Notice of Intent
Remediation General Permit

Groundwater Remediation Activities

Wakefield Department of Public Works
35 North Avenue
Wakefield, Massachusetts

December 6, 2005

Prepared for:

Town of Wakefield
Department of Public Works
One Lafayette Street
Wakefield, MA 01880

Prepared by:

BETA Group, Inc.
Engineers • Scientists • Planners
315 Norwood Park South, Norwood, MA 02062 781.255.1982 fax 781.255.1974
6 Blackstone Valley Place, Lincoln, RI 02865 401.333.2382 fax 401.333.9225
email: BETA@BETA-eng.com

Notice of Intent
Remediation General Permit
Groundwater Remediation Activities

Wakefield Department of Public Works Facility
35 North Avenue
Wakefield, Massachusetts

Prepared for: Town of Wakefield
Department of Public Works
One Lafayette Street
Wakefield, MA 01880

Prepared by: BETA Group, Inc.
315 Norwood Park South
Norwood, MA 02062

Senior Project Manager: David Billo, LSP

Associate: Alan D. Hanscom, P.E., LSP

December 6, 2005

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BETA Group, Inc.
Engineers • Scientists • Planners

315 Norwood Park South
Norwood, MA 02062
(781) 255-1982, fax (781) 255-1974
www.BETA-Inc.com

December 6, 2005

U.S. Environmental Protection Agency
RGP NOI Processing
Municipal Assistance Unit (CMU)
One Congress Street, Suite 1100
Boston, MA 02114-2023

Re: Wakefield DPW Facility, 35 North Avenue, Wakefield, MA
Remediation General Permit – Notice of Intent

To Whom It May Concern:

BETA Group, Inc. is submitting the attached Remediation General Permit – Notice of Intent on behalf of the Town of Wakefield (the Town). The proposed remediation is a short-term groundwater extraction, treatment, and discharge program at the Town's Department of Public Works (DPW) Facility located at the above referenced address (the Site). The remediation is to occur for three (3) to five (5) consecutive eight hour days in mid-December. If weather conditions allow, we may elect to operate the system overnight during this period. The withdrawal of groundwater will occur from two existing two-inch diameter groundwater monitoring wells. The amount of water to be discharged will be limited by the recovery rates of these two-inch diameter wells. The total average maximum groundwater removal rate is anticipated to be approximately 10 gallons per minute. The rate will not exceed a total of 20 gallons per minute. Total mass of contaminants entered in Average Daily Value column of the NOI form is calculated based on pumping 10 gallons per minute for eight hours per day.

The attached locus plan shows the location of the project site on the Massachusetts USGS 7.5x15-minute quadrangle map. Other attachments appended to this form include a treatment system schematic, correspondence with regulatory authorities, and laboratory analytical data.

The Town of Wakefield is also requesting coverage under this NOI for the treatment of approximately 20,000 gallons of groundwater from the Site that may be removed from the ground during a proposed installation of an oil water separator during the period proposed in this NOI (December 12 – December 31).

We appreciate your review and comment on this project. Should you require any additional information, please do not hesitate to call me at 781-255-1982.

Sincerely,
BETA Group, Inc.

David Billo, LSP
Senior Project Manager

Cc: Alan D. Hanscom, LSP
Michael Collins, P.E., Town of Wakefield
Massachusetts DEP, Bureau of Resource Protection

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:

<table>
<tr><td colspan="3">a) Name of facility/site:
Town of Wakefield Department of Public Works</td><td colspan="4">Facility/site address:
35 North Avenue</td></tr>
<tr><td colspan="2">Location of facility/site:
longitude:_____ latitude:_____
71 04' 15"
42 29' 55"</td><td>Facility SIC code(s):
1611
1623</td><td colspan="4">Street:
35 North Avenue</td></tr>
<tr><td colspan="3">b) Name of facility/site owner: Town of Wakefield</td><td colspan="4">Town: Wakefield</td></tr>
<tr><td colspan="3" rowspan="2">Email address of owner:
mcollins@wakefield.ma.us</td><td rowspan="2">State:
MA</td><td rowspan="2">Zip:
01880</td><td rowspan="2">County:
Middlesex</td></tr>
<tr><td colspan="3">Telephone no.of facility/site owner: (781) 246-6308</td></tr>
<tr><td colspan="3">Fax no. of facility/site owner: (781) 246-6266</td><td colspan="4" rowspan="2">Owner is (check one): 1. Federal____ 2. State/Tribal_____
3. Private_____ 4. other, if so, describe: Municipality</td></tr>
<tr><td colspan="3">Address of owner (if different from site):</td></tr>
<tr><td colspan="7">Street: One Lafayette Street</td></tr>
<tr><td colspan="2">Town: Wakefield</td><td>State: MA</td><td colspan="2">Zip: 01880</td><td colspan="2">County: Middlesex</td></tr>
<tr><td colspan="3" rowspan="2">c) Legal name of operator:
Town of Wakefield Department of Public Works</td><td colspan="4">Operator telephone no: (781) 246-6308</td></tr>
<tr><td colspan="3">Operator fax no.: (781) 246-6266</td><td colspan="2">Operator email:
mcollins@wakefield.ma.us</td></tr>
<tr><td colspan="7">Operator contact name and title: Michael Collins, P.E., Town Engineer</td></tr>
</table>

Address of **operator** (if different from owner):	Street:		
Town:	State:	Zip:	County:

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___ No___
If "yes," please list:
1. site identification # assigned by the state of NH or MA: RTN 3-10561
2. permit or license # assigned: N/A
3. state agency contact information: name, location, and telephone number:
Mass DEP, Northeast Regional Office, 978- 694-3200

f) Is the site/facility covered by any other EPA permit, including:
1. multi-sector storm water general permit? Y___ N___, if Y, number:
2. phase I or II construction storm water general permit? Y___ N___, if Y, number:
3. individual NPDES permit? Y___ N___, if Y, number:
4. any other water quality related permit? Y___ N___, if Y, number:

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:
Town is performing groundwater extraction and treatment as a response action under the Massachusetts Contingency Plan.

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 0.04 Average flow 0.02 Is maximum flow a **design value**? Y___ N___ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. Average flow over 8-hour period will be up to 10 gallons per minute. Maximum flow will be 20 gallons per minute

3) Latitude and longitude of each discharge within 100 feet: pt.1:long. 71.07 lat. 42.49 ; pt.2: long.____ lat.____; pt.3: long.____ lat.____; pt.4:long.____ lat.____; pt.5: long.____ lat.____; pt.6:long.____ lat.____; pt.7: long.____ lat.____; pt.8:long.____ lat.____; etc.

4) If hydrostatic testing, total volume of the discharge (gals):	5) Is the discharge intermittent ✓ or seasonal ____? Is discharge ongoing Yes ____ No ✓?
c) Expected dates of discharge (mm/dd/yy): start 12/13/05 end 12/31/05	
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	160.2	10000			590K	10.7
2. Total Residual Chlorine	✔		1	grab	330.5	20			20	0.0004
3. Total Petroleum Hydrocarbons		✔	1	grab	1664A	2000			4000	0.07
4. Cyanide	✔		1	grab	335.2	100			100	0.002
5. Benzene		✔	1	grab	8260B	2400			2400	0.043
6. Toluene		✔	1	grab	8260B	2000			2000	0.035
7. Ethylbenzene		✔	1	grab	8260B	900			900	0.016
8. (m,p,o) Xylenes		✔	1	grab	8260B	2740			2740	0.05
9. Total BTEX[4]		✔	1	grab	8260B	8040			8040	0.014

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	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 (1,2- Dibromo-methane)	✔		1	grab	8260B	1.0			1.0	0.00002
11. Methyl-tert-Butyl Ether (MtBE)		✔	1	grab	8260B				110	0.002
12. tert-Butyl Alcohol (TBA)	✔		1	grab	8260B	1.0			1	0.00002
13. tert-Amyl Methyl Ether (TAME)	✔		1	grab	8260B	1.0			1.0	0.00002
14. Naphthalene		✔	1	grab	8260B				490	0.009
15. Carbon Tetra-chloride		✔	1	grab	8260B				5.8	0.0001
16. 1,4 Dichlorobenzene	✔		1	grab	8260B	1.0			1.0	0.00002
17. 1,2 Dichlorobenzene	✔		1	grab	8260B	1.0			1.0	0.00002
18. 1,3 Dichlorobenzene	✔		1	grab	8260B	1.0			1.0	0.00002
19. 1,1 Dichloroethane	✔		1	grab	8260B	1.0			1.0	0.00002
20. 1,2 Dichloroethane	✔		1	grab	8260B	1.0			1.0	0.00002
21. 1,1 Dichloroethylene	✔		1	grab	8260B	1.0			1.0	0.00002
22. cis-1,2 Dichloro-ethylene	✔		1	grab	8260B	1.0			1.0	0.00002
23. Dichloromethane (Methylene Chloride)	✔		1	grab	8260B	3.0			3.0	0.00006
24. Tetrachloroethylene	✔		1	grab	8260B	1.0			1.0	0.00002

