0		93.7	70-130		25	
m+p Xylene	21.6	2.0	µg/L	20.0		108	70-130		25	
o-Xylene	10.7	1.0	µg/L	10.0		107	70-130		25	
Surrogate: 1,2-Dichloroethane-d4	23.0		µg/L	25.0		91.9	70-130			
Surrogate: Toluene-d8	23.8		µg/L	25.0		95.2	70-130			
Surrogate: 4-Bromofluorobenzene	24.7		µg/L	25.0		98.9	70-130			

LCS Dup (B022361-BS1)

Prepared: 11/16/10 Analyzed: 11/17/10

tert-Amyl Methyl Ether (TAME)	8.75		µg/L	10.0		87.5		2.15		
tert-Butyl Alcohol (TBA)	83.3		µg/L	100		83.3		4.66		V-16
Benzene	8.23	1.0	µg/L	10.0		82.3	70-130	6.81	25	
Ethylbenzene	9.89	1.0	µg/L	10.0		98.9	70-130	4.83	25	
Methyl tert-Butyl Ether (MTBE)	9.71	1.0	µg/L	10.0		97.1	70-130	3.34	25	
Toluene	8.62	1.0	µg/L	10.0		86.2	70-130	8.34	25	
m+p Xylene	20.0	2.0	µg/L	20.0		100	70-130	7.41	25	
o-Xylene	10.3	1.0	µg/L	10.0		103	70-130	3.90	25	
Surrogate: 1,2-Dichloroethane-d4	23.0		µg/L	25.0		91.9	70-130			
Surrogate: Toluene-d8	24.1		µg/L	25.0		96.2	70-130			
Surrogate: 4-Bromofluorobenzene	24.4		µg/L	25.0		97.6	70-130			

Batch B022429 - SW-846 5030B
Blank (B022429-BLK1)

Prepared & Analyzed: 11/17/10

Benzene	ND	1.0	µg/L							
Ethylbenzene	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Toluene	ND	1.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Surrogate: 1,2-Dichloroethane-d4	26.0		µg/L	25.0		104	70-130			
Surrogate: Toluene-d8	23.5		µg/L	25.0		94.0	70-130			
Surrogate: 4-Bromofluorobenzene	24.5		µg/L	25.0		98.1	70-130			

QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B022429 - SW-846 5030B
LCS (B022429-BS1)

Prepared & Analyzed: 11/17/10

Benzene	9.89	1.0	µg/L	10.0		98.9	70-130		25	
Ethylbenzene	11.2	1.0	µg/L	10.0		112	70-130		25	
Methyl tert-Butyl Ether (MTBE)	11.1	1.0	µg/L	10.0		111	70-130		25	
Toluene	9.90	1.0	µg/L	10.0		99.0	70-130		25	
m+p Xylene	22.3	2.0	µg/L	20.0		112	70-130		25	
o-Xylene	11.4	1.0	µg/L	10.0		114	70-130		25	
Surrogate: 1,2-Dichloroethane-d4	25.6		µg/L	25.0		103	70-130			
Surrogate: Toluene-d8	23.7		µg/L	25.0		94.8	70-130			
Surrogate: 4-Bromofluorobenzene	24.8		µg/L	25.0		99.4	70-130			

LCS Dup (B022429-BSD1)

Prepared & Analyzed: 11/17/10

Benzene	9.51	1.0	µg/L	10.0		95.1	70-130	3.92	25	
Ethylbenzene	11.0	1.0	µg/L	10.0		110	70-130	2.35	25	
Methyl tert-Butyl Ether (MTBE)	11.3	1.0	µg/L	10.0		113	70-130	2.14	25	
Toluene	9.41	1.0	µg/L	10.0		94.1	70-130	5.08	25	
m+p Xylene	22.0	2.0	µg/L	20.0		110	70-130	1.44	25	
o-Xylene	11.2	1.0	µg/L	10.0		112	70-130	1.77	25	
Surrogate: 1,2-Dichloroethane-d4	25.1		µg/L	25.0		101	70-130			
Surrogate: Toluene-d8	23.6		µg/L	25.0		94.4	70-130			
Surrogate: 4-Bromofluorobenzene	24.9		µg/L	25.0		99.5	70-130			

