CAMPBELL ENVIRONMENTAL INCORPORATED

August 18, 2010

Mr. Victor Alverez
United States Environmental Protection Agency
EPA - Region I
One Congress Street, Suite 1100
Boston, Massachusetts 02114

Re: Remediation General Permit Notice of Intent
Temporary Dewatering Treatment System
Former Worcester Vocational High School
Buildings B & C
26 & 34 Grove Street
Worcester, Massachusetts

Dear Mr. Alverez:

On behalf of New Garden Park Incorporated, Campbell Environmental Incorporated requests approval under the Remediation General Permit (RGP) from the United States Environmental Protection Agency (EPA) for the treatment of impacted groundwater during temporary dewatering for the excavation of petroleum impacted soils at the above referenced site. The excavation of soils impacted by fuel oil is planned in to comply with the Massachusetts Contingency Plan.

A treatment system will be operated to treat a maximum flow of 15 gpm during the excavation of petroleum impacted soils.

Please do not hesitate to contact the undersigned at 508-308-0402 or 508-393-9811 if you have any questions regarding the above.

Sincerely,
Campbell Environmental Incorporated

George E. Campbell, PG, LSP
President

Attachments: Notice of Intent
Dewatering Map Plan
Massachusetts Geographic Information System Site Scoring Map
Topographic Map
Treatment System Schematic
Groundwater Analytical Data
Equipment Specifications

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

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

a) Name of **facility/site**: Former WVHS Building B and C		**Facility/site** address:		
Location of **facility/site**: longitude: 714758.69 latitude: 421622.85	Facility SIC code(s):	Street: 26 & 34 Grove Street		
b) Name of **facility/site owner**: New Garden Park Incorporated		Town: Worcester		
Email address of owner: weaver@worcesterbdc.com		State: MA	Zip: 01605	County: Worcester
Telephone no.of facility/site **owner**: 508-755-5734				
Fax no. of facility/site **owner**: 508-755-9639		**Owner** is (check one): 1. Federal____ 2. State/Tribal_____ 3. Private_____ 4. other, if so, describe: Non profit		
Address of **owner** (if different from site):				
Street: 89 Shrewsbury Street				
Town: Worcester	State: MA	Zip: 01604	County: Worcester	
c) Legal name of **operator**: New Garden Park, Inc.		**Operator** telephone no: 508-755-5734		
		Operator fax no.: 508-755-9639	**Operator** email: weaver@worcesterbdc.com	
Operator contact name and title: William Carkin, Director of Construction				
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: 2. permit or license # assigned: 3. state agency contact information: name, location, and telephone number:	f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y___ 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: Dewatering during soil excavation		
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, ft3/s)? Max. flow 15 gpm Average flow 10 gpm 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.
3) Latitude and longitude of each discharge within 100 feet: pt.1:long. 714756.81 lat. 421620.99; 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 11/01/10 end 12/15/10		
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 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)
1. Total Suspended Solids		✓	1	grab	2540D	16 mg/l	168 mg/l	13.7		
2. Total Residual Chlorine	✓		1	grab	4599CL-D	0.01 mg/l	0.4 mg/l			
3. Total Petroleum Hydrocarbons		✓	1	grab	1664A	2 mg/l	47.0 mg/l	3.93		
4. Cyanide	✓		1	grab	4500	0.01 mg/l				
5. Benzene		✓	1	grab	8260	1 ug/l	3.3 ug/l	0.0026		
6. Toluene		✓	1	grab	8260	1 ug/l	ND			
7. Ethylbenzene		✓	1	grab	8260	1 ug/l	1.6 ug/l	0.0001		
8. (m,p,o) Xylenes		✓	1	grab	8260	1 ug/l	5.7 ug/l	0.00046		
9. Total BTEX[4]		✓	1	grab	8260	1 ug/l	10.6 ug/l	.00316		

