

Synergy

Environmental Inc.

155 Railroad Plaza, First Floor
Royersford, Pennsylvania 19468
(484) 369 5000/ fax (484) 369 2000

July 24, 2009

Mr. Victor Alvarez
United States Environmental Protection Agency – Region 1
1 Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

Re: Submittal of Notice of Intent (NOI)
Excavation Dewatering – Flood Chute on Hoosac River
202 River Street
North Adams, Massachusetts
Synergy No. 09-00696
MassDEP – RTN 1-17500

Dear Mr. Alvarez:

Synergy Environmental, Inc. (Synergy) on behalf of Cutting Edge Group, LLC (CEG), has prepared this Notice of Intent (NOI) for an application of a National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) for the above referenced location (Site). The following are the property owners for the parcels involved with this project:

- City of North Adams, MA
Paul Marklyn (contact)
10 Main Street
North Adams, MA 01247
(413) 652-3162
- Best Way Car Wash
Gery Bennedetti
200 River Street
North Adams, MA 01247
(413) 339-5368
(413) 441-4704 cell

This NOI is being submitted in order to dewater the site in order to repair a portion of the North Branch of the Hoosac River concrete channel wall.

The proposed system will facilitate an initial pumping test and then the actual dewatering for the construction project. The pumping test data will be utilized to evaluate the assumptions utilized to design the approach, and will be conducted at a rate of about 50 to 150 gallons per minute. As indicated in the attached Notice of Intent, Synergy has estimated the operational flow to be 500 GPM. Should the pumping test indicate that the flow will vary from this by more than 25 percent, Synergy will submit a Notice of Change to you.

Mr. Victor Alvarez – US EPA
Notice of Intent
July 21, 2009
Page 2

Please do not hesitate to contact the undersigned at (484) 369-5000 if you have any questions or require further information.

Sincerely yours,
SYNERGY ENVIRONMENTAL, INC.



Benjamin I. Andes
Staff Engineer



Christopher J. Horan, P.G., L.S.P.
Senior Project Manager

Attachments:

- Attachment 1: NOI Form
- Attachment 2: Figure 1 – Site Layout
- Attachment 3: Figure 2 – P&ID
- Attachment 4: Laboratory Analytical Results
- Attachment 5: Calculations for Dilution Factor
- Attachment 6: Endangered and Threatened Species Areas of Critical Environmental Concern
- Attachment 7: Historic Properties

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

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

a) Name of facility/site: Flood Chute on Hoosac River		Facility SIC code(s): 9999		Facility/site address:	
Location of facility/site: longitude: 73d08'54"W latitude: 42d42'08"N				Street: 202 River Street	
b) Name of facility/site owner: See cover letter					
Email address of owner:				State: MA	County: Berkshire
Telephone no. of facility/site owner:				Zip: 01247	
Fax no. of facility/site owner:		Owner is (check one): 1. Federal ___ 2. State/Tribal ___			
Address of owner (if different from site):		3. Private ☒ 4. other, if so, describe: ___			
Street: ___					
Town: ___		State: ___		County: ___	
c) Legal name of operator: Synergy Environmental		Operator telephone no: (484) 369-5000			
		Operator fax no.: (484) 369-2000		Operator email: choran@synergynvinc.com	
Operator contact name and title: Christopher J. Horan, P.G., L.S.P. - Project Manager					
Address of operator (if different from owner):		Street: 155 Railroad Plaza, First Floor			
Town: Royersford		State: PA		County: Montgomery	
d) Check "yes" or "no" for the following:					
1. Has a prior NPDES permit exclusion been granted for the discharge? Yes ___ No ☒ if "yes," number: ___					
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes ___ No ☒ if "yes," date and tracking #: ___					
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes ☒ No ___					
4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes ☒ No ___					

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes <u> </u> No <u> </u> ☒ If "yes," 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 storm water general permit? Y <u> </u> N <u> </u> ☒, if Y, number: 2. phase I or II construction storm water general permit? Y <u> </u> N <u> </u> ☒, if Y, number: 3. individual NPDES permit? Y <u> </u> N <u> </u> ☒, if Y, number: 4. any other water quality related permit? Y <u> </u> N <u> </u> ☒, if Y, number:
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2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage:

Dewater area of groundwater while repair of a collapsed portion of the North Branch of the Hoosic River channel retaining wall

b) Provide the following information about each discharge:	1) Number of discharge points: 1	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft ³ /s)? Max. flow <u>0.1 - 1.15 CFS</u> Average flow <u>1.15 CFS</u> Is maximum flow a design value ? Y ☒ N <u> </u> For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.
3) Latitude and longitude of each discharge within 100 feet: pt.1: long. <u>73°05'56"W</u> lat. <u>42°42'09"N</u> ; pt.2: long. <u> </u> lat. <u> </u> ; pt.3: long. <u> </u> lat. <u> </u> ; pt.4: long. <u> </u> lat. <u> </u> ; pt.5: long. <u> </u> lat. <u> </u> ; pt.6: long. <u> </u> lat. <u> </u> ; pt.7: long. <u> </u> lat. <u> </u> ; pt.8: long. <u> </u> lat. <u> </u> ; etc.		
4) If hydrostatic testing, total volume of the discharge (gals):		5) Is the discharge intermittent <u> </u> or seasonal <u> </u> ? Is discharge ongoing Yes <u> </u> No ☒ ?
c) Expected dates of discharge (mm/dd/yy): start <u>07/29/09</u> end <u>11/01/09</u>		
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. In order to complete this section, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for all of the parameters listed in Appendix III. Historical data, (i.e., data taken no more than 2 years prior to the effective date of the permit) may be used if obtained pursuant to: i. Massachusetts' regulations 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E"); ii. New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; or iii. an EPA permit exclusion letter issued pursuant to 40 CFR 122.3, provided the data was analyzed with test methods that meet the requirements of this permit. Otherwise, a new sample shall be taken and analyzed.

a) Based on the analysis of the sample(s) of the untreated influent, the applicant must check the box of the sub-categories that the potential discharge falls within.

Gasoline Only	VOC Only	Primarily Metals	Urban Fill Sites	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
Fuel Oils (and Other Oils) only	VOC with Other Contaminants	Petroleum with Other Contaminants ☒	Listed Contaminated Sites	Contaminated Dredge Condensates	Hydrostatic Testing of Pipelines/Tanks	Well Development or Rehabilitation

b) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids		☒	1	Grab	SM 2540D	20,000	1,600,000	4,355	1,600,000	4,355
2. Total Residual Chlorine	☒		1	Grab	SM 4500 Cl F	20	ND		ND	
3. Total Petroleum Hydrocarbons	☒		1	Grab	1664	5.0	ND		ND	
4. Cyanide	☒		1	Grab	L204001A CN	10	ND		ND	
5. Benzene	☒		1	Grab	8260B	1.0	ND		ND	
6. Toluene	☒		1	Grab	8260B	1.0	ND		ND	
7. Ethylbenzene	☒		1	Grab	8260B	1.0	ND		ND	
8. (m,p,o) Xylenes	☒		1	Grab	8260B	1.0	ND		ND	
9. Total BTEX ⁴	☒		1	Grab	8260B	1.0	ND		ND	

⁴BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide ⁵ (1,2- Dibromo-methane)	✓		1	Grab	8011	0.020	ND		ND	
11. Methyl-tert-Butyl Ether (MtBE)	✓		1	Grab	8260B	1.0	ND		ND	
12. tert-Butyl Alcohol (TBA)	✓		1	Grab	8260B	50	ND		ND	
13. tert-Amyl Methyl Ether (TAME)	✓		1	Grab	8260B	5.0	ND		ND	
14. Naphthalene	✓		1	Grab	8260B	2.0	ND		ND	
15. Carbon Tetra-chloride	✓		1	Grab	8260B	1.0	ND		ND	
16. 1,4 Dichlorobenzene	✓		1	Grab	8260B	1.0	ND		ND	
17. 1,2 Dichlorobenzene	✓		1	Grab	8260B	1.0	ND		ND	
18. 1,3 Dichlorobenzene	✓		1	Grab	8260B	1.0	ND		ND	
19. 1,1 Dichloroethane	✓		1	Grab	8260B	1.0	ND		ND	
20. 1,2 Dichloroethane	✓		1	Grab	8260B	1.0	ND		ND	
21. 1,1 Dichloroethylene	✓		1	Grab	8260B	1.0	ND		ND	
22. cis-1,2 Dichloro-ethylene	✓		1	Grab	8260B	1.0	ND		ND	
23. Dichloromethane (Methylene Chloride)	✓		1	Grab	8260B	2.0	ND		ND	
24. Tetrachloroethylene	✓		1	Grab	8260B	1.0	ND		ND	

⁵EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	✓		1	Grab	8260B	1.0	ND		ND	
26. 1,1,2 Trichloroethane	✓		1	Grab	8260B	1.0	ND		ND	
27. Trichloroethylene	✓		1	Grab	8260B	1.0	ND		ND	
28. Vinyl Chloride	✓		1	Grab	8260B	0.5	ND		ND	
29. Acetone	✓		1	Grab	8260B	50	ND		ND	
30. 1,4 Dioxane	✓		1	Grab	8260B	50	ND		ND	
31. Total Phenols		✓	1	Grab	L210-001A	10	12	0.033	12	0.033
32. Pentachlorophenol	✓		1	Grab	8270 LL	1.0	ND		ND	
33. Total Phthalates ⁶ (Phthalate esters)	✓		1	Grab	8270 LL	2.0	ND		ND	
34. Bis (2-Ethylhexyl) Phthalate (Di-ethylhexyl) Phthalate]	✓		1	Grab	8270 LL	2.0	ND		ND	
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)										
a. Benzo(a) Anthracene		✓	1	Grab	8270C LL	0.30	1.7	0.005	1.7	0.005
b. Benzo(a) Pyrene		✓	1	Grab	8270C LL	0.20	3.7	0.010	3.7	0.010
c. Benzo(b)Fluoranthene		✓	1	Grab	8270C LL	0.30	2.6	0.007	2.6	0.007
d. Benzo(k) Fluoranthene		✓	1	Grab	8270C LL	0.30	1.0	0.003	1.0	0.003
e. Chrysene		✓	1	Grab	8270C LL	1.0	1.7	0.005	1.7	0.005

⁶The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h)anthracene		✓	1	Grab	8270C LL	0.51	0.94	0.94	0.94	0.94
g. Indeno(1,2,3-cd)Pyrene		✓	1	Grab	8270C LL	0.51	1.6	0.004	1.6	0.004
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)										
h. Acenaphthene	✓		1	Grab	8270C LL	1.0	ND		ND	
i. Acenaphthylene		✓	1	Grab	8270C LL	0.30	1.1	0.003	1.1	0.003
j. Anthracene	✓		1	Grab	8270C LL	1.0	ND		ND	
k. Benzo(ghi) Perylene		✓	1	Grab	8270C LL	0.51	2.7	0.007	2.7	0.007
l. Fluoranthene		✓	1	Grab	8270C LL	1.0	1.5	0.004	1.5	0.004
m. Fluorene	✓		1	Grab	8270C LL	1.0	ND		ND	
n. Naphthalene-	✓		1	Grab	8270C LL	1.0	ND		ND	
o. Phenanthrene		✓	1	Grab	8270C LL	0.20	0.29	0.001	0.29	0.001
p. Pyrene	✓		1	Grab	8270C LL	5.1	ND		ND	
37. Total Polychlorinated Biphenyls (PCBs)	✓		1	Grab	8082	0.31	ND		ND	
38. Antimony	✓		1	Grab	6010B	6.0	ND		ND	
39. Arsenic		✓	1	Grab	6010B	10	29	0.079	29	0.079
40. Cadmium		✓	1	Grab	6010B	1.0	3.6	0.010	3.6	0.010
41. Chromium III		✓	1	Grab	6010B	5.0	120	0.327	120	0.327
42. Chromium VI	✓		1	Grab	7196A	5.0	ND		ND	

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper		✓	1	Grab	6010B	10	320	0.871	320	0.871
44. Lead		✓	1	Grab	6010B	5.0	330	0.898	330	0.898
45. Mercury		✓	1	Grab	7470A	0.20	4.9	0.013	4.9	0.013
46. Nickel		✓	1	Grab	6010B	10	68	0.185	68	0.185
47. Selenium	✓		1	Grab	6010B	10	ND		ND	
48. Silver	✓		1	Grab	6010B	5.0	ND		ND	
49. Zinc		✓	1	Grab	6010B	50	440	1.198	440	1.198
50. Iron		✓	1	Grab	6010B	100	57,000	155	57,000	155
Other (describe): Magnesium Manganese Aluminum		✓	1	Grab	6010B	400 10 100	49,000 2,700 20,000	133 7.35 54.4	49,000 2,700 20,000	133 7.35 54.4

c) For discharges where **metals** are believed present, please fill out the following:

<i>Step 1:</i> Do any of the metals in the influent have a reasonable potential to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y ☒ N ☐	If yes, which metals? Arsenic, Cadmium, Chromium III, Copper, Lead, Mercury, Nickel, Zinc, Iron
<i>Step 2:</i> For any metals which have reasonable potential to 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? Metals: <u>Arsenic, Cadmium, Chromium III, Copper, Lead, Mercury, Nickel, Zinc, Iron</u> DF: <u>5.4</u>	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 "Yes," list which metals: Cadmium, Copper, Lead, Mercury, Zinc, Iron

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	Dechlorination	Other (please describe): WEIR TANK (oil / water / sedimentation separator)			
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 50 - 500 Maximum flow rate of treatment system 500 Design flow rate of treatment system 500						
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 ☐	Within facility ☐	Storm drain ☐	River/brook ☒	Wetlands ☐	Other (describe):
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters: Piped directly into North Branch of Hoosic River segment MA11-02						
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 discharges, 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 class B						
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 5.1 (provided by MADEP) 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? Yes ☒ No ☐ If yes, for which pollutant(s)? fecal coliform, aquatic life Is there a TMDL? Yes ☒ No ☐ If yes, for which pollutant(s)?						

6. Results of Consultation with Federal Services: Please provide the following information according to requirements of Part I.B.4 and Appendices II and VII.

a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes ☒ No ☒ Has any consultation with the federal services been completed? Yes ☒ No ☒ or is consultation underway? Yes ☒ No ☒ What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (check one): a "no jeopardy" opinion? ☒ or written concurrence ☒ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?
b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge? Yes ☒ No ☒ Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes ☒ No ☒

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:

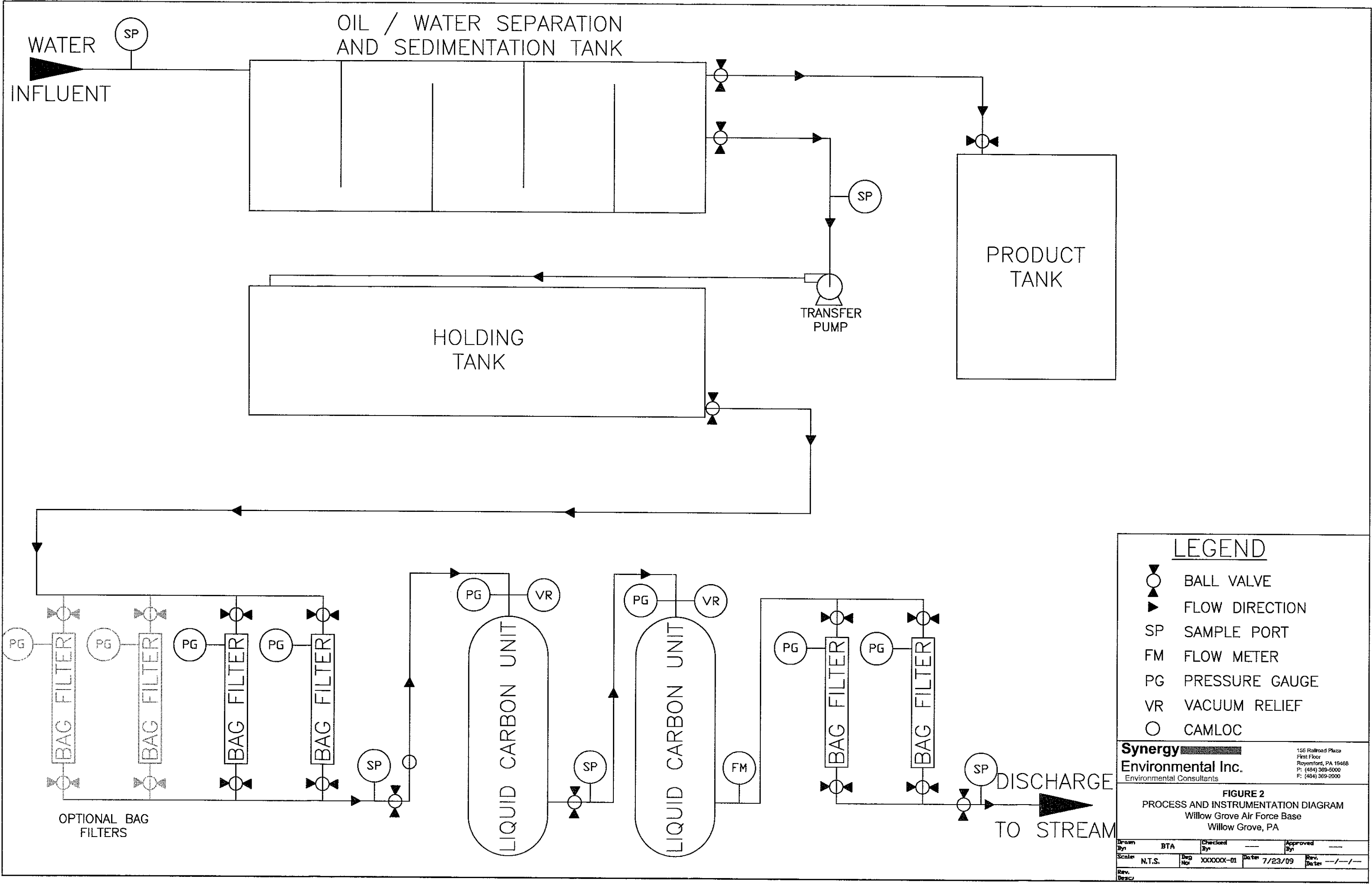
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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: Flood Chute on Hoosac River

Operator signature: Brian J. FitzPatrick

Title: President and CEO, Synergy Environmental

Date: 7/22/2009



LEGEND

- BALL VALVE
- FLOW DIRECTION
- SAMPLE PORT
- FLOW METER
- PRESSURE GAUGE
- VACUUM RELIEF
- CAMLOC

Synergy Environmental Inc.
Environmental Consultants
156 Railroad Plaza
First Floor
Royersford, PA 19386
P: (484) 369-5000
F: (484) 369-2000

FIGURE 2
PROCESS AND INSTRUMENTATION DIAGRAM
Willow Grove Air Force Base
Willow Grove, PA

Drawn By	BTA	Checked By	---	Approved By	---
Scale	N.T.S.	Dep No	XXXXXX-01	Date	7/23/09
Rev.	Desc			Rev.	Date

ANALYTICAL REPORT

Job Number: 360-23563-1

Job Description: North Adams MA

For:

Synergy Environmental, Inc.

155 Railroad Plaza

1st Floor

Royersford, PA 19468

Attention: Mr. Christopher Horan



Approved for release.
Joe Chimi
Report Production Representative
7/15/09 3:05 PM

Designee for
Becky C Mason
Project Manager II
becky.mason@testamericainc.com
07/15/2009

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all NELAC requirements for accredited parameters, exceptions are noted in this report. Pursuant to NELAC, this report may not be reproduced except in full, and with written approval from the laboratory. TestAmerica Westfield Certifications and Approvals: MADEP MA014, RIDOH57, CTDPH 0494, VT DECWSD, NH DES 2539, NELAP FL E87912 TOX, NELAP NJ MA008 TOX, NELAP NY 10843, NY ELAP 10843, North Carolina 647, NELAP PA 68-04386. Field sampling is performed under SOPs WE-FLD-001 and WE-FLD-002.