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	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			1.0	0.00002
26. 1,1,2 Trichloroethane	✔		1	grab	8260B	1.0			1.0	0.00002
27. Trichloroethylene	✔		1	grab	8260B	1.0			1.0	0.00002
28. Vinyl Chloride	✔		1	grab	8260B	1.0			1.0	0.00002
29. Acetone	✔		1	grab	8260B	1.0			1.0	0.00002
30. 1,4 Dioxane	✔		1	grab	8260B	1.0			1.0	0.00002
31. Total Phenols		✔	1	grab	8260B				270	0.005
32. Pentachlorophenol	✔		1	grab	8260B	5.0			5.0	0.0001
33. Total Phthalates [5] (Phthalate esthers)	✔		1	grab	8270C	3.0			3.0	0.00006
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✔		1	grab	8270C	2.2			2.2	0.00004
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)			1	grab	8270C					
a. Benzo(a) Anthracene		✔	1	grab	8270C				28	0.0005
b. Benzo(a) Pyrene		✔	1	grab	8270C				12	0.0002
c. Benzo(b)Fluoranthene		✔	1	grab	8270C				17	0.0002
d. Benzo(k) Fluoranthene		✔	1	grab	8270C				5.5	0.0001
e. Chrysene		✔	1	grab	8270C				22	0.0004

[5] The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	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				1.5	0.00003
g. Indeno(1,2,3-cd) Pyrene		✔	1	grab	8270C				5.5	0.0001
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)			1	grab	8270C					
h. Acenaphthene		✔	1	grab	8270C				140	0.0025
i. Acenaphthylene		✔	1	grab	8270C				15	0.00027
j. Anthracene		✔	1	grab	8270C				51	0.0009
k. Benzo(ghi) Perylene		✔	1	grab	8270C				4.2	0.0001
l. Fluoranthene		✔	1	grab	8270C				130	0.00024
m. Fluorene		✔	1	grab	8270C				110	0.00022
n. Naphthalene-		✔	1	grab	8270C				790	0.014
o. Phenanthrene		✔	1	grab	8270C				310	0.0056
p. Pyrene		✔		grab	8270C				84	0.0015
37. Total Polychlorinated Biphenyls (PCBs)		✔	1	grab	8082	0.4			0.4	0.00000
38. Antimony	✔		1	grab	6010B	5			5	0.0001
39. Arsenic		✔	1	grab	6010B	5			20	0.0004
40. Cadmium		✔	1	grab	6010B	0.5			2.2	0.00004
41. Chromium III		✔	1	grab	6010B	5			13	0.0026
42. Chromium VI	✔		1	grab	6010B	100			100	0.0018

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	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	20			50	0.0009
44. Lead		✔	1	grab	6010B	2			87	0.0016
45. Mercury	✔		1	grab	7470A	0.2			0.2	0.00000
46. Nickel		✔	1	grab	6010B	5			15	0.0003
47. Selenium	✔		1	grab	6010B	5			5	0.0001
48. Silver	✔		1	grab	6010B	0.5			0.5	0.00001
49. Zinc		✔	1	grab	6010B	20			170	0.0031
50. Iron		✔	1	grab	6010B	50			72000	1.31
Other (describe):										

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

Step 1: 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? As, Cd, Cr 6, Cu, Pb, Zn, Fe
Step 2: 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: As, Cd, Cr 6, Cu, Pb, Zn, Fe DF: 0	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: Cd, Cr6, Cu, Pb, Zn, Fe

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):			

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 10 Maximum flow rate of treatment system 20 Design flow rate of treatment system 20

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

None

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:

The discharge will be into a storm drain located at the site. The storm drain connects to an underground storm water box culvert that runs through the site and discharges to the Mill Rive located approximmately 1/2-mile from the site. From the discharge point, the Mill River flows approximately 1.5 miles to the Saugus River which runs approximately 5.5 miles befor it empties into Lynn Harbor.

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:
1. For multiple discharges, number the discharges sequentially.
2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water
The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.

d) Provide the state water quality classification of the receiving water B

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 0 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)?

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 ? 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. :

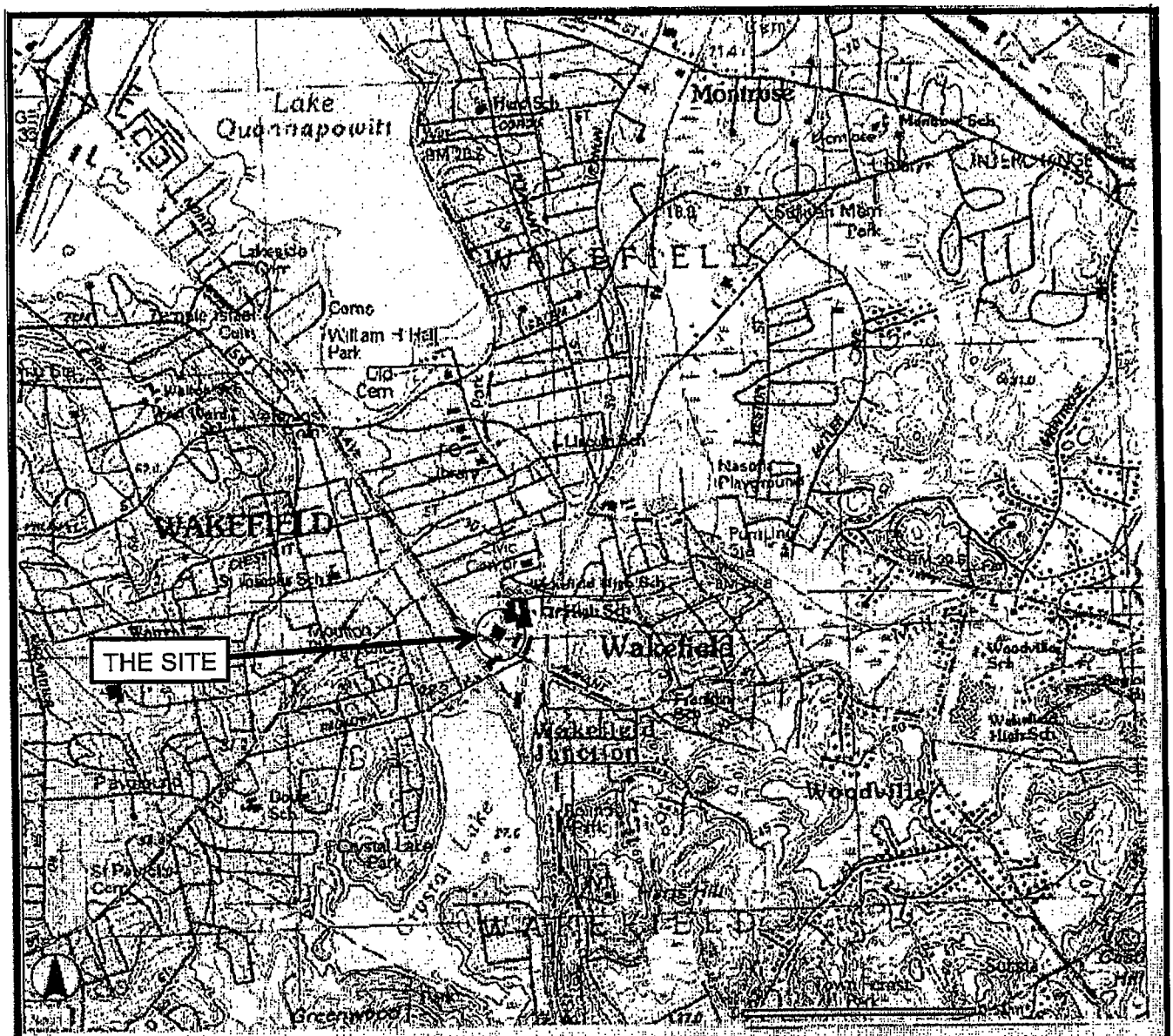
Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

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:

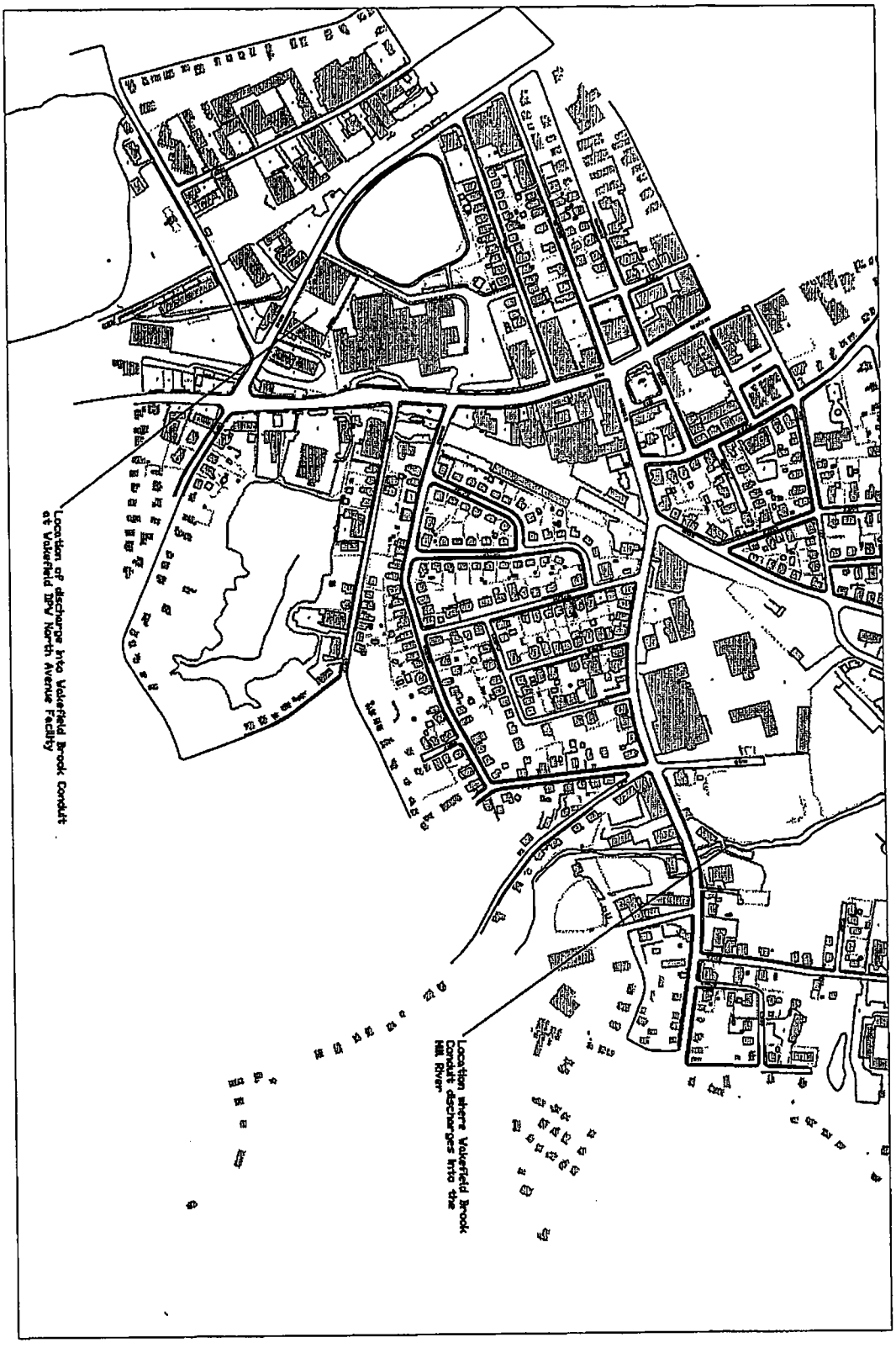
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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:	
Operator signature:	[signature]
Title:	Director of Public Works.
Date:	12/1/05

