



TETRA TECH RIZZO

April 7, 2009

Via Electronic Mail: GeneralPermit.Dewatering@epa.gov
US Environmental Protection Agency
Dewatering GP Processing
Municipal Assistance Unit (CMU)
1 Congress Street, Suite 1100
Boston, MA 02114-2023

**Re: Notice of Intent - Dewatering General Permit
Biogen Idec Building 2 UST Project
14 Cambridge Center
Cambridge, MA 02142**

Dear Sir or Madam:

On behalf of Commonwealth Tank, The Richmond Group and Biogen Idec, Tetra Tech Rizzo has prepared the enclosed Notice of Intent (NOI) for coverage under the National Pollutant Discharge Elimination System (NPDES) Dewatering General Permit (DGP) during temporary construction-related dewatering at the above-referenced location (the Site).

Commonwealth Tank will be conducting excavation activities at the Site related to the installation of a new fuel oil underground storage tank (UST) and related utilities (piping, controls, etc.). If necessary, limited and temporary (short-term) dewatering may be necessary to maintain dry work areas which may necessitate discharge of water (stormwater and/or uncontaminated groundwater) to the Charles River via the City of Cambridge stormwater drainage system. The project is being conducted on a portion of 14 Cambridge Center that is less than one-acre in area.

This NOI has been prepared to request coverage under the NPDES DGP for discharge of stormwater and/or uncontaminated groundwater to the City of Cambridge stormwater drainage system with subsequent discharge to the Charles River. This NOI includes the requisite information and attachments in the US Environmental Protection Agency (EPA) recommended format in addition to the state NOI form. A copy of this NOI package has also been submitted concurrently to the Massachusetts Department of Environmental Protection (MassDEP) Division of Watershed Management and the City of Cambridge.



TETRATECH RIZZO

Please contact the undersigned at (508) 903-2000 if you have any questions regarding this NOI.

Very truly yours,

Ronald E. Myrick, Jr., P.E., L.S.P.
Sr. Project Manager

Enclosures: MassDEP NOI Form (BRP WM 10)
EPA Suggested NOI Form and attachments
Copy of City of Cambridge Permit to Dewater

CC: MassDEP Division of Wildlife Management
City of Cambridge, Department of Public Works



Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Watershed Permitting Program

X227655

Transmittal Number

BRP WM 10

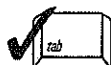
Request for General Permit Coverage Construction Site Dewatering

Date Received

A. Facility Information

Important:

When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Project owner:

Biogen Idec, Inc.

Name

14 Cambridge Center

Street/PO Box:

MA

State

Bradford Buchanan

Contact Person

Cambridge

City

02142

Zip Code

617-679-2000

Telephone Number

2. Project operator (if different from above):

Commonwealth Tank Inc.

Name

84 New Salem Street

Street/PO Box:

MA

State

Luis Diaz

Contact Person

Wakefield

City

01880

Zip Code

800-628-8260

Telephone Number

3. Facility Data (attach topographic map or other map showing facility location):

Biogen Idec Building 2 UST Project

Name

14 Cambridge Center

Street/PO Box

Cambridge

City

MA

State

02142

Zip Code

Email address (optional)

508-889-1291

Telephone Number

0

Contact Person

4. Standard Industrial Code (SIC) and description:

1542

Standard Industrial Code (SIC)

Construction-related dewatering for installation of new underground fuel oil tank

Description

5. Describe any storage of petroleum and chemicals on site:

NA



BRP WM 10

Request for General Permit Coverage Construction Site Dewatering

Date Received

A. Facility Information (continued)

6. Describe the history of land use at the site:

The site is located in an urban mixed use development area and is currently used for biotechnology research/manufacturing. The site has a history of urban industrial use dating back to the late 1800s and early 1900s.

B. Effluent Characteristics (Refer to general permit in Federal Register Volume 67, Number 184, September 28, 2002, page 59503-59519)

No. of Discharge Points	Duration	Volume	Rate
1	3 months	72,000 GPD	50 GPM
Outfall No.			
Outfall No.			
Outfall No.			
Estimated start and completion dates for construction:		04/27/2009 Start Date	7/27/2009 Completion Date
Description of any wastewater treatment:			
dewatering tank(s) and bag filter(s)			

Receiving waterbody:

Charles River

Is the site located within Indian country?

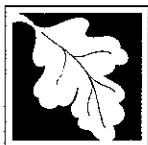
☐ Yes ☒ No

Are any listed or proposed threatened or endangered species or designated critical habitat in proximity to the discharge site?

☐ Yes ☒ No

Was the US Fish & Wildlife Service and/or the National Marine Fisheries Service contact in determining eligibility under the Endangered Species Act requirements? If yes, submit copy of written concurrence, where applicable.

☐ Yes ☒ No



Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Watershed Permitting Program

X227655

Transmittal Number

BRP WM 10

Request for General Permit Coverage Construction Site Dewatering

Date Received

B. Effluent Characteristics (continued)

Is any historic property listed or eligible for listing on the National Register of Historic Places located on the facility or in proximity to the discharge?

☐ Yes

☒ No

Was the State Historic Preservation Officer or Tribal Historic Preservation Officer contacted in determining eligibility?

☐ Yes

☒ No

C. Certification

I certify that each discharge for which I am seeking coverage under the general permit consists solely of effluent from discharges from the construction dewatering activities; and, based on the instruction at 1.C.1c, Limitations of Coverage, I have met the eligibility criteria under the Endangered Species Act and the National Historic Preservation Act. 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 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.

Signature

Luis Diaz, Project Manager, Commonwealth Tank, Inc.

Printed Name and Title

NOI Preparer:

Tetra Tech, Inc. d/b/a Tetra Tech Rizzo

Name

One Grant Street

Address

MA

State

Ronald E. Myrick, Jr., P.E., L.S.P.

Contact Person

Framingham

City

01701

Zip Code

508-903-2000

Telephone Number

II. Suggested Notice of Intent (NOI) Form

1. General facility information. Please provide the following information about the facility.

a) Name of facility: Biogen Idec Building 2 UST Project		Mailing Address for the Facility: C/O Commonwealth Tank, Inc.	
b) Location Address of the Facility (if different from mailing address): adjacent to 14 Cambridge Center, Cambridge, MA		Facility Location Longitude: <u>-71° 05' 10"</u> Latitude: <u>42° 21' 56"</u>	Type of Business: Construction Dewatering Facility SIC codes: 1542
c) Name of facility owner: <u>Biogen Idec, Inc.</u>		Owner's email: _____	
Owner's Tel #: <u>617-679-2000</u>		Owner's Fax #: <u>617-679-3519</u>	
Address of owner (if different from facility address) 14 Cambridge Center, Cambridge, MA			
Owner is (check one): 1. Federal _____ 2. State _____ 3. Tribal _____ 4. Private ☒ 4. Other _____ (Describe) _____			
Legal name of Operator, if not owner: <u>Commonwealth Tank, Inc.</u>			
Operator Contact Name: <u>Luis Diaz</u>			
Operator Tel Number: <u>(800) 628-8260</u> Fax Number: _____			
Operator's email: _____			
Operator Address (if different from owner) 84 New Salem St., Wakefield, MA 01880			
d) Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water. Map attached? ☒ Attachment 1			
e) Check Yes or No for the following:			
1. Has a prior NPDES permit been granted for the discharge? Yes _____ No ☒ If Yes, Permit Number: _____			
2. Is the discharge a "new discharge" as defined by 40 CFR Section 122.22? Yes ☒ No _____			
3. Is the facility covered by an individual NPDES permit? Yes _____ No ☒ If Yes, Permit Number _____			
4. Is there a pending application on file with EPA for this discharge? Yes _____ No ☒ If Yes, date of submittal: _____			

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

a) Name of receiving water into which discharge will occur: Charles River
State Water Quality Classification: B Freshwater: Yes Marine Water:

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

1. Construction dewatering of groundwater intrusion and/or storm water accumulation. Yes
2. Short-term or long-term dewatering of foundation sumps. No
3. Other.

c) Number of outfalls 1

For each outfall:

d) Estimate the maximum daily and average monthly flow of the discharge (in gallons per day - GPD). Max Daily Flow 72,000 GPD
Average Monthly Flow 72,000 GPD

e) What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH 7.5 Min pH 6.5

f) Identify the source of the discharge (i.e. potable water, surface water, or groundwater). If groundwater, the facility shall submit effluent test results, as required in Section 4.4.5 of the General Permit. groundwater, see Attachment 2

g) What treatment does the wastewater receive prior to discharge? Dewatering tank(s) and bag filter(s)

h) Is the discharge continuous? Yes No ✓ If no, is the discharge periodic (P) (occurs regularly, i.e., monthly or seasonally, but is not continuous all year) or intermittent (I) (occurs sometimes but not regularly) or both (B) I
If (P), number of days or months per year of the discharge and the specific months of discharge ;
If (I), number of days/year there is a discharge 60
Is the discharge temporary? Yes ✓ No
If yes, approximate start date of dewatering 04/27/2009 approximate end date of dewatering 07/27/2009

i) Latitude and longitude of each discharge within 100 feet (See http://www.epa.gov/tri/report/siting_tool): Outfall 1: long. -71°04'55" lat. 42°02'46";
Outfall 2: long. lat. ; Outfall 3: long. lat. .

j) If the source of the discharge is potable water, please provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water and attach any calculation sheets used to support stream flow and dilution calculations NA cfs
(See Appendix VII for equations and additional information)

MASSACHUSETTS FACILITIES: See Section 3.4 and Appendix 1 of the General Permit for more information on Areas of Critical Environmental Concern (ACEC):

k) Does the discharge occur in an ACEC? Yes _____ No ✓ Attachment 3
If yes, provide the name of the ACEC:

3. Contaminant Information

- a) Are any pH neutralization and/or dechlorination chemicals used in the discharge? If so, include the chemical name and manufacturer; maximum and average daily quantity used as well as the maximum and average daily expected concentrations (mg/l) in the discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC₅₀ in percent for aquatic organism(s)). NO
b) Please report any known remediation activities or water-quality issues in the vicinity of the discharge. See Attachment 4

4. Determination of Endangered Species Act Eligibility: Provide documentation of ESA eligibility as required at Part 3.4 and Appendices III and IV. In addition, respond to the following questions.

- a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes _____ No ✓
b) Has any consultation with the federal services been completed? Yes _____ No ✓
c) Is consultation underway? Yes _____ No ✓
d) What were the results of the consultation with the U.S. Fish and Wildlife Service and/or NOAA 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.
e) Which of the five eligibility criteria listed in Appendix 2, Section B (A,B,C,D, or E) have you met? A
f) Please attach a copy of the most current federal listing of endangered and threatened species, found at USF&W website. Attachment 5

5. Documentation of National Historic Preservation Act requirements: Please respond to the following questions:

- a) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility site or in proximity to the discharge? Yes _____ No ✓
b) Have any State or Tribal historic preservation officers been consulted in this determination? Yes _____ or No ✓ If yes, attach the results of the consultation(s).
c) Which of the three National Historic Preservation Act requirements listed in Appendix 3, Section C (1,2 or 3) have you met? 1 see Attachment 6

6. 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

7. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22 (see below) including the following certification:

I certify under penalty of law that (1) no biocides or other chemical additives except for those used for pH adjustment and/or dechlorination are used in the dewatering system; (2) the discharge consists solely of dewatering and authorized pH adjustment and/or

dechlorination chemicals; (3) the discharge does not come in contact with any raw materials, intermediate product, water product or finished product; (4) if the discharge of dewatering subsequently mixes with other permitted wastewater (i.e. stormwater) prior to discharging to the receiving water, any monitoring provided under this permit will be only for dewatering discharge; (5) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act; and (6) 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 Name: Biogen Idec Building 2 UST Project

Operator signature:

Title: *Propd Manager*

Date: *4-7-09*

Federal regulations require this application to be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For partnership or sole proprietorship, by a general partner or the proprietor, respectively, or,
3. For a municipality, State, Federal or other public facility, by either a principal executive officer or ranking elected official.

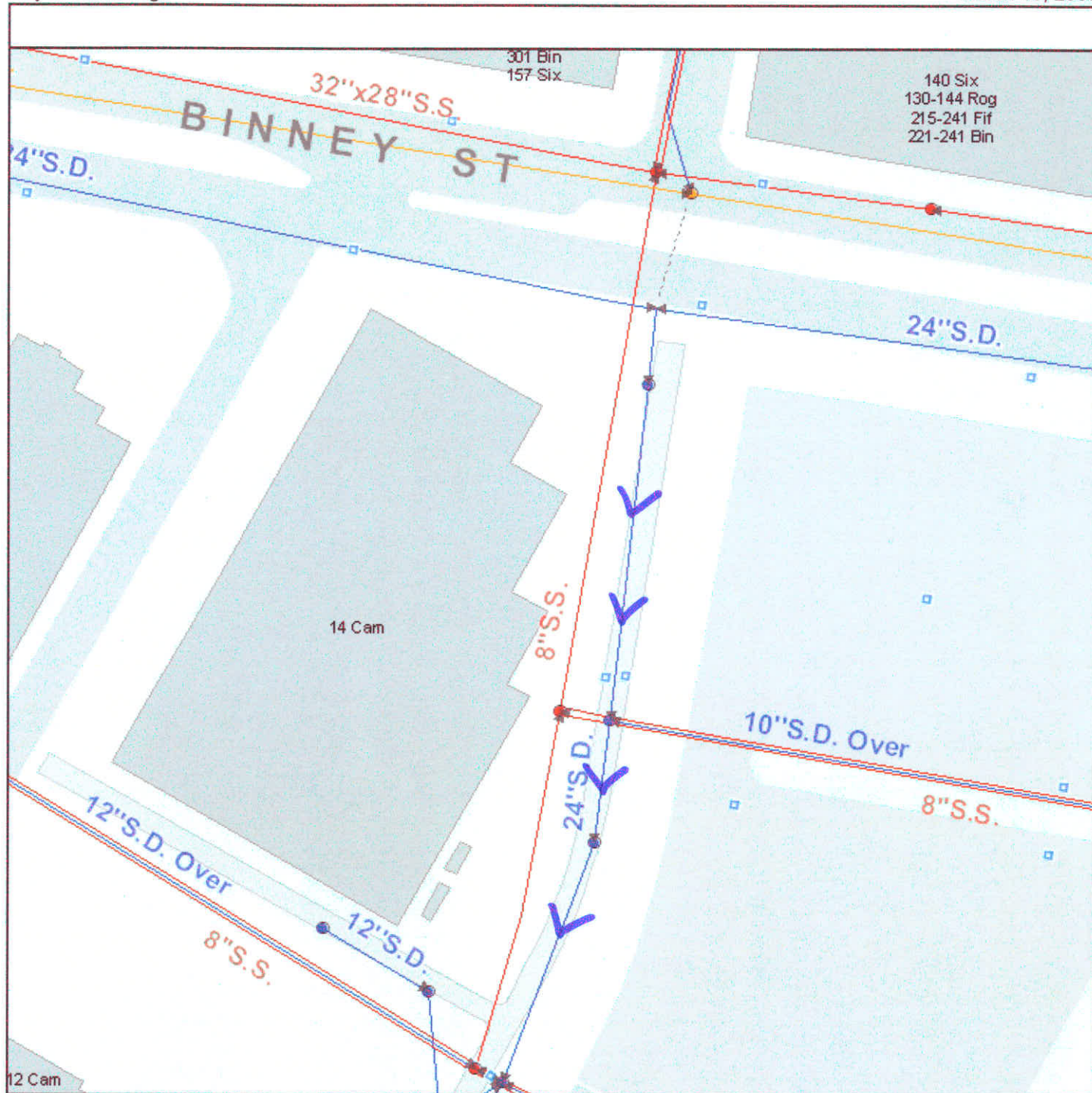
Attachment 1

Topographic map indicating the location of the facility and outfall to Charles River