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Job Narrative
360-J23563-1

Method 8015B: Sample 360-23563-1 had a similar chromatographic pattern to that of # 4 Fuel Oil. The sample has a total hydrocarbon range of C9 eluting through C36.

METHOD SUMMARY

Client: Synergy Environmental, Inc.

Job Number: 360-23563-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Hydrocarbon Product Identification (GC)	TAL WFD	SW846 8015B	
Liquid-Liquid Extraction (Separatory Funnel)	TAL WFD		SW846 3510C
Massachusetts - Extractable Petroleum Hydrocarbons (GC)	TAL WFD	MA DEP MA-EPH	
Liquid-Liquid Extraction (Separatory Funnel)	TAL WFD		SW846 3510C

Lab References:

TAL WFD = TestAmerica Westfield

Method References:

MA DEP = Massachusetts Department Of Environmental Protection

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Synergy Environmental, Inc.

Job Number: 360-23563-1

Method	Analyst	Analyst ID
SW846 8015B	Pham, Tam	TP
MA DEP MA-EPH	Pham, Tam	TP

SAMPLE SUMMARY

Client: Synergy Environmental, Inc.

Job Number: 360-23563-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
360-23563-1	EX-1	Water	07/14/2009 0800	07/14/2009 0845

SAMPLE RESULTS

Analytical Data

Client: Synergy Environmental, Inc

Job Number: 360-23563-1

Client Sample ID: EX-1

Lab Sample ID: 360-23563-1

Client Matrix: Water

Date Sampled: 07/14/2009 0800

Date Received: 07/14/2009 0845

8015B Hydrocarbon Product Identification (GC)

Method:	8015B	Analysis Batch: 360-46581	Instrument ID:	Inst F
Preparation:	3510C	Prep Batch: 360-46578	Lab File ID:	F14763.D
Dilution:	1.0		Initial Weight/Volume:	960 mL
Date Analyzed:	07/14/2009 1506		Final Weight/Volume:	1.0 mL
Date Prepared:	07/14/2009 1149		Injection Volume:	2 uL

Analyte	Result (mg/L)	Qualifier	RL
Total Extractable Hydrocarbons (TEPH)-C9-C36	11		0.10

Surrogate	%Rec	Qualifier	Acceptance Limits
o-Terphenyl	82		40 - 140

Analytical Data

Client: Synergy Environmental, Inc.

Job Number: 360-23563-1

Client Sample ID: EX-1

Lab Sample ID: 360-23563-1

Client Matrix: Water

Date Sampled: 07/14/2009 0800

Date Received: 07/14/2009 0845

MA-EPH Massachusetts - Extractable Petroleum Hydrocarbons (GC)

Method:	MA-EPH	Analysis Batch: 360-46580	Instrument ID:	INST R
Preparation:	3510C	Prep Batch: 360-46579	Initial Weight/Volume:	950 mL
Dilution:	1.0		Final Weight/Volume:	2.0 mL
Date Analyzed:	07/14/2009 1503		Injection Volume:	1 uL
Date Prepared:	07/14/2009 1150		Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Acenaphthene	ND		11
Acenaphthylene	ND		11
Anthracene	ND		11
Benzo[a]anthracene	ND		11
Benzo[a]pyrene	ND		11
Benzo[b]fluoranthene	ND		11
Benzo[g,h,i]perylene	ND		11
Benzo[k]fluoranthene	ND		11
Chrysene	ND		11
Fluoranthene	ND		11
Fluorene	ND		11
2-Methylnaphthalene	ND		11
Naphthalene	ND		11
Phenanthrene	ND		11
Pyrene	ND		11
C11-C22 Aromatics (unadjusted)	630		110
C11-C22 Aromatics (Adjusted)	630		110
C19-C36 Aliphatics	580		110
C9-C18 Aliphatics	1800		110
Total EPH	3000		110
Indeno[1,2,3-cd]pyrene + Dibenz[a,h]anthracene	ND		11

Surrogate	%Rec	Qualifier	Acceptance Limits
2-Bromonaphthalene	82		40 - 140
2-Fluorobiphenyl	87		40 - 140
o-Terphenyl	84		40 - 140
1-Chlorooctadecane	62		40 - 140

QUALITY CONTROL RESULTS

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23563-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 360-46578					
LCS 360-46578/2-A	Lab Control Sample	T	Water	3510C	
LCSD 360-46578/3-A	Lab Control Sample Duplicate	T	Water	3510C	
MB 360-46578/1-A	Method Blank	T	Water	3510C	
360-23563-1	EX-1	T	Water	3510C	
Prep Batch: 360-46579					
LCS 360-46579/2-A	Lab Control Sample	T	Water	3510C	
LCSD 360-46579/3-A	Lab Control Sample Duplicate	T	Water	3510C	
MB 360-46579/1-A	Method Blank	T	Water	3510C	
360-23563-1	EX-1	T	Water	3510C	
Analysis Batch: 360-46580					
LCS 360-46579/2-A	Lab Control Sample	T	Water	MA-EPH	360-46579
LCSD 360-46579/3-A	Lab Control Sample Duplicate	T	Water	MA-EPH	360-46579
MB 360-46579/1-A	Method Blank	T	Water	MA-EPH	360-46579
360-23563-1	EX-1	T	Water	MA-EPH	360-46579
Analysis Batch: 360-46581					
LCS 360-46578/2-A	Lab Control Sample	T	Water	8015B	360-46578
LCSD 360-46578/3-A	Lab Control Sample Duplicate	T	Water	8015B	360-46578
MB 360-46578/1-A	Method Blank	T	Water	8015B	360-46578
360-23563-1	EX-1	T	Water	8015B	360-46578

Report Basis

T = Total

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23563-1

Method Blank - Batch: 360-46578

Method: 8015B
Preparation: 3510C

Lab Sample ID: MB 360-46578/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/14/2009 1332
Date Prepared: 07/14/2009 1149

Analysis Batch: 360-46581
Prep Batch: 360-46578
Units: mg/L

Instrument ID: HP 5890II GC w/ dual FIDs
Lab File ID: F14760.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 2 uL

Analyte	Result	Qual	RL
Total Extractable Hydrocarbons (TEPH)-C9-C36	ND		0 10
Surrogate	% Rec	Acceptance Limits	
o-Terphenyl	105	40 - 140	

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 360-46578

Method: 8015B
Preparation: 3510C

LCS Lab Sample ID: LCS 360-46578/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/14/2009 1403
Date Prepared: 07/14/2009 1149

Analysis Batch: 360-46581
Prep Batch: 360-46578
Units: mg/L

Instrument ID: HP 5890II GC w/ dual FIDs
Lab File ID: F14761.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 2 uL

LCSD Lab Sample ID: LCSD 360-46578/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/14/2009 1435
Date Prepared: 07/14/2009 1149

Analysis Batch: 360-46581
Prep Batch: 360-46578
Units: mg/L

Instrument ID: HP 5890II GC w/ dual FID
Lab File ID: F14762.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 2 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Total Extractable Hydrocarbons (TEPH)	93	81	60 - 140	14	50		
Surrogate	% Rec		% Rec		Acceptance Limits		
o-Terphenyl	107		84		40 - 140		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23563-1

Method Blank - Batch: 360-46579

Method: MA-EPH
Preparation: 3510C

Lab Sample ID: MB 360-46579/1-A
Client Matrix: Water
Dilution: 10
Date Analyzed: 07/14/2009 1349
Date Prepared: 07/14/2009 1150

Analysis Batch: 360-46580
Prep Batch: 360-46579
Units: ug/L

Instrument ID: HP 6890 GC w/ dual FIDs
Lab File ID: R24308.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 2.0 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Acenaphthene	ND		10
Acenaphthylene	ND		10
Anthracene	ND		10
Benzo[a]anthracene	ND		10
Benzo[a]pyrene	ND		10
Benzo[b]fluoranthene	ND		10
Benzo[g,h,i]perylene	ND		10
Benzo[k]fluoranthene	ND		10
Chrysene	ND		10
Fluoranthene	ND		10
Fluorene	ND		10
2-Methylnaphthalene	ND		10
Naphthalene	ND		10
Phenanthrene	ND		10
Pyrene	ND		10
C11-C22 Aromatics (unadjusted)	ND		100
C11-C22 Aromatics (Adjusted)	ND		100
C19-C36 Aliphatics	ND		100
C9-C18 Aliphatics	ND		100
Total EPH	ND		100
Indeno[1,2,3-cd]pyrene + Dibenzo[a,h]anthracene	ND		10

Surrogate	% Rec	Acceptance Limits
2-Bromonaphthalene	82	40 - 140
2-Fluorobiphenyl	89	40 - 140
o-Terphenyl	92	40 - 140
1-Chlorooctadecane	59	40 - 140

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23563-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-46579**

**Method: MA-EPH
Preparation: 3510C**

LCS Lab Sample ID: LCS 360-46579/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/14/2009 1413
Date Prepared: 07/14/2009 1150

Analysis Batch: 360-46580
Prep Batch: 360-46579
Units: ug/L

Instrument ID: HP 6890 GC w/ dual FIDs
Lab File ID: R24310.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 2.0 mL
Injection Volume: 1 uL
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 360-46579/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/14/2009 1438
Date Prepared: 07/14/2009 1150

Analysis Batch: 360-46580
Prep Batch: 360-46579
Units: ug/L

Instrument ID: HP 6890 GC w/ dual FIDs
Lab File ID: R24312.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 2.0 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Acenaphthene	75	76	40 - 140	2	25		
Acenaphthylene	74	75	40 - 140	2	25		
Anthracene	82	84	40 - 140	3	25		
Benzo[a]anthracene	84	86	40 - 140	2	25		
Benzo[a]pyrene	85	87	40 - 140	2	25		
Benzo[b]fluoranthene	91	89	40 - 140	1	25		
Benzo[g,h,i]perylene	86	87	40 - 140	1	25		
Benzo[k]fluoranthene	87	91	40 - 140	5	25		
Chrysene	88	90	40 - 140	2	25		
Fluoranthene	83	85	40 - 140	2	25		
Fluorene	77	79	40 - 140	2	25		
2-Methylnaphthalene	69	70	40 - 140	1	25		
Naphthalene	63	63	40 - 140	0	25		
Phenanthrene	79	81	40 - 140	3	25		
Pyrene	86	88	40 - 140	2	25		
C11-C22 Aromatics (unadjusted)	83	84	40 - 140	1	25		
C19-C36 Aliphatics	78	83	40 - 140	6	25		
C9-C18 Aliphatics	66	69	40 - 140	4	25		
Indeno[1,2,3-cd]pyrene +	85	85	40 - 140	0	25		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
2-Bromonaphthalene	75		78		40 - 140		
2-Fluorobiphenyl	84		86		40 - 140		
o-Terphenyl	84		83		40 - 140		
1-Chlorooctadecane	55		60		40 - 140		

Calculations are performed before rounding to avoid round-off errors in calculated results.

State Accreditation Matrix

Method Name	Description	State where Primary Accreditation is Carried				
		New York (NELAC)	Mass	Conn	Florida (NELAC)	North Carolina
821-R-02-012	Toxicity, Acute (48-Hour)(list upon request)				NP	
SM 4500 Cl F	Chlorine, Residual		NP			
SM 9215B	Heterotrophic Plate Count (Pour Plate Method)		P			
SM 9215E	Heterotrophic Plate Count (SimPlate)		P			
SM 9221F	E.Coli (Multiple-Tube Fermentation; EC-MUG)		P			
SM 9222B	Coliforms, Total (Membrane Filter)		P			
SM 9222D	Coliforms, Fecal (Membrane Filter)		P/NP			
SM 9223	Coliforms, Total, and E.Coli (Colilert-P/A)		P			
200.8	Metals (ICP/MS) (list upon request)	NP/P	NP/P	NP/P		
200.7 Rev 4.4	Metals (ICP)(list upon request)	NP/P	NP/P	NP/P		
6010B	Metals (ICP)(list upon request)	NP/SW		NP/SW		
245.1	Mercury (CVAA)	NP/P	NP	NP/P		
7470A	Mercury (CVAA)	NP				
7471A	Mercury (CVAA)	SW		SW		
SM 2340B	Total Hardness (as CaCO3) by calculation	NP/P	NP	NP/P		
3005A	Preparation, Total Recoverable or Dissolved Metals	NP/P		NP/P		
3010A	Preparation, Total Metals	NP/P		NP/P		
3020A	Preparation, Total Metals	NP/P/SW		NP/P/SW		
3050B	Preparation, Metals	SW		SW		
504.1	EDB, DBCP and 1,2,3-TCP (GC)		P	P		
608	Organochlorine Pest/PCBs (list upon request)	NP	NP	NP		
625	Semivolatile Org Comp (GC/MS)(list upon request)	NP		NP		
3546	Microwave Extraction	SW				
3510C	Liquid-Liquid Extraction (Separatory Funnel)	NP		NP		
3540C	Soxhlet Extraction					
3550B	Ultrasonic Extraction	SW		SW		
600/4-81-045	Polychlorinated Biphenyls (PCBs) (GC)		NP	NP		
8081A	Organochlorine Pesticides (GC)(list upon request)	NP/SW		NP/SW		
8082A	PCBs by Gas Chromatography(list upon request)	NP/SW		NP/SW		
8270C	Semivolatile Comp.(GC/MS)(list upon request)	NP/SW		NP/SW		
CT ETPH	Conn - Ext. Total petroleum Hydrocarbons (GC)			NP/SW		
MA-EPH	Mass - Extractable Petroleum Hydrocarbons (GC)			NP/SW		NP/SW
524.2	Volatile Org Comp (GC/MS)(list upon request)	P	P	P		
524.2	Trihalomethanes		P	P		
624	Volatile Org Comp (GC/MS)(list upon request)	NP	NP	NP		
5035	Closed System Purge and Trap	SW		SW		
5030B	Purge and Trap	NP		NP		
8260B	Volatile Org Comp. (GC/MS)(list upon request)	NP/SW		NP/SW		
MAVPH	Mass - Volatile Petroleum Hydrocarbons (GC)			NP/SW		NP/SW
180.1	Turbidity, Nephelometric		P	P		
300	Anions, Ion Chromatography	NP/P	NP/P	NP/P		
410.4	COD	NP	NP	NP		
1010	Ignitability, Pensky-Martens Closed-Cup Method	SW		SW		
10-107-06-2	Nitrogen, Total Kjeldahl	NP	NP	NP		
7196A	Chromium, Hexavalent	NP/SW		NP/SW		
9012A	Cyanide, Total and/or Amenable	NP/SW		NP/SW		
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	NP		NP		
9040B	pH	NP		NP		
9045C	pH	SW		SW		
L107041C	Nitrogen, Nitrate	NP	P	NP/P		
L107-06-1B	Nitrogen Ammonia	NP	NP	NP/P		
L204001A CN	Cyanide, Total		NP/P	NP/P		
L210-001A	Phenolics, Total Recoverable	NP	NP	NP		
SM 2320B	Alkalinity	NP/P	NP/P	NP/P		
SM 2510B	Conductivity, Specific Conductance	NP/P	NP/P	NP/P		
SM 2540C	Solids, Total Dissolved (TDS)	NP/P	NP/P	NP/P		
SM 2540D	Solids, Total Suspended (TSS)	NP	NP	NP		
SM 3500 CR D	Chromium, Hexavalent	NP		NP		
SM 4500 H+ B	pH	NP/P	NP/P	NP/P		
SM 4500 NO2 B	Nitrogen, Nitrite	NP	P	NP/P		
SM 4500 P E	Phosphorus, Orthophosphate	NP/P	NP	NP/P		
SM 4500 P E	Phosphorus, Total	NP	NP	NP		
SM 4500 S2 D	Sulfide, Total	NP		NP		
SM 5210B	BOD, 5-Day	NP	NP	NP		
SM 5310B	Organic Carbon, Total (TOC)	NP/P	NP	NP/P		

Not all organic compounds are accredited under NELAC

For methods with multiple compounds all compounds may not meet NELAC criteria listing should be obtained from the laboratory

The lab carries additional accreditations with several states. This is listing is subject to change based on the laboratories current certification standing.

Login Sample Receipt Check List

Client: Synergy Environmental, Inc.

Job Number: 360-23563-1

Login Number: 23563

List Source: TestAmerica Westfield

Creator: McDonald, Jerry

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	1.2c
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

Temperature on Receipt

22

Drinking Water? Yes ☐ No ☒

THE LEADER IN ENVIRONMENTAL TESTING

360-23563

TAL-4124 (1007)

Client Symetry Env. Inc.		Project Manager Chris Horan		Chain of Custody Number 098220	
Address 155 Railroad Plaza 1st Fl		Telephone Number (Area Code)/Fax Number 484-369-5000 / 369-2000		Date 7/13/09	
City Riversford	State PA	Zip Code 19468	Site Contact	Lab Contact	Page 1 of 1
Project Name and Location (State) North Adams, MA			Analysis (Attach list if more space is needed)		
Contract/Purchase Order/Quote No.			Carrier/Waybill Number		

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix			Containers & Preservatives					
			Air	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc
EX-1	7/14/09		X			2		4			
7/14/09											

Possible Hazard Identification		Sample Disposal		(A fee may be assessed if samples are retained longer than 1 month)	
☐ Non-Hazard	☐ Flammable	☐ Skin Irritant	☐ Poison B	☐ Unknown	☐ Return To Client
Turn Around Time Required		Archive For		Months	
☒ 24 Hours	☐ 48 Hours	☐ 7 Days	☐ 14 Days	☐ 21 Days	☐ Other

1. Relinquished By J. Horan		Date 7/14/09		Time 0845	
2. Relinquished By		Date		Time	
3. Relinquished By		Date		Time	

Special Instructions/
Conditions of Receipt

Sample has been

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample: PINK - Field Copy

ANALYTICAL REPORT

Job Number: 360-23561-1

Job Description: North Adams MA

For:

Synergy Environmental, Inc.

155 Railroad Plaza

1st Floor

Royersford, PA 19468

Attention: Mr. Christopher Horan



Approved for release.
Joe Chimi
Report Production Representative
7/20/09 9:59 AM

Designee for
Becky C Mason
Project Manager II
becky.mason@testamericainc.com
07/20/2009
Revision: 1

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all NELAC requirements for accredited parameters, exceptions are noted in this report. Pursuant to NELAC, this report may not be reproduced except in full, and with written approval from the laboratory. TestAmerica Westfield Certifications and Approvals: MADEP MA014, RIDOH57, CTDPH 0494, VT DECWSD, NH DES 2539, NELAP FL E87912 TOX, NELAP NJ MA008 TOX, NELAP NY 10843, NY ELAP 10843, North Carolina 647, NELAP PA 68-04386. Field sampling is performed under SOPs WE-FLD-001 and WE-FLD-002.

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Job Narrative
360-J23561-1

REVISION

This revision reports the requested additional analytes.