QUALITY CONTROL
Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B022346 - SW-846 3005A										
Blank (B022346-BLK1)				Prepared: 11/16/10 Analyzed: 11/17/10						
Iron	ND	0.050	mg/L							
Lead	ND	0.010	mg/L							
LCS (B022346-BS1)				Prepared: 11/16/10 Analyzed: 11/17/10						
Iron	0.547	0.050	mg/L	0.500		109	80-120			
Lead	0.514	0.010	mg/L	0.500		103	80-120			
LCS Dup (B022346-BSD1)				Prepared: 11/16/10 Analyzed: 11/17/10						
Iron	0.544	0.050	mg/L	0.500		109	80-120	0.485	20	
Lead	0.497	0.010	mg/L	0.500		99.5	80-120	3.20	20	
Duplicate (B022346-DUP1)				Source: 10K0450-03		Prepared: 11/16/10 Analyzed: 11/17/10				
Iron	30.3	0.050	mg/L		30.4			0.440	20	
Lead	0.0609	0.010	mg/L		0.0624			2.33	20	
Matrix Spike (B022346-MS1)				Source: 10K0450-03		Prepared: 11/16/10 Analyzed: 11/17/10				
Iron	30.6	0.050	mg/L	0.500	30.4	42.2	* 75-125			MS-19
Lead	0.554	0.010	mg/L	0.500	0.0624	98.3	75-125			
Batch B022488 - SW-846 3005A										
Blank (B022488-BLK1)				Prepared & Analyzed: 11/18/10						
Iron	ND	0.050	mg/L							
Lead	ND	0.010	mg/L							
LCS (B022488-BS1)				Prepared & Analyzed: 11/18/10						
Iron	0.497	0.050	mg/L	0.500		99.3	80-120			
Lead	0.499	0.010	mg/L	0.500		99.7	80-120			
LCS Dup (B022488-BSD1)				Prepared & Analyzed: 11/18/10						
Iron	0.427	0.050	mg/L	0.500		85.5	80-120	15.0	20	
Lead	0.514	0.010	mg/L	0.500		103	80-120	3.02	20	
Duplicate (B022488-DUP1)				Source: 10K0450-01		Prepared & Analyzed: 11/18/10				
Iron	0.238	0.050	mg/L		0.233			2.01	20	
Lead	ND	0.010	mg/L		ND			NC	20	
Matrix Spike (B022488-MS1)				Source: 10K0450-01		Prepared & Analyzed: 11/18/10				
Iron	0.729	0.050	mg/L	0.500	0.233	99.1	75-125			
Lead	0.494	0.010	mg/L	0.500	ND	98.8	75-125			

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B022232 - SM18-20 2540D										
Blank (B022232-BLK1)				Prepared & Analyzed: 11/12/10						
Total Suspended Solids	ND	2.5	mg/L							
Blank (B022232-BLK2)				Prepared & Analyzed: 11/12/10						
Total Suspended Solids	ND	2.5	mg/L							
LCS (B022232-BS1)				Prepared & Analyzed: 11/12/10						
Total Suspended Solids	203	5.0	mg/L	200		102	85.9-106			
LCS (B022232-BS2)				Prepared & Analyzed: 11/12/10						
Total Suspended Solids	199	5.0	mg/L	200		99.5	85.9-106			
Batch B022315 - EPA 1664A										
Blank (B022315-BLK1)				Prepared & Analyzed: 11/15/10						
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L							
LCS (B022315-BS1)				Prepared & Analyzed: 11/15/10						
Silica Gel Treated HEM (SGT-HEM)	18		mg/L	20.0		91.0	64-132			
LCS Dup (B022315-BSD1)				Prepared & Analyzed: 11/15/10						
Silica Gel Treated HEM (SGT-HEM)	19		mg/L	20.0		93.5	64-132	2.71		