Maps depicting the stormwater drainage system and conveyance path from the facility to the Charles River



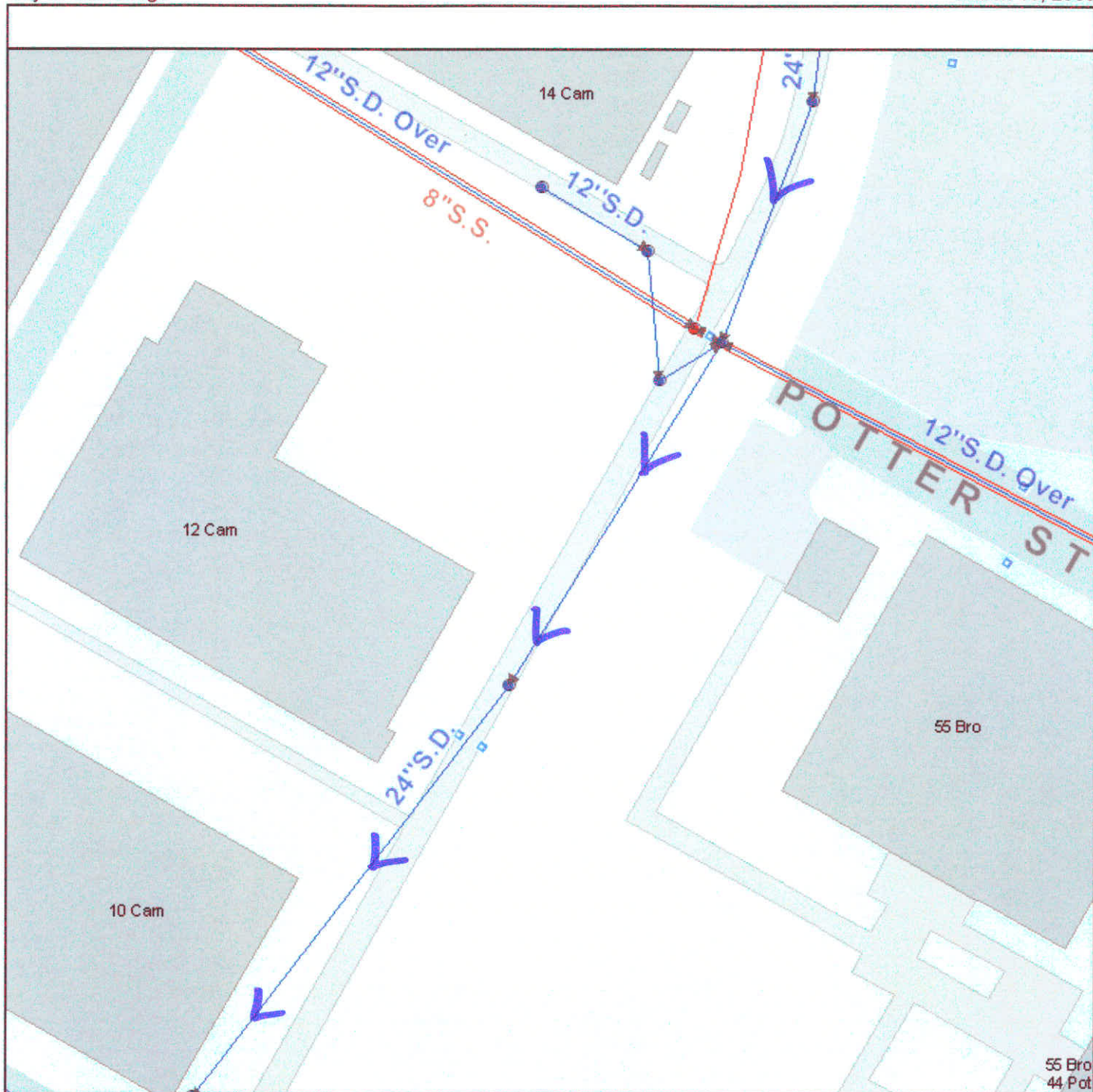
14 Cambridge Center
Cambridge, Massachusetts



City of Cambridge
Massachusetts

- | | |
|---------------------------|-------------------------------|
| Outfalls | Service Laterals |
| ● Stormwater | — Stormwater |
| ● Combined Sewer Overflow | — Sewage |
| ● Abandoned | — Abandoned |
| Pumping Structures | Force Mains |
| ■ Pump Station | → Combined Wastewater |
| ■ Lift Station | → Sewage |
| Manholes | → Storm Runoff |
| ● Stormwater | MWRA Mains |
| ● Sewage | — Abandoned |
| ● Combined Sewage | — In Service |
| ● Abandoned | Underground Structures |
| Lampholes | ■ Stormwater |
| ● Stormwater | ■ Sewage |
| ● Sewage | ■ Combined Sewage |
| Catchbasins | |
| ■ Standard Sump | |
| ■ Drop Inlet | |
| ■ Area Drain | |
| ■ Drywell | |
| ■ Oil/Water Separator | |
| ■ Abandoned | |
| — Trench Drains | |

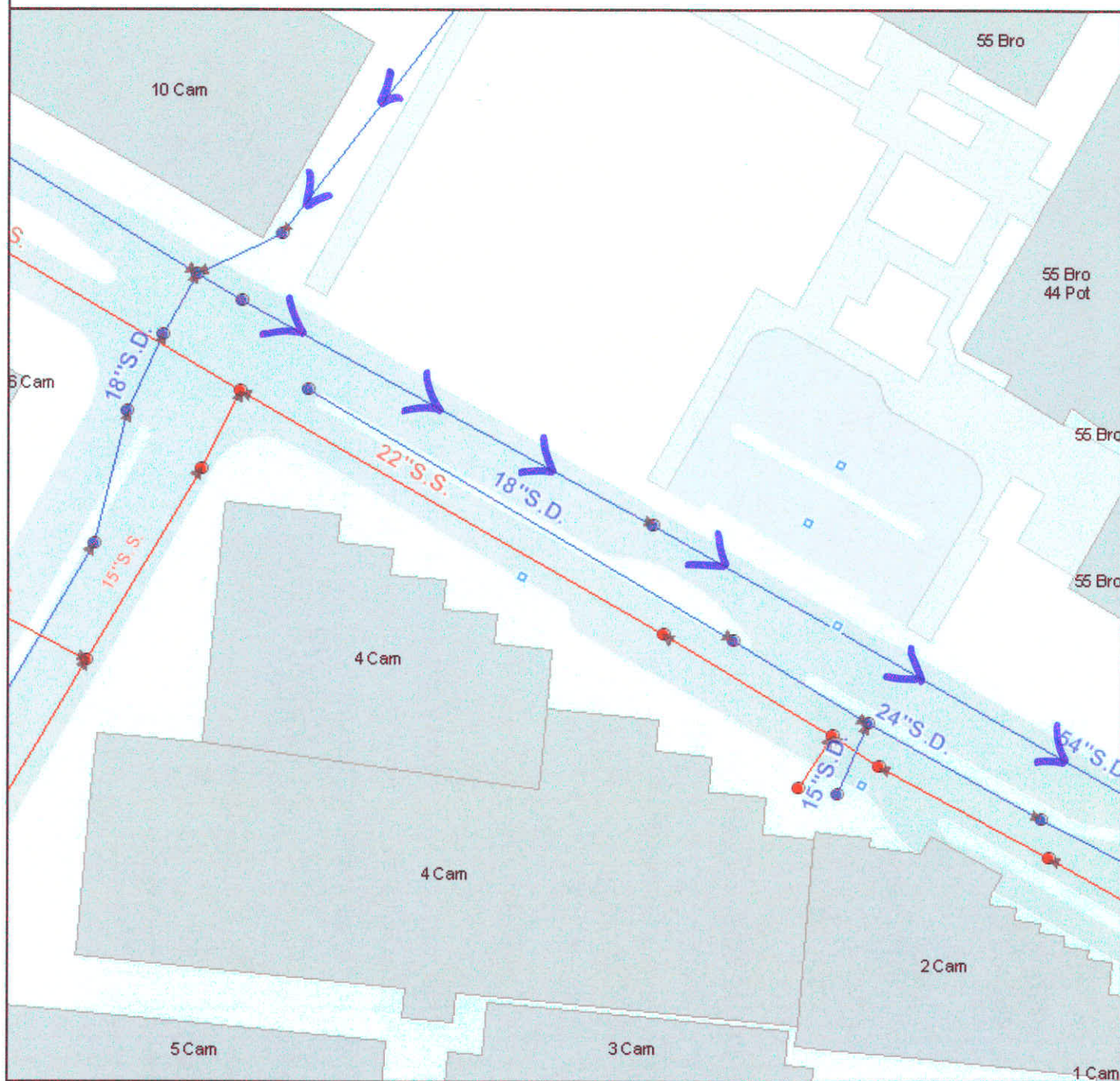
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Massachusetts