Method 8260B: Recovery for surrogate 4-Bromofluorobenzene was high and outside control limits for sample 360-23561-1(135%). No target compounds were detected in this sample

EXECUTIVE SUMMARY - Detections

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Lab Sample ID	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
360-23561-1	EX-1				
Arsenic		29	10	ug/L	6010B
Cadmium		3.6	1.0	ug/L	6010B
Copper		320	10	ug/L	6010B
Lead		330	5.0	ug/L	6010B
Magnesium		49000	400	ug/L	6010B
Nickel		68	10	ug/L	6010B
Zinc		440	50	ug/L	6010B
Iron		57000	100	ug/L	6010B
Chromium		120	5.0	ug/L	6010B
Manganese		2700	10	ug/L	6010B
Aluminum		20000	100	ug/L	6010B
Mercury		4.9	0.20	ug/L	7470A
<i>Dissolved</i>					
Magnesium		17000	400	ug/L	6010B

METHOD SUMMARY

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL WFD	SW846 8260B	
Purge and Trap	TAL WFD		SW846 5030B
Massachusetts - Volatile Petroleum Hydrocarbons (GC)	TAL WFD	MA DEP MAVPH	
Purge and Trap	TAL WFD		SW846 5030B
Polychlorinated Biphenyls (PCBs) by Gas Chromatography	TAL WFD	SW846 8082	
Liquid-Liquid Extraction (Separatory Funnel)	TAL WFD		SW846 3510C
Metals (ICP)	TAL WFD	SW846 6010B	
Preparation Total Metals	TAL WFD		SW846 3010A
Sample Filtration	TAL WFD		FILTRATION
Mercury (CVAA)	TAL WFD	SW846 7470A	
Sample Filtration	TAL WFD		FILTRATION
Preparation, Mercury	TAL WFD		SW846 7470A
Cyanide, Total	TAL WFD	LACHAT L204001A CN	
Distillation, Cyanide	TAL WFD		Distill/CN

Lab References:

TAL WFD = TestAmerica Westfield

Method References:

LACHAT = LACHAT

MA DEP = Massachusetts Department Of Environmental Protection

SW846 = "Test Methods For Evaluating Solid Waste Physical/Chemical Methods" Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Method	Analyst	Analyst ID
SW846 8260B	Rouleau, Catherine M	CMR
MA DEP MAVPH	Rouleau, Catherine M	CMR
SW846 8082	Zuccala, Marissa	MZ
SW846 6010B	Nasiatka, Ellen M	EMN
SW846 7470A	Nasiatka, Ellen M	EMN
LACHAT L204001A CN	Emerich, Rich W	RWE

SAMPLE SUMMARY

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
360-23561-1	EX-1	Water	07/13/2009 1330	07/13/2009 1815
360-23561-2	Trip Blank	Water	07/13/2009 1330	07/13/2009 1815

SAMPLE RESULTS

Analytical Data

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Client Sample ID: EX-1

Lab Sample ID: 360-23561-1

Client Matrix: Water

Date Sampled: 07/13/2009 1330

Date Received: 07/13/2009 1815

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch:	360-46618	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030B			Lab File ID:	V05780.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	07/14/2009 1746			Final Weight/Volume:	5 mL
Date Prepared:	07/14/2009 1746				

Analyte	Result (ug/L)	Qualifier	RL
1,1,1 2-Tetrachloroethane	ND		1.0
1,1 1-Trichloroethane	ND		1.0
1 1 2,2-Tetrachloroethane	ND		0.50
1,1,2-Trichloroethane	ND		1.0
1 1-Dichloroethane	ND		1.0
1,1-Dichloroethene	ND		1.0
1,1-Dichloropropene	ND		1.0
1,2,3-Trichlorobenzene	ND		1.0
1,2 3-Trichloropropane	ND		1.0
1 2,4-Trichlorobenzene	ND		1.0
1,2,4-Trimethylbenzene	ND		5.0
1,2-Dibromo-3-Chloropropane	ND		1.0
1,2-Dichlorobenzene	ND		1.0
1 2-Dichloroethane	ND		1.0
1,2-Dichloropropane	ND		1.0
1,3,5-Trimethylbenzene	ND		1.0
1,3-Dichlorobenzene	ND		1.0
1,3-Dichloropropane	ND		1.0
1,4-Dichlorobenzene	ND		50
1 4-Dioxane	ND		1.0
2,2-Dichloropropane	ND		10
2-Butanone (MEK)	ND		1.0
2-Chlorotoluene	ND		10
2-Hexanone	ND		1.0
4-Chlorotoluene	ND		1.0
4-Isopropyltoluene	ND		10
4-Methyl-2-pentanone (MIBK)	ND		50
Acetone	ND	*	10
Acrylonitrile	ND		1.0
Benzene	ND		1.0
Bromobenzene	ND		1.0
Bromoform	ND		2.0
Bromomethane	ND		50
Butyl alcohol, tert-	ND		10
Carbon disulfide	ND		1.0
Carbon tetrachloride	ND		1.0
Chlorobenzene	ND		1.0
Chlorobromomethane	ND		0.50
Chlorodibromomethane	ND		2.0
Chloroethane	ND		1.0
Chloroform	ND		2.0
Chloromethane	ND		1.0
cis-1 2-Dichloroethene	ND		0.40
cis-1,3-Dichloropropene	ND		1.0
Dibromomethane	ND		1.0
Dichlorobromomethane	ND		1.0

Analytical Data

Client: Synergy Environmental, Inc

Job Number: 360-23561-1

Client Sample ID: EX-1

Lab Sample ID: 360-23561-1

Client Matrix: Water

Date Sampled: 07/13/2009 1330

Date Received: 07/13/2009 1815

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch:	360-46618	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030B			Lab File ID:	V05780.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	07/14/2009 1746			Final Weight/Volume:	5 mL
Date Prepared:	07/14/2009 1746				

Analyte	Result (ug/L)	Qualifier	RL
Ethylbenzene	ND		1.0
Ethylene Dibromide	ND		1.0
Hexachlorobutadiene	ND		0.40
Isopropylbenzene	ND		1.0
Methyl tert-butyl ether	ND		1.0
Methylene Chloride	ND		2.0
m-Xylene & p-Xylene	ND		2.0
Naphthalene	ND		5.0
n-Butylbenzene	ND		1.0
N-Propylbenzene	ND		1.0
o-Xylene	ND		1.0
sec-Butylbenzene	ND		1.0
Styrene	ND		1.0
Tert-amyl methyl ether	ND		5.0
tert-Butylbenzene	ND		1.0
Tetrachloroethene	ND		1.0
Toluene	ND		1.0
trans-1,2-Dichloroethene	ND		1.0
trans-1,3-Dichloropropene	ND		0.40
Trichloroethene	ND		1.0
Trichlorofluoromethane	ND		1.0
Vinyl chloride	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	135	X	70 - 130
Dibromofluoromethane	117		70 - 130
Toluene-d8 (Surr)	97		70 - 130

Analytical Data

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Client Sample ID: Trip Blank

Lab Sample ID: 360-23561-2

Client Matrix: Water

Date Sampled: 07/13/2009 1330

Date Received: 07/13/2009 1815

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch:	360-46618	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030B			Lab File ID:	V05781.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	07/14/2009 1807			Final Weight/Volume:	5 mL
Date Prepared:	07/14/2009 1807				

Analyte	Result (ug/L)	Qualifier	RL
Chloromethane	ND		2.0
Vinyl chloride	ND		0.50
Bromomethane	ND		2.0
Chloroethane	ND		2.0
Trichlorofluoromethane	ND		1.0
1,1-Dichloroethene	ND		1.0
Acetone	ND	*	50
Methylene Chloride	ND		2.0
trans-1,2-Dichloroethene	ND		1.0
Methyl tert-butyl ether	ND		1.0
1,1-Dichloroethane	ND		1.0
cis-1,2-Dichloroethene	ND		1.0
2-Butanone (MEK)	ND		10
Chlorobromomethane	ND		1.0
Chloroform	ND		1.0
1,1,1-Trichloroethane	ND		1.0
1,1-Dichloropropene	ND		1.0
Carbon tetrachloride	ND		1.0
Benzene	ND		1.0
1,2-Dichloroethane	ND		1.0
Trichloroethene	ND		1.0
1,2-Dichloropropane	ND		1.0
Dibromomethane	ND		1.0
Dichlorobromomethane	ND		1.0
cis-1,3-Dichloropropene	ND		0.40
4-Methyl-2-pentanone (MIBK)	ND		10
Toluene	ND		1.0
trans-1,3-Dichloropropene	ND		0.40
1,1,2-Trichloroethane	ND		1.0
Tetrachloroethene	ND		1.0
1,3-Dichloropropane	ND		1.0
2-Hexanone	ND		10
Chlorodibromomethane	ND		0.50
Ethylene Dibromide	ND		1.0
Chlorobenzene	ND		1.0
1,1,1,2-Tetrachloroethane	ND		1.0
Ethylbenzene	ND		1.0
m-Xylene & p-Xylene	ND		2.0
o-Xylene	ND		1.0
Styrene	ND		1.0
Bromoform	ND		1.0
Isopropylbenzene	ND		1.0
Bromobenzene	ND		1.0
1,1,2,2-Tetrachloroethane	ND		0.50
1,2,3-Trichloropropane	ND		1.0
N-Propylbenzene	ND		1.0

Analytical Data

Client: Synergy Environmental, Inc

Job Number: 360-23561-1

Client Sample ID: Trip Blank

Lab Sample ID: 360-23561-2

Date Sampled: 07/13/2009 1330

Client Matrix: Water

Date Received: 07/13/2009 1815

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 360-46618	Instrument ID:	Agilent#2 GC/MS
Preparation:	5030B		Lab File ID:	V05781.D
Dilution:	1.0		Initial Weight/Volume:	5 mL
Date Analyzed:	07/14/2009 1807		Final Weight/Volume:	5 mL
Date Prepared:	07/14/2009 1807			

Analyte	Result (ug/L)	Qualifier	RL
2-Chlorotoluene	ND		1.0
1,3,5-Trimethylbenzene	ND		1.0
4-Chlorotoluene	ND		1.0
tert-Butylbenzene	ND		1.0
1,2,4-Trimethylbenzene	ND		1.0
sec-Butylbenzene	ND		1.0
1,3-Dichlorobenzene	ND		1.0
4-Isopropyltoluene	ND		1.0
1,4-Dichlorobenzene	ND		1.0
n-Butylbenzene	ND		1.0
1,2-Dichlorobenzene	ND		1.0
1,2-Dibromo-3-Chloropropane	ND		5.0
1,2,4-Trichlorobenzene	ND		1.0
Hexachlorobutadiene	ND		0.40
Naphthalene	ND		5.0
1,2,3-Trichlorobenzene	ND		1.0
2,2-Dichloropropane	ND		1.0

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	86		70 - 130
Dibromofluoromethane	111		70 - 130
Toluene-d8 (Surr)	96		70 - 130

Analytical Data

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Client Sample ID: EX-1

Lab Sample ID: 360-23561-1

Client Matrix: Water

Date Sampled: 07/13/2009 1330

Date Received: 07/13/2009 1815

MAVPH Massachusetts - Volatile Petroleum Hydrocarbons (GC)

Method:	MAVPH	Analysis Batch: 360-46612	Instrument ID:	Inst. G
Preparation:	5030B		Initial Weight/Volume:	5 mL
Dilution:	1.0		Final Weight/Volume:	5 mL
Date Analyzed:	07/14/2009 1234		Injection Volume:	
Date Prepared:	07/14/2009 1234		Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Benzene	ND		5.0
Ethylbenzene	ND		5.0
m-Xylene & p-Xylene	ND		10
Methyl tert-butyl ether	ND		5.0
Naphthalene	ND		10
o-Xylene	ND		5.0
Toluene	ND		5.0
C5-C8 Aliphatics (unadjusted)	ND		100
C9-C12 Aliphatics (unadjusted)	ND		100
C5-C8 Aliphatics (adjusted)	ND		100
C9-C12 Aliphatics (adjusted)	ND		100
C9-C10 Aromatics	ND		100
Total VPH	ND		100

Surrogate	%Rec	Qualifier	Acceptance Limits
2,5-Dibromotoluene (fid)	97		70 - 130
2,5-Dibromotoluene (pid)	100		70 - 130

Analytical Data

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Client Sample ID: EX-1

Lab Sample ID: 360-23561-1

Date Sampled: 07/13/2009 1330

Client Matrix: Water

Date Received: 07/13/2009 1815

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Method:	8082	Analysis Batch:	360-46568	Instrument ID:	Inst M
Preparation:	3510C	Prep Batch:	360-46560	Initial Weight/Volume:	980 mL
Dilution:	1 0			Final Weight/Volume:	5.0 mL
Date Analyzed:	07/14/2009 1815			Injection Volume:	10 uL
Date Prepared:	07/14/2009 0941			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
PCB-1016	ND		0.31
PCB-1221	ND		0.31
PCB-1232	ND		0.31
PCB-1242	ND		0.31
PCB-1248	ND		0.31
PCB-1254	ND		0.31
PCB-1260	ND		0.31
PCB-1262	ND		0.31
PCB-1268	ND		0.31

Surrogate	%Rec	Qualifier	Acceptance Limits
DCB Decachlorobiphenyl	65		30 - 150
Tetrachloro-m-xylene	79		30 - 150

Analytical Data

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Client Sample ID: EX-1

Lab Sample ID: 360-23561-1

Client Matrix: Water

Date Sampled: 07/13/2009 1330

Date Received: 07/13/2009 1815

6010B Metals (ICP)

Method:	6010B	Analysis Batch:	360-46596	Instrument ID:	Varian ICP
Preparation:	3010A	Prep Batch:	360-46553	Lab File ID:	N/A
Dilution:	1 0			Initial Weight/Volume:	50 mL
Date Analyzed:	07/14/2009 1402			Final Weight/Volume:	50 mL
Date Prepared:	07/14/2009 0812				

Analyte	Result (ug/L)	Qualifier	RL
Antimony	ND		6 0
Arsenic	29		10
Cadmium	3.6		1 0
Copper	320		10
Lead	330		5 0
Magnesium	49000		400
Nickel	68		10
Selenium	ND		10
Silver	ND		5 0
Zinc	440		50
Iron	57000		100
Chromium	120		5 0
Manganese	2700		10
Aluminum	20000		100
Molybdenum	ND		40
Boron	ND		50

6010B Metals (ICP)-Dissolved

Method:	6010B	Analysis Batch:	360-46635	Instrument ID:	Varian ICP
Preparation:	N/A			Lab File ID:	N/A
Dilution:	1 0			Initial Weight/Volume:	
Date Analyzed:	07/15/2009 1159			Final Weight/Volume:	1 0 mL
Date Prepared:					

Analyte	Result (ug/L)	Qualifier	RL
Arsenic	ND		10
Cadmium	ND		1 0
Chromium	ND		5 0
Copper	ND		10
Iron	ND		100
Lead	ND		5 0
Magnesium	17000		400
Nickel	ND		10
Selenium	ND		10
Silver	ND		5 0
Zinc	ND		50
Antimony	ND		6 0
Manganese	ND		10
Aluminum	ND		100
Molybdenum	ND		40
Boron	ND		50

7470A Mercury (CVAA)

Analytical Data

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Client Sample ID: EX-1

Lab Sample ID: 360-23561-1

Client Matrix: Water

Date Sampled: 07/13/2009 1330

Date Received: 07/13/2009 1815

7470A Mercury (CVAA)

Method:	7470A	Analysis Batch:	360-46601	Instrument ID:	Hg Analyzer
Preparation:	7470A	Prep Batch:	360-46557	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	07/14/2009 1535			Final Weight/Volume:	10 mL
Date Prepared:	07/14/2009 0903				

Analyte	Result (ug/L)	Qualifier	RL
Mercury	4.9		0.20

7470A Mercury (CVAA)-Dissolved

Method:	7470A	Analysis Batch:	360-46653	Instrument ID:	Hg Analyzer
Preparation:	7470A	Prep Batch:	360-46611	Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	10 mL
Date Analyzed:	07/15/2009 1529			Final Weight/Volume:	10 mL
Date Prepared:	07/15/2009 0805				

Analyte	Result (ug/L)	Qualifier	RL
Mercury	ND		0.20

Analytical Data

Client: Synergy Environmental, Inc

Job Number: 360-23561-1

General Chemistry

Client Sample ID: EX-1

Lab Sample ID: 360-23561-1

Client Matrix: Water

Date Sampled: 07/13/2009 1330

Date Received: 07/13/2009 1815

Analyte	Result	Qual	Units	RL	Dil	Method
Cyanide, Total	ND		mg/L	0.010	1.0	L204001A CN

Analysis Batch: 360-46639

Date Analyzed: 07/15/2009 1353

Prep Batch: 360-46616

Date Prepared: 07/15/2009 0850

DATA REPORTING QUALIFIERS

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Lab Section	Qualifier	Description
GC/MS VOA		
	*	LCS or LCSD exceeds the control limits
	X	Surrogate exceeds the control limits
Metals		
	F	MS or MSD exceeds the control limits

QUALITY CONTROL RESULTS

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:360-46618					
LCS 360-46618/1	Lab Control Sample	T	Water	8260B	
LCSD 360-46618/2	Lab Control Sample Duplicate	T	Water	8260B	
MB 360-46618/3	Method Blank	T	Water	8260B	
360-23561-1	EX-1	T	Water	8260B	
360-23561-2	Trip Blank	T	Water	8260B	

Report Basis

T = Total

GC VOA

Analysis Batch:360-46612					
LCS 360-46612/1	Lab Control Sample	T	Water	MAVPH	
LCSD 360-46612/2	Lab Control Sample Duplicate	T	Water	MAVPH	
MB 360-46612/3	Method Blank	T	Water	MAVPH	
360-23561-1	EX-1	T	Water	MAVPH	

Report Basis

T = Total

GC Semi VOA

Prep Batch: 360-46560					
LCS 360-46560/2-A	Lab Control Sample	T	Water	3510C	
LCSD 360-46560/3-A	Lab Control Sample Duplicate	T	Water	3510C	
MB 360-46560/1-A	Method Blank	T	Water	3510C	
360-23561-1	EX-1	T	Water	3510C	
Analysis Batch:360-46568					
LCS 360-46560/2-A	Lab Control Sample	T	Water	8082	360-46560
LCSD 360-46560/3-A	Lab Control Sample Duplicate	T	Water	8082	360-46560
MB 360-46560/1-A	Method Blank	T	Water	8082	360-46560
360-23561-1	EX-1	T	Water	8082	360-46560

Report Basis

T = Total

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 360-46553					
LCS 360-46553/2-A	Lab Control Sample	T	Water	3010A	
LCSD 360-46553/3-A	Lab Control Sample Duplicate	T	Water	3010A	
MB 360-46553/1-A	Method Blank	T	Water	3010A	
360-23561-1	EX-1	T	Water	3010A	
Prep Batch: 360-46557					
LCS 360-46557/2-A	Lab Control Sample	T	Water	7470A	
LCSD 360-46557/3-A	Lab Control Sample Duplicate	T	Water	7470A	
MB 360-46557/1-A	Method Blank	T	Water	7470A	
360-23561-1	EX-1	T	Water	7470A	
Analysis Batch:360-46596					
LCS 360-46553/2-A	Lab Control Sample	T	Water	6010B	360-46553
LCSD 360-46553/3-A	Lab Control Sample Duplicate	T	Water	6010B	360-46553
MB 360-46553/1-A	Method Blank	T	Water	6010B	360-46553
360-23561-1	EX-1	T	Water	6010B	360-46553
Analysis Batch:360-46601					
LCS 360-46557/2-A	Lab Control Sample	T	Water	7470A	360-46557
LCSD 360-46557/3-A	Lab Control Sample Duplicate	T	Water	7470A	360-46557
MB 360-46557/1-A	Method Blank	T	Water	7470A	360-46557
360-23561-1	EX-1	T	Water	7470A	360-46557
Prep Batch: 360-46611					
LCS 360-46611/2-A	Lab Control Sample	T	Water	7470A	
LCSD 360-46611/3-A	Lab Control Sample Duplicate	T	Water	7470A	
MB 360-46611/1-A	Method Blank	T	Water	7470A	
360-23561-1	EX-1	D	Water	7470A	
360-23561-1DU	Duplicate	D	Water	7470A	
360-23561-1MS	Matrix Spike	D	Water	7470A	
Analysis Batch:360-46635					
LCS 360-46635/13	Lab Control Sample	T	Water	6010B	
LCSD 360-46635/25	Lab Control Sample Duplicate	T	Water	6010B	
MB 360-46635/14	Method Blank	T	Water	6010B	
360-23561-1	EX-1	D	Water	6010B	
360-23561-1DU	Duplicate	D	Water	6010B	
360-23561-1MS	Matrix Spike	D	Water	6010B	