QUALITY CONTROL
Drinking Water Organics EPA 504.1 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B022194 - EPA 504 water										
Blank (B022194-BLK1)				Prepared & Analyzed: 11/12/10						
1,2-Dibromoethane (EDB)	ND	0.020	µg/L							
1,2-Dibromoethane (EDB) [2C]	ND	0.020	µg/L							
Surrogate: 1,3-Dibromopropane	1.18		µg/L	1.00		118	70-130			
Surrogate: 1,3-Dibromopropane [2C]	1.14		µg/L	1.00		114	70-130			
LCS (B022194-BS1)				Prepared & Analyzed: 11/12/10						
1,2-Dibromoethane (EDB)	0.156	0.020	µg/L	0.175		89.1	70-130			
1,2-Dibromoethane (EDB) [2C]	0.160	0.020	µg/L	0.175		91.4	70-130			
Surrogate: 1,3-Dibromopropane	1.17		µg/L	1.00		117	70-130			
Surrogate: 1,3-Dibromopropane [2C]	1.11		µg/L	1.00		111	70-130			
LCS Dup (B022194-BSD1)				Prepared & Analyzed: 11/12/10						
1,2-Dibromoethane (EDB)	0.158	0.020	µg/L	0.175		90.3	70-130	1.27		
1,2-Dibromoethane (EDB) [2C]	0.155	0.020	µg/L	0.175		88.6	70-130	3.17		
Surrogate: 1,3-Dibromopropane	1.02		µg/L	1.00		102	70-130			
Surrogate: 1,3-Dibromopropane [2C]	0.971		µg/L	1.00		97.1	70-130			

FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
MS-19	Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.
V-16	Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy are associated with reported result.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
SM18-20 2540D in Water	
Total Suspended Solids	CT,MA,NH,NY,RI,NC
SW-846 6010B in Water	
Iron	CT,NH,NY,RI
Lead	CT,NH,NY,RI
SW-846 8260B in Water	
Benzene	CT,NH,NY,RI,NC
Ethylbenzene	CT,NH,NY,RI,NC
Methyl tert-Butyl Ether (MTBE)	CT,NH,NY,NC
Naphthalene	NH,NY,NC
Toluene	CT,NH,NY,RI,NC
m+p Xylene	CT,NH,NY,RI,NC
o-Xylene	CT,NH,NY,RI,NC

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

Code	Description	Number	Expires
AIHA	American Industrial Hygiene Association	100033	01/1/2012
MA	Massachusetts DEP	M-MA100	06/30/2011
CT	Connecticut Department of Public Health	PH-0567	09/30/2011
NY	New York State Department of Health	10899 NELAP	04/1/2011
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2011
RI	Rhode Island Department of Health	LAO00112	12/30/2011
NC	North Carolina Div. of Water Quality	652	12/31/2011
NJ	New Jersey DEP	MA007 NELAP	06/30/2011
FL	Florida Department of Health	E871027 NELAP	06/30/2011
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2011
WA	State of Washington Department of Ecology	C2065	02/23/2011

Sample Receipt Checklist

 CLIENT NAME: ETS RECEIVED BY: CJB DATE: 11/10/10

1) Was the chain(s) of custody relinquished and signed?

Yes No

2) Does the chain agree with the samples?

Yes No

If not, explain:

3) Are all the samples in good condition?

Yes No

If not, explain:

4) How were the samples received:

 On Ice ☒ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☒

Were the samples received in Temperature Compliance of (2-6°C)?

Yes No N/A

 Temperature °C by Temp blank 2.0°C Temperature °C by Temp gun _____

5) Are there Dissolved samples for the lab to filter?

Yes No

Who was notified _____ Date _____ Time _____

6) Are there any samples "On Hold"?

Yes No

Stored where: _____

7) Are there any RUSH or SHORT HOLDING TIME samples?