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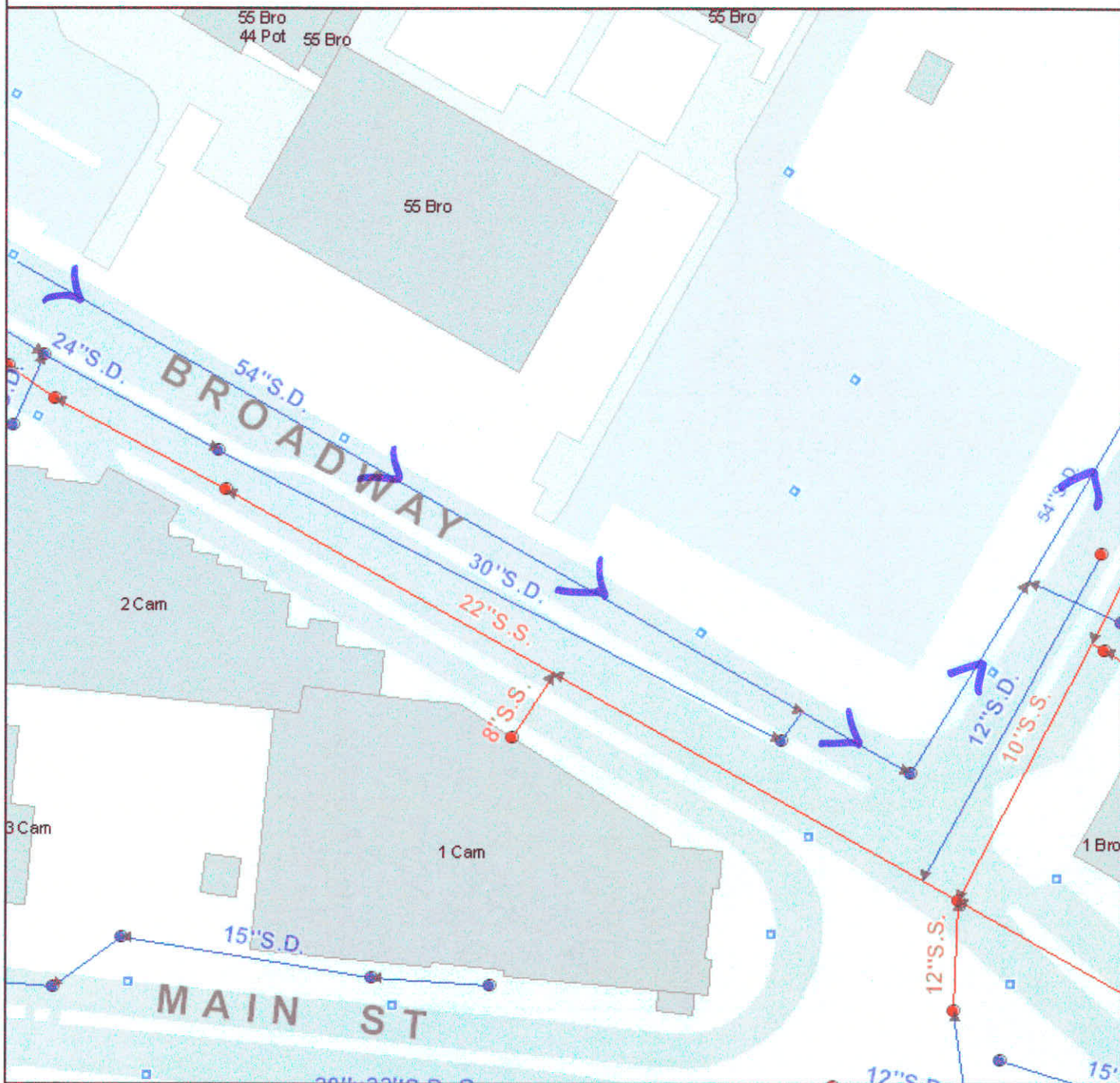
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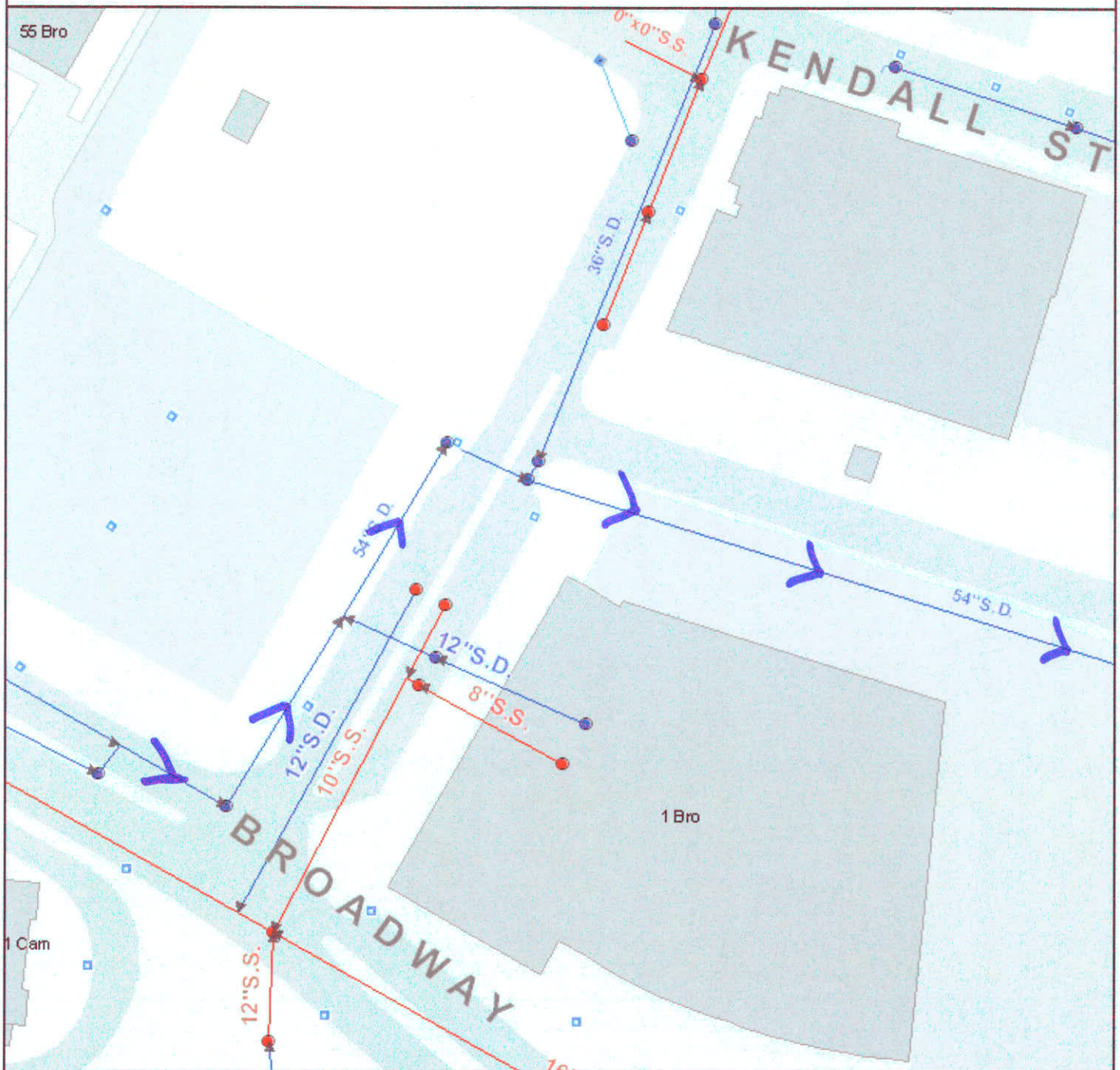
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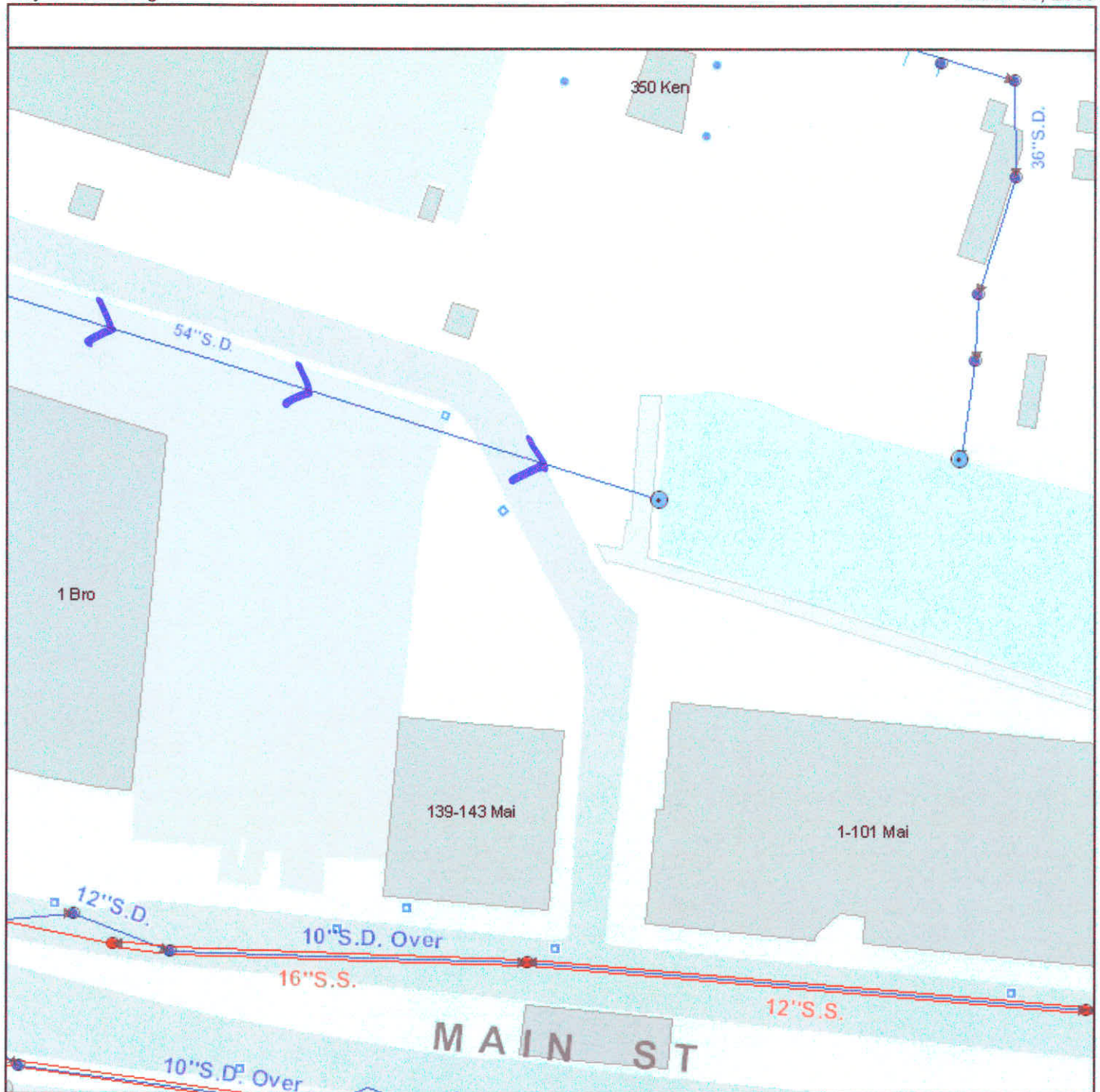
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| ■ Abandoned | |
| — Trench Drains | |

Attachment 2

Laboratory analytical results for groundwater effluent sample

ALPHA ANALYTICAL

Eight Walkup Drive
Westborough, Massachusetts 01581-1019
(508) 898-9220 www.alphalab.com
MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

CERTIFICATE OF ANALYSIS

Client: Tetra Tech Rizzo Laboratory Job Number: L0903333
Address: 1 Grant Street Date Received: 19-MAR-2009
Framingham, MA 01701-9005 Date Reported: 26-MAR-2009
Attn: Mr. Ron Myrick Delivery Method: Client
Project Number: 127-9979-09001 Site: BLD. 2 UST PROJECT

ALPHA SAMPLE NUMBER	CLIENT IDENTIFICATION	SAMPLE LOCATION
L0903333-01	MW-6	14 CAMBRIDGE CTR.
L0903333-02	TRIP BLANK	14 CAMBRIDGE CTR.

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized by: Michelle M. Morris
Technical Representative

ALPHA ANALYTICAL
NARRATIVE REPORT

Laboratory Job Number: L0903333

Report Submission

This report replaces the report issued on March 25, 2009. The Volatile Organics compound list has been amended.

The samples were received in accordance with the chain of custody and no significant deviations were encountered during preparation or analysis unless otherwise noted below.

Volatile Organics

The WG355693-9 LCS recovery associated with L0903333-01 and -02 was above the acceptance criteria for Acrolein (290%); however, the associated samples were non-detect for this target compound. The results of the original analysis are reported.

Semivolatile Organics

The WG356269-3 LCSD recovery associated with L0903333-01 was above the acceptance criteria for 2,4-Dinitrotoluene (97%); however, the associated sample was non-detect for this target compound. The results of the original analysis are reported.

**ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS**

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0903333-01

Date Collected: 19-MAR-2009 11:02

MW-6

Date Received : 19-MAR-2009

Sample Matrix: WATER

Date Reported : 26-MAR-2009

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 8-Amber,4-Plastic,4-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
General Chemistry - Westborough Lab							
Solids, Total Suspended	12	mg/l	5.0	30 2540D		0320 10:45	DW
Cyanide, Total	ND	mg/l	0.005	30 4500CN-CE	0320 11:15	0320 18:57	AT
Chlorine, Total Residual	ND	mg/l	0.02	30 4500CL-D		0319 18:15	JO
pH (H)	6.7	SU	-	30 4500H+-B		0319 20:35	JO
TPH	ND	mg/l	4.00	74 1664A	0320 17:45	0323 19:45	JO
Phenolics, Total	ND	mg/l	0.03	4 420.1		0321 19:35	TH
Chromium, Hexavalent	ND	mg/l	0.010	30 3500CR-D	0319 22:30	0319 22:30	JT
Total Metals - Westborough Lab							
Antimony, Total	ND	mg/l	0.0005	1 6020	0321 15:30	0324 19:11	RC
Arsenic, Total	0.0008	mg/l	0.0005	1 6020	0321 15:30	0324 19:11	RC
Cadmium, Total	ND	mg/l	0.0002	1 6020	0321 15:30	0324 19:11	RC
Chromium, Total	0.0022	mg/l	0.0005	1 6020	0321 15:30	0324 19:11	RC
Copper, Total	0.0032	mg/l	0.0005	1 6020	0321 15:30	0324 19:11	RC
Iron, Total	0.40	mg/l	0.05	19 200.7	0320 10:50	0323 09:56	MG
Lead, Total	0.0007	mg/l	0.0005	1 6020	0321 15:30	0324 19:11	RC
Mercury, Total	ND	mg/l	0.0002	3 245.1	0320 15:15	0323 10:54	EZ
Nickel, Total	0.0030	mg/l	0.0005	1 6020	0321 15:30	0324 19:11	RC
Selenium, Total	0.005	mg/l	0.001	1 6020	0321 15:30	0324 19:11	RC
Silver, Total	ND	mg/l	0.0004	1 6020	0321 15:30	0324 19:11	RC
Zinc, Total	0.0053	mg/l	0.0050	1 6020	0321 15:30	0324 19:11	RC
Pesticides by GC - Westborough Lab							
1,2-Dibromoethane	ND	ug/l	0.020	14 504.1	0325 09:30	0325 12:03	JB
Volatile Organics by GC/MS - Westborough Lab							
Methylene chloride	ND	ug/l	5.0	5 624		0320 08:04	TT
1,1-Dichloroethane	ND	ug/l	1.5				
Chloroform	ND	ug/l	1.5				
Carbon tetrachloride	ND	ug/l	1.0				
1,2-Dichloropropane	ND	ug/l	3.5				
Dibromochloromethane	ND	ug/l	1.0				
1,1,2-Trichloroethane	ND	ug/l	1.5				
2-Chloroethylvinyl ether	ND	ug/l	10.				
Tetrachloroethene	ND	ug/l	1.5				
Chlorobenzene	ND	ug/l	3.5				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0903333-01
MW-6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by GC/MS - Westborough Lab cont'd					5 624	0320 08:04 TT	
Trichlorofluoromethane	ND	ug/l	5.0				
1,2-Dichloroethane	ND	ug/l	1.5				
1,1,1-Trichloroethane	ND	ug/l	2.0				
Bromodichloromethane	ND	ug/l	1.0				
trans-1,3-Dichloropropene	ND	ug/l	1.5				
cis-1,3-Dichloropropene	ND	ug/l	1.5				
Bromoform	ND	ug/l	1.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0				
Benzene	ND	ug/l	1.0				
Toluene	ND	ug/l	1.0				
Ethylbenzene	ND	ug/l	1.0				
Chloromethane	ND	ug/l	10.				
Bromomethane	ND	ug/l	5.0				
Vinyl chloride	ND	ug/l	2.0				
Chloroethane	ND	ug/l	2.0				
1,1-Dichloroethene	ND	ug/l	1.0				
trans-1,2-Dichloroethene	ND	ug/l	1.5				
cis-1,2-Dichloroethene	ND	ug/l	1.0				
Trichloroethene	ND	ug/l	1.0				
1,2-Dichlorobenzene	ND	ug/l	5.0				
1,3-Dichlorobenzene	ND	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	5.0				
p/m-Xylene	ND	ug/l	2.0				
o-xylene	ND	ug/l	1.0				
Xylene (Total)	ND	ug/l	2.0				
Styrene	ND	ug/l	1.0				
Acetone	ND	ug/l	10.				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	10.				
Vinyl acetate	ND	ug/l	20.				
4-Methyl-2-pentanone	ND	ug/l	10.				
2-Hexanone	ND	ug/l	10.				
Acrolein	ND	ug/l	8.0				
Acrylonitrile	ND	ug/l	10.				
Methyl tert butyl ether	ND	ug/l	20.				
1,4-Dioxane	ND	ug/l	2000				
Tert-Butyl Alcohol	ND	ug/l	100				
Tertiary-Amyl Methyl Ether	ND	ug/l	20.				
Surrogate(s)	Recovery		QC Criteria				
Pentafluorobenzene	83.0	%	80-120				
Fluorobenzene	92.0	%	80-120				
4-Bromofluorobenzene	100	%	80-120				
Semivolatile Organics by GC/MS - Westborough Lab					1 8270C	0321 06:32 0323 18:57 PS	
Acenaphthene	ND	ug/l	5.0				
Benzidine	ND	ug/l	50.				
1,2,4-Trichlorobenzene	ND	ug/l	5.0				
Hexachlorobenzene	ND	ug/l	5.0				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0903333-01
MW-6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Semivolatile Organics by GC/MS - Westborough Lab cont'd							
Bis(2-chloroethyl)ether	ND	ug/l	5.0	1 8270C	0321 06:32	0323 18:57	PS
2-Chloronaphthalene	ND	ug/l	6.0				
1,2-Dichlorobenzene	ND	ug/l	5.0				
1,3-Dichlorobenzene	ND	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	5.0				
3,3'-Dichlorobenzidine	ND	ug/l	50.				
2,4-Dinitrotoluene	ND	ug/l	6.0				
2,6-Dinitrotoluene	ND	ug/l	5.0				
Azobenzene	ND	ug/l	5.0				
Fluoranthene	ND	ug/l	5.0				
4-Chlorophenyl phenyl ether	ND	ug/l	5.0				
4-Bromophenyl phenyl ether	ND	ug/l	5.0				
Bis(2-chloroisopropyl)ether	ND	ug/l	5.0				
Bis(2-chloroethoxy)methane	ND	ug/l	5.0				
Hexachlorobutadiene	ND	ug/l	10.				
Hexachlorocyclopentadiene	ND	ug/l	30.				
Hexachloroethane	ND	ug/l	5.0				
Isophorone	ND	ug/l	5.0				
Naphthalene	ND	ug/l	5.0				
Nitrobenzene	ND	ug/l	5.0				
NitrosoDiPhenylAmine (NDPA) /DPA	ND	ug/l	15.				
Bis(2-Ethylhexyl)phthalate	ND	ug/l	5.0				
Butyl benzyl phthalate	ND	ug/l	5.0				
Di-n-butylphthalate	ND	ug/l	5.0				
Di-n-octylphthalate	ND	ug/l	5.0				
Diethyl phthalate	ND	ug/l	5.0				
Dimethyl phthalate	ND	ug/l	5.0				
Benzo(a)anthracene	ND	ug/l	5.0				
Benzo(a)pyrene	ND	ug/l	5.0				
Benzo(b)fluoranthene	ND	ug/l	5.0				
Benzo(k)fluoranthene	ND	ug/l	5.0				
Chrysene	ND	ug/l	5.0				
Acenaphthylene	ND	ug/l	5.0				
Anthracene	ND	ug/l	5.0				
Benzo(ghi)perylene	ND	ug/l	5.0				
Fluorene	ND	ug/l	5.0				
Phenanthrene	ND	ug/l	5.0				
Dibenzo(a,h)anthracene	ND	ug/l	5.0				
Indeno(1,2,3-cd)Pyrene	ND	ug/l	7.0				
Pyrene	ND	ug/l	5.0				
Aniline	ND	ug/l	20.				
4-Chloroaniline	ND	ug/l	5.0				
1-Methylnaphthalene	ND	ug/l	5.0				
2-Nitroaniline	ND	ug/l	5.0				
3-Nitroaniline	ND	ug/l	5.0				
4-Nitroaniline	ND	ug/l	7.0				
Dibenzofuran	ND	ug/l	5.0				
2-Methylnaphthalene	ND	ug/l	5.0				
n-Nitrosodimethylamine	ND	ug/l	50.				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0903333-01
MW-6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE	ID
					PREP	ANAL
Semivolatile Organics by GC/MS - Westborough Lab cont'd						
				1 8270C	0321 06:32	0323 18:57 PS
2,4,6-Trichlorophenol	ND	ug/l	5.0			
P-Chloro-M-Cresol	ND	ug/l	5.0			
2-Chlorophenol	ND	ug/l	6.0			
2,4-Dichlorophenol	ND	ug/l	10.			
2,4-Dimethylphenol	ND	ug/l	10.			
2-Nitrophenol	ND	ug/l	20.			
4-Nitrophenol	ND	ug/l	10.			
2,4-Dinitrophenol	ND	ug/l	30.			
4,6-Dinitro-o-cresol	ND	ug/l	20.			
Pentachlorophenol	ND	ug/l	10.			
Phenol	ND	ug/l	7.0			
2-Methylphenol	ND	ug/l	6.0			
3-Methylphenol/4-Methylphenol	ND	ug/l	6.0			
2,4,5-Trichlorophenol	ND	ug/l	5.0			
Benzoic Acid	ND	ug/l	50.			
Benzyl Alcohol	ND	ug/l	10.			
Carbazole	ND	ug/l	5.0			
Pyridine	ND	ug/l	50.			
Surrogate(s)	Recovery		QC Criteria			
2-Fluorophenol	52.0	%	21-120			
Phenol-d6	37.0	%	10-120			
Nitrobenzene-d5	71.0	%	23-120			
2-Fluorobiphenyl	70.0	%	43-120			
2,4,6-Tribromophenol	87.0	%	10-120			
4-Terphenyl-d14	85.0	%	33-120			
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
				1 8270C	0321 06:35	0324 04:18 AK
Acenaphthene	ND	ug/l	0.20			
2-Chloronaphthalene	ND	ug/l	0.20			
Fluoranthene	ND	ug/l	0.20			
Hexachlorobutadiene	ND	ug/l	0.50			
Naphthalene	ND	ug/l	0.20			
Benzo(a)anthracene	ND	ug/l	0.20			
Benzo(a)pyrene	ND	ug/l	0.20			
Benzo(b)fluoranthene	ND	ug/l	0.20			
Benzo(k)fluoranthene	ND	ug/l	0.20			
Chrysene	ND	ug/l	0.20			
Acenaphthylene	ND	ug/l	0.20			
Anthracene	ND	ug/l	0.20			
Benzo(ghi)perylene	ND	ug/l	0.20			
Fluorene	ND	ug/l	0.20			
Phenanthrene	ND	ug/l	0.20			
Dibenzo(a,h)anthracene	ND	ug/l	0.20			
Indeno(1,2,3-cd)Pyrene	ND	ug/l	0.20			
Pyrene	ND	ug/l	0.20			
1-Methylnaphthalene	ND	ug/l	0.20			
2-Methylnaphthalene	ND	ug/l	0.20			
Pentachlorophenol	ND	ug/l	0.80			

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0903333-01
MW-6

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Semivolatile Organics by GC/MS-SIM - Westborough Lab cont'							
				1 8270c	0321 06:35	0324 04:18	AK
Hexachlorobenzene	ND	ug/l	0.80				
Hexachloroethane	ND	ug/l	0.80				
Surrogate(s)	Recovery		QC Criteria				
2-Fluorophenol	46.0	%	21-120				
Phenol-d6	35.0	%	10-120				
Nitrobenzene-d5	69.0	%	23-120				
2-Fluorobiphenyl	62.0	%	43-120				
2,4,6-Tribromophenol	103	%	10-120				
4-Terphenyl-d14	85.0	%	33-120				
Polychlorinated Biphenyls by GC - Westborough Lab							
				5 608	0321 01:33	0325 09:28	JB
Aroclor 1016	ND	ug/l	0.259				
Aroclor 1221	ND	ug/l	0.259				
Aroclor 1232	ND	ug/l	0.259				
Aroclor 1242	ND	ug/l	0.259				
Aroclor 1248	ND	ug/l	0.259				
Aroclor 1254	ND	ug/l	0.259				
Aroclor 1260	ND	ug/l	0.259				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	76.0	%	30-150				
Decachlorobiphenyl	110	%	30-150				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

MA:M-MA086 NH:2003 CT:PH-0574 ME:MA0086 RI:LAO00065 NY:11148 NJ:MA935 Army:USACE

Laboratory Sample Number: L0903333-02

Date Collected: 19-MAR-2009 00:00

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Date Received : 19-MAR-2009

Sample Matrix:

WATER

Date Reported : 26-MAR-2009

Condition of Sample: Satisfactory

Field Prep: None

Number & Type of Containers: 2-Vial

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Pesticides by GC - Westborough Lab					14 504.1	0325 09:30	0325 12:13 JB
1,2-Dibromoethane	ND	ug/l	0.020				
Volatile Organics by GC/MS - Westborough Lab					5 624	0320 07:27	TT
Methylene chloride	ND	ug/l	5.0				
1,1-Dichloroethane	ND	ug/l	1.5				
Chloroform	ND	ug/l	1.5				
Carbon tetrachloride	ND	ug/l	1.0				
1,2-Dichloropropane	ND	ug/l	3.5				
Dibromochloromethane	ND	ug/l	1.0				
1,1,2-Trichloroethane	ND	ug/l	1.5				
2-Chloroethylvinyl ether	ND	ug/l	10.				
Tetrachloroethene	ND	ug/l	1.5				
Chlorobenzene	ND	ug/l	3.5				
Trichlorofluoromethane	ND	ug/l	5.0				
1,2-Dichloroethane	ND	ug/l	1.5				
1,1,1-Trichloroethane	ND	ug/l	2.0				
Bromodichloromethane	ND	ug/l	1.0				
trans-1,3-Dichloropropene	ND	ug/l	1.5				
cis-1,3-Dichloropropene	ND	ug/l	1.5				
Bromoform	ND	ug/l	1.0				
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0				
Benzene	ND	ug/l	1.0				
Toluene	ND	ug/l	1.0				
Ethylbenzene	ND	ug/l	1.0				
Chloromethane	ND	ug/l	10.				
Bromomethane	ND	ug/l	5.0				
Vinyl chloride	ND	ug/l	2.0				
Chloroethane	ND	ug/l	2.0				
1,1-Dichloroethene	ND	ug/l	1.0				
trans-1,2-Dichloroethene	ND	ug/l	1.5				
cis-1,2-Dichloroethene	ND	ug/l	1.0				
Trichloroethene	ND	ug/l	1.0				
1,2-Dichlorobenzene	ND	ug/l	5.0				
1,3-Dichlorobenzene	ND	ug/l	5.0				
1,4-Dichlorobenzene	ND	ug/l	5.0				
p/m-Xylene	ND	ug/l	2.0				
o-xylene	ND	ug/l	1.0				
Xylene (Total)	ND	ug/l	2.0				

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
CERTIFICATE OF ANALYSIS

Laboratory Sample Number: L0903333-02
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PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Volatile Organics by GC/MS - Westborough Lab cont'd				5 624			0320 07:27 TT
Styrene	ND	ug/l	1.0				
Acetone	ND	ug/l	10.				
Carbon disulfide	ND	ug/l	5.0				
2-Butanone	ND	ug/l	10.				
Vinyl acetate	ND	ug/l	20.				
4-Methyl-2-pentanone	ND	ug/l	10.				
2-Hexanone	ND	ug/l	10.				
Acrolein	ND	ug/l	8.0				
Acrylonitrile	ND	ug/l	10.				
Methyl tert butyl ether	ND	ug/l	20.				
1,4-Dioxane	ND	ug/l	2000				
Tert-Butyl Alcohol	ND	ug/l	100				
Tertiary-Amyl Methyl Ether	ND	ug/l	20.				
Surrogate(s)	Recovery			QC Criteria			
Pentafluorobenzene	87.0	%		80-120			
Fluorobenzene	95.0	%		80-120			
4-Bromofluorobenzene	103	%		80-120			

Comments: Complete list of References and Glossary of Terms found in Addendum I

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0903333

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
General Chemistry - Westborough Lab for sample(s) 01 (L0903336-02, WG356148-2)					
Solids, Total Suspended	190	190	mg/l	0	32
General Chemistry - Westborough Lab for sample(s) 01 (L0903359-01, WG356174-4)					
Cyanide, Total	0.046	0.046	mg/l	0	30
General Chemistry - Westborough Lab for sample(s) 01 (L0903308-01, WG356127-3)					
Chlorine, Total Residual	ND	ND	mg/l	NC	
General Chemistry - Westborough Lab for sample(s) 01 (L0903317-05, WG356123-2)					
pH (H)	7.0	7.0	SU	0	5
General Chemistry - Westborough Lab for sample(s) 01 (L0903333-01, WG356225-4)					
TPH	ND	ND	mg/l	NC	34
General Chemistry - Westborough Lab for sample(s) 01 (L0903333-01, WG356299-4)					
Phenolics, Total	ND	ND	mg/l	NC	12
General Chemistry - Westborough Lab for sample(s) 01 (L0903336-01, WG356122-3)					
Chromium, Hexavalent	ND	ND	mg/l	NC	20
Total Metals - Westborough Lab for sample(s) 01 (L0903333-01, WG356183-3)					
Iron, Total	0.40	0.40	mg/l	0	20
Total Metals - Westborough Lab for sample(s) 01 (L0903315-03, WG356292-3)					
Antimony, Total	ND	ND	mg/l	NC	20
Arsenic, Total	0.0005	0.0006	mg/l	7	20
Lead, Total	ND	ND	mg/l	NC	20
Nickel, Total	0.0033	0.0033	mg/l	0	20
Total Metals - Westborough Lab for sample(s) 01 (L0903329-01, WG356219-3)					
Mercury, Total	ND	ND	mg/l	NC	
Volatile Organics by GC/MS - Westborough Lab for sample(s) 01-02 (L0903121-02, WG355693-4)					
Benzene	ND	ND	ug/l	NC	30
Surrogate(s)	Recovery			QC Criteria	
Pentafluorobenzene	91.0	91.0	%	80-120	
Fluorobenzene	92.0	93.0	%	80-120	
4-Bromofluorobenzene	103	103	%	80-120	
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s) 01 (L0903333-01, WG356262-4)					
Aroclor 1016	ND	ND	ug/l	NC	30
Aroclor 1221	ND	ND	ug/l	NC	30
Aroclor 1232	ND	ND	ug/l	NC	30
Aroclor 1242	ND	ND	ug/l	NC	30
Aroclor 1248	ND	ND	ug/l	NC	30
Aroclor 1254	ND	ND	ug/l	NC	30
Aroclor 1260	ND	ND	ug/l	NC	30

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH DUPLICATE ANALYSIS

Laboratory Job Number: L0903333

Continued

Parameter	Value 1	Value 2	Units	RPD	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s) 01 (L0903333-01, WG356262-4)					
Surrogate(s)	Recovery				QC Criteria
2,4,5,6-Tetrachloro-m-xylene	76.0	56.0	%		30-150
Decachlorobiphenyl	110	79.0	%		30-150