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch: 360-46653					
LCS 360-46611/2-A	Lab Control Sample	T	Water	7470A	360-46611
LCSD 360-46611/3-A	Lab Control Sample Duplicate	T	Water	7470A	360-46611
MB 360-46611/1-A	Method Blank	T	Water	7470A	360-46611
360-23561-1	EX-1	D	Water	7470A	360-46611
360-23561-1DU	Duplicate	D	Water	7470A	360-46611
360-23561-1MS	Matrix Spike	D	Water	7470A	360-46611

Report Basis

D = Dissolved

T = Total

General Chemistry

Prep Batch: 360-46616					
LCS 360-46616/2-A	Lab Control Sample	T	Water	Distill/CN	
LCSD 360-46616/3-A	Lab Control Sample Duplicate	T	Water	Distill/CN	
MB 360-46616/1-A	Method Blank	T	Water	Distill/CN	
360-23561-1	EX-1	T	Water	Distill/CN	
Analysis Batch: 360-46639					
LCS 360-46616/2-A	Lab Control Sample	T	Water	L204001A CN	360-46616
LCSD 360-46616/3-A	Lab Control Sample Duplicate	T	Water	L204001A CN	360-46616
MB 360-46616/1-A	Method Blank	T	Water	L204001A CN	360-46616
360-23561-1	EX-1	T	Water	L204001A CN	360-46616

Report Basis

T = Total

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Method Blank - Batch: 360-46618

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 360-46618/3
Client Matrix: Water
Dilution: 1 0
Date Analyzed: 07/14/2009 1520
Date Prepared: 07/14/2009 1520

Analysis Batch: 360-46618
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent 7890/5975 GC/MS
Lab File ID: V05773.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
1 1-Dichloroethene	ND		1 0
1,1-Dichloroethane	ND		1 0
1,1,1-Trichloroethane	ND		1 0
1,1-Dichloropropene	ND		1 0
1,2-Dichloroethane	ND		1 0
1 4-Dioxane	ND		50
1,2-Dichloropropane	ND		1 0
2-Butanone (MEK)	ND		10
4-Methyl-2-pentanone (MIBK)	ND		10
Acetone	ND		50
1,1,2-Trichloroethane	ND		1 0
Acrylonitrile	ND		10
Benzene	ND		1 0
1,3-Dichloropropane	ND		1 0
2-Hexanone	ND		10
Bromomethane	ND		2 0
Butyl alcohol, tert-	ND		50
Carbon disulfide	ND		10
1,1,1,2-Tetrachloroethane	ND		1 0
Carbon tetrachloride	ND		1 0
Chlorobenzene	ND		1 0
Chlorobromomethane	ND		1 0
Chlorodibromomethane	ND		0.50
Chloroethane	ND		2 0
Bromoform	ND		1 0
Chloroform	ND		1 0
Chloromethane	ND		2 0
Bromobenzene	ND		1 0
cis-1,2-Dichloroethene	ND		1 0
1,1,2,2-Tetrachloroethane	ND		0 50
cis-1,3-Dichloropropene	ND		0 40
1 2 3-Trichloropropane	ND		1 0
Dibromomethane	ND		1 0
Dichlorobromomethane	ND		1 0
2-Chlorotoluene	ND		1 0
Ethylbenzene	ND		1 0
1,3,5-Trimethylbenzene	ND		1 0
Ethylene Dibromide	ND		1 0
4-Chlorotoluene	ND		1 0
Isopropylbenzene	ND		1 0
1 2,4-Trimethylbenzene	ND		1 0

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Method Blank - Batch: 360-46618

Method: 8260B

Preparation: 5030B

Lab Sample ID: MB 360-46618/3
Client Matrix: Water
Dilution: 1 0
Date Analyzed: 07/14/2009 1520
Date Prepared: 07/14/2009 1520

Analysis Batch: 360-46618
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent 7890/5975 GC/MS
Lab File ID: V05773 D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Methyl tert-butyl ether	ND		1.0
Methylene Chloride	ND		2.0
1,3-Dichlorobenzene	ND		1.0
m-Xylene & p-Xylene	ND		2.0
4-Isopropyltoluene	ND		1.0
1,4-Dichlorobenzene	ND		1.0
n-Butylbenzene	ND		1.0
N-Propylbenzene	ND		1.0
1,2-Dichlorobenzene	ND		1.0
o-Xylene	ND		1.0
1,2-Dibromo-3-Chloropropane	ND		5.0
sec-Butylbenzene	ND		1.0
1,2,4-Trichlorobenzene	ND		1.0
Styrene	ND		1.0
Hexachlorobutadiene	ND		0.40
Tert-amyl methyl ether	ND		5.0
Naphthalene	ND		5.0
tert-Butylbenzene	ND		1.0
1,2,3-Trichlorobenzene	ND		1.0
Tetrachloroethene	ND		1.0
2,2-Dichloropropane	ND		1.0
Toluene	ND		1.0
trans-1,2-Dichloroethene	ND		1.0
trans-1,3-Dichloropropene	ND		0.40
Trichloroethene	ND		1.0
Trichlorofluoromethane	ND		1.0
Vinyl chloride	ND		0.50

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	89	70 - 130
Dibromofluoromethane	102	70 - 130
Toluene-d8 (Surr)	95	70 - 130

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 360-46618

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID: LCS 360-46618/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/14/2009 1417
Date Prepared: 07/14/2009 1417

Analysis Batch: 360-46618
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent 7890/5975 GC/MS
Lab File ID: V05770.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-46618/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/14/2009 1438
Date Prepared: 07/14/2009 1438

Analysis Batch: 360-46618
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent 7890/5975 GC/MS
Lab File ID: V05771.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
1,1-Dichloroethene	94	91	70 - 130	3	25		
1,1-Dichloroethane	95	93	70 - 130	2	25		
1,1,1-Trichloroethane	100	99	70 - 130	0	25		
1,1-Dichloropropene	100	98	70 - 130	2	25		
1,2-Dichloroethane	95	97	70 - 130	2	25		
1,4-Dioxane	70	76	70 - 130	7	25		
1,2-Dichloropropane	101	103	70 - 130	1	25		
2-Butanone (MEK)	77	81	70 - 130	5	25		
4-Methyl-2-pentanone (MIBK)	92	99	70 - 130	7	25		
Acetone	65	68	70 - 130	4	25	*	*
1,1,2-Trichloroethane	96	99	70 - 130	2	25		
Acrylonitrile	92	95	70 - 130	3	25		
Benzene	100	98	70 - 130	2	25		
1,3-Dichloropropane	96	99	70 - 130	3	25		
2-Hexanone	94	101	70 - 130	7	25		
Bromomethane	106	107	70 - 130	1	25		
Butyl alcohol, tert-	80	87	70 - 130	8	25		
Carbon disulfide	110	105	70 - 130	4	25		
1,1,1,2-Tetrachloroethane	96	95	70 - 130	1	25		
Carbon tetrachloride	93	90	70 - 130	3	25		
Chlorobenzene	100	98	70 - 130	1	25		
Chlorobromomethane	96	94	70 - 130	2	25		
Chlorodibromomethane	90	91	70 - 130	1	25		
Chloroethane	110	110	70 - 130	0	25		
Bromoform	91	91	70 - 130	0	25		
Chloroform	92	91	70 - 130	0	25		
Chloromethane	78	83	70 - 130	6	25		
Bromobenzene	98	96	70 - 130	2	25		
cis-1,2-Dichloroethene	96	95	70 - 130	0	25		
1,1,2,2-Tetrachloroethane	90	93	70 - 130	4	25		
cis-1,3-Dichloropropene	93	93	70 - 130	0	25		
1,2,3-Trichloropropane	99	101	70 - 130	2	25		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-46618**

**Method: 8260B
Preparation: 5030B**

LCS Lab Sample ID: LCS 360-46618/1
Client Matrix: Water
Dilution: 10
Date Analyzed: 07/14/2009 1417
Date Prepared: 07/14/2009 1417

Analysis Batch: 360-46618
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent 7890/5975 GC/MS
Lab File ID: V05770.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-46618/2
Client Matrix: Water
Dilution: 10
Date Analyzed: 07/14/2009 1438
Date Prepared: 07/14/2009 1438

Analysis Batch: 360-46618
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent 7890/5975 GC/MS
Lab File ID: V05771.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Dibromomethane	94	94	70 - 130	0	25		
Dichlorobromomethane	96	96	70 - 130	0	25		
2-Chlorotoluene	92	92	70 - 130	1	25		
Ethylbenzene	99	99	70 - 130	0	25		
1,3,5-Trimethylbenzene	91	90	70 - 130	1	25		
Ethylene Dibromide	96	98	70 - 130	2	25		
4-Chlorotoluene	95	94	70 - 130	0	25		
Isopropylbenzene	86	87	70 - 130	0	25		
1,2,4-Trimethylbenzene	90	89	70 - 130	1	25		
Methyl tert-butyl ether	96	99	70 - 130	3	25		
Methylene Chloride	93	94	70 - 130	1	25		
1,3-Dichlorobenzene	103	100	70 - 130	3	25		
m-Xylene & p-Xylene	96	96	70 - 130	0	25		
4-Isopropyltoluene	92	90	70 - 130	3	25		
1,4-Dichlorobenzene	103	98	70 - 130	5	25		
n-Butylbenzene	88	85	70 - 130	3	25		
N-Propylbenzene	93	92	70 - 130	1	25		
1,2-Dichlorobenzene	100	96	70 - 130	4	25		
o-Xylene	83	84	70 - 130	0	25		
1,2-Dibromo-3-Chloropropane	87	89	70 - 130	2	25		
sec-Butylbenzene	91	89	70 - 130	2	25		
1,2,4-Trichlorobenzene	85	81	70 - 130	5	25		
Styrene	88	88	70 - 130	1	25		
Hexachlorobutadiene	95	89	70 - 130	7	25		
Tert-amyl methyl ether	100	105	70 - 130	5	25		
Naphthalene	90	89	70 - 130	1	25		
tert-Butylbenzene	88	86	70 - 130	3	25		
1,2,3-Trichlorobenzene	100	97	70 - 130	3	25		
Tetrachloroethene	103	100	70 - 130	3	25		
2,2-Dichloropropane	116	107	70 - 130	7	25		
Toluene	102	100	70 - 130	2	25		
trans-1,2-Dichloroethene	93	91	70 - 130	2	25		

Calculations are performed before rounding to avoid round-off errors in calculated results

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 360-46618

Method: 8260B

Preparation: 5030B

LCS Lab Sample ID: LCS 360-46618/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/14/2009 1417
Date Prepared: 07/14/2009 1417

Analysis Batch: 360-46618
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent 7890/5975 GC/MS
Lab File ID: V05770.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

LCSD Lab Sample ID: LCSD 360-46618/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/14/2009 1438
Date Prepared: 07/14/2009 1438

Analysis Batch: 360-46618
Prep Batch: N/A
Units: ug/L

Instrument ID: Agilent 7890/5975 GC/MS
Lab File ID: V05771.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
trans-1 3-Dichloropropene	105	109	70 - 130	3	25		
Trichloroethene	100	96	70 - 130	3	25		
Trichlorofluoromethane	99	97	70 - 130	2	25		
Vinyl chloride	83	84	70 - 130	1	25		
Surrogate	% Rec		% Rec		Acceptance Limits		
4-Bromofluorobenzene	97		99		70 - 130		
Dibromofluoromethane	95		94		70 - 130		
Toluene-d8 (Surr)	104		104		70 - 130		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Method Blank - Batch: 360-46612

Method: MAVPH

Preparation: 5030B

Lab Sample ID: MB 360-46612/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/14/2009 1200
Date Prepared: 07/14/2009 1200

Analysis Batch: 360-46612
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 5890II GC w/ PID/FID
Lab File ID: G17051 D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	RL
Benzene	ND		5.0
Ethylbenzene	ND		5.0
m-Xylene & p-Xylene	ND		10
Methyl tert-butyl ether	ND		5.0
Naphthalene	ND		10
o-Xylene	ND		5.0
Toluene	ND		5.0
C5-C8 Aliphatics (unadjusted)	ND		100
C9-C12 Aliphatics (unadjusted)	ND		100
C5-C8 Aliphatics (adjusted)	ND		100
C9-C12 Aliphatics (adjusted)	ND		100
C9-C10 Aromatics	ND		100
Total VPH	ND		100

Surrogate	% Rec	Acceptance Limits
2,5-Dibromotoluene (fid)	98	70 - 130
2,5-Dibromotoluene (pid)	105	70 - 130

Calculations are performed before rounding to avoid round-off errors in calculated results

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-46612**

**Method: MAVPH
Preparation: 5030B**

LCS Lab Sample ID: LCS 360-46612/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/14/2009 1021
Date Prepared: 07/14/2009 1021

Analysis Batch: 360-46612
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 5890II GC w/ PID/FID
Lab File ID: G17048.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 360-46612/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/14/2009 1054
Date Prepared: 07/14/2009 1054

Analysis Batch: 360-46612
Prep Batch: N/A
Units: ug/L

Instrument ID: HP 5890II GC w/ PID/FID
Lab File ID: G17049.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL
Injection Volume:
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Benzene	95	92	70 - 130	4	25		
Ethylbenzene	90	87	70 - 130	3	25		
m-Xylene & p-Xylene	93	89	70 - 130	4	25		
Methyl tert-butyl ether	90	85	70 - 130	5	25		
Naphthalene	90	87	70 - 130	3	25		
o-Xylene	90	87	70 - 130	3	25		
Toluene	96	92	70 - 130	4	25		
C5-C8 Aliphatics (unadjusted)	96	91	70 - 130	5	25		
C9-C12 Aliphatics (unadjusted)	94	89	70 - 130	6	25		
C9-C10 Aromatics	106	99	70 - 130	7	25		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
2,5-Dibromotoluene (fid)	99		99		70 - 130		
2,5-Dibromotoluene (pid)	94		93		70 - 130		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Method Blank - Batch: 360-46560

Method: 8082

Preparation: 3510C

Lab Sample ID: MB 360-46560/1-A

Analysis Batch: 360-46568

Instrument ID: 6890 GC w/ dual micro-ECDs

Client Matrix: Water

Prep Batch: 360-46560

Lab File ID: M16167.D

Dilution: 1.0

Units: ug/L

Initial Weight/Volume: 1000 mL

Date Analyzed: 07/14/2009 1710

Final Weight/Volume: 5.0 mL

Date Prepared: 07/14/2009 0941

Injection Volume: 1.0 uL

Column ID: PRIMARY

Analyte	Result	Qual	RL
PCB-1016	ND		0.30
PCB-1221	ND		0.30
PCB-1232	ND		0.30
PCB-1242	ND		0.30
PCB-1248	ND		0.30
PCB-1254	ND		0.30
PCB-1260	ND		0.30
PCB-1262	ND		0.30
PCB-1268	ND		0.30

Surrogate	% Rec	Acceptance Limits
DCB Decachlorobiphenyl	94	30 - 150
Tetrachloro-m-xylene	76	30 - 150

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 360-46560

Method: 8082

Preparation: 3510C

LCS Lab Sample ID: LCS 360-46560/2-A

Client Matrix: Water

Dilution: 1.0

Date Analyzed: 07/14/2009 1732

Date Prepared: 07/14/2009 0941

Analysis Batch: 360-46568

Prep Batch: 360-46560

Units: ug/L

Instrument ID: 6890 GC w/ dual micro-ECDs

Lab File ID: M16168.D

Initial Weight/Volume: 1000 mL

Final Weight/Volume: 5.0 mL

Injection Volume: 1.0 uL

Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 360-46560/3-A

Client Matrix: Water

Dilution: 1.0

Date Analyzed: 07/14/2009 1753

Date Prepared: 07/14/2009 0941

Analysis Batch: 360-46568

Prep Batch: 360-46560

Units: ug/L

Instrument ID: 6890 GC w/ dual micro-ECD

Lab File ID: M16169.D

Initial Weight/Volume: 1000 mL

Final Weight/Volume: 5.0 mL

Injection Volume: 1.0 uL

Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
PCB-1016	87	89	40 - 140	3	20		
PCB-1260	94	94	40 - 140	1	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
DCB Decachlorobiphenyl	98		94		30 - 150		
Tetrachloro-m-xylene	81		82		30 - 150		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Method Blank - Batch: 360-46553

Method: 6010B

Preparation: 3010A

Lab Sample ID: MB 360-46553/1-A

Analysis Batch: 360-46596

Instrument ID: Varian 720 ES ICP

Client Matrix: Water

Prep Batch: 360-46553

Lab File ID: N/A

Dilution: 1 0

Units: ug/L

Initial Weight/Volume: 50 mL

Date Analyzed: 07/14/2009 1327

Final Weight/Volume: 50 mL

Date Prepared: 07/14/2009 0736

Analyte	Result	Qual	RL
Arsenic	ND		10
Cadmium	ND		1.0
Copper	ND		10
Lead	ND		5.0
Magnesium	ND		400
Nickel	ND		10
Selenium	ND		10
Silver	ND		5.0
Zinc	ND		50
Antimony	ND		6.0
Iron	ND		100
Chromium	ND		5.0
Manganese	ND		10
Aluminum	ND		100
Molybdenum	ND		40
Boron	ND		50

Calculations are performed before rounding to avoid round-off errors in calculated results

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 360-46553

Method: 6010B

Preparation: 3010A

LCS Lab Sample ID: LCS 360-46553/2-A
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 07/14/2009 1330
 Date Prepared: 07/14/2009 0736

Analysis Batch: 360-46596
 Prep Batch: 360-46553
 Units: ug/L

Instrument ID: Varian 720 ES ICP
 Lab File ID: N/A
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

LCSD Lab Sample ID: LCSD 360-46553/3-A
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 07/14/2009 1333
 Date Prepared: 07/14/2009 0736

Analysis Batch: 360-46596
 Prep Batch: 360-46553
 Units: ug/L

Instrument ID: Varian 720 ES ICP
 Lab File ID: N/A
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Arsenic	89	88	80 - 120	1	20		
Cadmium	91	89	80 - 120	2	20		
Copper	92	91	80 - 120	1	20		
Lead	90	89	80 - 120	1	20		
Magnesium	90	88	80 - 120	2	20		
Nickel	91	90	80 - 120	2	20		
Selenium	91	90	80 - 120	1	20		
Silver	92	91	80 - 120	2	20		
Zinc	93	91	80 - 120	2	20		
Antimony	87	85	80 - 120	2	20		
Iron	93	91	80 - 120	2	20		
Chromium	91	89	80 - 120	2	20		
Manganese	92	90	80 - 120	2	20		
Aluminum	91	90	80 - 120	1	20		
Molybdenum	88	88	80 - 120	1	20		
Boron	86	86	80 - 120	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Method Blank - Batch: 360-46635

Method: 6010B
Preparation: N/A

Lab Sample ID: MB 360-46635/14
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/15/2009 1052
Date Prepared: N/A

Analysis Batch: 360-46635
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 720 ES ICP
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Arsenic	ND		10
Cadmium	ND		1.0
Copper	ND		10
Lead	ND		5.0
Magnesium	ND		400
Nickel	ND		10
Selenium	ND		10
Silver	ND		5.0
Zinc	ND		50
Antimony	ND		6.0
Iron	ND		100
Chromium	ND		5.0
Manganese	ND		10
Aluminum	ND		100
Molybdenum	ND		40
Boron	ND		50