[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 [5] (1,2- Dibromo-methane)	✓		1	grab	504.1	0.02 mg/l				
11. Methyl-tert-Butyl Ether (MtBE)	✓		1	grab	8260	1 ug/l				
12. tert-Butyl Alcohol (TBA)	✓		1	grab	8260	1 ug/l				
13. tert-Amyl Methyl Ether (TAME)	✓		1	grab	8260	1 ug/l				
14. Naphthalene		✓	1	grab	8270	1 ug/l	<1.0			
15. Carbon Tetra-chloride	✓		1	grab	8260	1 ug/l				
16. 1,4 Dichlorobenzene	✓		1	grab	8260	1 ug/l				
17. 1,2 Dichlorobenzene	✓		1	grab	8260	1 ug/l				
18. 1,3 Dichlorobenzene	✓		1	grab	8260	1 ug/l				
19. 1,1 Dichloroethane	✓		1	grab	8260	1 ug/l				
20. 1,2 Dichloroethane	✓		1	grab	8260	1 ug/l				
21. 1,1 Dichloroethylene	✓		1	grab	8260	1 ug/l				
22. cis-1,2 Dichloro-ethylene	✓		1	grab	8260	1 ug/l				
23. Dichloromethane (Methylene Chloride)	✓		1	grab	8260	1 ug/l				
24. Tetrachloroethylene	✓		1	grab	8260	1 ug/l				

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

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	8260	1 ug/l				
26. 1,1,2 Trichloroethane	✓		1	grab	8260	1 ug/l				
27. Trichloroethylene	✓		1	grab	8260	1 ug/l				
28. Vinyl Chloride	✓		1	grab	8260	1 ug/l				
29. Acetone	✓		1	grab	8260	5 ug/l				
30. 1,4 Dioxane	✓		1	grab	8260	1 ug/l				
31. Total Phenols		✓	1	grab	420.1	0.05 mg/l	0.48 mg/l	0.039		
32. Pentachlorophenol	✓		1	grab	8270	1 ug/l				
33. Total Phthalates [6] (Phthalate esthers)	✓		1	grab	8270	3 ug/l				
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✓		1	grab	8270	3 ug/l				
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	✓		1	grab	8270	1 ug/l				
a. Benzo(a) Anthracene	✓		1	grab	8270	1 ug/l				
b. Benzo(a) Pyrene	✓		1	grab	8270	1 ug/l				
c. Benzo(b)Fluoranthene	✓		1	grab	8270	1 ug/l				
d. Benzo(k) Fluoranthene	✓		1	grab	8270	1 ug/l				
e. Chrysene	✓		1	grab	8270	1 ug/l				

[6] 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	8270	1 ug/l				
g. Indeno(1,2,3-cd) Pyrene	✓		1	grab	8270	1 ug/l				
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	✓		1	grab	8270	1 ug/l				
h. Acenaphthene	✓		1	grab	8270	1 ug/l				
i. Acenaphthylene	✓		1	grab	8270	1 ug/l				
j. Anthracene	✓		1	grab	8270	1 ug/l				
k. Benzo(ghi) Perylene	✓		1	grab	8270	1 ug/l				
l. Fluoranthene	✓		1	grab	8270	1 ug/l				
m. Fluorene	✓		1	grab	8270	1 ug/l				
n. Naphthalene-	✓		1	grab	8270	1 ug/l				
o. Phenanthrene	✓		1	grab	8270	1 ug/l				
p. Pyrene	✓		1	grab	8270	1 ug/l				
37. Total Polychlorinated Biphenyls (PCBs)	✓		1	grab	8082	0.02 mg.l				
38. Antimony	✓		1	grab	6010B	0.01 mg.l				
39. Arsenic		✓	1	grab	6010B	0.01 mg/l	0.106 mg/l	0.00865		
40. Cadmium	✓		1	grab	6010B	0.005 mg/l				
41. Chromium III		✓	1	grab	3500 Cr-D	0.001 mg/l	0.002 mg/l	.00016		
42. Chromium VI	✓		1	grab	3500 Cr-D	0.01 mg/l				