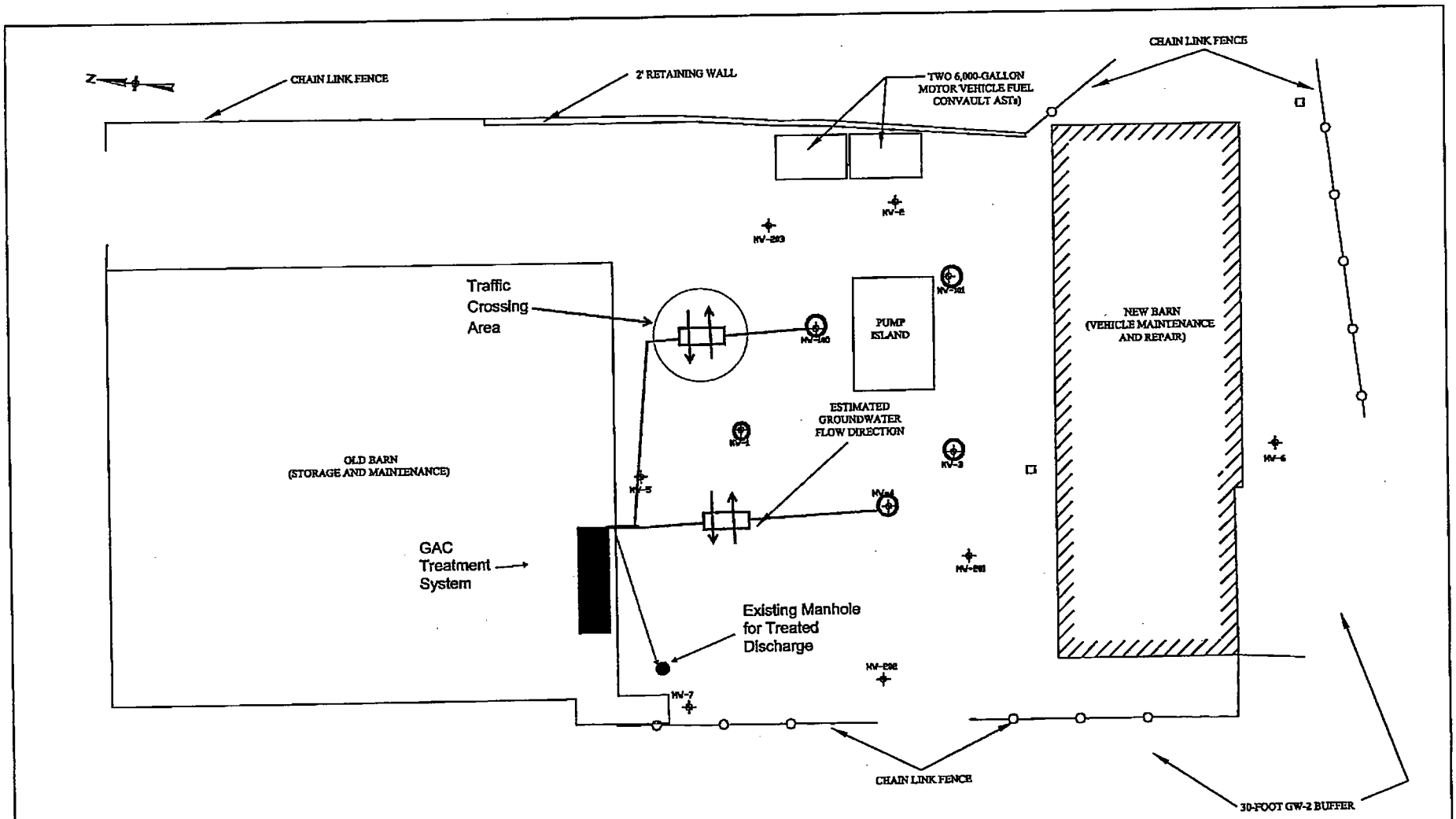
Figures



BETA Group, Inc. Engineers • Scientists • Planners	DPW Facility 35 North Avenue Wakefield, MA	FIGURE 1 - Site Locus



1257	1257	DPW FACILITY MCP DISCHARGE LOCATIONS MCP 30-Nov-05	1" = 200'	REVISIONS		TOWN OF WAKEFIELD Department of Public Works Engineering Division 1 Lafayette Street Wakefield Massachusetts 01880 Phone 781-246-6306 • Fax 781-246-6266



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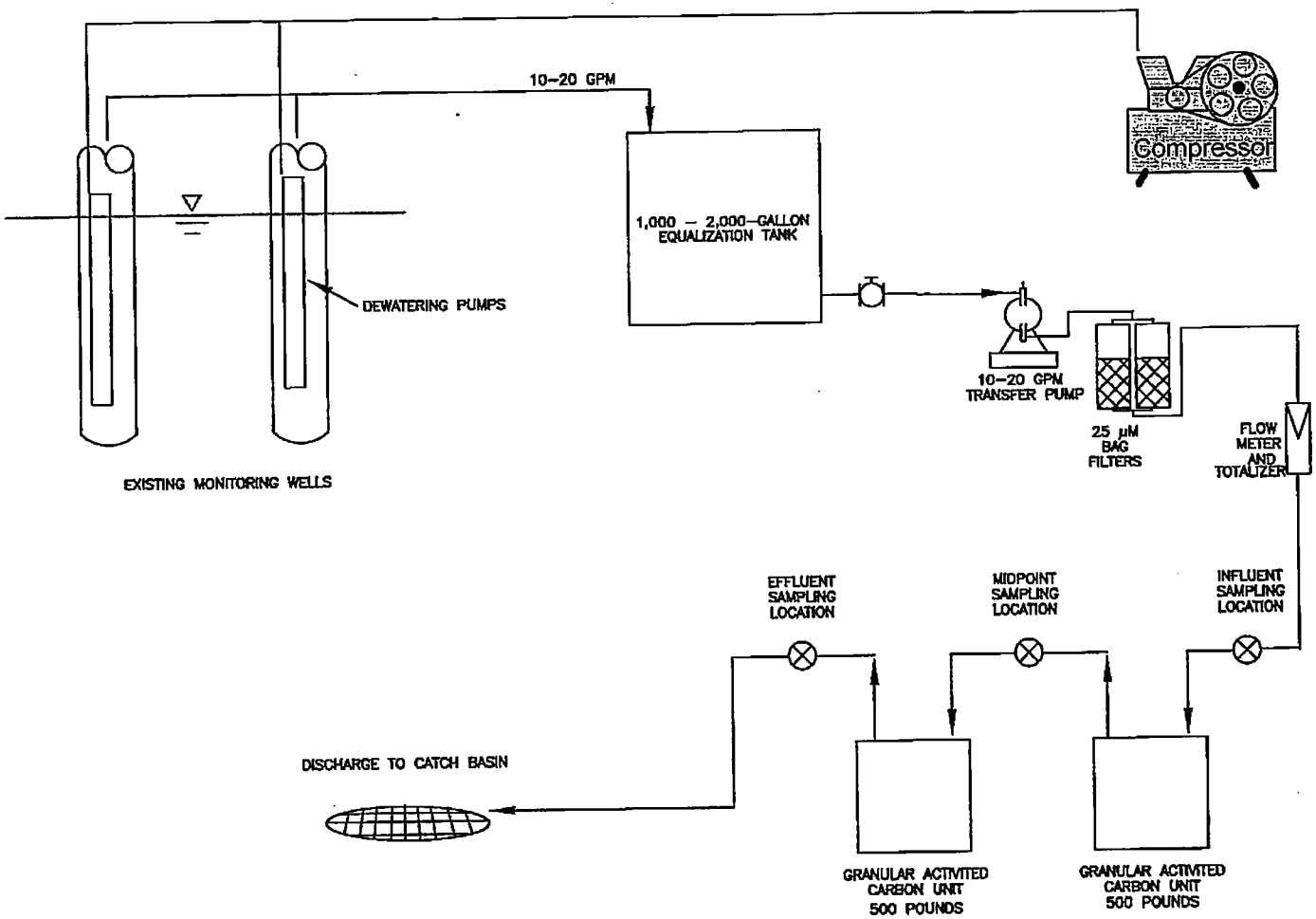
5 Blackstone Valley Place Lincoln, RI 02865 401.333.2382 fax 401.333.9225
email: BETA@BETA-eng.com