Calculations are performed before rounding to avoid round-off errors in calculated results

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-46635**

**Method: 6010B
Preparation: N/A**

LCS Lab Sample ID: LCS 360-46635/13
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/15/2009 1050
Date Prepared: N/A

Analysis Batch: 360-46635
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 720 ES ICP
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 360-46635/25
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/15/2009 1229
Date Prepared: N/A

Analysis Batch: 360-46635
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 720 ES ICP
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Arsenic	101	100	80 - 120	1	20		
Cadmium	100	99	80 - 120	2	20		
Copper	101	99	80 - 120	2	20		
Lead	101	99	80 - 120	1	20		
Magnesium	100	99	80 - 120	1	20		
Nickel	100	99	80 - 120	1	20		
Selenium	101	100	80 - 120	1	20		
Silver	101	100	80 - 120	1	20		
Zinc	100	98	80 - 120	2	20		
Antimony	101	100	80 - 120	1	20		
Iron	100	100	80 - 120	0	20		
Chromium	100	99	80 - 120	1	20		
Manganese	100	99	80 - 120	1	20		
Aluminum	101	100	80 - 120	0	20		
Molybdenum	101	99	80 - 120	1	20		
Boron	101	100	80 - 120	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Matrix Spike - Batch: 360-46635

Method: 6010B

Preparation: N/A

Lab Sample ID: 360-23561-1
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 07/15/2009 1204
 Date Prepared: N/A

Analysis Batch: 360-46635
 Prep Batch: N/A
 Units: ug/L

Instrument ID: Varian 720 ES ICP
 Lab File ID: N/A
 Initial Weight/Volume:
 Final Weight/Volume: 10 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec	Limit	Qual
Arsenic	ND	1000	1000	100	75 - 125	
Cadmium	ND	1000	954	95	75 - 125	
Copper	ND	1000	959	95	75 - 125	
Lead	ND	1000	932	93	75 - 125	
Magnesium	17000	20000	35600	93	75 - 125	
Nickel	ND	1000	942	94	75 - 125	
Selenium	ND	1000	993	99	75 - 125	
Silver	ND	1000	924	92	75 - 125	
Zinc	ND	1000	966	97	75 - 125	
Antimony	ND	1000	1000	100	75 - 125	
Iron	ND	5000	4540	90	75 - 125	
Chromium	ND	1000	938	94	75 - 125	
Manganese	ND	1000	935	93	75 - 125	
Aluminum	ND	5000	4890	98	75 - 125	
Molybdenum	ND	1000	654	65	75 - 125	F
Boron	ND	1000	1040	102	75 - 125	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Duplicate - Batch: 360-46635

Method: 6010B

Preparation: N/A

Lab Sample ID: 360-23561-1
Client Matrix: Water
Dilution: 1 0
Date Analyzed: 07/15/2009 1202
Date Prepared: N/A

Analysis Batch: 360-46635
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 720 ES ICP
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Arsenic	ND	ND	NC	20	
Cadmium	ND	ND	3	20	
Copper	ND	ND	2	20	
Lead	ND	ND	NC	20	
Magnesium	17000	17100	0	20	
Nickel	ND	ND	5	20	
Selenium	ND	ND	NC	20	
Silver	ND	ND	NC	20	
Zinc	ND	ND	NC	20	
Antimony	ND	ND	NC	20	
Iron	ND	ND	1	20	
Chromium	ND	ND	NC	20	
Manganese	ND	ND	1	20	
Aluminum	ND	ND	NC	20	
Molybdenum	ND	ND	NC	20	
Boron	ND	ND	3	20	

Calculations are performed before rounding to avoid round-off errors in calculated results

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Method Blank - Batch: 360-46557

Method: 7470A

Preparation: 7470A

Lab Sample ID: MB 360-46557/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/14/2009 1506
Date Prepared: 07/14/2009 0903

Analysis Batch: 360-46601
Prep Batch: 360-46557
Units: ug/L

Instrument ID: Leeman Labs Automated
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Mercury	ND		0.20

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 360-46557

Method: 7470A

Preparation: 7470A

LCS Lab Sample ID: LCS 360-46557/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/14/2009 1512
Date Prepared: 07/14/2009 0903

Analysis Batch: 360-46601
Prep Batch: 360-46557
Units: ug/L

Instrument ID: Leeman Labs Automated
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 360-46557/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/14/2009 1514
Date Prepared: 07/14/2009 0903

Analysis Batch: 360-46601
Prep Batch: 360-46557
Units: ug/L

Instrument ID: Leeman Labs Automated
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Mercury	102	107	80 - 120	5	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Method Blank - Batch: 360-46611

Method: 7470A

Preparation: 7470A

Lab Sample ID: MB 360-46611/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/15/2009 1519
Date Prepared: 07/15/2009 0805

Analysis Batch: 360-46653
Prep Batch: 360-46611
Units: ug/L

Instrument ID: Leeman Labs Automated
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
Mercury	ND		0.20

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 360-46611

Method: 7470A

Preparation: 7470A

LCS Lab Sample ID: LCS 360-46611/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/15/2009 1520
Date Prepared: 07/15/2009 0805

Analysis Batch: 360-46653
Prep Batch: 360-46611
Units: ug/L

Instrument ID: Leeman Labs Automated
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 360-46611/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/15/2009 1527
Date Prepared: 07/15/2009 0805

Analysis Batch: 360-46653
Prep Batch: 360-46611
Units: ug/L

Instrument ID: Leeman Labs Automated
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Mercury	105	109	80 - 120	4	20		

Calculations are performed before rounding to avoid round-off errors in calculated results

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Matrix Spike - Batch: 360-46611

Lab Sample ID: 360-23561-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/15/2009 1532
Date Prepared: 07/15/2009 0805

Analysis Batch: 360-46653
Prep Batch: 360-46611
Units: ug/L

Method: 7470A
Preparation: 7470A
Dissolved

Instrument ID: Leeman Labs Automated
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec	Limit	Qual
Mercury	ND	5.00	5.91	118	75 - 125	

Duplicate - Batch: 360-46611

Lab Sample ID: 360-23561-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/15/2009 1530
Date Prepared: 07/15/2009 0805

Analysis Batch: 360-46653
Prep Batch: 360-46611
Units: ug/L

Method: 7470A
Preparation: 7470A
Dissolved

Instrument ID: Leeman Labs Automated
Lab File ID: N/A
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	ND	ND	NC	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23561-1

Method Blank - Batch: 360-46616

Method: L204001A CN

Preparation: Distill/CN

Lab Sample ID: MB 360-46616/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/15/2009 1357
Date Prepared: 07/15/2009 0850

Analysis Batch: 360-46639
Prep Batch: 360-46616
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 30 mL

Analyte	Result	Qual	RL
Cyanide, Total	ND		0.010

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 360-46616

Method: L204001A CN

Preparation: Distill/CN

LCS Lab Sample ID: LCS 360-46616/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/15/2009 1351
Date Prepared: 07/15/2009 0850

Analysis Batch: 360-46639
Prep Batch: 360-46616
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 30 mL

LCSD Lab Sample ID: LCSD 360-46616/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/15/2009 1352
Date Prepared: 07/15/2009 0850

Analysis Batch: 360-46639
Prep Batch: 360-46616
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 30 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Cyanide, Total	98	99	85 - 115	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results

State Accreditation Matrix

Method Name	Description	State where Primary Accreditation is Carried				
		New York (NELAC)	Mass	Conn	Florida (NELAC)	North Carolina
821-R-02-012	Toxicity, Acute (48-Hour)(list upon request)				NP	
SM 4500 Cl F	Chlorine, Residual		NP			
SM 9215B	Heterotrophic Plate Count (Pour Plate Method)		P			
SM 9215E	Heterotrophic Plate Count (SimPlate)		P			
SM 9221F	E.Coli (Multiple-Tube Fermentation; EC-MUG)		P			
SM 9222B	Coliforms, Total (Membrane Filter)		P			
SM 9222D	Coliforms, Fecal (Membrane Filter)		P/NP			
SM 9223	Coliforms, Total, and E.Coli (Colilert-P/A)		P			
200.8	Metals (ICP/MS) (list upon request)	NP/P	NP/P	NP/P		
200.7 Rev 4.4	Metals (ICP)(list upon request)	NP/P	NP/P	NP/P		
6010B	Metals (ICP)(list upon request)	NP/SW		NP/SW		
245.1	Mercury (CVAA)	NP/P	NP	NP/P		
7470A	Mercury (CVAA)	NP		NP		
7471A	Mercury (CVAA)	SW		SW		
SM 2340B	Total Hardness (as CaCO3) by calculation	NP/P	NP	NP/P		
3005A	Preparation, Total Recoverable or Dissolved Metals	NP/P		NP/P		
3010A	Preparation, Total Metals	NP/P		NP/P		
3020A	Preparation, Total Metals	NP/P/SW		NP/P/SW		
3050B	Preparation, Metals	SW		SW		
504.1	EDB, DBCP and 1,2,3-TCP (GC)		P	P		
608	Organochlorine Pest/PCBs (list upon request)	NP	NP	NP		
625	Semivolatile Org Comp (GC/MS)(list upon request)	NP		NP		
3546	Microwave Extraction	SW				
3510C	Liquid-Liquid Extraction (Separatory Funnel)	NP		NP		
3540C	Soxhlet Extraction					
3550B	Ultrasonic Extraction	SW		SW		
600/4-81-045	Polychlorinated Biphenyls (PCBs) (GC)		NP	NP		
8081A	Organochlorine Pesticides (GC)(list upon request)	NP/SW		NP/SW		
8082A	PCBs by Gas Chromatography(list upon request)	NP/SW		NP/SW		
8270C	Semivolatile Comp.(GC/MS)(list upon request)	NP/SW		NP/SW		
CT ETPH	Conn - Ext. Total petroleum Hydrocarbons (GC)			NP/SW		
MA-EPH	Mass - Extractable Petroleum Hydrocarbons (GC)			NP/SW		NP/SW
524.2	Volatile Org Comp (GC/MS)(list upon request)	P	P	P		
524.2	Trihalomethanes		P	P		
624	Volatile Org Comp (GC/MS)(list upon request)	NP	NP	NP		
5035	Closed System Purge and Trap	SW		SW		
5030B	Purge and Trap	NP		NP		
8260B	Volatile Org Comp. (GC/MS)(list upon request)	NP/SW		NP/SW		
MAVPH	Mass - Volatile Petroleum Hydrocarbons (GC)			NP/SW		NP/SW
180.1	Turbidity, Nephelometric		P	P		
300	Anions, Ion Chromatography	NP/P	NP/P	NP/P		
410.4	COD	NP	NP	NP		
1010	Ignitability, Pensky-Martens Closed-Cup Method	SW		SW		
10-107-06-2	Nitrogen, Total Kjeldahl	NP	NP	NP		
7196A	Chromium, Hexavalent	NP/SW		NP/SW		
9012A	Cyanide, Total and/or Amenable	NP/SW		NP/SW		
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	NP		NP		
9040B	pH	NP		NP		
9045C	pH	SW		SW		
L107041C	Nitrogen, Nitrate	NP	P	NP/P		
L107-06-1B	Nitrogen Ammonia	NP	NP	NP/P		
L204001A CN	Cyanide, Total		NP/P	NP/P		
L210-001A	Phenolics, Total Recoverable	NP	NP	NP		
SM 2320B	Alkalinity	NP/P	NP/P	NP/P		
SM 2510B	Conductivity, Specific Conductance	NP/P	NP/P	NP/P		
SM 2540C	Solids, Total Dissolved (TDS)	NP/P	NP/P	NP/P		
SM 2540D	Solids, Total Suspended (TSS)	NP	NP	NP		
SM 3500 CR D	Chromium, Hexavalent	NP		NP		
SM 4500 H+ B	pH	NP/P	NP/P	NP/P		
SM 4500 NO2 B	Nitrogen, Nitrite	NP	P	NP/P		
SM 4500 P E	Phosphorus, Orthophosphate	NP/P	NP	NP/P		
SM 4500 P E	Phosphorus, Total	NP	NP	NP		
SM 4500 S2 D	Sulfide, Total	NP		NP		
SM 5210B	BOD, 5-Day	NP	NP	NP		
SM 5310B	Organic Carbon, Total (TOC)	NP/P	NP	NP/P		

Not all organic compounds are accredited under NELAC

For methods with multiple compounds all compounds may not meet NELAC criteria, listing should be obtained from the laboratory

The lab carries additional accreditations with several states. This is listing is subject to change based on the laboratories current certification standing

Login Sample Receipt Check List

Client: Synergy Environmental Inc.

Job Number: 360-23561-1

Login Number: 23561

List Source: TestAmerica Westfield

Creator: Rinard, Kimberley A

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal if present, is intact	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	3 0 C
Cooler Temperature is recorded	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC	True	
Samples are received within Holding Time	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol for all requested analyses incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

ANALYTICAL REPORT

Job Number: 360-23664-1

Job Description: North Adams RGP

For:

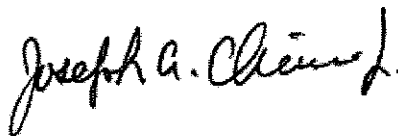
Synergy Environmental, Inc.

155 Railroad Plaza

1st Floor

Royersford, PA 19468

Attention: Mr. Christopher Horan



Approved for release
Joe Chimi
Report Production Representative
7/21/09 11:51 AM

Designee for
Becky C Mason
Project Manager II
becky.mason@testamericainc.com
07/21/2009

Results relate only to the items tested and the sample(s) as received by the laboratory. The test results in this report meet all NELAC requirements for accredited parameters, exceptions are noted in this report. Pursuant to NELAC, this report may not be reproduced except in full, and with written approval from the laboratory. TestAmerica Westfield Certifications and Approvals: MADEP MA014, RIDOH57, CTDPH 0494, VT DECWSD, NH DES 2539, NELAP FL E87912 TOX, NELAP NJ MA008 TOX, NELAP NY 10843, NY ELAP 10843, North Carolina 647, NELAP PA 68-04386. Field sampling is performed under SOPs WE-FLD-001 and WE-FLD-002.

TestAmerica Laboratories, Inc.

TestAmerica Westfield Westfield Executive Park, 53 Southampton Road, Westfield, MA 01085

Tel (413) 572-4000 Fax (413) 572-3707 www.testamericainc.com



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Job Narrative
360-J23664-1

Method 8270C: The surrogate Phenol-d5 recovered low and outside control limits for sample 360-23664-1 and its associated method blank, LCS and LCSD. In all cases, the recovery of Phenol-d5 was at or above 10%. Per method SOP, re-extraction is only required if two or more surrogates from any one fraction or any single surrogate falls below 10%.

Method 7196A: The initial calibration verification (ICV) for analytical batch 46814 exceeded control criteria for hexavalent chromium by 4% (recovery found = 114%; acceptable range is 90-110%). Since the result for sample 360-23664-1 reported as "ND", no further action was required other than to qualify the data.

METHOD SUMMARY

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Semivolatile Organic Compounds by GCMS - Low Levels	TAL WFD	SW846 8270C LL	
Liquid-Liquid Extraction (Separatory Funnel)	TAL WFD		SW846 3510C
EDB, DBCP, and 1,2,3-TCP (GC)	TAL WFD	SW846 8011	
Microextraction	TAL WFD		SW846 8011
Carbonyl Compounds (HPLC)	TAL TAL	SW846 8315A	
Solid-Phase Extraction (SPE)	TAL TAL		SW846 8315_W_Prep
Chromium, Hexavalent	TAL WFD	SW846 7196A	
Phenolics, Total Recoverable	TAL WFD	LACHAT L210-001A	
Distillation, Phenolics	TAL WFD		Distill/Phenol
Solids, Total Suspended (TSS)	TAL WFD	SM SM 2540D	
Chlorine, Residual	TAL WFD	SM SM 4500 Cl F	
pH	TAL WFD	SM SM 4500 H+ B	
EPA 1664 TPH	SC0052	EPA 1664	

Lab References:

SC0052 = Waste Water Environmental Management, Inc

TAL TAL = TestAmerica Tallahassee

TAL WFD = TestAmerica Westfield

Method References:

EPA = US Environmental Protection Agency

LACHAT = LACHAT

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Method	Analyst	Analyst ID
SW846 8270C LL	Sullivan, Pat J	PJS
SW846 8315A	Driver, Robert	RD
SW846 8011	Pham, Tam	TP
SW846 7196A	Emerich, Rich W	RWE
LACHAT L210-001A	Emerich, Rich W	RWE
SM SM 2540D	Sadowski, Scott	SS
SM SM 4500 Cl F	LaPlante, Carrie A	CAL
SM SM 4500 H+ B	Emerich, Rich W	RWE

SAMPLE SUMMARY

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
360-23664-1	EX-1	Water	07/17/2009 1430	07/17/2009 1645

SAMPLE RESULTS

Analytical Data

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Client Sample ID: EX-1

Lab Sample ID: 360-23664-1

Client Matrix: Water

Date Sampled: 07/17/2009 1430

Date Received: 07/17/2009 1645

8270C LL Semivolatile Organic Compounds by GCMS - Low Levels

Method:	8270C LL	Analysis Batch: 360-46775	Instrument ID:	Inst. B
Preparation:	3510C	Prep Batch: 360-46770	Lab File ID:	B9666.D
Dilution:	1.0		Initial Weight/Volume:	990 mL
Date Analyzed:	07/20/2009 1519		Final Weight/Volume:	1.0 mL
Date Prepared:	07/20/2009 1024		Injection Volume:	1.0 uL

Analyte	Result (ug/L)	Qualifier	RL
2,4,5-Trichlorophenol	ND		5.1
2,4,6-Trichlorophenol	ND		5.1
2,4-Dichlorophenol	ND		5.1
2,4-Dinitrophenol	ND		5.1
2,4-Dimethylphenol	ND		5.1
2-Chlorophenol	ND		5.1
2-Methylphenol	ND		5.1
2-Nitrophenol	ND		5.1
3 & 4 Methylphenol	ND		5.1
4,6-Dinitro-2-methylphenol	ND		5.1
4-Chloro-3-methylphenol	ND		5.1
4-Nitrophenol	ND	*	5.1
Acenaphthene	ND		1.0
Acenaphthylene	1.1		0.30
Anthracene	ND		1.0
Benzo[a]anthracene	1.7		0.30
Benzo[a]pyrene	3.7		0.20
Benzo[b]fluoranthene	2.6		0.30
Benzo[g,h,i]perylene	2.7		0.51
Benzo[k]fluoranthene	1.0		0.30
Bis(2-ethylhexyl) phthalate	ND		2.0
Butyl benzyl phthalate	ND		5.1
Chrysene	1.7		1.0
Di-n-butyl phthalate	ND		5.1
Di-n-octyl phthalate	ND		5.1
Dibenz(a,h)anthracene	0.94		0.51
Diethyl phthalate	ND		5.1
Dimethyl phthalate	ND		5.1
Fluoranthene	1.5		1.0
Fluorene	ND		1.0
Indeno[1,2,3-cd]pyrene	1.6		0.51
Naphthalene	ND		1.0
Pentachlorophenol	ND		1.0
Phenanthrene	0.29		0.20
Phenol	ND	*	5.1
Pyrene	ND		5.1

Surrogate	%Rec	Qualifier	Acceptance Limits
2,4,6-Tribromophenol	88		15 - 110
2-Fluorobiphenyl	63		30 - 130
2-Fluorophenol	24		15 - 110
Phenol-d5	13	X	15 - 110
Terphenyl-d14	55		30 - 130
Nitrobenzene-d5	77		30 - 130