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	0.02 mg/l	0.022 mg/l	0.00179		
44. Lead		✓	1	grab	6010B	0.005 mg/l	0.003 mg/l	0.0002		
45. Mercury	✓		1	grab	7470A	0.0002 mg/l				
46. Nickel		✓	1	grab	6010B	0.005 mg/l	0.005 mg/l	0.0090		
47. Selenium	✓		1	grab	6010B	0.01 mg/l				
48. Silver	✓		1	grab	6010B	0.001 mg/l				
49. Zinc		✓	1	grab	6010B	0.02 mg/l	0.174 mg/l	0.06		
50. Iron		✓	1	grab	6010B	0.05 mg/l	27.5 mg/l	2.24		
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? Arsenic,Copper, Iron, Lead, Zinc
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: Calculated dilurion faxtor is applied to Arsenic, copper, iron, zinc DF: 9.65	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: Arsenic, Iron

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

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:						
b) Identify each applicable treatment unit (check all that apply):	Frac. tank ✓	Air stripper	Oil/water separator ✓	Equalization tanks	Bag filter ✓	GAC filter ✓
	Chlorination	Dechlorination	Other (please describe): Resin Filter			
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 gpm Maximum flow rate of treatment system 15 gpm Design flow rate of treatment system 15 gpm						
d) A description of chemical additives being used or planned to be used (attach MSDS sheets): NA						

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: Direct discharge to storm drain which eventually leads to Mill Brook which leads to the upper Blackstone River						
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 Class B ,						
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 0.29 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 ? Yes ✓ No___ or is consultation underway? Yes ____ No ✓
What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (check one):
a "no jeopardy" opinion? _____or written concurrence ✓ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?

b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge?
Yes ✓ No_____ Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes_____ No ✓

7. Supplemental information. :

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

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

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility/Site Name: Former WVHS, Buildings B & C, 26 & 34 Grove Street, Worcester, MA

Operator signature: William Carbin

Title: Director of Construction

Date: 5/16/10

USGS
Massachusetts StreamStats

Streamstats Ungaged Site Report

Date: Fri Jul 23 2010 06:06:18 Mountain Daylight Time
Site Location: Massachusetts
NAD27 Latitude: 42.2716 (42 16 18)
NAD27 Longitude: -71.7992 (-71 47 57)
NAD83 Latitude: 42.2716 (42 16 18)
NAD83 Longitude: -71.7987 (-71 47 55)
ReachCode: 01090003008687
Measure: 38.07
Drainage Area: 7.92 mi2

Low Flows Basin Characteristics			
100% Statewide Low Flow (7.92 mi2)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	7.92	1.61	149
Mean Basin Slope from 250K DEM (percent)	4.37	0.32	24.6
Stratified Drift per Stream Length (square mile per mile)	0.0987	0	1.29
Massachusetts Region (dimensionless)	0	0	1

Probability of Perennial Flow Basin Characteristics			
100% Perennial Flow Probability (7.92 mi2)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	7.92 (above max value 1.99)	0.01	1.99
Percent Underlain By Sand And Gravel (percent)	14.70	0	100
Percent Forest (percent)	11.73	0	100
Massachusetts Region (dimensionless)	0	0	1