DRAWN BY DGB
DEPT. CHECK
PROJ. CHECK

SCALE:
30 0 30
SCALE IN FEET

Site Plan -Well Locations
Wakefield Department of Public Works
35 North Avenue
Wakefield, Massachusetts

JOB NO. 0.2575.00
FILE 257SITEPLAN.DWG
SHEET 1



BETA
ENGINEERS • SCIENTISTS
315 Norwood Park South, Norwood, MA 02062 (781) 255–1982

GROUNDWATER TREATMENT SYSTEM

DPW GROUNDWATER REMEDIATION
WAKEFIELD, MA

	DRAWN	CHECKED	APPROVED
BY	DGB		
DATE	10/05		

SCALE	PROJECT NO.	DRAWING NUMBER
AS NOTED		FIGURE 1

Appendix A

Supporting Federal and State Fish and Wildlife, Natural Heritage, And Historical Information

David Billo

From: David Billo
Sent: Thursday, December 01, 2005 3:21 PM
To: 'anthony_tur@fws.gov'
Subject: NPDES Application Endangered Species Evaluation
Attachments: BETA_Norwood_1_1650100800_20051201_152450_3310.pdf; Figure 1.pdf

Tony,
Thanks for your help getting this permit application completed. Any information you have on threatened or endangered species or designated habitat at this location would be very helpful. The Site address is:

Wakefield DPW Garage
35 North Avenue
Wakefield, MA 01880
Lat: 42 29' 55" long 71 04' 15"

The treated groundwater discharge that we're looking to have permitted will be to a storm sewer at the site. The storm sewer discharges into the Mill River approximately 1/2-mile to the northeast, near the corner of Melvin Street and Route 129 (Water Street).

A USGS map and street map are included.

Thanks again for your help.
Best Regards,

Dave Billo, LSP
Senior Project Manager
BETA Group, Inc.
315 Norwood Park South
Norwood, MA 02062
1-781-255-1982
1-781-255-1974 (fax)

Index by State and City

National Register Information System 12/01/2005 13:58:05

No filter Include filter in navigation ☐

Row	STATE	COUNTY	RESOURCE NAME	ADDRESS	CITY	LISTED	MULTIPLE
1	MA	Middlesex	**Beacon Street Tomb**	Beacon St.	Wakefield	1989-07-06	Wakefield MRA
2	MA	Middlesex	**Beebe Homestead**	142 Main St.	Wakefield	1989-07-06	Wakefield MRA
3	MA	Middlesex	**Boardman, E., House**	34 Salem St.	Wakefield	1989-07-06	Wakefield MRA
4	MA	Middlesex	**Boit, Elizabeth, House**	127 Chestnut St.	Wakefield	1989-07-06	Wakefield MRA
5	MA	Middlesex	**Building at 38--48 Richardson Avenue**	38--48 Richardson Ave.	Wakefield	1989-07-06	Wakefield MRA
6	MA	Middlesex	**Buildings at 35--37 Richardson Avenue**	35--37 Richardson Ave.	Wakefield	1989-07-06	Wakefield MRA
7	MA	Middlesex	**Center Depot**	57 Water St.	Wakefield	1989-07-06	Wakefield MRA
8	MA	Middlesex	**Church--Lafayette Streets Historic District**	Roughly Church St. from Lafayette St. to North Ave.	Wakefield	1989-07-06	Wakefield MRA
9	MA	Middlesex	**Common District**	Roughly bounded by Lake Quannapowitt, Main St., Common St., Church St., and Lake Ave.	Wakefield	1990-03-02	Wakefield MRA
10	MA	Middlesex	**Cowdry, Jonas, House**	61 Prospect St.	Wakefield	1989-07-06	Wakefield MRA

U.S. Environmental Protection Agency

Total Maximum Daily Loads

Listed Water Information

CYCLE : 2002

Click here to see metadata for this report.

Cycle: 2002 **State:** MA **List ID:** MA93-31
Waterbody Name: MILL RIVER
State Basin Name: NORTH COASTAL
Listed Water Map Link: No Spatial Data

Comments:
FROM HEADWATERS IN WETLANDS NORTH OF SALEM STREET IN WAKEFIELD TO CONFLUENCE WITH SAUGUS RIVER, WAKEFIELD.

State List IDs:

Cycle	State List ID
2002	MA93-31_2002

State Impairments:

State Impairment	Parent Impairment	Priority	Rank	Targeted Flag	Anticipated TMDL Submittal
ORGANIC ENRICHMENT/LOW DO					
PATHOGENS					
SUSPENDED SOLIDS					
TURBIDITY					

Potential Sources of Impairment:

There were no potential sources reported to EPA by the state.

Total Maximum Daily Load (TMDL) Information:

There were no TMDLs reported to EPA by the state.

Watershed Information:

There was no watershed information reported to EPA by the state.

Massachusetts Category 5 Waters
"Waters requiring a TMDL"

*-non Pollutant

NAME	SEGMENT ID	DESCRIPTION	SIZE	ASSESS DATE	POLLUTANT NEEDING TMDL [EPA APPROVAL DATE/DOCUMENT CONTROL NUMBER]
Hawkes Pond (93032)	MA93032_2002	Lynnfield	73 acres	Oct-98	-Turbidity
Lily Pond (93039)	MA93039_2002	Gloucester	31 acres	Oct-98	-Noxious aquatic plants -Turbidity
Lynn Harbor (93909)	MA93-23_2002		6.67 sq mi	Feb-99	-Pathogens
Manchester Harbor (93904)	MA93-19_2002		0.29 sq mi	Feb-99	-Pathogens
Marblehead Harbor (93908)	MA93-22_2002		0.56 sq mi	Mar-99	-Pathogens
Mill River (9354850)	MA93-28_2002	Outlet Mill Pond, Gloucester to confluence with Annisquam River, Gloucester.	0.09 sq mi	Jan-99	-Pathogens
* Mill River (9355675)	MA93-31_2002	From headwaters in wetlands north of Salem Street in Wakefield to confluence with Saugus River, Wakefield.	2 miles	Feb-99	-Organic enrichment/Low DO -Pathogens -Suspended solids -Turbidity
Nahant Bay (93910)	MA93-24_2002		5.27 sq mi	Feb-99	-Pathogens
North River (9355375)	MA93-42_2002	Downstream of Route 114 bridge (Proctor Brook becomes North River at this bridge), Peabody to confluence with Danvers River, Salem.	0.2 sq mi	Apr-99	-Unionized Ammonia -Organic enrichment/Low DO -Pathogens
Pillings Pond (93056)	MA93056_2002	Lynnfield	96 acres	Oct-98	-Noxious aquatic plants -Turbidity
Pines River (9355725)	MA93-15_2002	Route 1, Revere/Saugus to mouth at Lynn Harbor, Saugus/Revere.	0.7 sq mi	Mar-99	-Pathogens
Porter River (9355225)	MA93-04_2002	Confluence with Frost Fish Brook to confluence with Danvers River, Danvers.	0.1 sq mi	Apr-99	-Siltation -Pathogens -Noxious aquatic plants -Turbidity
Proctor Brook (9355400)	MA93-39_2002	Outlet of small pond in wetland north of Downing Road, Peabody to Goodhue Street bridge, Salem.	2.9 miles	Apr-99	-Cause Unknown -Nutrients -Siltation -(Other habitat alterations*) -Pathogens
Proctor Brook (9355400)	MA93-40_2002	Goodhue Street bridge, Salem to Route 114 culvert, Salem.	0.01 sq mi	Apr-99	-Pathogens
Lake Quannapowitt (93060)	MA93060_2002	Wakefield	250 acres	Oct-98	-Noxious aquatic plants -Turbidity -(Exotic species*)
Rockport Harbor (93902)	MA93-17_2002		0.02 sq mi	Feb-99	-Pathogens
Salem Harbor (93906)	MA93-21_2002		1.62 sq mi	Mar-99	-Pathogens
Salem Sound (93907)	MA93-25_2002		10.01 sq mi	Feb-99	-Pathogens
Saugus River (9355550)	MA93-14_2002	Saugus Iron Works, Saugus, to the mouth at Lynn Harbor, Lynn/Salem.	0.8 sq mi	Feb-99	-Thermal modifications -(Flow alteration*) -Pathogens -Oil and grease