Yes No

Who was notified _____ Date _____ Time _____

8) Location where samples are stored:

19

 Permission to subcontract samples? Yes No
 (Walk-in clients only) if not already approved
 Client Signature: _____

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber	2	8 oz amber/clear jar	
500 mL Amber		4 oz amber/clear jar	
250 mL Amber (8oz amber)		2 oz amber/clear jar	
1 Liter Plastic		Other glass jar	
500 mL Plastic		Plastic Bag / Ziploc	
250 mL plastic	4	Air Cassette	
40 mL Vial - type listed below	15	SOC Kit	
Colisure / bacteria bottle		Tubes	
Dissolved Oxygen bottle		Non-ConTest Container	
Flashpoint bottle		Other	
Encore		PM 2.5 / PM 10	
Perchlorate Kit		PUF Cartridge	

Laboratory Comments:

 40 mL vials: # HCl 9 # Methanol _____
 # Bisulfate _____ # DI Water _____
 # Thiosulfate 6 Unpreserved _____

Time and Date Frozen:

Do all samples have the proper Acid pH: Yes No N/A

Do all samples have the proper Base pH: Yes No N/A

June 2010



Streamstats Ungaged Site Report

Date: Fri Jan 28 2011 12:30:01 Mountain Standard Time

Site Location: Massachusetts

NAD27 Latitude: 42.5930 (42 35 35)

NAD27 Longitude: -72.2397 (-72 14 23)

NAD83 Latitude: 42.5931 (42 35 35)

NAD83 Longitude: -72.2393 (-72 14 21)

ReachCode: 01080202000050

Measure: 85.70

Drainage Area: 276 mi²

Low Flows Basin Characteristics			
100 % Statewide Low Flow (276 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	276 (above max value 149)	1.61	149
Mean Basin Slope from 250K DEM (percent)	3.86	0.32	24.6
Stratified Drift per Stream Length (square mile per mile)	0.1	0	1.29
Massachusetts Region (dimensionless)	1	0	1

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

Probability of Perennial Flow Basin Characteristics			
100 % Perennial Flow Probability (276 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	276 (above max value 1.99)	0.01	1.99
Percent Underlain By Sand And Gravel (percent)	25.26	0	100
Percent Forest (percent)	69.63	0	100
Massachusetts Region (dimensionless)	1	0	1

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

Low Flows Streamflow Statistics					
Statistic	Flow (ft ³ /s)	Prediction Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
D50	295				
D60	229				
D70	185				
D75	158				
D80	116				
D85	96.7				
D90	72				
D95	53.3				
D98	39				
D99	32.9				
M7D2Y	56.9				
AUGD50	107				
M7D10Y	31.3				

$$DF = [(Q_d + Q_s) / Q_d]$$

$$Q_d = 0.178$$

$$Q_s = 31.3$$

$$[(0.178 + 31.3) / 0.178 = 176.84$$

$$DF = 176.84$$

The equation for estimating the probability of perennial flow is applicable for most areas of Massachusetts except eastern Buzzards Bay, Cape Cod, and the Island regions. The estimate obtained from the equation assumes natural flow conditions at the site. The equation also is best used for sites with drainage areas between 0.01 to 1.99 mi², as errors beyond for basins beyond these bounds are unknown.

Probability of Perennial Flow Statistics		
Statistic	Value	Standard Error (percent)
PROBPEREN	1	

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Birds	Arctic peregrine Falcon (Falco		Recovery	Fairbanks Fish And Wildlife		
Flowering Plants	Small whorled pogonia (Isotria		Threatened	New England Ecological	Small Whorled Pogonia	Final Revision 1
Flowering Plants	Sandplain gerardia (Agalinis		Endangered	Long Island Ecological Services	Sandplain Gerardia	Final

MassDEP - Bureau of Waste Site Cleanup

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

Site Name:

RTN:

NAD83 MA Coordinates:

139942mE, 922264mN

February 1, 2011



The information shown on this map is the best available at the date of printing. For more information please refer to www.mass.gov/mgis/massgis.htm



MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection