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

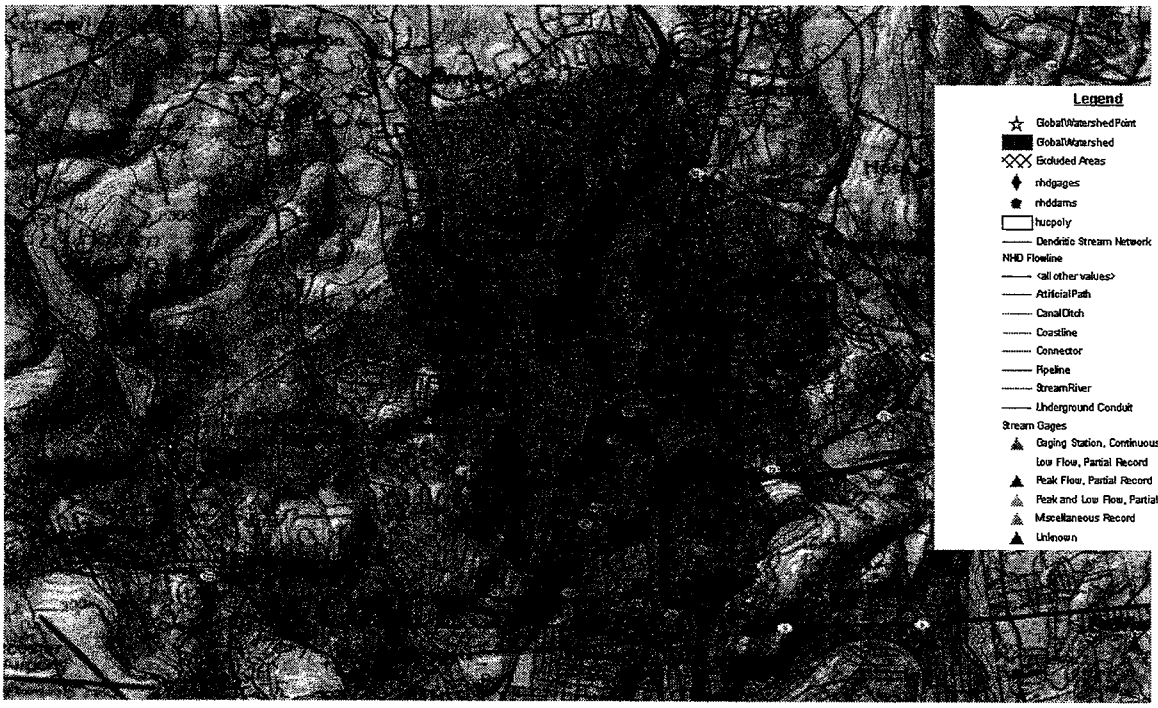
Low Flows Streamflow Statistics					
Statistic	Flow (ft^3/s)	Prediction Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
D50	7.88	18		4.31	14.3
D60	5.49	20		3.11	9.63
D70	3.12	24		1.49	6.46
D75	2.37	26		1.13	4.91
D80	1.97	28		0.86	4.41
D85	1.49	32		0.63	3.44
D90	1.12	37		0.45	2.73
D95	0.68	46		0.24	1.82
D98	0.42	60		0.13	1.28
D99	0.31	65		0.0906	1.01
M7D2Y	0.67	50		0.23	1.84
AUGD50	1.52	33		0.64	3.55
M7D10Y	0.29	71		0.0781	0.97

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

Probability of Perennial Flow Statistics		
Statistic	Value	Standard Error (percent)
PROBPEREN	0.99	