Analytical Data

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Client Sample ID: EX-1

Lab Sample ID: 360-23664-1

Date Sampled: 07/17/2009 1430

Client Matrix: Water

Date Received: 07/17/2009 1645

8011 EDB, DBCP, and 1,2,3-TCP (GC)

Method:	8011	Analysis Batch:	360-46764	Instrument ID:	Inst. U
Preparation:	8011	Prep Batch:	360-46765	Initial Weight/Volume:	35.41 mL
Dilution:	1.0			Final Weight/Volume:	35 mL
Date Analyzed:	07/20/2009 1049			Injection Volume:	1 uL
Date Prepared:	07/20/2009 0917			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Ethylene Dibromide	ND		0.020

Analytical Data

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Client Sample ID: EX-1

Lab Sample ID: 360-23664-1

Client Matrix: Water

Date Sampled: 07/17/2009 1430

Date Received: 07/17/2009 1652

8315A Carbonyl Compounds (HPLC)

Method:	8315A	Analysis Batch:	640-58834	Instrument ID:	LCM
Preparation:	8315_W_Prep	Prep Batch:	640-58809	Lab File ID:	3G20M10.d
Dilution:	1 0			Initial Weight/Volume:	100 mL
Date Analyzed:	07/20/2009 1741			Final Weight/Volume:	4.0 mL
Date Prepared:	07/20/2009 1318			Injection Volume:	10 uL

Analyte	Result (ug/L)	Qualifier	RL
Formaldehyde	ND		50

Analytical Data

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

General Chemistry**Client Sample ID: EX-1**

Lab Sample ID: 360-23664-1

Date Sampled: 07/17/2009 1430

Client Matrix: Water

Date Received: 07/17/2009 1645

Analyte	Result	Qual	Units	RL	Dil	Method
Total Suspended Solids	1600		mg/L	20	1.0	SM 2540D
	Analysis Batch: 360-46771	Date Analyzed: 07/20/2009 1046				
Chlorine	ND	HF	mg/L	0.020	1.0	SM 4500 Cl F
	Analysis Batch: 360-46763	Date Analyzed: 07/18/2009 1535				
Phenols, Total	0.012		mg/L	0.010	1.0	L210-001A
	Analysis Batch: 360-46808	Date Analyzed: 07/20/2009 1336				
	Prep Batch: 360-46782	Date Prepared: 07/20/2009 1110				
Cr (VI)	ND	^	mg/L	0.0050	1.0	7196A
	Analysis Batch: 360-46814	Date Analyzed: 07/18/2009 1200				
pH	7.85	HF	SU	0.100	1.0	SM 4500 H+ B
	Analysis Batch: 360-46804	Date Analyzed: 07/20/2009 1352				

DATA REPORTING QUALIFIERS

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	*	LCS or LCSD exceeds the control limits
	X	Surrogate exceeds the control limits
General Chemistry		
	HF	Field parameter with a holding time of 15 minutes
	^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

QUALITY CONTROL RESULTS

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 360-46770					
LCS 360-46770/2-A	Lab Control Sample	T	Water	3510C	
LCSD 360-46770/3-A	Lab Control Sample Duplicate	T	Water	3510C	
MB 360-46770/1-A	Method Blank	T	Water	3510C	
360-23664-1	EX-1	T	Water	3510C	
Analysis Batch: 360-46775					
LCS 360-46770/2-A	Lab Control Sample	T	Water	8270C LL	360-46770
LCSD 360-46770/3-A	Lab Control Sample Duplicate	T	Water	8270C LL	360-46770
MB 360-46770/1-A	Method Blank	T	Water	8270C LL	360-46770
360-23664-1	EX-1	T	Water	8270C LL	360-46770

Report Basis

T = Total

HPLC

Prep Batch: 640-58809					
LCS 640-58809/7-A	Lab Control Sample	T	Water	8315_W_Prep	
LCSD 640-58809/8-A	Lab Control Sample Duplicate	T	Water	8315_W_Prep	
MB 640-58809/1-A	Method Blank	T	Water	8315_W_Prep	
360-23664-1	EX-1	T	Water	8315_W_Prep	
360-23664-1MS	Matrix Spike	T	Water	8315_W_Prep	
360-23664-1MSD	Matrix Spike Duplicate	T	Water	8315_W_Prep	
Analysis Batch: 640-58834					
LCS 640-58809/7-A	Lab Control Sample	T	Water	8315A	640-58809
LCSD 640-58809/8-A	Lab Control Sample Duplicate	T	Water	8315A	640-58809
MB 640-58809/1-A	Method Blank	T	Water	8315A	640-58809
360-23664-1	EX-1	T	Water	8315A	640-58809
360-23664-1MS	Matrix Spike	T	Water	8315A	640-58809
360-23664-1MSD	Matrix Spike Duplicate	T	Water	8315A	640-58809

Report Basis

T = Total

Quality Control Results

Client: Synergy Environmental, Inc

Job Number: 360-23664-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch: 360-46764					
LCS 360-46765/3-A	Lab Control Sample	T	Water	8011	360-46765
LCSD 360-46765/4-A	Lab Control Sample Duplicate	T	Water	8011	360-46765
MB 360-46765/2-A	Method Blank	T	Water	8011	360-46765
360-23664-1	EX-1	T	Water	8011	360-46765
360-23664-1MS	Matrix Spike	T	Water	8011	360-46765
360-23664-1MSD	Matrix Spike Duplicate	T	Water	8011	360-46765
Prep Batch: 360-46765					
LCS 360-46765/3-A	Lab Control Sample	T	Water	8011	
LCSD 360-46765/4-A	Lab Control Sample Duplicate	T	Water	8011	
MB 360-46765/2-A	Method Blank	T	Water	8011	
360-23664-1	EX-1	T	Water	8011	
360-23664-1MS	Matrix Spike	T	Water	8011	
360-23664-1MSD	Matrix Spike Duplicate	T	Water	8011	

Report Basis

T = Total

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:360-46763					
LCS 360-46763/2	Lab Control Sample	T	Water	SM 4500 Cl F	
LCSD 360-46763/3	Lab Control Sample Duplicate	T	Water	SM 4500 Cl F	
MB 360-46763/1	Method Blank	T	Water	SM 4500 Cl F	
360-23664-1	EX-1	T	Water	SM 4500 Cl F	
Analysis Batch:360-46771					
LCS 360-46771/2	Lab Control Sample	T	Water	SM 2540D	
MB 360-46771/1	Method Blank	T	Water	SM 2540D	
360-23664-1	EX-1	T	Water	SM 2540D	
360-23664-1DU	Duplicate	T	Water	SM 2540D	
Prep Batch: 360-46782					
LCS 360-46782/2-A	Lab Control Sample	T	Water	Distill/Phenol	
MB 360-46782/1-A	Method Blank	T	Water	Distill/Phenol	
360-23664-1	EX-1	T	Water	Distill/Phenol	
360-23664-1MS	Matrix Spike	T	Water	Distill/Phenol	
360-23664-1MSD	Matrix Spike Duplicate	T	Water	Distill/Phenol	
Analysis Batch:360-46804					
LCS 360-46804/2	Lab Control Sample	T	Water	SM 4500 H+ B	
360-23664-1	EX-1	T	Water	SM 4500 H+ B	
360-23664-1DU	Duplicate	T	Water	SM 4500 H+ B	
Analysis Batch:360-46808					
LCS 360-46782/2-A	Lab Control Sample	T	Water	L210-001A	360-46782
MB 360-46782/1-A	Method Blank	T	Water	L210-001A	360-46782
360-23664-1	EX-1	T	Water	L210-001A	360-46782
360-23664-1MS	Matrix Spike	T	Water	L210-001A	360-46782
360-23664-1MSD	Matrix Spike Duplicate	T	Water	L210-001A	360-46782
Analysis Batch:360-46814					
LCS 360-46814/10	Lab Control Sample	T	Water	7196A	
LCSD 360-46814/11	Lab Control Sample Duplicate	T	Water	7196A	
MB 360-46814/9	Method Blank	T	Water	7196A	
360-23664-1	EX-1	T	Water	7196A	
360-23664-1MS	Matrix Spike	T	Water	7196A	
360-23664-1MSD	Matrix Spike Duplicate	T	Water	7196A	

Report Basis

T = Total

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Method Blank - Batch: 360-46770

Method: 8270C LL
Preparation: 3510C

Lab Sample ID: MB 360-46770/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1337
Date Prepared: 07/20/2009 1024

Analysis Batch: 360-46775
Prep Batch: 360-46770
Units: ug/L

Instrument ID: Agilent 6890/5973 GC/MS
Lab File ID: B9663.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 1.0 uL

Analyte	Result	Qual	RL
2,4,5-Trichlorophenol	ND		5.0
2,4,6-Trichlorophenol	ND		5.0
2,4-Dichlorophenol	ND		5.0
2,4-Dinitrophenol	ND		5.0
2,4-Dimethylphenol	ND		5.0
2-Chlorophenol	ND		5.0
2-Methylphenol	ND		5.0
2-Nitrophenol	ND		5.0
3 & 4 Methylphenol	ND		5.0
4,6-Dinitro-2-methylphenol	ND		5.0
4-Chloro-3-methylphenol	ND		5.0
4-Nitrophenol	ND		5.0
Acenaphthene	ND		1.0
Acenaphthylene	ND		0.30
Anthracene	ND		1.0
Benzo[a]anthracene	ND		0.30
Benzo[a]pyrene	ND		0.20
Benzo[b]fluoranthene	ND		0.30
Benzo[g,h,i]perylene	ND		0.50
Benzo[k]fluoranthene	ND		0.30
Bis(2-ethylhexyl) phthalate	ND		2.0
Butyl benzyl phthalate	ND		5.0
Chrysene	ND		1.0
Di-n-butyl phthalate	ND		5.0
Di-n-octyl phthalate	ND		5.0
Dibenz(a,h)anthracene	ND		0.50
Diethyl phthalate	ND		5.0
Dimethyl phthalate	ND		5.0
Fluoranthene	ND		1.0
Fluorene	ND		1.0
Indeno[1,2,3-cd]pyrene	ND		0.50
Naphthalene	ND		1.0
Pentachlorophenol	ND		1.0
Phenanthrene	ND		0.20
Phenol	ND		5.0
Pyrene	ND		5.0

Surrogate	% Rec	Acceptance Limits
2,4,6-Tribromophenol	80	15 - 110
2-Fluorobiphenyl	70	30 - 130
2-Fluorophenol	22	15 - 110

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Surrogate	% Rec		Acceptance Limits
Phenol-d5	13	X	15 - 110
Terphenyl-d14	72		30 - 130
Nitrobenzene-d5	78		30 - 130

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-46770**

**Method: 8270C LL
Preparation: 3510C**

LCS Lab Sample ID: LCS 360-46770/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1411
Date Prepared: 07/20/2009 1024

Analysis Batch: 360-46775
Prep Batch: 360-46770
Units: ug/L

Instrument ID: Agilent 6890/5973 GC/MS
Lab File ID: B9664.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 1.0 uL

LCSD Lab Sample ID: LCSD 360-46770/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1445
Date Prepared: 07/20/2009 1024

Analysis Batch: 360-46775
Prep Batch: 360-46770
Units: ug/L

Instrument ID: Agilent 6890/5973 GC/MS
Lab File ID: B9665.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 1.0 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
2,4,5-Trichlorophenol	76	69	30 - 130	10	20		
2,4,6-Trichlorophenol	75	71	30 - 130	6	20		
2,4-Dichlorophenol	63	58	30 - 130	8	20		
2,4-Dinitrophenol	73	64	30 - 130	13	20		
2,4-Dimethylphenol	63	59	30 - 130	7	20		
2-Chlorophenol	55	51	40 - 130	8	20		
2-Methylphenol	43	40	30 - 130	7	20		
2-Nitrophenol	66	63	30 - 130	5	20		
3 & 4 Methylphenol	37	34	30 - 130	10	20		
4,6-Dinitro-2-methylphenol	75	71	30 - 130	6	20		
4-Chloro-3-methylphenol	61	56	30 - 130	8	20		
4-Nitrophenol	14	12	30 - 130	10	20	*	*
Acenaphthene	72	67	40 - 140	7	20		
Acenaphthylene	65	61	40 - 140	7	20		
Anthracene	77	74	40 - 140	4	20		
Benzo[a]anthracene	79	73	40 - 140	8	20		
Benzo[a]pyrene	84	77	40 - 140	8	20		
Benzo[b]fluoranthene	75	67	40 - 140	12	20		
Benzo[g,h,i]perylene	79	77	40 - 140	2	20		
Benzo[k]fluoranthene	78	76	40 - 140	4	20		
Bis(2-ethylhexyl) phthalate	75	71	40 - 140	6	20		
Butyl benzyl phthalate	80	76	40 - 140	5	20		
Chrysene	75	72	40 - 140	4	20		
Di-n-butyl phthalate	82	79	40 - 140	3	20		
Di-n-octyl phthalate	76	70	40 - 140	8	20		
Dibenz(a,h)anthracene	66	66	40 - 140	0	20		
Diethyl phthalate	74	69	40 - 140	6	20		
Dimethyl phthalate	72	68	40 - 140	6	20		
Fluoranthene	75	71	40 - 140	6	20		
Fluorene	75	70	40 - 140	7	20		
Indeno[1,2,3-cd]pyrene	68	67	40 - 140	3	20		
Naphthalene	73	68	40 - 140	7	20		

Calculations are performed before rounding to avoid round-off errors in calculated results

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

**Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 360-46770**

**Method: 8270C LL
Preparation: 3510C**

LCS Lab Sample ID: LCS 360-46770/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1411
Date Prepared: 07/20/2009 1024

Analysis Batch: 360-46775
Prep Batch: 360-46770
Units: ug/L

Instrument ID: Agilent 6890/5973 GC/MS
Lab File ID: B9664.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 1.0 uL

LCSD Lab Sample ID: LCSD 360-46770/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1445
Date Prepared: 07/20/2009 1024

Analysis Batch: 360-46775
Prep Batch: 360-46770
Units: ug/L

Instrument ID: Agilent 6890/5973 GC/MS
Lab File ID: B9665.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume: 1.0 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Pentachlorophenol	78	73	30 - 130	7	20		
Phenanthrene	70	67	40 - 140	5	20		
Phenol	14	13	30 - 130	7	20	*	*
Pyrene	71	68	40 - 140	5	20		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
2,4,6-Tribromophenol	72		67		15 - 110		
2-Fluorobiphenyl	67		59		30 - 130		
2-Fluorophenol	21		21		15 - 110		
Phenol-d5	12	X	11	X	15 - 110		
Terphenyl-d14	64		59		30 - 130		
Nitrobenzene-d5	59		53		30 - 130		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc

Job Number: 360-23664-1

Method Blank - Batch: 640-58809

Method: 8315A

Preparation: 8315_W_Prep

Lab Sample ID: MB 640-58809/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1706
Date Prepared: 07/20/2009 1315

Analysis Batch: 640-58834
Prep Batch: 640-58809
Units: ug/L

Instrument ID: LCM Waters 486
Lab File ID: 3G20M7.d
Initial Weight/Volume: 100 mL
Final Weight/Volume: 4.0 mL
Injection Volume: 10 uL

Analyte	Result	Qual	RL
Formaldehyde	ND		50

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 640-58809

Method: 8315A

Preparation: 8315_W_Prep

LCS Lab Sample ID: LCS 640-58809/7-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1718
Date Prepared: 07/20/2009 1318

Analysis Batch: 640-58834
Prep Batch: 640-58809
Units: ug/L

Instrument ID: LCM Waters 486
Lab File ID: 3G20M8.d
Initial Weight/Volume: 100 mL
Final Weight/Volume: 4.0 mL
Injection Volume: 10 uL

LCSD Lab Sample ID: LCSD 640-58809/8-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1729
Date Prepared: 07/20/2009 1318

Analysis Batch: 640-58834
Prep Batch: 640-58809
Units: ug/L

Instrument ID: LCM Waters 486
Lab File ID: 3G20M9.d
Initial Weight/Volume: 100 mL
Final Weight/Volume: 4.0 mL
Injection Volume: 10 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Formaldehyde	103	106	70 - 125	4	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 640-58809

Method: 8315A
Preparation: 8315_W_Prep

MS Lab Sample ID: 360-23664-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1753
Date Prepared: 07/20/2009 1318

Analysis Batch: 640-58834
Prep Batch: 640-58809

Instrument ID: LCM Waters 486
Lab File ID: 3G20M11.d
Initial Weight/Volume: 100 mL
Final Weight/Volume: 4.0 mL
Injection Volume: 10 uL

MSD Lab Sample ID: 360-23664-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1805
Date Prepared: 07/20/2009 1318

Analysis Batch: 640-58834
Prep Batch: 640-58809

Instrument ID: LCM Waters 486
Lab File ID: 3G20M12.d
Initial Weight/Volume: 100 mL
Final Weight/Volume: 4.0 mL
Injection Volume: 10 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Formaldehyde	90	83	55 - 144	8	30		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Method Blank - Batch: 360-46765

Lab Sample ID: MB 360-46765/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 0948
Date Prepared: 07/20/2009 0916

Analysis Batch: 360-46764
Prep Batch: 360-46765
Units: ug/L

Method: 8011 Preparation: 8011

Instrument ID: 6890 dual ECD
Lab File ID: U10432.D
Initial Weight/Volume: 35 mL
Final Weight/Volume: 35 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Ethylene Dibromide	ND		0.020

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 360-46765

Method: 8011 Preparation: 8011

LCS Lab Sample ID: LCS 360-46765/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1009
Date Prepared: 07/20/2009 0916

Analysis Batch: 360-46764
Prep Batch: 360-46765
Units: ug/L

Instrument ID: 6890 dual ECD
Lab File ID: U10433.D
Initial Weight/Volume: 35 mL
Final Weight/Volume: 35 mL
Injection Volume: 1 uL
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 360-46765/4-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1029
Date Prepared: 07/20/2009 0916

Analysis Batch: 360-46764
Prep Batch: 360-46765
Units: ug/L

Instrument ID: 6890 dual ECD
Lab File ID: U10434.D
Initial Weight/Volume: 35 mL
Final Weight/Volume: 35 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Ethylene Dibromide	97	98	70 - 130	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 360-46765

Method: 8011
Preparation: 8011

MS Lab Sample ID: 360-23664-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1126
Date Prepared: 07/20/2009 1113

Analysis Batch: 360-46764
Prep Batch: 360-46765

Instrument ID: 6890 dual ECD
Lab File ID: U10436.D
Initial Weight/Volume: 35.52 mL
Final Weight/Volume: 35 mL
Injection Volume: 1 uL
Column ID: PRIMARY

MSD Lab Sample ID: 360-23664-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1146
Date Prepared: 07/20/2009 1113

Analysis Batch: 360-46764
Prep Batch: 360-46765

Instrument ID: 6890 dual ECD
Lab File ID: U10437.D
Initial Weight/Volume: 35.28 mL
Final Weight/Volume: 35 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Ethylene Dibromide	82	87	65 - 135	6	50		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Method Blank - Batch: 360-46814

Method: 7196A
Preparation: N/A

Lab Sample ID: MB 360-46814/9
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/18/2009 1200
Date Prepared: N/A

Analysis Batch: 360-46814
Prep Batch: N/A
Units: mg/L

Instrument ID: Jenway 6405 UV/VIS
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 100 mL

Analyte	Result	Qual	RL
Cr (VI)	ND	A	0.0050

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 360-46814

Method: 7196A
Preparation: N/A

LCS Lab Sample ID: LCS 360-46814/10
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/18/2009 1200
Date Prepared: N/A

Analysis Batch: 360-46814
Prep Batch: N/A
Units: mg/L

Instrument ID: Jenway 6405 UV/VIS
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 100 mL