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0903333

Parameter	% Recovery	QC Criteria
General Chemistry - Westborough Lab LCS for sample(s) 01 (WG356174-2)		
Cyanide, Total	102	80-120
General Chemistry - Westborough Lab LCS for sample(s) 01 (WG356127-1)		
Chlorine, Total Residual	93	
General Chemistry - Westborough Lab LCS for sample(s) 01 (WG356123-1)		
pH	99	99-101
General Chemistry - Westborough Lab LCS for sample(s) 01 (WG356225-1)		
TPH	70	64-132
General Chemistry - Westborough Lab LCS for sample(s) 01 (WG356299-2)		
Phenolics, Total	101	82-111
General Chemistry - Westborough Lab LCS for sample(s) 01 (WG356122-2)		
Chromium, Hexavalent	104	85-115
Total Metals - Westborough Lab LCS for sample(s) 01 (WG356183-2)		
Iron, Total	99	85-115
Total Metals - Westborough Lab LCS for sample(s) 01 (WG356292-2)		
Antimony, Total	101	80-120
Arsenic, Total	102	80-120
Cadmium, Total	111	80-120
Chromium, Total	107	80-120
Copper, Total	108	80-120
Lead, Total	111	80-120
Nickel, Total	107	80-120
Selenium, Total	103	80-120
Silver, Total	104	80-120
Zinc, Total	112	80-120
Total Metals - Westborough Lab LCS for sample(s) 01 (WG356219-2)		
Mercury, Total	106	
Pesticides by GC - Westborough Lab LCS for sample(s) 01-02 (WG356639-2)		
1,2-Dibromoethane	91	70-130
Volatile Organics by GC/MS - Westborough Lab LCS for sample(s) 01-02 (WG355693-9)		
Methylene chloride	99	1-221
1,1-Dichloroethane	94	59-155
Chloroform	91	51-138
Carbon tetrachloride	90	70-140
1,2-Dichloropropane	96	1-210
Dibromochloromethane	96	53-149
1,1,2-Trichloroethane	111	52-150
2-Chloroethylvinyl ether	105	1-305
Tetrachloroethene	98	64-148

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0903333

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS - Westborough Lab LCS for sample(s) 01-02 (WG355693-9)		
Chlorobenzene	110	37-160
Trichlorofluoromethane	77	17-181
1,2-Dichloroethane	90	49-155
1,1,1-Trichloroethane	88	52-162
Bromodichloromethane	105	35-155
trans-1,3-Dichloropropene	110	17-183
cis-1,3-Dichloropropene	103	1-227
Bromoform	109	45-169
1,1,2,2-Tetrachloroethane	118	46-157
Benzene	95	37-151
Toluene	102	47-150
Ethylbenzene	113	37-162
Chloromethane	109	1-273
Bromomethane	79	1-242
Vinyl chloride	75	1-251
Chloroethane	90	14-230
1,1-Dichloroethene	96	1-234
trans-1,2-Dichloroethene	99	54-156
cis-1,2-Dichloroethene	87	60-140
Trichloroethene	92	71-157
1,2-Dichlorobenzene	114	18-190
1,3-Dichlorobenzene	112	59-156
1,4-Dichlorobenzene	117	18-190
p/m-Xylene	110	40-160
o-Xylene	107	40-160
XYLENE (TOTAL)	109	40-160
Styrene	101	40-160
Acetone	53	40-160
Carbon disulfide	102	40-160
2-Butanone	61	40-160
Vinyl acetate	113	40-160
4-Methyl-2-pentanone	88	40-160
2-Hexanone	78	40-160
Acrolein	290	40-160
Acrylonitrile	90	40-160
Surrogate(s)		
Pentafluorobenzene	92	80-120
Fluorobenzene	98	80-120
4-Bromofluorobenzene	95	80-120
Polychlorinated Biphenyls by GC - Westborough Lab LCS for sample(s) 01 (WG356262-2)		
Aroclor 1016	59	40-126
Aroclor 1260	63	40-127
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	54	30-150
Decachlorobiphenyl	86	30-150

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0903333

Continued

Parameter	% Recovery	QC Criteria
General Chemistry - Westborough Lab SPIKE for sample(s) 01 (L0903359-01, WG356174-3)		
Cyanide, Total	102	80-120
General Chemistry - Westborough Lab SPIKE for sample(s) 01 (L0903336-01, WG356225-3)		
TPH	83	64-132
General Chemistry - Westborough Lab SPIKE for sample(s) 01 (L0903333-01, WG356299-3)		
Phenolics, Total	100	77-124
General Chemistry - Westborough Lab SPIKE for sample(s) 01 (L0903320-01, WG356122-4)		
Chromium, Hexavalent	106	85-115
Total Metals - Westborough Lab SPIKE for sample(s) 01 (L0903333-01, WG356183-4)		
Iron, Total	100	75-125
Total Metals - Westborough Lab SPIKE for sample(s) 01 (L0903315-03, WG356292-4)		
Antimony, Total	98	80-120
Arsenic, Total	102	80-120
Cadmium, Total	104	80-120
Chromium, Total	101	80-120
Copper, Total	101	80-120
Lead, Total	106	80-120
Nickel, Total	100	80-120
Selenium, Total	94	80-120
Silver, Total	94	80-120
Zinc, Total	106	80-120
Total Metals - Westborough Lab SPIKE for sample(s) 01 (L0903329-01, WG356219-4)		
Mercury, Total	114	
Pesticides by GC - Westborough Lab SPIKE for sample(s) 01-02 (L0903333-01, WG356639-3)		
1,2-Dibromoethane	81	70-130
Volatile Organics by GC/MS - Westborough Lab SPIKE for sample(s) 01-02 (L0903121-01, WG355693-3)		
Methylene chloride	79	1-221
1,1-Dichloroethane	79	59-155
Chloroform	82	51-138
Carbon tetrachloride	81	70-140
1,2-Dichloropropane	81	1-210
Dibromochloromethane	85	53-149
1,1,2-Trichloroethane	95	52-150
2-Chloroethylvinyl ether	100	1-305
Tetrachloroethene	83	64-148
Chlorobenzene	88	37-160
Trichlorofluoromethane	71	17-181
1,2-Dichloroethane	79	49-155
1,1,1-Trichloroethane	77	52-162
Bromodichloromethane	92	35-155
trans-1,3-Dichloropropene	89	17-183

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH SPIKE ANALYSES

Laboratory Job Number: L0903333

Continued

Parameter	% Recovery	QC Criteria
Volatile Organics by GC/MS - Westborough Lab SPIKE for sample(s) 01-02 (L0903121-01, WG355693-3)		
cis-1,3-Dichloropropene	80	1-227
Bromoform	93	45-169
1,1,2,2-Tetrachloroethane	102	46-157
Benzene	80	35-151
Toluene	84	47-150
Ethylbenzene	94	37-162
Chloromethane	73	1-273
Bromomethane	42	1-242
Vinyl chloride	59	1-251
Chloroethane	74	14-230
1,1-Dichloroethene	81	1-234
trans-1,2-Dichloroethene	79	54-156
cis-1,2-Dichloroethene	73	60-140
Trichloroethene	74	71-157
1,2-Dichlorobenzene	90	18-190
1,3-Dichlorobenzene	85	59-156
1,4-Dichlorobenzene	90	18-190
p/m-Xylene	95	40-160
o-Xylene	89	40-160
XYLENE (TOTAL)	93	40-160
Styrene	90	40-160
Acetone	63	40-160
Carbon disulfide	79	40-160
2-Butanone	62	40-160
Vinyl acetate	110	40-160
4-Methyl-2-pentanone	87	40-160
2-Hexanone	79	40-160
Acrolein	177	40-160
Acrylonitrile	78	40-160
Surrogate(s)		
Pentafluorobenzene	95	80-120
Fluorobenzene	100	80-120
4-Bromofluorobenzene	91	80-120
Polychlorinated Biphenyls by GC - Westborough Lab SPIKE for sample(s) 01 (L0903333-01, WG356262-		
Aroclor 1016	77	40-126
Aroclor 1260	73	40-127
Surrogate(s)		
2,4,5,6-Tetrachloro-m-xylene	69	30-150
Decachlorobiphenyl	85	30-150

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH LCS/LCSD ANALYSIS

Laboratory Job Number: L0903333

Parameter	LCS %	LCSD %	RPD	RPD Limit	QC Limits
Semivolatile Organics by GC/MS - Westborough Lab for sample(s) 01 (WG356269-2, WG356269-3)					
Acenaphthene	69	77	11	30	46-118
1,2,4-Trichlorobenzene	60	62	3	30	39-98
2-Chloronaphthalene	73	76	4	30	40-140
1,2-Dichlorobenzene	62	65	5	30	40-140
1,4-Dichlorobenzene	58	60	3	30	36-97
2,4-Dinitrotoluene	92	97	5	30	24-96
2,6-Dinitrotoluene	80	87	8	30	40-140
Fluoranthene	101	103	2	30	40-140
4-Chlorophenyl phenyl ether	75	81	8	30	40-140
n-Nitrosodi-n-propylamine	71	75	5	30	41-116
Butyl benzyl phthalate	103	106	3	30	40-140
Anthracene	76	79	4	30	40-140
Pyrene	94	96	2	30	26-127
P-Chloro-M-Cresol	71	77	8	30	23-97
2-Chlorophenol	63	69	9	30	27-123
2-Nitrophenol	74	80	8	30	30-130
4-Nitrophenol	50	55	10	30	10-80
2,4-Dinitrophenol	80	86	7	30	30-130
Pentachlorophenol	87	89	2	30	9-103
Phenol	35	37	6	30	12-110
Surrogate(s)					
2-Fluorophenol	44	48	9		21-120
Phenol-d6	33	36	9		10-120
Nitrobenzene-d5	66	73	10		23-120
2-Fluorobiphenyl	66	70	6		43-120
2,4,6-Tribromophenol	78	82	5		10-120
4-Terphenyl-d14	86	91	6		33-120
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s) 01 (WG356270-2, WG356270-3)					
Acenaphthene	67	66	2	40	40-140
2-Chloronaphthalene	68	67	1	40	40-140
Fluoranthene	91	98	7	40	40-140
Anthracene	66	67	2	40	40-140
Pyrene	92	101	9	40	40-140
Pentachlorophenol	85	73	15	40	30-130
Surrogate(s)					
2-Fluorophenol	43	40	7		21-120
Phenol-d6	33	32	3		10-120
Nitrobenzene-d5	70	65	7		23-120
2-Fluorobiphenyl	55	54	2		43-120
2,4,6-Tribromophenol	85	80	6		10-120
4-Terphenyl-d14	80	84	5		33-120

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0903333

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Blank Analysis for sample(s) 01 (WG356148-1) General Chemistry - Westborough Lab						
Solids, Total Suspended	ND	mg/l	5.0	30 2540D	0320 10:45	DW
Blank Analysis for sample(s) 01 (WG356174-1) General Chemistry - Westborough Lab						
Cyanide, Total	ND	mg/l	0.005	30 4500CN-CE	0320 11:15 0320 18:44	AT
Blank Analysis for sample(s) 01 (WG356127-2) General Chemistry - Westborough Lab						
Chlorine, Total Residual	ND	mg/l	0.02	30 4500CL-D	0319 18:15	JO
Blank Analysis for sample(s) 01 (WG356225-2) General Chemistry - Westborough Lab						
TPH	ND	mg/l	4.00	74 1664A	0320 17:45 0323 19:45	JO
Blank Analysis for sample(s) 01 (WG356299-1) General Chemistry - Westborough Lab						
Phenolics, Total	ND	mg/l	0.03	4 420.1	0321 19:32	TH
Blank Analysis for sample(s) 01 (WG356122-1) General Chemistry - Westborough Lab						
Chromium, Hexavalent	ND	mg/l	0.010	30 3500CR-D	0319 22:30 0319 22:30	JT
Blank Analysis for sample(s) 01 (WG356183-1) Total Metals - Westborough Lab						
Iron, Total	ND	mg/l	0.05	19 200.7	0320 10:50 0323 09:49	MG
Blank Analysis for sample(s) 01 (WG356292-1) Total Metals - Westborough Lab						
Antimony, Total	ND	mg/l	0.0005	1 6020	0321 15:30 0324 18:29	RC
Arsenic, Total	ND	mg/l	0.0005	1 6020	0321 15:30 0324 18:29	RC
Cadmium, Total	ND	mg/l	0.0002	1 6020	0321 15:30 0324 18:29	RC
Chromium, Total	ND	mg/l	0.0005	1 6020	0321 15:30 0324 18:29	RC
Copper, Total	ND	mg/l	0.0005	1 6020	0321 15:30 0324 18:29	RC
Lead, Total	ND	mg/l	0.0005	1 6020	0321 15:30 0324 18:29	RC
Nickel, Total	ND	mg/l	0.0005	1 6020	0321 15:30 0324 18:29	RC
Selenium, Total	ND	mg/l	0.001	1 6020	0321 15:30 0324 18:29	RC
Silver, Total	ND	mg/l	0.0004	1 6020	0321 15:30 0324 18:29	RC
Zinc, Total	ND	mg/l	0.0050	1 6020	0321 15:30 0324 18:29	RC

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0903333

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Blank Analysis for sample(s) 01 (WG356219-1)						
Total Metals - Westborough Lab						
Mercury, Total	ND	mg/l	0.0002	3 245.1	0320 15:15 0323 10:42 EZ	
Blank Analysis for sample(s) 01-02 (WG356639-1)						
Pesticides by GC - Westborough Lab						
1,2-Dibromoethane	ND	ug/l	0.020	14 504.1	0325 09:30 0325 11:34 JB	
Blank Analysis for sample(s) 01-02 (WG355693-10)						
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND	ug/l	5.0	5 624	0320 06:48 TT	
1,1-Dichloroethane	ND	ug/l	1.5			
Chloroform	ND	ug/l	1.5			
Carbon tetrachloride	ND	ug/l	1.0			
1,2-Dichloropropane	ND	ug/l	3.5			
Dibromochloromethane	ND	ug/l	1.0			
1,1,2-Trichloroethane	ND	ug/l	1.5			
2-Chloroethylvinyl ether	ND	ug/l	10.			
Tetrachloroethene	ND	ug/l	1.5			
Chlorobenzene	ND	ug/l	3.5			
Trichlorofluoromethane	ND	ug/l	5.0			
1,2-Dichloroethane	ND	ug/l	1.5			
1,1,1-Trichloroethane	ND	ug/l	2.0			
Bromodichloromethane	ND	ug/l	1.0			
trans-1,3-Dichloropropene	ND	ug/l	1.5			
cis-1,3-Dichloropropene	ND	ug/l	1.5			
Bromoform	ND	ug/l	1.0			
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0			
Benzene	ND	ug/l	1.0			
Toluene	ND	ug/l	1.0			
Ethylbenzene	ND	ug/l	1.0			
Chloromethane	ND	ug/l	10.			
Bromomethane	ND	ug/l	5.0			
Vinyl chloride	ND	ug/l	2.0			
Chloroethane	ND	ug/l	2.0			
1,1-Dichloroethene	ND	ug/l	1.0			
trans-1,2-Dichloroethene	ND	ug/l	1.5			
cis-1,2-Dichloroethene	ND	ug/l	1.0			
Trichloroethene	ND	ug/l	1.0			
1,2-Dichlorobenzene	ND	ug/l	5.0			
1,3-Dichlorobenzene	ND	ug/l	5.0			
1,4-Dichlorobenzene	ND	ug/l	5.0			
p/m-Xylene	ND	ug/l	2.0			
o-xylene	ND	ug/l	1.0			
Xylene (Total)	ND	ug/l	2.0			
Styrene	ND	ug/l	1.0			
Acetone	ND	ug/l	10.			