USGS
Massachusetts StreamStats

StreamStats Print Page



7/23/2010 6:07:28 AM

05027.00 --FIGURE 1 -- FORMER VOCATIONAL SCHOOL -- 2010-07-27.DWG

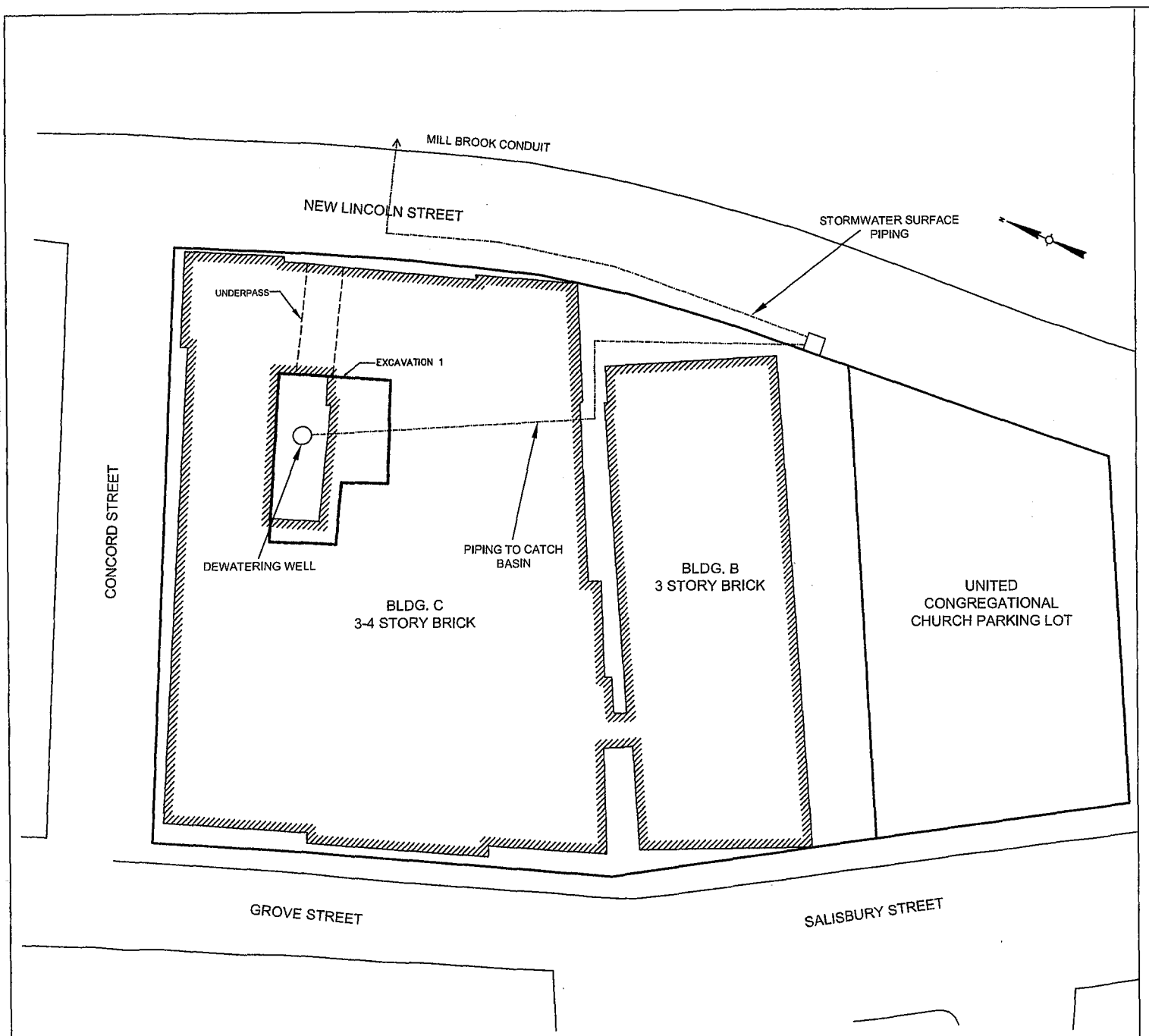


FIGURE
PROPOSED DEWATERING MAP
FORMER VOCATIONAL SCHOOL
BUILDINGS B & C
WORCESTER, MA

LEGEND

SOIL BORING	C-4
MONITORING WELL	C-5 CEI-1
GROUNDWATER ELEVATION	(89.48)
PROPERTY LINE	
BUILDING	
LIMITS OF EXCAVATION	

SCALE (FEET)
20 0 40

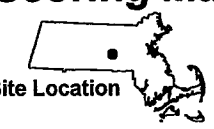
NOTES

Map Source: Groundwater Contour Plan, December 19, 2002, Drawing Number 2541-C-10, prepared by CHES, Inc. dated June 10, 2004.

MA DEP - Bureau of Waste Site Cleanup

SITE NAME: **Site Scoring Map: 500 feet & 0.5 Mile Radii**

Former WVHS Building B and C
26 and 34 Grove Street
Worcester, MA
LL Coordinates 411622 714758



The information shown on this map is the best available at the date of printing. Please refer to the data source descriptions document.

Roads: Limited Access, Divided, Major Road, Connector, Street, Track, Trail

Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct

Basins: Major, Sub; Streams: Perennial, Intermittent, Man Made Shore, Dams

Potentially Productive Aquifers: Medium,High Yield .....

Non-Potential Drinking Water Source Area: Medium,High Yield

EPA Sole Source Aquifer; FEMA 100-year floodplain .....

Public Water Supplies: Ground,Surface,Non Community

Approved Zone2; IWPA; Surface Water Supply Zone A

Hydrography: Open Water, Reservoir, Tidal Flat .....

Wetlands: Fresh,Salt,NHESP Wetlands Habitat .....

Cranberry Bog; Protected Open Space; ACEC .....

DEP Permitted Solid Waste Landfills; Certified Vernal Pools ..

N NW NE W E SW SE S

SCALE 1:15,000

0 0.3 0.6 Miles

0 0.4 0.8 Kilometers

July 28, 2010

WVHS Building B & C

71°48'00" W WGS84 71°47'00" W

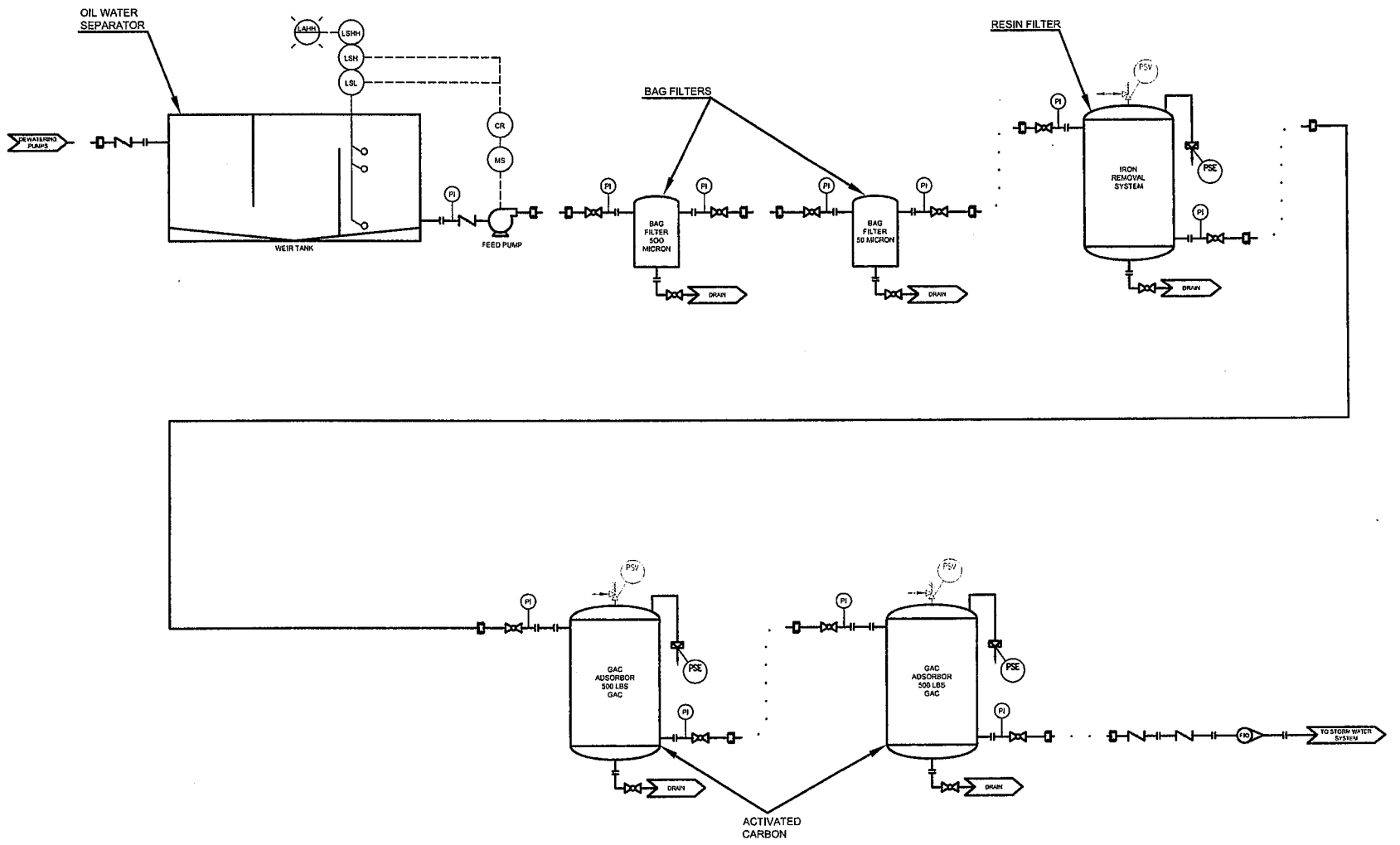
MN *TN

0.0 0.1 0.2 0.3 0.4 0.5 miles

0.0 0.5 km

15°

10/04/07



LEGEND

PI	PRESSURE INDICATOR
LAHH	LEVEL ALARM HIGH-HIGH
LSHH	LEVEL SWITCH HIGH-HIGH
LSH	LEVEL SWITCH HIGH
LSL	LEVEL SWITCH LOW
CR	CONTROL RELAY
MS	MOTOR STARTER
PSV	PRESSURE SAFETY VALVE (VACUUM BREAKER)
PSE	PRESSURE SAFETY ELEMENT
FIQ	FLOW INDICATOR TOTALIZER
GAC	GRANULAR ACTIVATED CARBON

DEWATERING WATER TREATMENT SYSTEM
FORMER WVHS, BUILDING B&C
26 & 34 GROVE STREET, WORCESTER, MA

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number V0625-19

Prepared for:

Attn: George Campbell
Campbell Environmental
38 Sunset Drive
Northboro, MA 01532

Report Date: July 1, 2010

Lab # RI010

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

ANALYTICAL METHOD REPORT CERTIFICATION FORM

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

Project Location: 2 Grove, Worcester, MA RTN[1]:

This form provides certifications for the following data set: V0625-19

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

SW-846 Methods Used					
	8260B ( )	8151A ( )	8330 ( )	6010B ( )	7470A/1A ( )
	8270C (x)	8081A ( )	VPH ( )	6020 ( )	9014M[2] ( )
	8082 (x)	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

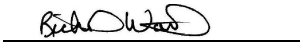
A	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of Custody documentation for the data set?	Yes (X) No[1] ( )
B	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement 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 (X) No[1] ( ) Not Applicable ( )