LCSD Lab Sample ID: LCSD 360-46814/11
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/18/2009 1200
Date Prepared: N/A

Analysis Batch: 360-46814
Prep Batch: N/A
Units: mg/L

Instrument ID: Jenway 6405 UV/VIS
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 100 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Cr (VI)	100	102	80 - 120	3	20	A	A

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 360-46814

Method: 7196A
Preparation: N/A

MS Lab Sample ID: 360-23664-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/18/2009 1200
Date Prepared: N/A

Analysis Batch: 360-46814
Prep Batch: N/A

Instrument ID: Jenway 6405 UV/VIS
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 100 mL

MSD Lab Sample ID: 360-23664-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/18/2009 1200
Date Prepared: N/A

Analysis Batch: 360-46814
Prep Batch: N/A

Instrument ID: Jenway 6405 UV/VIS
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 100 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Cr (VI)	112	117	75 - 125	4	20	^	^

Calculations are performed before rounding to avoid round-off errors in calculated results

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Method Blank - Batch: 360-46782

Lab Sample ID: MB 360-46782/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1335
Date Prepared: 07/20/2009 1110

Analysis Batch: 360-46808
Prep Batch: 360-46782
Units: mg/L

Method: L210-001A
Preparation: Distill/Phenol

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	RL
Phenols, Total	ND		0.010

Lab Control Sample - Batch: 360-46782

Lab Sample ID: LCS 360-46782/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1336
Date Prepared: 07/20/2009 1110

Analysis Batch: 360-46808
Prep Batch: 360-46782
Units: mg/L

Method: L210-001A
Preparation: Distill/Phenol

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Phenols, Total	0.100	0.0986	99	85 - 115	

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 360-46782

Method: L210-001A
Preparation: Distill/Phenol

MS Lab Sample ID: 360-23664-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1337
Date Prepared: 07/20/2009 1110

Analysis Batch: 360-46808
Prep Batch: 360-46782

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 360-23664-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1338
Date Prepared: 07/20/2009 1110

Analysis Batch: 360-46808
Prep Batch: 360-46782

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Phenols, Total	114	98	75 - 125	14	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Method Blank - Batch: 360-46771

Method: SM 2540D
Preparation: N/A

Lab Sample ID: MB 360-46771/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1046
Date Prepared: N/A

Analysis Batch: 360-46771
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 250 mL
Final Weight/Volume: 100 mL

Analyte	Result	Qual	RL
Total Suspended Solids	ND		2.0

Lab Control Sample - Batch: 360-46771

Method: SM 2540D
Preparation: N/A

Lab Sample ID: LCS 360-46771/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1046
Date Prepared: N/A

Analysis Batch: 360-46771
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec	Limit	Qual
Total Suspended Solids	500	501	100	85 - 115	

Duplicate - Batch: 360-46771

Method: SM 2540D
Preparation: N/A

Lab Sample ID: 360-23664-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1046
Date Prepared: N/A

Analysis Batch: 360-46771
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 25 mL
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Suspended Solids	1600	1660	5	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Method Blank - Batch: 360-46763

Method: SM 4500 Cl F
Preparation: N/A

Lab Sample ID: MB 360-46763/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/18/2009 1520
Date Prepared: N/A

Analysis Batch: 360-46763
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Result	Qual	RL
Chlorine	ND		0.020

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 360-46763

Method: SM 4500 Cl F
Preparation: N/A

LCS Lab Sample ID: LCS 360-46763/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/18/2009 1520
Date Prepared: N/A

Analysis Batch: 360-46763
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 100 mL

LCSD Lab Sample ID: LCSD 360-46763/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/18/2009 1520
Date Prepared: N/A

Analysis Batch: 360-46763
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 100 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
Chlorine	114	112	85 - 115	2	25		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Lab Control Sample - Batch: 360-46804

Method: SM 4500 H+ B
Preparation: N/A

Lab Sample ID: LCS 360-46804/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1130
Date Prepared: N/A

Analysis Batch: 360-46804
Prep Batch: N/A
Units: SU

Instrument ID: MAN-TECH Ion Plus
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 1.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
pH	6.00	5.980	100	90 - 110	

Duplicate - Batch: 360-46804

Method: SM 4500 H+ B
Preparation: N/A

Lab Sample ID: 360-23664-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 07/20/2009 1356
Date Prepared: N/A

Analysis Batch: 360-46804
Prep Batch: N/A
Units: SU

Instrument ID: MAN-TECH Ion Plus Autot
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	7.85	7.870	0	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

SUBCONTRACTED DATA

Waste Water Environmental Management Inc.

Laboratory Analysis
Plant Management
(978) 692-8010
FAX (978) 692-8010

Mailing Address
7 Eldorado Rd.
Chelmsford, MA 01824

Laboratory Location
270 Littleton Rd. Unit 30
Westford, MA 01886

Test America
53 South Hampton Rd
Westfield, MA 01085

Test Report

Parameter	Method	Analyst	Parameter	Method	Analyst
Oil and Grease	1664	JRM	Phenol	420.1	SH
Fluoride	4500 C	SH	Nitrite	4500 B	JM
pH	4500B	SH	BOD	2540B	MC
TPH	1664SGT	JRM	Surfactants	5540C	SH

Report ID: 41323

TA ID	WWEM Lab ID	Date Received	TPH mg/l	Date completed	Detection limit
360-23664-1	41323	7/20/09	<5.00	7/20/09	5.00mg/l

7/21/2009 11:03
page 1 of 1


Stephen Badger
Laboratory Director
Massachusetts Certification #MA077

Waste Water Environmental Management Inc.

Laboratory Analysis
Plant Management
(978) 692-8010
FAX (978) 692-8010

Mailing Address
7 Eldorado Rd.
Chebmsford, MA 01824

Laboratory Location
270 Littleton Rd. Unit 30
Westford, MA 01886

Test America
Westfield, MA

QC Report

Batch : 7/20/09
TA # 360-23664-1

Lab I.D.: 41323

Parameter	Blank mg/l	Dup mg/l	Dup ID	MS % recovery	MS ID	Spike mg
TPH	<5.00	16.0/16.7	LCS	89/82	41274/41275	20.0

LCS recovered mg	LCS true value mg	LCS % recovery
16.7	20.0	83.5

Page 1 of 1


Steven Hansen
Laboratory Supervisor
Massachusetts Certification #MA077

7/30/09 41583
Chain of Custody Record

1502471000

TestAmerica Westfield
Westfield Executive Park 55 Southampton Road
Westfield, MA 01085
Phone (413) 572-4000 Fax (413) 572-3707

Client Information (Sub Contract Lab)
Client Contact:
Shipping/Receiving:
Company:
Waste Water Environmental Management, Inc.
Address: 270 Littleton Road, Unit 30.
City: Westford
State, Zip: MA, 01886
Phone:
Email:
Project Name: North Adams RGP
Site: Sunningfield Cemetery site

Sampler:
Lab #1: Mason, Becky C
E-Mail: becky.mason@testamericawest.com
Center Tracking Number:
Date Rec'd: 7/30/09
Page: 1 of 1
Sub #: 3601549

Yes Date Requested: 7/30/09
TAT Requested (days): 7

Field Filtered Sample (Yes or No)
Perform MS/MSD (Yes or No)
SUBCONTRACT# TPH 1664

Project #: 3601549
BSCOW:

WD #:

Sample ID:

Sample Date: 7/17/09
Sample Time: 14:30
Sample Type: G-Grab
Sample Preservation Code:
Matrix: Water

EX-1 (360-23864-1)

7/17/09

14:30

G-Grab

Water

Field Filtered Sample (Yes or No)

Perform MS/MSD (Yes or No)

SUBCONTRACT# TPH 1664

Project #: 3601549

WD #:

Sample ID:

Sample Date: 7/17/09

Sample Time: 14:30

Sample Type: G-Grab

Sample Preservation Code:

Analysis Requested

- Preservation Codes:
- A - HCL
 - B - NAC
 - C - Zn Acetate
 - D - Nitric Acid
 - E - Nitric Acid
 - F - NaOH
 - G - Acetic Acid
 - H - Ascorbic Acid
 - I - Ice
 - J - DiWater
 - K - EDTA
 - L - EDTA
 - M - Hexane
 - N - NAC
 - O - AsHClO2
 - P - Na2CO3
 - Q - Na2SO3
 - R - Na2S2O3
 - S - H2SO4
 - T - TSP Dithionite
 - U - Acetone
 - V - MCAA
 - W - pH 4.5
 - Z - Other (Specify)

Special Instructions/Notes:
Patch QC needed

Total Number of Containers: 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client

Disposal By Lab

Archive For

Months

Special Instructions/OC Requirements:

Detected at Shipment:

Date/Time: 7/30/09 0800

Signature: [Signature]

Date/Time: 7/30/09 10:10

Signature: [Signature]

Date/Time: 7/30/09 0800

Signature: [Signature]

Date/Time: 7/30/09 0800

Signature: [Signature]

Date/Time: 7/30/09 0800

Signature: [Signature]

Custody Seal Intact:
Custody Seal No.:
A Yes
B No

State Accreditation Matrix

Method Name	Description	State where Primary Accreditation is Carried				
		New York (NELAC)	Mass	Conn	Florida (NELAC)	North Carolina
821-R-02-012	Toxicity, Acute (48-Hour)(list upon request)				NP	
SM 4500 Cl F	Chlorine, Residual		NP			
SM 9215B	Heterotrophic Plate Count (Pour Plate Method)		P			
SM 9215E	Heterotrophic Plate Count (SimPlate)		P			
SM 9221F	E.Coli (Multiple-Tube Fermentation; EC-MUG)		P			
SM 9222B	Coliforms, Total (Membrane Filter)		P			
SM 9222D	Coliforms, Fecal (Membrane Filter)		P/NP			
SM 9223	Coliforms, Total, and E.Coli (Colilert-P/A)		P			
200.8	Metals (ICP/MS) (list upon request)	NP/P	NP/P	NP/P		
200.7 Rev 4.4	Metals (ICP)(list upon request)	NP/P	NP/P	NP/P		
6010B	Metals (ICP)(list upon request)	NP/SW		NP/SW		
245.1	Mercury (CVAA)	NP/P	NP	NP/P		
7470A	Mercury (CVAA)	NP		NP		
7471A	Mercury (CVAA)	SW		SW		
SM 2340B	Total Hardness (as CaCO3) by calculation	NP/P	NP	NP/P		
3005A	Preparation, Total Recoverable or Dissolved Metals	NP/P		NP/P		
3010A	Preparation, Total Metals	NP/P		NP/P		
3020A	Preparation, Total Metals	NP/P/SW		NP/P/SW		
3050B	Preparation, Metals	SW		SW		
504.1	EDB, DBCP and 1,2,3-TCP (GC)		P	P		
608	Organochlorine Pest/PCBs (list upon request)	NP	NP	NP		
625	Semivolatile Org Comp (GC/MS)(list upon request)	NP		NP		
3546	Microwave Extraction	SW				
3510C	Liquid-Liquid Extraction (Separatory Funnel)	NP		NP		
3540C	Soxhlet Extraction					
3550B	Ultrasonic Extraction	SW		SW		
600/4-81-045	Polychlorinated Biphenyls (PCBs) (GC)		NP	NP		
8081A	Organochlorine Pesticides (GC)(list upon request)	NP/SW		NP/SW		
8082A	PCBs by Gas Chromatography(list upon request)	NP/SW		NP/SW		
8270C	Semivolatile Comp.(GC/MS)(list upon request)	NP/SW		NP/SW		
CT ETPH	Conn - Ext. Total petroleum Hydrocarbons (GC)			NP/SW		
MA-EPH	Mass - Extractable Petroleum Hydrocarbons (GC)			NP/SW		NP/SW
524.2	Volatile Org Comp (GC/MS)(list upon request)	P	P	P		
524.2	Trihalomethanes		P	P		
624	Volatile Org Comp (GC/MS)(list upon request)	NP	NP	NP		
5035	Closed System Purge and Trap	SW		SW		
5030B	Purge and Trap	NP		NP		
8260B	Volatile Org Comp. (GC/MS)(list upon request)	NP/SW		NP/SW		
MAVPH	Mass - Volatile Petroleum Hydrocarbons (GC)			NP/SW		NP/SW
180.1	Turbidity, Nephelometric		P	P		
300	Anions, Ion Chromatography	NP/P	NP/P	NP/P		
410.4	COD	NP	NP	NP		
1010	Ignitability, Pensky-Martens Closed-Cup Method	SW		SW		
10-107-06-2	Nitrogen, Total Kjeldahl	NP	NP	NP		
7196A	Chromium, Hexavalent	NP/SW		NP/SW		
9012A	Cyanide, Total and/or Amenable	NP/SW		NP/SW		
9030B	Sulfide, Distillation (Acid Soluble and Insoluble)	NP		NP		
9040B	pH	NP		NP		
9045C	pH	SW		SW		
L107041C	Nitrogen, Nitrate	NP	P	NP/P		
L107-06-1B	Nitrogen Ammonia	NP	NP	NP/P		
L204001A CN	Cyanide, Total		NP/P	NP/P		
L210-001A	Phenolics, Total Recoverable	NP	NP	NP		
SM 2320B	Alkalinity	NP/P	NP/P	NP/P		
SM 2510B	Conductivity, Specific Conductance	NP/P	NP/P	NP/P		
SM 2540C	Solids, Total Dissolved (TDS)	NP/P	NP/P	NP/P		
SM 2540D	Solids, Total Suspended (TSS)	NP	NP	NP		
SM 3500 CR D	Chromium, Hexavalent	NP		NP		
SM 4500 H+ B	pH	NP/P	NP/P	NP/P		
SM 4500 NO2 B	Nitrogen, Nitrite	NP	P	NP/P		
SM 4500 P E	Phosphorus, Orthophosphate	NP/P	NP	NP/P		
SM 4500 P E	Phosphorus, Total	NP	NP	NP		
SM 4500 S2 D	Sulfide, Total	NP		NP		
SM 5210B	BOD, 5-Day	NP	NP	NP		
SM 5310B	Organic Carbon, Total (TOC)	NP/P	NP	NP/P		

Not all organic compounds are accredited under NELAC

For methods with multiple compounds all compounds may not meet NELAC criteria, listing should be obtained from the laboratory

The lab carries additional accreditations with several states. This is listing is subject to change based on the laboratories current certification standing.

Login Sample Receipt Check List

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Login Number: 23664

List Source: TestAmerica Westfield

Creator: Rinard, Kimberley A

List Number: 1

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	2.0 C
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

Login Sample Receipt Check List

Client: Synergy Environmental, Inc.

Job Number: 360-23664-1

Login Number: 23664
Creator: Alsheimer, Carl
List Number: 1

List Source: TestAmerica Tallahassee
List Creation: 07/20/09 08:32 AM

Question	T / F / NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

[illegible]

WESTFIELD

Page 1 of 1

White = Lab file Yellow = Report copy Pink = Customer copy

TAL-8245(1007)

Dilution Factor

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

$$DF = (1.15 + 5.1) / 1.15$$

$$DF = 5.4$$

DF= Dilution Factor

Qs= Max. discharge Flow (cfs)

Qd= Min. Receiving water flow (cfs)

Total Metals Limitation at Selected DF's

Parameter	Sampled Conc.	Effluent Limit	
DF Range		0 - 5	5 - 10
	(ug/L)	(ug/L)	(ug/L)
Arsenic	29	10	50
Cadmium	3.6	0.2	1.0
Chromium III	120	11.4	244
Copper	320	5.2	26
Lead	330	1.3	6.5
Mercury	4.9	0.9	2.3
Nickel	68	29	145
Zinc	440	66.6	333
Iron	57,000	1,000	5,000

Endangered and Threatened Species and Areas of Critical Environmental Concern

Page 8 of the Remediation & Miscellaneous Contaminated Sites General Permit (RGP) lists four listed species of concern to permit applicants: the shortnose sturgeon; the dwarf wedge mussel; the bog turtle; and the northern redbelly cooter. According to Appendix II of the RGP, only the Bog Turtle is potentially located in Berkshire County. However, the Northern Branch of the Hoosic River at and in the vicinity of the dewatering project has been channelized, and the base and "banks" of the river are constructed on poured concrete.

According to information published by the Massachusetts Division of Fisheries and Wildlife in 2007 (Attached), "Bog Turtles in Massachusetts inhabit low-lying open calcareous wetlands, notably fens. Bog Turtles occur in small patches of optimal habitat within a dynamic wetland system. These patches typically include early successional stages of wet meadow or fens, surrounded by advanced successional stages of freshwater marsh or wooded swamp. New England Bog Turtle habitats are characterized by a mosaic of wetland plants, including many regionally rare species."

The concrete structure that contains the Northern Branch of the Hoosic River is unlikely to provide habitat for Bog Turtles, and they are not expected to be present in the vicinity of the project.

40 CFR Part 226 was accessed on www.access.gpo.gov. Bog turtles did not appear on the listing of Designated Critical Habitat. The US Fish & Wildlife Service's online service for information regarding Threatened and Endangered Species did not indicate critical habitats in Berkshire County.

The MassGIS Oliver system was initially used to determine whether Areas of Critical Environmental Concern (ACEC) were identified near the project. No ACECs were indicated. The Massachusetts ACEC list (Attached) indicates that there are no ACECs associated with the Hoosic River or in the City of North Adams.



Natural Heritage & Endangered Species Program

Massachusetts Division of Fisheries & Wildlife
Route 135, Westborough, MA 01581
tel (508) 389-6360 fax (508) 389-7891
www.nhesp.org

DESCRIPTION: The Bog Turtle is a small turtle, 7.6-10 cm (3-4 in.), with a mahogany, dull brown oblong carapace (upper shell), most with a faint yellowish or reddish starburst shaped pattern centered in each scute. The plastron (lower shell) is mostly brown or black, irregularly marked with yellow. The black head bears the most striking feature of this species, a large bright orange patch behind each ear (the patch may be yellow or red on some individuals). The neck is brown and the tail and legs are brownish yellow or dark brown. In males the tail is longer and thicker than in females, and the plastron is concave.

SIMILAR SPECIES: This species could be confused with the Spotted Turtle (*Clemmys guttata*). The Spotted Turtle is also found in fens and wet meadows and is about the same size. Spotted Turtles usually have yellow spots on the carapace, and they are slightly larger and rounder, 10-18 cm (4-7 in.) in length. In addition, the Spotted Turtle lacks a prominent mid-line ridge (keel) on the carapace. However, the keel is sometimes worn smooth in older bog turtles.

RANGE: Massachusetts populations lie on the northern periphery of the range. The Bog Turtle has a discontinuous and localized distribution extending from Berkshire County, Massachusetts through western Connecticut, southern New York, New Jersey and eastern Pennsylvania, and southward in the Appalachian Mountains to Georgia. Disjunct populations occur in the Lake George and Finger Lakes regions of New York and in western Pennsylvania.