NAME	SEGMENT ID	DESCRIPTION	ASSESS DATE	CATEGORY
Cat Brook (9355050)	MA93-29_2002	Headwaters north of Route 128 Manchester/Essex/Gloucester to confluence Manchester Harbor, Manchester. Miles 2.5-0.0	Feb-99	5
Cedar Pond (93013)	MA93013_2002	Peabody	Oct-98	4c
Chebacco Lake (93014)	MA93014_2002	Hamilton/Essex	Oct-98	4c
Coy Pond (93016)	MA93016_2002	Wenham	Oct-98	5
Crane Brook (9355325)	MA93-02_2002	Headwaters west of Newburyport Turnpike (Route 95) to inlet Mill Pond, Danvers.	Apr-99	5
Crane River (9355275)	MA93-38_2002	Outlet Mill Pond, Danvers to outlet of pump house sluiceway at Purchase Street, Danvers.	Apr-99	5
Crane River (9355275)	MA93-41_2002	Outlet pump house sluiceway at Purchase Street, Danvers to confluence Danvers River, Danvers.	Apr-99	5
Crane River Pond (93017)	MA93017_2002	Danvers	Oct-98	2
Crystal Lake (93018)	MA93018_2002	Wakefield/Stoneham	Oct-98	3
Danvers River (9355200)	MA93-09_2002	Confluence with Porter, Crane and Waters rivers,Danvers to mouth at Beverly Harbor, Beverly/Salem.	Apr-99	5
Days Pond (93092)	MA93092_2002	Gloucester	Oct-98	4c
Essex Bay (93901)	MA93-16_2002		Jan-99	5
Essex River (9354625)	MA93-11_2002	Source east of Southern Avenue to mouth at Essex Bay, Essex.	Jan-99	5
Fernwood Lake (93022)	MA93022_2002	Gloucester	Oct-98	2
Flax Pond (93023)	MA93023_2002	Lynn	Oct-98	5
Floating Bridge Pond (93024)	MA93024_2002	Lynn	Oct-98	5
Forest River (9355500)	MA93-10_2002	Approximately 1/2 mile upstream of Loring Avenue, Salem to mouth at Salem Harbor, Salem/Marblehead.	Mar-99	5
Frost Fish Brook (9355250)	MA93-36_2002	Headwaters, southeast of Danvers locality of Putnamville to confluence Porter River just south of Route 62, Danvers. Miles 1.3-0.0	Jun-97	5
Gloucester Harbor (93903)	MA93-18_2002		Feb-99	5
Goldthwait Brook (9355450)	MA93-05_2002	Outlet Cedar Pond to confluence with Proctor Brook, Peabody.	Mar-99	5
Goose Cove Reservoir (93093)	MA93093_2002	Gloucester	Oct-98	2
Gravelly Pond (93028)	MA93028_2002	Hamilton	Oct-98	2
Griswold Pond (93029)	MA93029_2002	Saugus	Oct-98	4c
Haskell Pond (93031)	MA93031_2002	Gloucester	Oct-98	2
Hawkes Brook (9355650)	MA93-32_2002	Headwaters at the Lynn/Lynnfield border to the outlet of Hawkes Pond in North Saugus.	Mar-99	5
Hawkes Brook (9355650)	MA93-33_2002	Outlet of Hawkes Pond, North Saugus to confluence with Saugus River, Saugus.	Mar-99	5
Hawkes Pond (93032)	MA93032_2002	Lynnfield	Oct-98	5
Lily Pond (93039)	MA93039_2002	Gloucester	Oct-98	5
Lower Pond (93044)	MA93044_2002	Saugus	Oct-98	4c
Lynn Harbor (93909)	MA93-23_2002		Feb-99	5
Manchester Harbor (93904)	MA93-19_2002		Feb-99	5
Marblehead Harbor (93908)	MA93-22_2002		Mar-99	5
Mill Pond (93050)	MA93050_2002	Gloucester	Oct-98	2
Mill River (9354850)	MA93-28_2002	Outlet Mill Pond, Gloucester to confluence with Annisquam River, Gloucester.	Jan-99	5
* Mill River (9355675)	MA93-31_2002	From headwaters in wetlands north of Salem Street in Wakefield to confluence with Saugus River, Wakefield.	Feb-99	5
Nahant Bay (93910)	MA93-24_2002		Feb-99	5
Niles Pond (93052)	MA93052_2002	Gloucester	Oct-98	3
North River (9355375)	MA93-42_2002	Downstream of Route 114 bridge (Proctor Brook becomes North River at this bridge), Peabody to confluence with Danvers River, Salem.	Apr-99	5

MILL RIVER TRIBUTARY AT WAKEFIELD, MA

General Information	
USGS Station Number:	01102340
Station Type:	Low Flow, partial record
Period of Record:	1974
Latitude (d/m/s):	423018
Longitude (d/m/s):	710337
Location:	Preston Street
Hydrologic Unit Code:	01090001
Basin Name:	North Coastal
Remarks:	None
Basin Characteristics	
Drainage Area(sq.miles):	
Stratified Drift Area(sq.miles):	
Waterbody Area(sq.miles):	
Wetland Area(sq.miles):	
Total Stream Length(miles):	
Mean Basin Slope(percent):	
Minimum Elevation(ft):	
Mean Elevation(ft):	
Maximum Elevation(ft):	
Streamflow Statistics	
(All statistics in cubic feet per second)	
Flood-Flow Frequencies	
Citations	1
Mean Annual Flood:	
10 Year Flood:	
25 Year Flood:	
50 Year Flood:	
100 Year Flood:	

500 Year Flood:	
Flow Durations	
1%:	
2%:	
3%:	
5%:	
7%:	
10%:	
15%:	
20%:	
25%:	
30%:	
35%:	
40%:	
45%:	
50%:	
55%:	
60%:	
65%:	
70%:	
75%:	
80%:	
85%:	
90%:	
93%:	
95%:	
97%:	
98%:	
99%:	
August Median Flow	
August Median Flow:	
Low-Flow Frequencies	

7-day, 2-year low flow:	
7-day, 10-year low flow:	0

[1] Wandle, S.W., Jr., 1984, Gazetteer of Hydrologic Characteristics of Streams in Massachusetts--Coastal River Basins of the North Shore and Massachusetts Bay: U.S. Geological Survey Water-Resources Investigations Report 84-4281, 60 p.

U.S. Department of the Interior, U.S. Geological Survey
10 Bearfoot Road
Northborough, MA 01532
(508) 490-5000

Maintainer: webmaster@mass1.er.usgs.gov

Appendix B

Laboratory Analytical Data

NETLAB

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number Q1128-11

Prepared for:

Attn: Dave Billo
BETA Group, Inc.
315 Norwood Park South
Norwood, MA 02062

Report Date: December 6, 2005

Lab # RI010

Electronic Copy

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue, North Providence, RI 02904
(401) 353-3420

Total # of Pages: 40

ANALYTICAL METHOD REPORT CERTIFICATION FORM

Laboratory Name: New England Testing Laboratory, Inc. Project #: 2575

Project Location: Wakefield DPW RTN[1]:

This form provides certifications for the following data set: Q1128-11

Sample Matrices: Groundwater (X) Soil/Sediment ( ) Drinking Water ( ) Other:

SW-846 Methods Used					
	8260B (X)	8151A ( )	8330 ( )	6010B ( )	7470A/1A ( )
	8270C (X)	8081A ( )	VPH ( )	6020 ( )	9014M[2] ( )
	8082 ( )	8021B ( )	EPH ( )	7000 S[3] ( )	Other: (X)

1 List Release Tracking Number (RTN), If known
2 M – SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Method
3 S – SW-846 Methods 7000 Series List individual method and analyte

An affirmative response to questions A, B, and C is required for "Presumptive Certainty" status

A	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of Custody documentation for the data set?	Yes (X) No[1] ( )
B	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	Yes (X) No[1] ( )
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in Section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes ( ) No[1] ( ) Not Applicable (X)
D	***VPH and EPH Methods only***: Was the VPH and EPH Method conducted without significant modifications (see Section 11.3 of respective Methods)	Yes ( ) No[1] ( )

A response to questions E and F below is required for "Presumptive Certainty" status

E	Were all QC performance standards and recommendations for the specified methods achieved?	Yes ( ) No[1] (X)
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	Yes (X) No[1] ( )

[1] *All NO answers must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Position: Laboratory Director

Printed Name: Mark H. Bishop Date: 12/6/2005

ANALYTICAL METHOD REPORT CERTIFICATION FORM

Laboratory Name: New England Testing Laboratory, Inc. Project #: 2575

Project Location: Wakefield DPW RTN[1]:

This form provides certifications for the following data set: Q1128-11

Sample Matrices: Groundwater (X) Soil/Sediment ( ) Drinking Water ( ) Other:

SW-846 Methods Used					
	8260B ( )	8151A ( )	8330 ( )	6010B (X)	7470A/1A (X)
	8270C ( )	8081A ( )	VPH ( )	6020 ( )	9014M[2] ( )
	8082 ( )	8021B ( )	EPH ( )	7000 S[3] ( )	Other: ( )

1 List Release Tracking Number (RTN), if known
2 M – SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Method
3 S – SW-846 Methods 7000 Series List individual method and analyte

An affirmative response to questions A, B, and C is required for "Presumptive Certainty" status

A	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of Custody documentation for the data set?	Yes (X) No[1] ( )
B	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	Yes (X) No[1] ( )
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in Section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	Yes ( ) No[1] ( ) Not Applicable (X)
D	***VPH and EPH Methods only:*** Was the VPH and EPH Method conducted without significant modifications (see Section 11.3 of respective Methods)	Yes ( ) No[1] ( )

A response to questions E and F below is required for "Presumptive Certainty" status

E	Were all QC performance standards and recommendations for the specified methods achieved?	Yes (X) No[1] ( )
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?	Yes (X) No[1] ( )

[1]*All NO answers must be addressed in an attached Environmental Laboratory case narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Jodi Lyons Position: Director, Inorganics

Printed Name: Jodi Lyons Date: 12/06/2005

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on November 28, 2005. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. The case number for this sample submission is Q1128-11.

Custody records are included in this report.