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:  Position: Laboratory Director

Printed Name: Richard Warila Date: 7/2/2010

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on June 25, 2010. 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. This report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is V0625-19.

Custody records are included in this report.

Project: 2 Grove, Worcester, MA

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
MW-SB-15	6/23/10	Water	Table II

TABLE II Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
Total Phenols	NA	420.1
Total Cyanide	NA	4500CN-E
PCBs	3510C	8082
Semi-volatile Organics	3510C	8270C

This method is documented in:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, USEPA/OSW.

CASE NARRATIVE:

Sample Receipt:

No sample for ms/msd/duplicate analysis was supplied. No field blank was supplied. (This does not qualify the analytical results but does prevent conducting these SW-846 {Chapter 1, Section 3.4} QA Audits).

The samples were all appropriately cooled and preserved upon receipt.

The samples were received in the appropriate containers.

The chain of custody was adequately completed and corresponded to the samples submitted.

PCBs:

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

Semi-volatile Organics:

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

Wet Chemistry:

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures.

MW-SB-15

Parameter	Result, mg/l	Reporting Limit	Date Analyzed
Total Phenols	0.48	0.05	7/1/10
Total Cyanide	ND	0.01	6/1/10

ND = Not Detected

RESULTS: PCBs

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

Sample: MW-SB-15		Analyst's Initials: JW
Case No. V0625-19		
Date Collected: 6/23/10		
Sample Matrix: Water		
Subject: PCBs	Date Extracted	Date Analyzed
Prep Method: EPA 3510C	6/30/10	6/30/10
Analytical Method: EPA 8082		
Compound	Concentration ug/l (ppb)	Reporting Limit
Aroclor-1221	N.D.	0.2
Aroclor-1232	N.D.	0.2
Aroclor-1016/1242	N.D.	0.2
Aroclor -1248	N.D.	0.2
Aroclor -1254	N.D.	0.2
Aroclor -1260	N.D.	0.2
Aroclor -1262	N.D.	0.2
Aroclor -1268	N.D.	0.2
Surrogates:		
Compound	% Recovery	Limits
TCMX	90	42-126
DCBP	125	41-142