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0903333

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Blank Analysis for sample(s) 01-02 (WG355693-10)						
Volatile Organics by GC/MS - Westborough Lab cont'd 5 624 0320 06:48 TT						
Carbon disulfide	ND	ug/l	5.0			
2-Butanone	ND	ug/l	10.			
Vinyl acetate	ND	ug/l	20.			
4-Methyl-2-pentanone	ND	ug/l	10.			
2-Hexanone	ND	ug/l	10.			
Acrolein	ND	ug/l	8.0			
Acrylonitrile	ND	ug/l	10.			
Methyl tert butyl ether	ND	ug/l	20.			
1,4-Dioxane	ND	ug/l	2000			
Tert-Butyl Alcohol	ND	ug/l	100			
Tertiary-Amyl Methyl Ether	ND	ug/l	20.			
Surrogate(s)	Recovery		QC Criteria			
Pentafluorobenzene	84.0	%	80-120			
Fluorobenzene	92.0	%	80-120			
4-Bromofluorobenzene	99.0	%	80-120			
Blank Analysis for sample(s) 01 (WG356269-1)						
Semivolatile Organics by GC/MS - Westborough Lab 1 8270c 0321 06:32 0323 17:48 PS						
Acenaphthene	ND	ug/l	5.0			
Benzidine	ND	ug/l	50.			
1,2,4-Trichlorobenzene	ND	ug/l	5.0			
Hexachlorobenzene	ND	ug/l	5.0			
Bis(2-chloroethyl)ether	ND	ug/l	5.0			
2-Chloronaphthalene	ND	ug/l	6.0			
1,2-Dichlorobenzene	ND	ug/l	5.0			
1,3-Dichlorobenzene	ND	ug/l	5.0			
1,4-Dichlorobenzene	ND	ug/l	5.0			
3,3'-Dichlorobenzidine	ND	ug/l	50.			
2,4-Dinitrotoluene	ND	ug/l	6.0			
2,6-Dinitrotoluene	ND	ug/l	5.0			
Azobenzene	ND	ug/l	5.0			
Fluoranthene	ND	ug/l	5.0			
4-Chlorophenyl phenyl ether	ND	ug/l	5.0			
4-Bromophenyl phenyl ether	ND	ug/l	5.0			
Bis(2-chloroisopropyl)ether	ND	ug/l	5.0			
Bis(2-chloroethoxy)methane	ND	ug/l	5.0			
Hexachlorobutadiene	ND	ug/l	10.			
Hexachlorocyclopentadiene	ND	ug/l	30.			
Hexachloroethane	ND	ug/l	5.0			
Isophorone	ND	ug/l	5.0			
Naphthalene	ND	ug/l	5.0			
Nitrobenzene	ND	ug/l	5.0			
NitrosoDiPhenylAmine (NDPA) /DPA	ND	ug/l	15.			
Bis(2-Ethylhexyl)phthalate	ND	ug/l	5.0			
Butyl benzyl phthalate	ND	ug/l	5.0			

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0903333

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG356269-1)							
Semivolatile Organics by GC/MS - Westborough Lab cont'd				1	8270C	0321 06:32 0323 17:48	PS
Di-n-butylphthalate	ND	ug/l	5.0				
Di-n-octylphthalate	ND	ug/l	5.0				
Diethyl phthalate	ND	ug/l	5.0				
Dimethyl phthalate	ND	ug/l	5.0				
Benzo(a)anthracene	ND	ug/l	5.0				
Benzo(a)pyrene	ND	ug/l	5.0				
Benzo(b)fluoranthene	ND	ug/l	5.0				
Benzo(k)fluoranthene	ND	ug/l	5.0				
Chrysene	ND	ug/l	5.0				
Acenaphthylene	ND	ug/l	5.0				
Anthracene	ND	ug/l	5.0				
Benzo(ghi)perylene	ND	ug/l	5.0				
Fluorene	ND	ug/l	5.0				
Phenanthrene	ND	ug/l	5.0				
Dibenzo(a,h)anthracene	ND	ug/l	5.0				
Indeno(1,2,3-cd)Pyrene	ND	ug/l	7.0				
Pyrene	ND	ug/l	5.0				
Aniline	ND	ug/l	20.				
4-Chloroaniline	ND	ug/l	5.0				
1-Methylnaphthalene	ND	ug/l	5.0				
2-Nitroaniline	ND	ug/l	5.0				
3-Nitroaniline	ND	ug/l	5.0				
4-Nitroaniline	ND	ug/l	7.0				
Dibenzofuran	ND	ug/l	5.0				
2-Methylnaphthalene	ND	ug/l	5.0				
n-Nitrosodimethylamine	ND	ug/l	50.				
2,4,6-Trichlorophenol	ND	ug/l	5.0				
P-Chloro-M-Crèsol	ND	ug/l	5.0				
2-Chlorophenol	ND	ug/l	6.0				
2,4-Dichlorophenol	ND	ug/l	10.				
2,4-Dimethylphenol	ND	ug/l	10.				
2-Nitrophenol	ND	ug/l	20.				
4-Nitrophenol	ND	ug/l	10.				
2,4-Dinitrophenol	ND	ug/l	30.				
4,6-Dinitro-o-cresol	ND	ug/l	20.				
Pentachlorophenol	ND	ug/l	10.				
Phenol	ND	ug/l	7.0				
2-Methylphenol	ND	ug/l	6.0				
3-Methylphenol/4-Methylphenol	ND	ug/l	6.0				
2,4,5-Trichlorophenol	ND	ug/l	5.0				
Benzoic Acid	ND	ug/l	50.				
Benzyl Alcohol	ND	ug/l	10.				
Carbazole	ND	ug/l	5.0				
Pyridine	ND	ug/l	50.				

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0903333

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE PREP ANAL	ID
Blank Analysis for sample(s) 01 (WG356269-1)						
Semivolatile Organics by GC/MS - Westborough Lab cont'd 1 8270C 0321 06:32 0323 17:48 PS						
Surrogate(s)	Recovery		QC Criteria			
2-Fluorophenol	44.0	%	21-120			
Phenol-d6	31.0	%	10-120			
Nitrobenzene-d5	64.0	%	23-120			
2-Fluorobiphenyl	64.0	%	43-120			
2,4,6-Tribromophenol	72.0	%	10-120			
4-Terphenyl-d14	99.0	%	33-120			
Blank Analysis for sample(s) 01 (WG356270-1)						
Semivolatile Organics by GC/MS-SIM - Westborough Lab 1 8270C 0321 06:35 0324 02:20 AK						
Acenaphthene	ND	ug/l	0.20			
2-Chloronaphthalene	ND	ug/l	0.20			
Fluoranthene	ND	ug/l	0.20			
Hexachlorobutadiene	ND	ug/l	0.50			
Naphthalene	ND	ug/l	0.20			
Benzo(a)anthracene	ND	ug/l	0.20			
Benzo(a)pyrene	ND	ug/l	0.20			
Benzo(b)fluoranthene	ND	ug/l	0.20			
Benzo(k)fluoranthene	ND	ug/l	0.20			
Chrysene	ND	ug/l	0.20			
Acenaphthylene	ND	ug/l	0.20			
Anthracene	ND	ug/l	0.20			
Benzo(ghi)perylene	ND	ug/l	0.20			
Fluorene	ND	ug/l	0.20			
Phenanthrene	ND	ug/l	0.20			
Dibenzo(a,h)anthracene	ND	ug/l	0.20			
Indeno(1,2,3-cd)Pyrene	ND	ug/l	0.20			
Pyrene	ND	ug/l	0.20			
1-Methylnaphthalene	ND	ug/l	0.20			
2-Methylnaphthalene	ND	ug/l	0.20			
Pentachlorophenol	ND	ug/l	0.80			
Hexachlorobenzene	ND	ug/l	0.80			
Hexachloroethane	ND	ug/l	0.80			
Surrogate(s)	Recovery		QC Criteria			
2-Fluorophenol	40.0	%	21-120			
Phenol-d6	29.0	%	10-120			
Nitrobenzene-d5	65.0	%	23-120			
2-Fluorobiphenyl	55.0	%	43-120			
2,4,6-Tribromophenol	76.0	%	10-120			
4-Terphenyl-d14	76.0	%	33-120			
Blank Analysis for sample(s) 01 (WG356262-1)						
Polychlorinated Biphenyls by GC - Westborough Lab 5 608 0321 01:33 0325 08:33 JB						
Aroclor 1016	ND	ug/l	0.250			
Aroclor 1221	ND	ug/l	0.250			

ALPHA ANALYTICAL
QUALITY ASSURANCE BATCH BLANK ANALYSIS

Laboratory Job Number: L0903333

Continued

PARAMETER	RESULT	UNITS	RDL	REF METHOD	DATE		ID
					PREP	ANAL	
Blank Analysis for sample(s) 01 (WG356262-1)							
Polychlorinated Biphenyls by GC - Westborough Lab cont'd 5 608 0321 01:33 0325 08:33 JB							
Aroclor 1232	ND	ug/l	0.250				
Aroclor 1242	ND	ug/l	0.250				
Aroclor 1248	ND	ug/l	0.250				
Aroclor 1254	ND	ug/l	0.250				
Aroclor 1260	ND	ug/l	0.250				
Surrogate(s)	Recovery		QC Criteria				
2,4,5,6-Tetrachloro-m-xylene	101	%	30-150				
Decachlorobiphenyl	121	%	30-150				

ALPHA ANALYTICAL
ADDENDUM I

REFERENCES

1. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
3. Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.
4. Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.
5. Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).
14. Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water. EPA/600/4-88/039, Revised July 1991.
19. Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.
30. Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
74. Method 1664, Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

**ALPHA ANALYTICAL
ADDENDUM I**

REFERENCES

GLOSSARY OF TERMS AND SYMBOLS

REF Reference number in which test method may be found.
METHOD Method number by which analysis was performed.
ID Initials of the analyst.
ND Not detected in comparison to the reported detection limit.
NI Not Ignitable.
ug/cart Micrograms per Cartridge.
H The analysis of pH was performed beyond the regulatory-required holding
 time of 15 minutes from the time of sample collection.

LIMITATION OF LIABILITIES

Alpha Analytical, Inc. performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical, Inc., shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical, Inc. be held liable for any incidental consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical, Inc.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding times and splitting of samples in the field.

Certificate/Approval Program Summary

Last revised February 18, 2009 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574.

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Haloacetic Acids, Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB).)

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Calcium Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: Lead in Paint, pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), Reactivity. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Maine Department of Human Services Certificate/Lab ID: MA0086.

Drinking Water (Inorganic Parameters: SM9215B, 9221E, 9222B, 9222D, 9223B, EPA 150.1, 180.1, 300.0, 353.2, SM2130B, 2320B, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1. Organic Parameters: 504.1, 524.2, SM 6251B.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, Lachat 10-107-06-1-B, SM2320B, 2340B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B.5, 4500P-E, 5210B, 5220D, 5310C, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water

Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl)

(EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Nitrite-N, Fluoride, Sulfate)

353.2 for: Nitrate-N, Nitrite-N; SM4500NO3-F, 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, EPA 150.1, SM4500H-B.

Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics)

(504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), SM6251B, 314.0.

Non-Potable Water

Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn)

(EPA 200.7 for: Al,Sb,As,Be,Cd,Cr,Co,Cu,Fe,Pb,Mn,Mo,Ni,Se,Ag,Sr,Ti,Tl,V,Zn,Ca,Mg,Na,K)

245.1, SM4500H-B, EPA 120.1, SM2510B, 2540C, 2540B, 2320B, 4500Cl-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Nitrate-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-B,C-Titr, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CN-CE, 2540D, 4500Cl-D, EPA 1664, SM14 510AC, EPA 420.1

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics)

(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCB-Water)

600/4-81-045-PCB-Oil

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

Drinking Water

Microbiology Parameters: SM9215B; MF-SM9222B; ENZ. SUB. SM9223; EC-SM9221E; MF-SM9222D; ENZ. SUB. SM9223;

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307.

Drinking Water (Inorganic Parameters: SM6215B, 9222B, 9223B Colilert, EPA 200.7, 200.8, 245.2, 110.2, 120.1, 150.1, 300.0, 325.2, 314.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 331.0. **Organic Parameters:** 504.1, 524.2, SM6251B.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 150.1, 300.0, 305.1, 310.1, 325.2, 340.2, 350.1, 350.2, 351.1, 353.2, 354.1, 365.2, 375.4, 376.2, 405.1, 415.1, 420.1, 425.1, 1664A, SW-846 9010, 9030, 9040B, EPA 160.1, 160.2, 160.3, SM426C, SM2310B, 2540B, 2540D, 4500H+B, 4500NH3-H, 4500NH3-E, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 2320B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-117-07-1-B, LACHAT 10-107-06-1-B, LACHAT 10-107-04-1-C, LACHAT 10-107-04-1-J, LACHAT 10-117-07-1-A, SM4500CL-E, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. **Organic Parameters:** SW-846 3005A, 3015A, 3510C, 5030B, 8021B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 7.3.3.2, 7.3.4.2, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040, 9045C, 9050C, 1311, 3005A, 3050B, 3051A. **Organic Parameters:** SW-846 3540C, 3545, 3580A, 5030B, 5035, 8021B, 8260B, 8270C, 8330, 8151A, 8082, 8081A.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935.

Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 2540C, 2320B, 314.0, 331.0, 110.2, SM2120B, 2510B, 5310C, EPA 150.1, SM4500H-B, EPA 200.8, 245.2. **Organic Parameters:** 504.1, SM6251B, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.1, SM5220D, 4500CI-D, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, SM9221CE, 9222D, 9221B, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, EPA 350.2/1, SM5210B, SW-846 3015, 6020, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. **Organic Parameters:** SW-846 8260B, 8270C, 3510C, EPA 608, 624, 625, SW-846 5030B, 8021B, 8081A, 8082, 8151A, 8330.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 9040B, 3005A, 6010B, 7196A, 5030B, 9010B, 9030B, 1030, 1311, 3050B, 3051, 7471A, 9014, 9012A, 9045C, 9050A, 9065. **Organic Parameters:** SW-846 8021B, 8081A, 8082, 8151A, 8330, 8260B, 8270C, 1311, 3540C, 3545, 3550B, 3580A, 5035L, 5035H.)

New York Department of Health Certificate/Lab ID: 11148.

Drinking Water (Inorganic Parameters: SM9223B, 9222B, 8215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 314.0, 331.0, SM2320B, EPA 300.0, 325.2, 110.2, SM2120B, 4500CN-E, 4500F-C, EPA 150.1, SM4500H-B, 4500NO3-F, 2540C, EPA 120.1, SM 2510B. **Organic Parameters:** EPA 524.2, 504.1, SM6251B.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, EPA 405.1, SM5210B, EPA 410.4, SM5220D, EPA 305.1, SM2310B-4a, EPA 310.1, SM2320B, EPA 200.7, 300.0, 325.2, LACHAT 10-117-07-1A or B, SM4500CI-E, EPA 340.2, SM4500F-C, EPA 375.4, SM15 426C, EPA 350.1, 350.2, LACHAT 10-107-06-1-B, SM4500NH3-H, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-041-C, SM4500-NO30F, EPA 354.1, SM4500-NO2-B, EPA 365.2, SM4500P-E, EPA 160.3, SM2540B, EPA 160.1, SM2540C, EPA 160.2, SM2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, 110.2, SM2120B, 335.2, LACHAT 10-204-00-1-A, EPA 150.1, 9040B, SM4500-HB, EPA 1664A, EPA 415.1, SM5310C, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, EPA 376.2, SM4500S-D, EPA 425.1, SM5540C, EPA 3005A, 3015. **Organic Parameters:** EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, 8021B, EPA 3510C, 5030B, 9010B, 9030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 9040B, 9045C, 1010, 1030, SW-846 Ch 7 Sec 7.3, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 3005A, 3050B, 3051, 9010B, 9030B. **Organic Parameters:** EPA 8260B, 8270C, 8081A, 8151A, 8330, 8082, 8021B, 3540C, 3545, 3580, 5030B, 5035.)

Analytical Services Protocol: CLP Volatile Organics, CLP Inorganics, CLP PCB/Pesticides.

Rhode Island Department of Health Certificate/Lab ID: LAO00065.

Refer to MA-DEP Certificate for Potable and Non-Potable Water.

Refer to NY-DOH Certificate for Potable and Non-Potable Water.

Pennsylvania Department of Environmental Protection Certificate/Lab ID: 68-03671. Registered Laboratory.



CHAIN OF CUSTODY

PAGE 1 OF 1

WESTBORO, MA
TEL: 508-898-9220
FAX: 508-898-9193

MAINSFIELD, MA
TEL: 508-823-9300
FAX: 508-823-3286

Client Information

Client: Tetra Tech, Inc.

Address: One Grant St

Phone: 508 903 2000

Fax: 508 903 2001

Email: Jan.Cannon@tetra-tech.com

Other Project Specific Requirements/Comments/Detection Limits:
Analyze per NDEES RGP Peril requirements for all compounds listed in Appendix V1

Project Information

Project Name: BIA 2 USF Project

Project Location: 14 Cab CTR

Project #: 127 9979-09001

Project Manager: Kon Ayerle

ALPHA Quote #:

Turn-Around Time

Standard ☒ Rush (only confirmed if pre-approved)

Date Due: 3-25-9 Time:

Date Rec'd in Lab: 3/19/03

ALPHA Job #: 10303333

Report Information - Data Deliverables

☐ FAX ☒ EMAIL

☒ INDEX ☐ Add'l Deliverables

Regulatory Requirements/Report Limits

State/Fed Program

NDEES RGP NDEES RGP Limits

MA MCP PRESUMPTIVE CERTAINTY ... CT REASONABLE CONFIDENCE PROTO.

Billing Information

Same as Client Info

PO #:

☐ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☐ No Are CT RCP (Reasonable Confidence Protocols) Required?

ANALYSIS
EDB (504)
VOL (624)
Total Metals
TSS
Hex Cr, TRL, PH
8270 / PAH SIM
TPH-1664
TCN
Total Phenol
PCB (608)

SAMPLE HANDLING
Filtration: ALC
☐ Done
☒ Not needed
☐ Lab to do
☐ Preservation
☐ Lab to do
(Please specify below)

Sample Specific Comments

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials												
		Date	Time														
-01	MW-6	3/4/9	1102	6W	MC												
			1103														
			1104														
			1105														
			1106														
			1107														
-02	Trap Blank																

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT
MA MCP or CT RCP?

Requested By:

[Signature]

Date/Time

3/19/1712

Received By:

[Signature]

Date/Time

5/1/091712

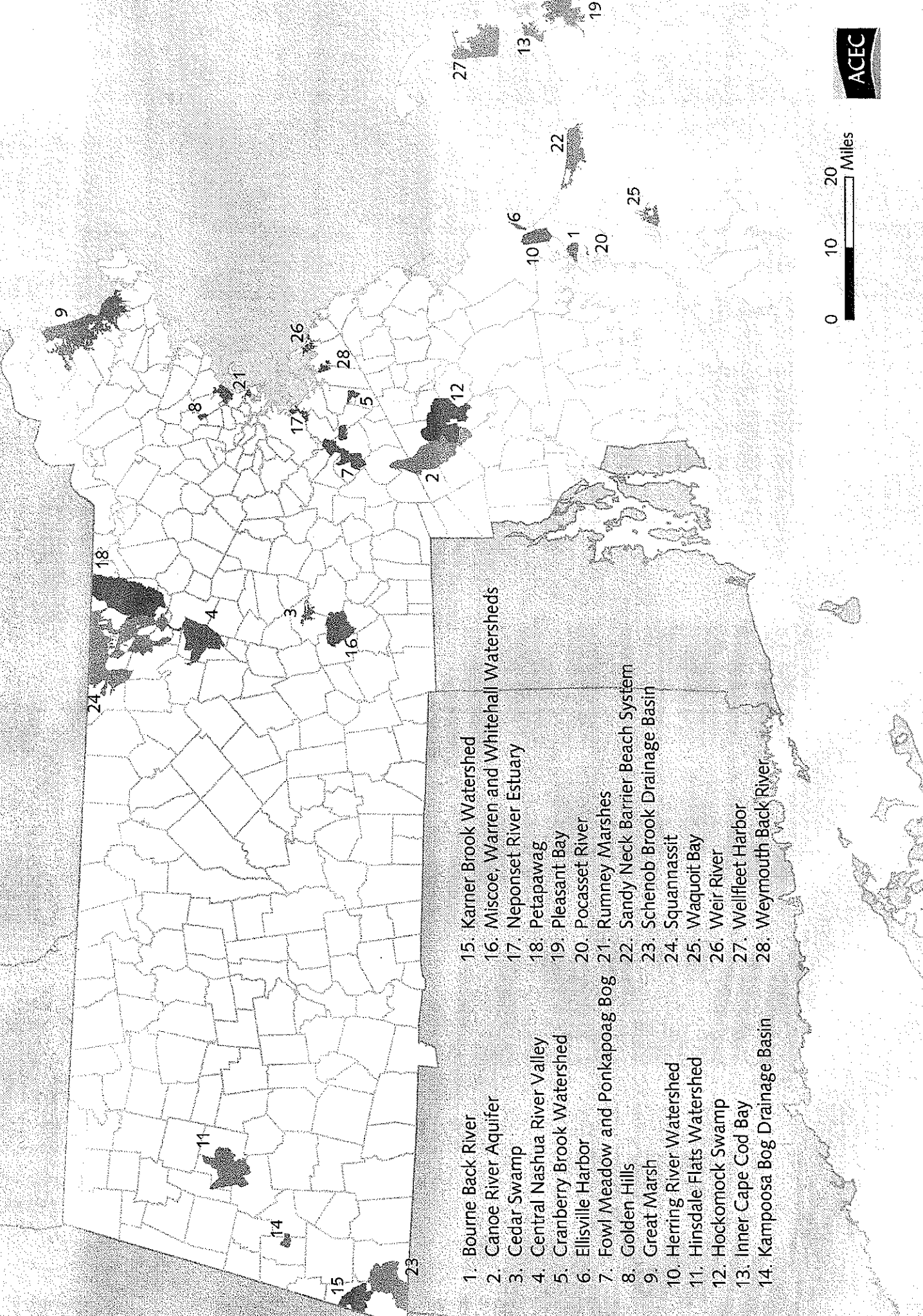
Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

Attachment 3

ACEC Evaluation

Tetra Tech Rizzo reviewed the most recent available listing of Areas of Critical Environmental Concern (ACEC) published by the Massachusetts Department of Conservation and Recreation (published in September 2008). As evidenced by the attached documents, there are no ACECs in the vicinity of the facility or proximate to the discharge outfall to the Charles River.

Massachusetts Areas of Critical Environmental Concern (ACECs)



1. Bourne Back River
2. Canoe River Aquifer
3. Cedar Swamp
4. Central Nashua River Valley
5. Cranberry Brook Watershed
6. Ellisville Harbor
7. Fowl Meadow and Ponkapoag Bog
8. Golden Hills
9. Great Marsh
10. Herring River Watershed
11. Hinsdale Flats Watershed
12. Hockomock Swamp
13. Inner Cape Cod Bay
14. Kamposoa Bog Drainage Basin
15. Karner Brook Watershed
16. Miscoe, Warren and Whitehall Watersheds
17. Neponset River Estuary
18. Petapawag
19. Pleasant Bay
20. Pocasset River
21. Rumney Marshes
22. Sandy Neck Barrier Beach System
23. Schenob Brook Drainage Basin
24. Squannassit
25. Waquoit Bay
26. Weir River
27. Wellfleet Harbor
28. Weymouth Back River

0 10 20 Miles



MASSACHUSETTS AREAS OF CRITICAL ENVIRONMENTAL CONCERN

September 2008

Total Approximate Acreage: 255,275 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

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

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

(2,550 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-Whitehall Watersheds

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

Neponset River Estuary

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

Parker River/Essex Bay

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

Petapawag

(25,630 acres, 2002) Ayer, Dunstable, Groton, Pepperell, Tyngsborough

Pleasant Bay

(9,050 acres, 1987) Brewster, Chatham, Harwich, and Orleans

Pocasset River

(150 acres, 1980) Bourne

Rumney Marshes

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

Sandy Neck/Barnstable Harbor

(8,850 acres, 1978) Barnstable and Sandwich

Schenob Brook Drainage Basin

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

Squannassit

(37,450 acres, 2002) Ashby, Ayer, Groton, Harvard, Lancaster, Lunenburg, Pepperell, Shirley, Townsend

Three Mile River Watershed

(14,275 acres, 2008) Dighton, Norton, Taunton

Waquoit Bay

(2,550 acres, 1979) Falmouth and Mashpee

Weir River

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

Wellfleet Harbor

(12,350 acres, 1989) Eastham, Truro, and Wellfleet

Westborough Cedar Swamp

(1,650 acres, 1975) Hopkinton and Westborough

Weymouth Back River

(950 acres, 1982) Hingham and Weymouth

Towns with ACECs within their Boundaries**September 2008**

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

Attachment 4

Known remediation activities or water quality issues in the vicinity of the discharge

Tetra Tech Rizzo has reviewed the available records from the Massachusetts Department of Environmental Protection (MassDEP) to identify known remediation activities or water quality issues in the vicinity of the discharge. There are several closed disposal sites and two open disposal sites located in the vicinity of the facility. The following are a brief description of the two open disposal sites located proximate to the discharge (additional information is provided on the following page):

- RTN 3-25774: This release is related to the detection of 1,2-dichloroethane (1,2-DCA) in groundwater at 12 Cambridge Center which borders 14 Cambridge Center to the south. A Release Abatement Measure (RAM) is being implemented for RTN 3-25774 to mitigate elevated concentrations of 1,2-DCA in deep groundwater. Laboratory analysis of the groundwater sample collected at 14 Cambridge Center did not detect 1,2-DCA above the laboratory analytical method detection limit.
- RTN 3-19619: This release is related to a Utility Related Abatement Measure (URAM) due to metals and polycyclic aromatic hydrocarbons (PAHs) in soil. A URAM Completion Statement was submitted in November 2000 indicating that active remediation for RTN 3-19619 is complete. Also, based on the information provided by MassDEP RTN 3-19619 is not attributed to water quality issues in the vicinity of the discharge.