Site: Wakefield DPW

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
MW-4	11/28/05	Water	Table II

TABLE II, Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
Volatile Organic Compounds	5030B	8260B
Semivolatile Organic Compounds	3510C	8270C
PCBs	3510C	8082
Phenols	NA	420.1
Cyanide	NA	335.2
TPH	NA	1664A
Total Residual Chlorine	NA	330.5
Total Suspended Solids	NA	160.2
Hexavalent Chromium	NA	3500-Cr-D
Total Metals		
Antimony	3010A	6010B
Arsenic	3010A	6010B
Cadmium	3010A	6010B
Chromium	3010A	6010B
Copper	3010A	6010B
Iron	3010A	6010B
Lead	3010A	6010B
Mercury	NA	7470A
Nickel	3010A	6010B
Selenium	3010A	6010B
Silver	3010A	6010B
Zinc	3010A	6010B

MW-4

Parameter	Result, mg/l	Reporting Limit	Date Analyzed
Phenols	0.27	0.05	11/29/05
Total Cyanide	N.D.	0.1	11/29/05
Total Petroleum Hydrocarbons	4	2	12/1/05
Total Residual Chlorine	N.D.	0.02	11/28/05
Total Suspended Solids	590	10	11/29/05
Hexavalent Chromium	N.D.	0.1	11/28/05

N.D. = Not Detected

NETTLAB

METALS RESULTS

Case Number: Q1128-11
Sample ID: MW-4
Date collected: 11/28/05
Matrix WATER
Sample Type: Total

Analyst JL/ADS

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Antimony	7440-36-0	3005A	7041	ND	0.005	0.005	mg/l	11/29/05	11/30/05
Arsenic	7440-38-2	7060A	7060A	0.02	0.005	0.005	mg/l	11/29/05	11/29/05
Cadmium	7440-43-9	3020A	7131A	0.0022	0.0005	0.0005	mg/l	11/29/05	11/29/05
Chromium	7440-47-3	3010A	6010B	0.013	0.005	0.005	mg/l	11/29/05	11/29/05
Copper	7440-50-8	3010A	6010B	0.05	0.02	0.02	mg/l	11/29/05	11/29/05
Iron	7439-89-6	3010A	6010B	72	0.05	0.05	mg/l	11/29/05	11/29/05
Lead	7439-92-1	3020A	7421	0.087	0.002	0.002	mg/l	11/29/05	11/29/05
Mercury	7439-97-6	NA	7470A	ND	0.0002	0.0002	mg/l	12/1/05	12/1/05
Nickel	7440-02-0	3010A	6010B	0.015	0.005	0.005	mg/l	11/29/05	11/29/05
Selenium	7782-49-2	7740	7740	ND	0.005	0.005	mg/l	11/29/05	11/29/05
Silver	7440-22-4	3010A	6010B	ND	0.0005	0.0005	mg/l	11/29/05	11/29/05
Zinc	7440-66-6	3010A	6010B	0.17	0.02	0.02	mg/l	11/29/05	11/29/05

ND indicates not Detected

NETTLAB

METALS RESULTS

Sample ID: METHOD BLANK

Matrix WATER

Sample Type: Preparation Blank

Analyst JL/ADS

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Antimony	7440-36-0	3005A	7041	ND	0.005	0.005	mg/l	12/1/05	12/5/05
Arsenic	7440-38-2	7060A	7060A	ND	0.005	0.005	mg/l	12/1/05	12/2/05
Cadmium	7440-43-9	3020A	7131A	ND	0.0005	0.0005	mg/l	12/1/05	12/5/05
Chromium	7440-47-3	3010A	6010B	ND	0.005	0.005	mg/l	11/29/05	11/29/05
Copper	7440-50-8	3010A	6010B	ND	0.02	0.02	mg/l	11/29/05	11/29/05
Iron	7439-89-6	3010A	6010B	ND	0.05	0.05	mg/l	11/29/05	11/29/05
Lead	7439-92-1	3020A	7421	ND	0.002	0.002	mg/l	12/1/05	12/2/05
Mercury	7439-97-6	NA	7470A	ND	0.0002	0.0002	mg/l	12/1/05	12/1/05
Nickel	7440-02-0	3010A	6010B	ND	0.005	0.005	mg/l	11/29/05	11/29/05
Selenium	7782-49-2	7740	7740	ND	0.005	0.005	mg/l	12/1/05	12/5/05
Silver	7440-22-4	7761	7761	ND	0.0005	0.0005	mg/l	12/1/05	12/1/05
Zinc	7440-66-6	3010A	6010B	ND	0.02	0.02	mg/l	11/29/05	11/29/05

ND indicates not Detected

NELLAB

LABORATORY CONTROL SAMPLE RECOVERY

Parameter	True Value	Result	Units	Recovery, %	Internal LCL, %	UCL, %	Date Analyzed
Antimony	0.02	0.021	mg/l	105	81	123	12/5/05
Arsenic	0.04	0.041	mg/l	101	87	117	12/2/05
Cadmium	0.005	0.005	mg/l	96.4	80	122	12/6/05
Chromium	1	0.905	mg/l	90.5	89	110	11/29/05
Copper	1	0.892	mg/l	89.2	87	113	11/29/05
Iron	1	0.885	mg/l	88.5	74	122	11/29/05
Lead	0.02	0.020	mg/l	101	86	119	12/2/05
Mercury	0.001	0.00104	mg/l	104	89	114	12/1/05
Nickel	1	0.913	mg/l	91.3	89	109	11/29/05
Selenium	0.02	0.021	mg/l	104	88	113	12/5/05
Silver	0.005	0.005	mg/l	100	71	118	12/1/05
Zinc	1	0.913	mg/l	91.3	91	110	11/29/05

Sample: MW-4		Analyst's Initials: DC
Case No. Q1128-11		
Date Collected: 11/28/05		
Sample Matrix: Water		
Subject: PCBs	Date Extracted	Date Analyzed
Prep Method: EPA 3510C	11/29/05	11/29/05
Analytical Method: EPA 8082		
Compound	Concentration ug/l (ppb)	Reporting Limit
PCB-1016	N.D.	0.2
PCB-1221	N.D.	0.4
PCB-1232	N.D.	0.2
PCB-1242	N.D.	0.2
PCB-1248	N.D.	0.2
PCB-1254	N.D.	0.2
PCB-1260	N.D.	0.2
Surrogates:		
Compound	% Recovery	Limits
TCMX	73	25-141
DCBP	93	41-156

Sample: Method Blank		Analyst's Initials: DC
Case No. Q1128-11		
Date Collected: NA		
Sample Matrix: Water		
Subject: PCBs	Date Extracted	Date Analyzed
Prep Method: EPA 3510C	11/29/05	11/29/05
Analytical Method: EPA 8082		
Compound	Concentration ug/l (ppb)	Reporting Limit
PCB-1016	N.D.	0.2
PCB-1221	N.D.	0.4
PCB-1232	N.D.	0.2
PCB-1242	N.D.	0.2
PCB-1248	N.D.	0.2
PCB-1254	N.D.	0.2
PCB-1260	N.D.	0.2
Surrogates:		
Compound	% Recovery	Limits
TCMX	50	25-141
DCBP	63	41-156

NELTLAB

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Q1128-11
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials: MGF

Client Name: BETA Group, Inc.
Lab Sample ID: MW-4
Lab File ID: DEC0209.D
Date Sampled: 11/28/2005
Date Analyzed: 12/2/2005
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	3.0	U
1634-04-4	tert-Butyl methyl ether	110	
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	5.8	
71-43-2	Benzene	2400	E
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	2000	E
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

NELTLAB

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Q1128-11
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials: MGF

Client Name: BETA Group, Inc.
Lab Sample ID: MW-4
Lab File ID: DEC0209.D
Date Sampled: 11/28/2005
Date Analyzed: 12/2/2005
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	900	E
1330-20-7	m & p-Xylene	2000	E
95-47-6	o-Xylene	740	E
100-42-5	Styrene	5.4	
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	54	
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
108-86-1	Bromobenzene	1.0	U
103-65-1	n-Propylbenzene	110	
95-49-8	2-Chlorotoluene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	210	E
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	680	E
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	15	
75-87-3	Chloromethane	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
104-51-8	n-Butylbenzene	26	
60-29-7	Diethyl Ether	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
75-65-0	tert butyl alcohol	1.0	U
994-05-8	tert-amyl methyl ether	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U
123-91-1	1,4-Dioxane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.4	
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	650	E
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

NETLAB

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Q1128-11
Client Name: BETA Group, Inc.
Method: 8260
Lab Sample ID: MW-4.dl
Matrix: (soil/water) WATER
Lab File ID: DEC0223.D
Sample wt/vol: 5.0 (g/ml) ML
Date Sampled: 11/28/2005
% Moisture
Date Analyzed: 12/2/2005
Soil Extract Volume: (uL)
Dilution Factor: 20.0
Analyst's Initials: MGF
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	20	U
74-83-9	Bromomethane	20	U
75-00-3	Chloroethane	20	U
67-64-1	Acetone	100	U
75-35-4	1,1-Dichloroethene	20	U
75-15-0	Carbon Disulfide	20	U
75-09-2	Methylene Chloride	60	U
1634-04-4	tert-Butyl methyl ether	110	D
156-60-5	trans-1,2 Dichloroethene	20	U
75-34-3	1,1-Dichloroethane	20	U
78-93-3	2-Butanone	100	U
594-20-7	2,2-Dichloropropane	20	U
156-59-2	cis-1,2-Dichloroethene	20	U
67-66-3	Chloroform	20	U
74-97-5	Bromochloromethane	20	U
71-55-6	1,1,1-Trichloroethane	20	U
563-58-6	1,1-Dichloropropene	20	U
56-23-5	Carbon Tetrachloride	20	U
71-43-2	Benzene	3300	D
107-06-2	1,2-Dichloroethane	20	U
79-01-6	Trichloroethene	20	U
78-87-5	1,2-Dichloropropane	20	U
75-27-4	Bromodichloromethane	20	U
74-95-3	Dibromomethane	20	U
108-10-1	4-Methyl-2-pentanone	100	U
106-93-4	Ethylene Dibromide	20	U
10061-01-5	cis-1,3-Dichloropropene	20	U
108-88-3	Toluene	2300	D
10061-02-6	Trans-1,3-Dichloropropene	20	U
79-00-5	1,1,2-Trichloroethane	20	U
591-78-6	2-Hexanone	100	U
127-18-4	Tetrachloroethene	20	U
124-48-1	Chlorodibromomethane	20	U
108-90-7	Chlorobenzene	20	U
630-20-6	1,1,1,2-Tetrachloroethane	20	U

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New England Testing Laboratory, Inc.