Bog Turtle

Glyptemys muhlenbergii

State Status: **Endangered**
Federal Status: **Threatened**

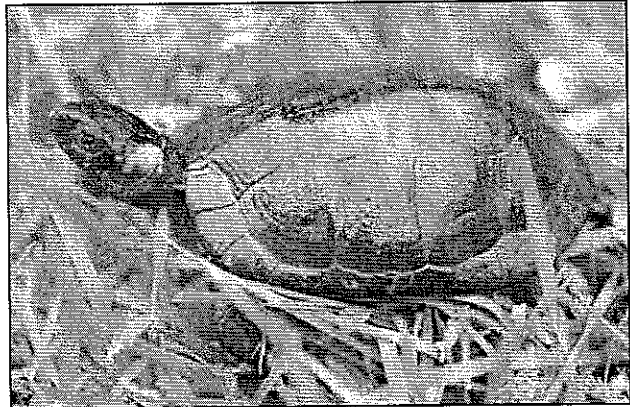
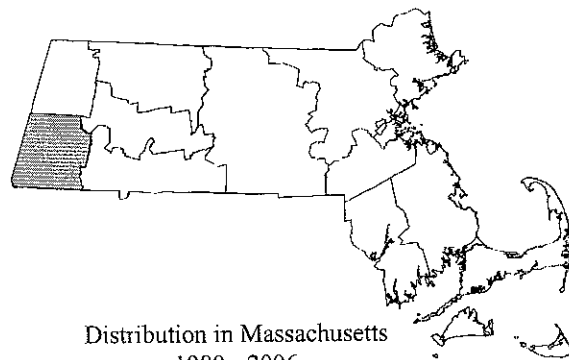


Photo by Lori Erb

HABITAT IN MASSACHUSETTS: Bog Turtles in Massachusetts inhabit low-lying open calcareous wetlands, notably fens. Bog Turtles occur in small patches of optimal habitat within a dynamic wetland system. These patches typically include early successional stages of wet meadow or fens, surrounded by advanced successional stages of freshwater marsh or wooded swamp. New England Bog Turtle habitats are characterized by a mosaic of wetland plants, including many regionally rare species.



Distribution in Massachusetts
1980 - 2006

Based on records in Natural Heritage Database

LIFE CYCLE & BEHAVIOR: This secretive turtle overwinters from about mid October to late March, in subterranean seepage areas with a continual source of flowing water. Bog Turtles may overwinter either individually or communally. They may overwinter with 12 or more individuals and with other species such as the Spotted Turtle. They typically choose a site with some structure such as the root system of a tree. On warm sunny days in the spring they come up to bask and feed. The Bog Turtle typically confines its wanderings to wetland locations and is more agile in the water. It is often found with its "feet wet and its back dry". When alarmed, the Bog Turtle digs rapidly into the mucky substrate. This species has occasionally been found in upland habitat adjacent to the wetland. On cold days of spring and fall individuals may remain completely sheltered or burrowed in mud. Bog Turtles often aestivate during the dry summer months of July and August. Most activity occurs in late April, May, June, and September. This turtle maintains a small home range of approximately 1.28 ha (3.16 ac).

The Bog Turtle is an opportunistic omnivore and forages both on land and underwater. The diet consists primarily of invertebrates. Favorites include slugs, beetles, millipedes, insect larvae, earthworms, pondweed, sedge seeds and other plant material.

Sexual maturity occurs around year ten for females. Mating takes place early May through early June. This is when turtles are most active and spend a significant amount of time above ground. Gravid (egg carrying) females usually begin to nest at dusk. Clutches of 2-5 white, elliptical eggs are laid on the tops of tussock sedge during midsummer; they incubate for 7-8 weeks and hatch in late summer. In Massachusetts, hatchlings may overwinter in the nest. Bog Turtles are thought to live 60 or more years.

THREATS: Bog Turtles have apparently always been uncommon in the state and are known to have gone locally extinct at one site. They are particularly vulnerable to habitat loss and degradation because they are a relatively sedentary species in comparison to other turtle species. Bog Turtles do not reproduce until late in life, they have low nest survivorship, and lay relatively few eggs per year. These traits make them extremely sensitive to even a 1-2% increase in adult mortality. The primary causes of adult mortality are predation, farming equipment, habitat destruction (i.e. wetland draining/filling, development), and cars. Additional indirect threats include natural succession, collection, invasive wetland plants, and natural hydrology changes.

ACTIVE PERIOD

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

MANAGEMENT RECOMMENDATIONS: Habitat protection is important for the few known populations in Massachusetts. Surveys are needed to determine if additional populations exist in Massachusetts.

Alternative wildlife corridor structures should be considered at strategic sites on existing roads. In particular, appropriate wildlife corridor structures should be considered for bridge and culvert upgrade and road-widening projects near or between Bog Turtle populations.

Fens and wet meadows should not be ditched or drained at all locations able to support bog turtle populations in Berkshire County.

Bog Turtle habitat should be managed in accordance with the federal habitat management guidelines to create and/or maintain quality habitat for hibernating, nesting, and feeding. This should include the control of invasive species, succession, and maintenance of hydrology at the site. While this is most practical on conservation lands (i.e. DFW, DCR, INC), educational materials should be made available to guide private land-owners on the best management practices for Bog Turtle habitat. In addition, private landowners should be provided with information about the Landowner Incentive Program (LIP) and other programs that provide economic incentives for the protection and management of Bog Turtle Habitat.

REFERENCES:

- Ernst, C.H., Lovich, J.E. and R.W. Barbour. 1994. Turtles of the United States and Canada. Smithsonian Institution Press, Washington and London.
- Klemens, M. 1987. Bog Turtle. In T.W. French and J.E. Cardoza (eds.). Endangered, Threatened and Special Concern Vertebrates of Massachusetts. Massachusetts Division of Fisheries and Wildlife, Westborough, MA.
- Klemens, M. 2001. Bog turtle (*Clemmys muhlenbergii*), Northern Population Recovery Plan. USFWS, Hadley, MA.
- Whitlock, A. 2002. Ecology and status of the bog turtle (*Clemmys muhlenbergii*) in New England. Dissertation, University of Massachusetts, Amherst, MA.

Title 50--Wildlife and Fisheries

CHAPTER II--NATIONAL MARINE FISHERIES SERVICE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, DEPARTMENT OF COMMERCE

PART 226--DESIGNATED CRITICAL HABITAT

- | | | |
|---|---|---|
|  |  | 226.101 Purpose and scope. |
|  |  | 226.201 Critical habitat for Hawaiian monk seals. |
|  |  | 226.202 Critical habitat for Stellar sea lions. |
|  |  | 226.203 Critical habitat for northern right whales. |
|  |  | 226.204 Critical habitat for Sacramento winter-run chinook salmon. |
|  |  | 226.205 Critical habitat for Snake River sockeye salmon, Snake River fall chinook salmon, and Snake River spring/summer chinook salmon. |
|  |  | 226.206 Critical habitat for the Southern Resident killer whale (<i>Orcinus orca</i>). |
|  |  | 226.207 Critical habitat for leatherback turtle. |
|  |  | 226.208 Critical habitat for green turtle. |
|  |  | 226.209 Critical habitat for hawksbill turtle. |
|  |  | 226.210 Central California Coast Coho Salmon (<i>Oncorhynchus kisutch</i>), Southern Oregon/Northern California Coasts Coho Salmon (<i>Oncorhynchus kisutch</i>). |
|  |  | 226.211 Critical habitat for Seven Evolutionarily Significant Units (ESUs) of Salmon (<i>Oncorhynchus spp.</i>) in California. |
|  |  | 226.212 Critical habitat for 13 Evolutionarily Significant Units (ESUs) of salmon and steelhead (<i>Oncorhynchus spp.</i>) in Washington, Oregon and Idaho. |
|  |  | 226.213 Critical habitat for Johnson's seagrass. |
|  |  | 226.214 Critical habitat for Gulf sturgeon. |
|  |  | 226.215 Critical habitat for the North Pacific Right Whale (<i>Eubalaena japonica</i>). |
-





MASSACHUSETTS AREAS OF CRITICAL ENVIRONMENTAL CONCERN

June 2009

Total Approximate Acreage: 268,000 acres

Approximate acreage and designation date follow ACEC names below.

Bourne Back River

(1,850 acres, 1989) Bourne

Canoe River Aquifer and Associated Areas (17,200 acres, 1991) Easton, Foxborough, Mansfield, Norton, Sharon, and Taunton

Cedar Swamp

(1,650 acres, 1975) Hopkinton and Westborough

Central Nashua River Valley

(12,900 acres, 1996) Bolton, Harvard, Lancaster, and Leominster

Cranberry Brook Watershed

(1,050 acres, 1983) Braintree and Holbrook

Ellisville Harbor

(600 acres, 1980) Plymouth

Fowl Meadow and Ponkapoag Bog

(8,350 acres, 1992) Boston, Canton, Dedham, Milton, Norwood, Randolph, Sharon, and Westwood

Golden Hills

(500 acres, 1987) Melrose, Saugus, and Wakefield

Great Marsh (originally designated as Parker River/Essex Bay)

(25,500 acres, 1979) Essex, Gloucester, Ipswich, Newbury, and Rowley

Herring River Watershed

(4,450 acres, 1991) Bourne and Plymouth

Hinsdale Flats Watershed

(14,500 acres, 1992) Dalton, Hinsdale, Peru, and Washington

Hockomock Swamp

(16,950 acres, 1990) Bridgewater, Easton, Norton, Raynham, Taunton, and West Bridgewater

Inner Cape Cod Bay

(2,600 acres, 1985) Brewster, Eastham, and Orleans

Kampoosa Bog Drainage Basin

(1,350 acres, 1995) Lee and Stockbridge

Karner Brook Watershed

(7,000 acres, 1992) Egremont and Mount Washington

Miscoe, Warren, and Whitehall Watersheds

(8,700 acres, 2000) Grafton, Hopkinton, and Upton

Neponset River Estuary

(1,300 acres, 1995) Boston, Milton, and Quincy

Petapawag

(25,680 acres, 2002) Ayer, Dunstable, Groton, Pepperell, and Tyngsborough

Pleasant Bay

(9,240 acres, 1987) Brewster, Chatham, Harwich, and Orleans

Pocasset River

(160 acres, 1980) Bourne

Rumney Marshes

(2,800 acres, 1988) Boston, Lynn, Revere, Saugus, and Winthrop

Sandy Neck Barrier Beach System

(9,130 acres, 1978) Barnstable and Sandwich

Schenob Brook Drainage Basin

(13,750 acres, 1990) Mount Washington and Sheffield

Squannassit

(37,420 acres, 2002) Ashby, Ayer, Groton, Harvard, Lancaster, Lunenburg, Pepperell, Shirley, and Townsend

Three Mile River Watershed

(14,280 acres, 2008) Dighton, Norton, Taunton

Upper Housatonic River

(12,280 acres, 2009) Lee, Lenox, Pittsfield, Washington

Waquoit Bay

(2,580 acres, 1979) Falmouth and Mashpee

Weir River

(950 acres, 1986) Cohasset, Hingham, and Hull

Wellfleet Harbor

(12,480 acres, 1989) Eastham, Truro, and Wellfleet

Weymouth Back River

(800 acres, 1982) Hingham and Weymouth

ACEC acreages above are based on MassGIS calculations and may differ from numbers originally presented in designation documents and other ACEC publications due to improvements in accuracy of GIS data and boundary clarifications. Listed acreages have been rounded to the nearest 50 or 10 depending on whether boundary clarification has occurred. For more information please see <http://www.mass.gov/dcr/stewardship/acec/aboutMaps.htm>

Towns with ACECs within their Boundaries

June 2009

TOWN	ACEC	TOWN	ACEC
Ashby	Squannassit	Mt. Washington	Karner Brook Watershed
Ayer	Petapawag		Schenob Brook
	Squannassit	Newbury	Great Marsh
Barnstable	Sandy Neck Barrier Beach System	Norton	Hockomock Swamp
Bolton	Central Nashua River Valley		Canoe River Aquifer
Boston	Rumney Marshes		Three Mile River Watershed
	Fowl Meadow and Ponkapoag Bog	Norwood	Fowl Meadow and Ponkapoag Bog
	Neponset River Estuary	Orleans	Inner Cape Cod Bay
Bourne	Pocasset River		Pleasant Bay
	Bourne Back River	Pepperell	Petapawag
	Herring River Watershed		Squannassit
Braintree	Cranberry Brook Watershed	Peru	Hinsdale Flats Watershed
Brewster	Pleasant Bay	Pittsfield	Upper Housatonic River
	Inner Cape Cod Bay	Plymouth	Herring River Watershed
Bridgewater	Hockomock Swamp		Ellisville Harbor
Canton	Fowl Meadow and Ponkapoag Bog	Quincy	Neponset River Estuary
Chatham	Pleasant Bay	Randolph	Fowl Meadow and Ponkapoag Bog
Cohasset	Weir River	Raynham	Hockomock Swamp
Dalton	Hinsdale Flats Watershed	Revere	Rumney Marshes
Dedham	Fowl Meadow and Ponkapoag Bog	Rowley	Great Marsh
Dighton	Three Mile River Watershed	Sandwich	Sandy Neck Barrier Beach System
Dunstable	Petapawag	Saugus	Rumney Marshes
Eastham	Inner Cape Cod Bay		Golden Hills
	Wellfleet Harbor	Sharon	Canoe River Aquifer
Easton	Canoe River Aquifer		Fowl Meadow and Ponkapoag Bog
	Hockomock Swamp	Sheffield	Schenob Brook
Egremont	Karner Brook Watershed	Shirley	Squannassit
Essex	Great Marsh	Stockbridge	Kampoosa Bog Drainage Basin
Falmouth	Waquoit Bay	Taunton	Hockomock Swamp
Foxborough	Canoe River Aquifer		Canoe River Aquifer
Gloucester	Great Marsh		Three Mile River Watershed
Grafton	Miscoe-Warren-Whitehall Watersheds	Truro	Wellfleet Harbor
		Townsend	Squannassit
Groton	Petapawag	Tyngsborough	Petapawag
	Squannassit	Upton	Miscoe-Warren-Whitehall Watersheds
Harvard	Central Nashua River Valley		
	Squannassit	Wakefield	Golden Hills
Harwich	Pleasant Bay	Washington	Hinsdale Flats Watershed
Hingham	Weir River		Upper Housatonic River
	Weymouth Back River	Wellfleet	Wellfleet Harbor
Hinsdale	Hinsdale Flats Watershed	W. Bridgewater	Hockomock Swamp
Holbrook	Cranberry Brook Watershed	Westborough	Cedar Swamp
Hopkinton	Miscoe-Warren-Whitehall Watersheds	Westwood	Fowl Meadow and Ponkapoag Bog
		Weymouth	Weymouth Back River
	Cedar Swamp	Winthrop	Rumney Marshes
Hull	Weir River		
Ipswich	Great Marsh		
Lancaster	Central Nashua River Valley		
	Squannassit		
Lee	Kampoosa Bog Drainage Basin		
	Upper Housatonic River		
Lenox	Upper Housatonic River		
Leominster	Central Nashua River Valley		
Lunenburg	Squannassit		
Lynn	Rumney Marshes		
Mansfield	Canoe River Aquifer		
Mashpee	Waquoit Bay		
Melrose	Golden Hills		
Milton	Fowl Meadow and Ponkapoag Bog		
	Neponset River Estuary		

Historic Properties

According to the nation Park Service, National register Information System web site, there are 26 properties in North Adams that are included on the National Register of Historic Places. None of the properties appears to be in the path of the discharge. Most are upstream and/or uphill of the discharge. Information on properties that are eligible for listing was not readily available. However, the proposed discharge is directly to the channelized portion of North Branch of the Hoosic River. Adverse impacts are not anticipated on any buildings or properties.

The properties included on the National Register of Historic Places that are closest to the proposed discharge are the Hathaway tenement, and the Arnold Print Works, located at 87 Marshall Street. The Hathaway Tenement is on the opposite side of River Street from the proposed discharge point. The Arnold Print Works is on the opposite side if the North Branch of the Hoosic River from the proposed discharge. The North Branch of the Hoosic River is channelized in this area, and the base and "banks" of the river are constructed on poured concrete. The river flows in this channel to a point more than 1000 feet downstream from the Arnold Print Works. Therefore, the proposed discharge is unlikely to have an adverse affect on this location. The only other listed location near the river is the Sykes House, located about a mile downstream of the discharge point. Based on the distance, and because the location is not immediately adjacent to the water, no impacts are anticipated due to the discharge.

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Row	STATE	COUNTY	RESOURCE NAME	ADDRESS	CITY	LISTED	MULTIPLE
1	MA	Berkshire	Armstrong House	60 Brooklyn St.	North Adams	1985-10-25	North Adams MRA
2	MA	Berkshire	Arnold Print Works	87 Marshall St.	North Adams	1985-10-25	North Adams MRA
3	MA	Berkshire	Beaver Mill	Beaver St.	North Adams	1973-05-11	
4	MA	Berkshire	Blackinton Historic District	Roughly Massachusetts Ave. between Ashton and Doanes Aves. and Church Hill and Boston & Maine RR	North Adams	1985-10-25	North Adams MRA
5	MA	Berkshire	Boardman, The	39--53 Montana St.	North Adams	1985-10-25	North Adams MRA
6	MA	Berkshire	Browne, Charles, House	932 S. Church St.	North Adams	1985-10-25	North Adams MRA
7	MA	Berkshire	Church Street Historic District	Roughly E. Main St. from Church to Pleasant St., and Church St. from Summer St. to Elmwood Ave.	North Adams	1983-03-10	North Adams MRA (AD)
8	MA	Berkshire	Church Street-Caddy Hill Historic District (Boundary Increase)	Roughly bounded by E. Main and Holbrook Sts., Wall and Meadow Sts., Elmwood Ave., and Perry, South, and Ashland Sts.	North Adams	1985-10-25	North Adams MRA
9	MA	Berkshire	Crowley House	365 W. Main St.	North Adams	1985-10-25	North Adams MRA
10	MA	Berkshire	Freeman's Grove Historic District	Roughly bounded by Liberty St., Eagle St., Bracewell Ave., and Houghton St.	North Adams	1985-10-25	North Adams MRA

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Row	STATE	COUNTY	RESOURCE NAME	ADDRESS	CITY	LISTED	MULTIPLE
11	MA	Berkshire	Freight Yard Historic District	W of the Hadley Overpass and SW of the Hoosac River	North Adams	1972-06-13	
12	MA	Berkshire	Hathaway Tenement	311--321 River St.	North Adams	1985-10-25	North Adams MRA
13	MA	Berkshire	Hillside Cemetery	West Main St.	North Adams	2001-07-19	North Adams MRA
14	MA	Berkshire	Hoosac Tunnel	From North Adams on the W to the Deerfield River on the E	North Adams	1973-11-02	
15	MA	Berkshire	Johnson Manufacturing Company	65 Brown St.	North Adams	1985-10-25	North Adams MRA
16	MA	Berkshire	Johnson School	School St.	North Adams	1985-10-25	North Adams MRA
17	MA	Berkshire	Monument Square--Eagle Street Historic District	Monument Square and environs, at E end of Main St.	North Adams	1972-06-19	
18	MA	Berkshire	Monument Square--Eagle Street Historic District (Boundary Increase)	Roughly bounded by Holden, Center, and Union Sts., East Middle School, Summer, and Main Sts.	North Adams	1988-08-25	North Adams MRA
19	MA	Berkshire	Norad Mill	60 Roberts Dr.	North Adams	1985-10-25	North Adams MRA
20	MA	Berkshire	Normal School Historic District	Roughly Church and Blackinton Sts.	North Adams	1985-10-25	North Adams MRA

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Row	STATE ▾	COUNTY ▾	RESOURCE NAME ▾	ADDRESS ▾	CITY ▾	LISTED ▾	MULTIPLE ▾
21	MA	Berkshire	Sherman, Eber, Farm	1010 State Rd.	North Adams	1983-10-06	
22	MA	Berkshire	Sherman, William B., Farm	1072 State Rd.	North Adams	1985-10-25	North Adams MRA
23	MA	Berkshire	St. Joseph's School	Eagle St.	North Adams	1983-12-22	
24	MA	Berkshire	Sykes House	521 W. Main St.	North Adams	1985-10-25	North Adams MRA
25	MA	Berkshire	Wells House	568 W. Main St.	North Adams	1985-10-25	North Adams MRA
26	MA	Berkshire	Windsor Print Works	121 Union St.	North Adams	1973-05-17	

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