RTN 3-25774

Site Information - Microsoft Internet Explorer

Address: http://db.state.ma.us/dep/cleanup/sites/Site_Info.asp?textfield_RTN=3-0025774

The Massachusetts Department of Environmental Protection

New Search | Export to Excel | Definitions | Print

Site Information			
Site Number:	3-0025774	Category:	120 DY
Site Name:	UNDERDRAIN INFLUENT	Release Type:	TIERII
Address:	12 CAMBRIDGE CTR	Current date:	3/28/2007
Town:	CAMBRIDGE	Phase:	PHASE II
Zipcode:	02142-0000	RAO class:	
Official notification date:	3/29/2006	Location type:	
Initial status date:	3/29/2007	Source:	UNKNOWN
Click Here for File Viewer			

Response Action Information		
Response Action Type:	RAM - Release Abatement Measure	
Status:	RMRINT - RMR Interim Report Received	
Submittal Date:	9/25/2006	
RAO class:		
Activity & Use Limitation:		

Chemicals		
Chemical	Amount	Units
1,2-DICHLOROETHANE	28	UG/L

LSPs	
LSP#	Name
2715	MYRICK JR, RONALD E

Tier Classification Detail							
NRS Totals	II	III	IV	V	VI	Zone 2	Imminent Hazard
116	20	71	25	0	0	N	N

Response Action Information		
Response Action Type:	TCLASS - Tier Classification	
Status:	LEONOT - Legal Notice Published	
Submittal Date:	4/5/2007	
RAO class:		
Activity & Use Limitation:		

Response Action Information		
Response Action Type:	PHASEI - Phase I	
Status:	CSRCVD - Completion Statement Received	

Location		
Map	Satellite	Hybrid

Done Start | Inboxes - Microsoft Out... | 3 Windows Explorer | 4 Internet Explorer | 2 Adobe Acrobat 8.0 | 2009-04-02-NOI.Attac... | 5:13 PM

RTN 3-19619

Site Information - Microsoft Internet Explorer

Address: http://db.state.ma.us/dep/cleanup/sites/Site_Info.asp?textfield_RTN=3-0019619

The Massachusetts Department of Environmental Protection

New Search | Export to Excel | Definitions | Print

Site Information			
Site Number:	3-0019619	Category:	120 DY
Site Name:	NO LOCATION AID	Release Type:	URAM
Address:	290 TO 300 BINNEY ST	Current date:	5/30/2000
Town:	CAMBRIDGE	Phase:	
Zipcode:		RAO class:	
Official notification date:	5/30/2000	Location type:	COMMERCIAL
Initial status date:	5/30/2001	Source:	UNKNOWN

Response Action Information		
Response Action Type:	URAM - Utility-related Abatement Measure	
Status:	CSRCVD - Completion Statement Received	
Submittal Date:	11/16/2000	
RAO class:		
Activity & Use Limitation:		

Chemicals		
Chemical	Amount	Units
METALS		
PAH		

LSPs	
LSP#	Name
2261	HUGHTO, RICHARD J

Response Action Information		
Response Action Type:	REL - Potential Release or Threat of Release	
Status:	REPORT - Reportable Release or Threat of Release	
Submittal Date:	5/30/2000	
RAO class:		
Activity & Use Limitation:		

Location		
Map	Satellite	Hybrid

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Attachment 5

Federal Listing of Endangered and Threatened Species

Tetra Tech Rizzo has reviewed the federal listing of endangered and threatened species published by the U.S. Fish and Wildlife Service. There is one federally listed species (the small whorled pogonia) listed in Middlesex County. However, based on our review of the town listings published Massachusetts Division of Fisheries and Wildlife, the small whorled pogonia has not been historically observed in Cambridge, Massachusetts. Therefore, the facility meets the Eligibility Criteria Level A and consultation with federal and/or state authorities is not necessary. A copy of the information reviewed in making this determination is attached.

Massachusetts

Common Name	Scientific Name	Status	Distribution
FISHES:			
Sturgeon, shortnose*	Northeastern bulrush	E	Atlantic coastal waters and rivers (Conn. R.)
REPTILES:			
Turtle, bog	Clemmys muhlenbergii	T	Berkshire County
Turtle, green*	Chelonia mydas	T	Oceanic straggler in southern New England
Turtle, hawksbill*	Eretmochelys imbricata	E	Oceanic straggler in southern New England
Turtle, leatherback*	Dermochelys coriacea	E	Oceanic summer resident
Turtle, loggerhead*	Caretta caretta	T	Oceanic summer resident
Turtle, Atlantic ridley*	Lepidochelys kempii	E	Oceanic summer resident
Turtle, Northern red-bellied couler (Plymouth redbelly)	Chrysemys rubriventris bangsi	E	Plymouth & Dukes Counties
BIRDS:			
Plover, piping		T	Atlantic coast, nesting
Tern, roseate	Charadrius melodus	E	Atlantic coast/islands, nesting
	Sterna dougallii dougallii		
MAMMALS:			
Bat, Indiana		E	Berkshire County/historic
Whale, blue*	Myotis sodalis	E	Oceanic
Whale, finback*	Balaenoptera musculus	E	Oceanic
Whale, humpback*	Balaenoptera physalus	E	Oceanic
Whale, right*	Megaptera novaeangliae	E	Oceanic
Whale, sei*	Eubalaena spp. (all species)	E	Oceanic
Whale, sperm*	Balaenoptera borealis	E	Oceanic
	Physeter catodon		
MOLLUSKS:			
Wedgemussel, dwarf		E	Hampshire, Franklin County
	Alasmodonta heterodon		
INSECTS:			
Beetle, Puritan tiger		T	Hampshire County
Beetle, Northeastern beach	Cicindela puritana	T	Dukes & Bristol Counties
Beetle, American burying	Cicindela dorsalis dorsalis	E	Penikese & Nantucket Isl., reintroduced populations
	Nicrophorus americanus		
PLANTS:			
Small whorled pogonia		T	Hampshire, Essex, Hampden, Worcester, Middlesex Counties
	Isotria medeoloides		
Sandplain gerardia		E	Barnstable & Dukes Counties
Northeastern bulrush	Agalinus acuta	E	Franklin County
	Scirpus ancistrochaetus		

* Except for sea turtle nesting habitat, principal responsibility for these species is vested with the National Marine Fisheries Service

Rev. 1/8/02

The Official Website of the Department of Fish and Game (DFG)

Department of Fish and Game

Commissioner Mary B. Griffin

[DFG Home](#) [Mass.Gov Home](#) [State Agencies](#) [State Online Services](#)


MassWildlife
Massachusetts Division of Fisheries & Wildlife
Wayne E. MacCallum, Director



Natural Heritage & Endangered Species

[Home](#) [Recreation](#) [Wildlife](#) [Fisheries](#) [Natural Heritage](#) [Habitat](#) [Education](#)

Search MassWildlife



Rare Species by Town

**MESA (Massachusetts Endangered Species Act)
and Federal Status**

Quick Links

- » [Town Index](#)
- » [MESA List](#)
- » [Contact Us](#)

E = Endangered T = Threatened SC = Special Concern

Most Recent Observation

This field represents the most recent observation of that species in a town. However, because they are rare, many MESA-listed species are difficult to detect even when they are present. Natural Heritage does not have the resources to be able to conduct methodical species surveys in each town on a regular basis. Therefore, the fact that the 'Most Recent Observation' recorded for a species may be several years old should not be interpreted as meaning that the species no longer occurs in a town. However, Natural Heritage regards records older than twenty-five years historic.

Click on a town below to view MESA-listed species for that town. To print the species for a particular town, highlight the species using your mouse, go to Print under the File Menu, click on 'Selection' under 'Print Range' and click OK.

For more information about a particular species, view the list of [Natural Heritage Fact Sheets](#).

These data were extracted from the database of the Natural Heritage and Endangered Species Program in September 2008.

[Cambridge](#) | [Canton](#) | [Carlisle](#) | [Carver](#) | [Charlton](#) | [Chatham](#) | [Chelmsford](#) | [Cheshire](#) |
[Chester](#) | [Chicopee](#) | [Chilmark](#) | [Clarksburg](#) | [Clinton](#) | [Cohasset](#) | [Colrain](#) | [Concord](#) |
[Conway](#) | [Cummington](#)

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
CAMBRIDGE	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		1917
CAMBRIDGE	Amphibian	Scaphiopus holbrookii	Eastern Spadefoot	T		1892
CAMBRIDGE	Beetle	Cicindela	Twelve-spotted	SC		1932

		duodecimguttata	Tiger Beetle			
CAMBRIDGE	Bird	Ammodramus henslowii	Henslow's Sparrow	E		1871
CAMBRIDGE	Bird	Botaurus lentiginosus	American Bittern	E		1906
CAMBRIDGE	Bird	Cistothorus platensis	Sedge Wren	E		1840
CAMBRIDGE	Bird	Gallinula chloropus	Common Moorhen	SC		1890
CAMBRIDGE	Bird	Ixobrychus exilis	Least Bittern	E		1890
CAMBRIDGE	Bird	Tyto alba	Barn Owl	SC		Historic
CAMBRIDGE	Butterfly/Moth	Eacles imperialis	Imperial Moth	T		Historic
CAMBRIDGE	Fish	Notropis bifrenatus	Bridle Shiner	SC		1928
CAMBRIDGE	Mussel	Ligumia nasuta	Eastern Pondmussel	SC		1940
CAMBRIDGE	Reptile	Glyptemys insculpta	Wood Turtle	SC		Historic
CAMBRIDGE	Reptile	Terrapene carolina	Eastern Box Turtle	SC		1892
CAMBRIDGE	Segmented Worm	Macrobdella sesteria	New England Medicinal Leech	SC		1800
CAMBRIDGE	Vascular Plant	Carex gracilescens	Slender Woodland Sedge	E		1891
CAMBRIDGE	Vascular Plant	Cyperus engelmannii	Engelmann's Umbrella-sedge	T		2007
CAMBRIDGE	Vascular Plant	Gentiana andrewsii	Andrews' Bottle Gentian	E		1854
CAMBRIDGE	Vascular Plant	Isoetes lacustris	Lake Quillwort	E		Historic
CAMBRIDGE	Vascular Plant	Platanthera flava var. herbiola	Pale Green Orchis	T		Historic
CAMBRIDGE	Vascular Plant	Potamogeton friesii	Fries' Pondweed	E		1880
CAMBRIDGE	Vascular Plant	Scirpus longii	Long's Bulrush	T		1913
CAMBRIDGE	Vascular Plant	Suaeda calceoliformis	American Sea-blite	SC		1912
CAMBRIDGE	Vascular Plant	Viola brittoniana	Britton's Violet	T		1843
Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
CANTON	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		1978
CANTON	Bird	Cistothorus platensis	Sedge Wren	E		1893
CANTON	Butterfly/Moth	Callophrys hesseli	Hessel's Hairstreak	SC		2001
CANTON	Butterfly/Moth	Chaetagnathia cerata	Waxed Sallow Moth	SC		1987
CANTON	Butterfly/Moth	Metarranthis pilosaria	Coastal Swamp Metarranthis Moth	SC		1994
CANTON	Butterfly/Moth	Papaipema appassioata	Pitcher Plant Borer Moth	T		2002
CANTON	Butterfly/Moth	Satyrus favonius	Oak Hairstreak	SC		2004
CANTON	Dragonfly/Damselfly	Enallagma daeckii	Attenuated Bluet	SC		2007
CANTON	Dragonfly/Damselfly	Enallagma laterale	New England Bluet	SC		2006
CANTON	Dragonfly/Damselfly	Enallagma pictum	Scarlet Bluet	T		2007
CANTON	Reptile	Emydoidea blandingii	Blanding's Turtle	T		1994
CANTON	Reptile	Terrapene carolina	Eastern Box Turtle	SC		1917

Attachment 6

National Historic Preservation Act Requirements

Tetra Tech Rizzo has evaluated the potential impact to historic properties or properties eligible for listing on the National Register of Historic Places of the site's discharges and/or implementation of Best Management Practices. This evaluation included a review of the listings on the National Register of Historic Places and a visual inspection of the site. Based on this review, the subject property (14 Cambridge Center) and nearby properties are not listed on the National Register of Historic Places. Based on a visual inspection of the proposed location of the discharge (stormwater catchbasin on the Sixth Street Walkway) and the location where construction is proposed (14 Cambridge Center) no properties that would be eligible for listing on the National Register of Historic Places were observed. The site and vicinity are developed as modern commercial office, biotechnology research/manufacturing and multi-family residential structures. Therefore, there will be no impact to properties listed or eligible for listing under the National Register of Historic Places, and the permit eligibility criteria (1) have been met.



PERMIT TO DEWATER

Location: 14 Cambridge Center

Owner: Biogen Idec, Inc.

Contractor: Commonwealth Tank, Inc.

The property owner, Biogen Idec, Inc. agrees to hold harmless and indemnify the City of Cambridge for any liability on the part of the City directly or indirectly arising out of the dewatering operation.

Temporary



Permanent



The issuance of this permit is based in part in the submission packet of the applicant with documentation as follows:

see attached BRP WM 10 General Permit for Construction Site Dewatering

In addition, the application has been reviewed by the City under third party agreement as documented in the following reports:

see attached

All activities conducted in conjunction with the issuance of this permit must be in accordance with the provisions of the aforementioned reports. Any deviations in conditions must be reported to and approved by the Commissioner of Public Works.

This permit is in addition to any other street permit issued by the Department in connection with any street excavation or obstruction; and all conditions as specified in the Discharge Permit for Dewatering.

For the entire period of time the groundwater is being discharged to a storm drain, the property owner shall provide copies of each Discharge Monitoring Report Form submitted to the EPA, pursuant to the owner's discharge permit.

If in the future the EPA requires the City of Cambridge to bring existing stormwater drainage into compliance with EPA quality standards, as a condition to the continuation of discharge of that stormwater (also including groundwater) into an EPA regulated system into which the

Biogen Idec, Inc. (property owner) drains, the owner will agree to maintain its water discharge with such EPA water quality standards.

The property owner and contractor shall at all times meet the conditions specified in the requisite legal agreement/affidavits.

All groundwater pumped from the work shall be disposed of without damage to pavements, other surfaces or property.

Where material or debris has washed or flowed into or has been placed in existing gutters, drains, pipes or structures, such material or debris shall be entirely removed and satisfactorily disposed of by the

Contractor during the progress of work as directed by the Public Works Department.

Any flooding or damage of property and possessions caused by siltation of existing gutters, pipes or structures shall be the responsibility of the Contractor.

Provisions shall be made to insure that no material, water or solid, will freeze on any pavement or in any location which will cause inconvenience or hazard to the general public.

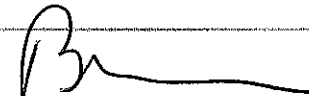
Upon completion of the work, existing gutters, drains, pipes and structures shall be (bucket) cleaned and material disposed of satisfactorily prior to release by the Public Works Department.

Any permit issued by the City of Cambridge shall be revoked upon transfer of any ownership interest unless and until subsequent owner(s) or parties of interest agree to the foregoing terms.

This permit shall remain in effect for one year and shall be renewable thereafter at the agreement of the parties.

The following special conditions as set forth below are part of the permit.

City Manager

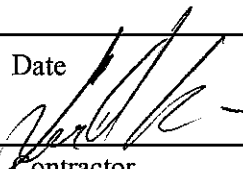
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Property Manager: Corporate Entity
President, General Partner or Trustee
Trustee with Instrument of Authority

Date

Date

City Solicitor



Contractor

Date

4-07-09

Date

Commissioner of Public

Contractor

Date

Date

CC: Engineering
Supervisor of Sewer Maintenance and Engineering
Superintendent of Streets
Commissioner of Inspectional Services