NETLAB

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Q1128-11
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials: MGF

Client Name: BETA Group, Inc.
Lab Sample ID: MW-4.dl
Lab File ID: DEC0223.D
Date Sampled: 11/28/2005
Date Analyzed: 12/2/2005
Dilution Factor: 20.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1000	D
1330-20-7	m & p-Xylene	3000	D
95-47-6	o-Xylene	880	D
100-42-5	Styrene	20	U
75-25-2	Bromoform	20	U
98-82-8	Isopropylbenzene	40	D
79-34-5	1,1,2,2-Tetrachloroethane	20	U
96-18-4	1,2,3-Trichloropropane	20	U
108-86-1	Bromobenzene	20	U
103-65-1	n-Propylbenzene	110	D
95-49-8	2-Chlorotoluene	20	U
108-67-8	1,3,5-Trimethylbenzene	230	D
106-43-4	4-Chlorotoluene	20	U
98-06-6	tert-Butylbenzene	20	U
95-63-6	1,2,4-Trimethylbenzene	810	D
135-98-8	sec-Butylbenzene	20	U
99-87-6	p-Isopropyltoluene	20	U
75-87-3	Chloromethane	20	U
541-73-1	1,3-Dichlorobenzene	20	U
106-46-7	1,4-Dichlorobenzene	20	U
104-51-8	n-Butylbenzene	23	D
60-29-7	Diethyl Ether	20	U
95-50-1	1,2-Dichlorobenzene	20	U
75-65-0	tert butyl alcohol	20	U
994-05-8	tert-amyl methyl ether	20	U
96-12-8	1,2-Dibromo-3-chloropropane	40	U
123-91-1	1,4-Dioxane	20	U
120-82-1	1,2,4-Trichlorobenzene	20	U
87-68-3	Hexachlorobutadiene	20	U
91-20-3	Naphthalene	490	D
87-61-6	1,2,3-Trichlorobenzene	20	U

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NELTLAB

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Q1128-11
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials: MGF

Client Name: BETA Group, Inc.
Lab Sample ID: VBLK051202
Lab File ID: DEC0208.D
Date Sampled: 11/28/2005
Date Analyzed: 12/2/2005
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
75-01-4	Vinyl Chloride	1.0	U
74-83-9	Bromomethane	1.0	U
75-00-3	Chloroethane	1.0	U
67-64-1	Acetone	5.0	U
75-35-4	1,1-Dichloroethene	1.0	U
75-15-0	Carbon Disulfide	1.0	U
75-09-2	Methylene Chloride	3.0	U
1634-04-4	tert-Butyl methyl ether	2.0	U
156-60-5	trans-1,2 Dichloroethene	1.0	U
75-34-3	1,1-Dichloroethane	1.0	U
78-93-3	2-Butanone	5.0	U
594-20-7	2,2-Dichloropropane	1.0	U
156-59-2	cis-1,2-Dichloroethene	1.0	U
67-66-3	Chloroform	1.0	U
74-97-5	Bromochloromethane	1.0	U
71-55-6	1,1,1-Trichloroethane	1.0	U
563-58-6	1,1-Dichloropropene	1.0	U
56-23-5	Carbon Tetrachloride	1.0	U
71-43-2	Benzene	1.0	U
107-06-2	1,2-Dichloroethane	1.0	U
79-01-6	Trichloroethene	1.0	U
78-87-5	1,2-Dichloropropane	1.0	U
75-27-4	Bromodichloromethane	1.0	U
74-95-3	Dibromomethane	1.0	U
108-10-1	4-Methyl-2-pentanone	5.0	U
106-93-4	Ethylene Dibromide	1.0	U
10061-01-5	cis-1,3-Dichloropropene	1.0	U
108-88-3	Toluene	1.0	U
10061-02-6	Trans-1,3-Dichloropropene	1.0	U
79-00-5	1,1,2-Trichloroethane	1.0	U
591-78-6	2-Hexanone	5.0	U
127-18-4	Tetrachloroethene	1.0	U
124-48-1	Chlorodibromomethane	1.0	U
108-90-7	Chlorobenzene	1.0	U
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U

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New England Testing Laboratory, Inc.

NELTLAB

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Q1128-11
Method: 8260
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials: MGF

Client Name: BETA Group, Inc.
Lab Sample ID: VBLK051202
Lab File ID: DEC0208.D
Date Sampled: 11/28/2005
Date Analyzed: 12/2/2005
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.0	U
1330-20-7	m & p-Xylene	2.0	U
95-47-6	o-Xylene	1.0	U
100-42-5	Styrene	1.0	U
75-25-2	Bromoform	1.0	U
98-82-8	Isopropylbenzene	1.0	U
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
108-86-1	Bromobenzene	1.0	U
103-65-1	n-Propylbenzene	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
108-67-8	1,3,5-Trimethylbenzene	1.0	U
106-43-4	4-Chlorotoluene	1.0	U
98-06-6	tert-Butylbenzene	1.0	U
95-63-6	1,2,4-Trimethylbenzene	1.0	U
135-98-8	sec-Butylbenzene	1.0	U
99-87-6	p-Isopropyltoluene	1.0	U
75-87-3	Chloromethane	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
104-51-8	n-Butylbenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
75-65-0	tert butyl alcohol	1.0	U
994-05-8	tert-amyl methyl ether	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	2.0	U
123-91-1	1,4-Dioxane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	2.0	U
87-61-6	1,2,3-Trichlorobenzene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

NELAC LAB

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: New England Testing Lab Contract: Wakefield DPW

Lab Code: RI010 Case No.: Q1128-11 SAS No.: _____ SDG No.: BETA Gro

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	VBLK051202	99	103	90	0
02	MW-4	108	110	101	0
03	MW-4.DL	94	104	104	0
04	VLCS051202	93	106	110	0

			QC LIMITS
SMC1	=	1,2-Dichloroethane-D4	(76-130)
SMC2	=	Toluene-D8	(85-124)
SMC3	=	Bromofluorobenzene	(77-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

New England Testing Laboratory, Inc.

NETTLAB

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Q1128-11
Client Name: BETA Group, Inc.
Method: 8270
Lab Sample ID: MW-4
Matrix: (soil/water/air) WATER
Lab File ID: NOV3027.D
Sample wt/vol: 1000 (g/ml) ML
Date Sampled: 11/28/2005
Level: (low/med) LOW
Date Extracted: 11/30/2005
% Moisture:
Date Analyzed: 12/1/2005
Concentrated Extract Volume: 1000 (uL)
Dilution Factor: 1.0
Injection Volume: 1.0 (uL)
Analyst's Initials: RCM

CAS NO.	COMPOUND	UNITS: UG/L	Q
62-75-9	n-Nitrosodimethylamine	3.0	U
110-86-1	Pyridine	2.0	U
108-95-2	Phenol	2.0	U
62-53-3	Aniline	2.0	U
111-44-4	bis(2-Chloroethyl)ether	1.0	U
95-57-8	2-Chlorophenol	2.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
95-48-7	2-Methylphenol	1.0	U
108-60-1	bis(2-chloroisopropyl)ether	1.0	U
106-44-5	4-Methylphenol	1.0	U
621-64-7	n-Nitroso-di-n-propylamine	1.0	U
67-72-1	Hexachloroethane	1.0	U
98-95-3	Nitrobenzene	1.0	U
78-59-1	Isophorone	1.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	15	U
111-91-1	bis(2-Chloroethoxy)methane	1.0	U
120-83-2	2,4-Dichlorophenol	2.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
91-20-3	Naphthalene	640	E
106-47-8	4-Chloroaniline	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
91-57-6	2-Methylnaphthalene	140	E
77-47-4	Hexachlorocyclopentadiene	1.0	U
88-06-2	2,4,6-Trichlorophenol	2.0	U
95-95-4	2,4,5-Trichlorophenol	2.0	U
91-58-7	2-Chloronaphthalene	1.0	U
88-74-4	2-Nitroaniline	1.0	U
131-11-3	Dimethyl phthalate	1.0	U
208-96-8	Acenaphthylene	15	
606-20-2	2,6-Dinitrotoluene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

FORM I SV-1

NELTLAB

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Q1128-11
Client Name: BETA Group, Inc.
Method: 8270
Lab Sample ID: MW-4
Matrix: (soil/water/air) WATER
Lab File ID: NOV3027.D
Sample wt/vol: 1000 (g/ml) ML
Date Sampled: 11/28/2005
Level: (low/med) LOW
Date Extracted: 11/30/2005
% Moisture:
Date Analyzed: 12/1/2005
Concentrated Extract Volume: 1000 (uL)
Dilution Factor: 1.0
Injection Volume: 1.0 (uL)
Analyst's Initials: RCM

CAS NO.	COMPOUND	UNITS: UG/L	Q
99-09-2	3-Nitroaniline	1.0	U
83-32-9	Acenaphthene	140	E
51-28-5	2,4-Dinitrophenol	5.0	U
100-02-7	4-Nitrophenol	5.0	U
132-64-9	Dibenzofuran	130	E
121-14-2	2,4-Dinitrotoluene	1.0	U
84-66-2	Diethyl phthalate	1.0	U
86-73-7	Fluorene	140	E
7005-72-3	4-Chlorophenyl phenyl ether	1.0	U
100-01-6	4-Nitroaniline	1.0	U
534-52-1	4,6-Dinitro-2-methylphenol	5.0	U
86-30-6	n-Nitrosodiphenylamine	1.0	U
101-55-3	4-Bromophenyl phenyl ether	1.0	U
118-74-1	Hexachlorobenzene	1.0	U
87-86-5	Pentachlorophenol	5.0	U
85-01-8	Phenanthrene	240	E
120-12-7	Anthracene	73	
84-74-2	Di-n-butylphthalate	1.7	JB
206-44-0	Fluoranthene	150	E
92-87-5	Benzidine	60	U
129-00-0	Pyrene	84	
85-68-7	Butyl benzyl phthalate	1.0	U
91-94-1	3,3'-Dichlorobenzidine	1.0	U
56-55-3	Benzo(a)anthracene	28	
218-01-9	Chrysene	22	
117-81-7	bis(2-Ethylhexyl)phthalate	2.2	J
117-84-0	Di-n-octyl phthalate	3.0	U
205-99-2	Benzo(b)fluoranthene	17	
207-08-9	Benzo(k)fluoranthene	5.5	
50-32-8	Benzo(a)pyrene	12	
193-39-5	Indeno(1,2,3-cd)pyrene	5.5	
53-70-3	Dibenz(a,h)anthracene	1.5	
191-24-2	Benzo(g,h,i)perylene	4.2	

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

FORM I SV-2

NETLAB

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Q1128-11
Client Name: BETA Group, Inc.
Method: 8270
Lab Sample ID: MW-4.dl
Matrix: (soil/water/air) WATER
Lab File ID: NOV3027A.D
Sample wt/vol: 1000 (g/ml) ML
Date Sampled: 11/28/2005
Level: (low/med) LOW
Date Extracted: 11/30/2005
% Moisture:
Date Analyzed: 12/1/2005
Concentrated Extract Volume: 1000 (uL)
Dilution Factor: 10.0
Injection Volume: 1.0 (uL)
Analyst's Initials: RCM

CAS NO.	COMPOUND	UNITS: UG/L	Q
62-75-9	n-Nitrosodimethylamine	30	U
110-86-1	Pyridine	20	U
108-95-2	Phenol	20	U
62-53-3	Aniline	20	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	20	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	n-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	50	U
105-67-9	2,4-Dimethylphenol	100	U
65-85-0	Benzoic acid	150	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	20	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	790	D
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	50	U
91-57-6	2-Methylnaphthalene	96	D
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	20	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethyl phthalate	10	U
208-96-8	Acenaphthylene	13	D
606-20-2	2,6-Dinitrotoluene	10	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

New England Testing Laboratory, Inc.

FORM I SV-1

NETLAB

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Q1128-11
Client Name: BETA Group, Inc.
Method: 8270
Lab Sample ID: MW-4.dl
Matrix: (soil/water/air) WATER
Lab File ID: NOV3027A.D
Sample wt/vol: 1000 (g/ml) ML
Date Sampled: 11/28/2005
Level: (low/med) LOW
Date Extracted: 11/30/2005
% Moisture:
Date Analyzed: 12/1/2005
Concentrated Extract Volume: 1000 (uL)
Dilution Factor: 10.0
Injection Volume: 1.0 (uL)
Analyst's Initials: RCM

CAS NO.	COMPOUND	UNITS: UG/L	Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	110	D
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	96	D
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethyl phthalate	10	U
86-73-7	Fluorene	110	D
7005-72-3	4-Chlorophenyl phenyl ether	10	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	n-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl phenyl ether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	310	D
120-12-7	Anthracene	51	D
84-74-2	Di-n-butylphthalate	30	U
206-44-0	Fluoranthene	130	D
92-87-5	Benzidine	600	U
129-00-0	Pyrene	62	D
85-68-7	Butyl benzyl phthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	24	D
218-01-9	Chrysene	18	D
117-81-7	bis(2-Ethylhexyl)phthalate	30	U
117-84-0	Di-n-octyl phthalate	30	U
205-99-2	Benzo(b)fluoranthene	16	D
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	D
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

NETLLAB

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Q1128-11
Method: 8270
Matrix: (soil/water/air) WATER
Sample wt/vol: 1000 (g/ml) ML
Level: (low/med) LOW
% Moisture:
Concentrated Extract Volume: 1000 (uL)
Injection Volume: 1.0 (uL)
Analyst's Initials: RCM

Client Name: BETA Group, Inc.
Lab Sample ID: SBLK113005
Lab File ID: NOV3013.D
Date Sampled: 11/28/2005
Date Extracted: 11/30/2005
Date Analyzed: 11/30/2005
Dilution Factor: 1.0

CAS NO.	COMPOUND	UNITS: UG/L	Q
62-75-9	n-Nitrosodimethylamine	3.0	U
110-86-1	Pyridine	2.0	U
108-95-2	Phenol	2.0	U
62-53-3	Aniline	2.0	U
111-44-4	bis(2-Chloroethyl)ether	1.0	U
95-57-8	2-Chlorophenol	2.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
95-48-7	2-Methylphenol	1.0	U
108-60-1	bis(2-chloroisopropyl)ether	1.0	U
106-44-5	4-Methylphenol	1.0	U
621-64-7	n-Nitroso-di-n-propylamine	1.0	U
67-72-1	Hexachloroethane	1.0	U
98-95-3	Nitrobenzene	1.0	U
78-59-1	Isophorone	1.0	U
88-75-5	2-Nitrophenol	5.0	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	15	U
111-91-1	bis(2-Chloroethoxy)methane	1.0	U
120-83-2	2,4-Dichlorophenol	2.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
91-20-3	Naphthalene	1.0	U
106-47-8	4-Chloroaniline	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
59-50-7	4-Chloro-3-methylphenol	5.0	U
91-57-6	2-Methylnaphthalene	1.0	U
77-47-4	Hexachlorocyclopentadiene	1.0	U
88-06-2	2,4,6-Trichlorophenol	2.0	U
95-95-4	2,4,5-Trichlorophenol	2.0	U
91-58-7	2-Chloronaphthalene	1.0	U
88-74-4	2-Nitroaniline	1.0	U
131-11-3	Dimethyl phthalate	1.0	U
208-96-8	Acenaphthylene	1.0	U
606-20-2	2,6-Dinitrotoluene	1.0	U

U=not detected, D=diluted, E=over range (another data sheet is included), J=below limit, B=found in blank

NELTLAB

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: Q1128-11
Client Name: BETA Group, Inc.
Method: 8270
Lab Sample ID: SBLK113005
Matrix: (soil/water/air) WATER
Lab File ID: NOV3013.D
Sample wt/vol: 1000 (g/ml) ML
Date Sampled: 11/28/2005
Level: (low/med) LOW
Date Extracted: 11/30/2005
% Moisture:
Date Analyzed: 11/30/2005
Concentrated Extract Volume: 1000 (uL)
Dilution Factor: 1.0
Injection Volume: 1.0 (uL)
Analyst's Initials: RCM

CAS NO.	COMPOUND	UNITS: UG/L	Q
99-09-2	3-Nitroaniline	1.0	U
83-32-9	Acenaphthene	1.0	U
51-28-5	2,4-Dinitrophenol	5.0	U
100-02-7	4-Nitrophenol	5.0	U
132-64-9	Dibenzofuran	1.0	U
121-14-2	2,4-Dinitrotoluene	1.0	U
84-66-2	Diethyl phthalate	1.0	U
86-73-7	Fluorene	1.0	U
7005-72-3	4-Chlorophenyl phenyl ether	1.0	U
100-01-6	4-Nitroaniline	1.0	U
534-52-1	4,6-Dinitro-2-methylphenol	5.0	U
86-30-6	n-Nitrosodiphenylamine	1.0	U
101-55-3	4-Bromophenyl phenyl ether	1.0	U
118-74-1	Hexachlorobenzene	1.0	U
87-86-5	Pentachlorophenol	5.0	U
85-01-8	Phenanthrene	1.0	U
120-12-7	Anthracene	1.0	U
84-74-2	Di-n-butylphthalate	1.1	J
206-44-0	Fluoranthene	1.0	U
92-87-5	Benzidine	60	U
129-00-0	Pyrene	1.0	U
85-68-7	Butyl benzyl phthalate	1.0	U
91-94-1	3,3'-Dichlorobenzidine	1.0	U
56-55-3	Benzo(a)anthracene	1.0	U
218-01-9	Chrysene	1.0	U
117-81-7	bis(2-Ethylhexyl)phthalate	3.0	U
117-84-0	Di-n-octyl phthalate	3.0	U
205-99-2	Benzo(b)fluoranthene	1.0	U
207-08-9	Benzo(k)fluoranthene	1.0	U
50-32-8	Benzo(a)pyrene	1.0	U
193-39-5	Indeno(1,2,3-cd)pyrene	1.0	U
53-70-3	Dibenz(a,h)anthracene	1.0	U
191-24-2	Benzo(g,h,i)perylene	1.0	U

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