Sample: Method Blank		Analyst's Initials: JW
Case No. V0625-19		
Date Collected: NA		
Sample Matrix: Water		
Subject: PCBs	Date Extracted	Date Analyzed
Prep Method: EPA 3510C	6/30/10	6/30/10
Analytical Method: EPA 8082		
Compound	Concentration ug/l (ppb)	Reporting Limit
Aroclor-1221	N.D.	0.2
Aroclor-1232	N.D.	0.2
Aroclor-1016/1242	N.D.	0.2
Aroclor -1248	N.D.	0.2
Aroclor -1254	N.D.	0.2
Aroclor -1260	N.D.	0.2
Aroclor -1262	N.D.	0.2
Aroclor -1268	N.D.	0.2
Surrogates:		
Compound	% Recovery	Limits
TCMX	95	42-126
DCBP	129	41-142

PCB Laboratory Control Spike

Sample Matrix: Water				
Subject: PCB	Date Extracted			Date Analyzed
Prep Method: EPA 3510C	6/30/10			7/1/10
Analytical Method: EPA 8082				
Compound	Amount Spiked mg/kg	Result mg/kg	Recovery %	Recovery Limits
Aroclor 1016	0.500	0.370	74	46-130
Aroclor 1260	0.500	0.566	113	55-130
Surrogates:				
Compound	% Recovery	Limits		
TCMX	70	39-120		
DCBP	86	34-140		

RESULTS: SEMIVOLATILE ORGANIC COMPOUNDS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0625-19
Client Name: Campbell Enviromental
Method: 8270
Lab Sample ID: MW-SB-15
Matrix: (soil/water/air) WATER
Lab File ID: B063019.D
Sample wt/vol: 1000 (g/ml) ML
Date Sampled: 6/23/2010
Level: (low/med) LOW
Date Extracted: 6/30/2010
% Moisture:
Date Analyzed: 6/30/2010
Concentrated Extract Volume: 1000 (uL)
Dilution Factor: 1.0
Injection Volume: 1.0 (uL)
Analyst's Initials:

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	2.0	U
108-60-1	bis(2-chloroisopropyl)ether	1.0	U
106-44-5	3- & 4-Methylphenol	2.0	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

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0625-19
Client Name: Campbell Enviromental
Method: 8270
Lab Sample ID: MW-SB-15
Matrix: (soil/water/air) WATER
Lab File ID: B063019.D
Sample wt/vol: 1000 (g/ml) ML
Date Sampled: 6/23/2010
Level: (low/med) LOW
Date Extracted: 6/30/2010
% Moisture:
Date Analyzed: 6/30/2010
Concentrated Extract Volume: 1000 (uL)
Dilution Factor: 1.0
Injection Volume: 1.0 (uL)
Analyst's Initials:

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	3.0	U
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

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.: V0625-19
Client Name: Campbell Enviromental
Method: 8270
Lab Sample ID: SBLK063010
Matrix: (soil/water/air) WATER
Lab File ID: B063014.D
Sample wt/vol: 1000 (g/ml) ML
Date Sampled: 6/23/2010
Level: (low/med) LOW
Date Extracted: 6/30/2010
% Moisture:
Date Analyzed: 6/30/2010
Concentrated Extract Volume: 1000 (uL)
Dilution Factor: 1.0
Injection Volume: 1.0 (uL)
Analyst's Initials:

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	2.0	U
108-60-1	bis(2-chloroisopropyl)ether	1.0	U
106-44-5	3- & 4-Methylphenol	2.0	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

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0625-19
Client Name: Campbell Enviromental
Method: 8270
Lab Sample ID: SBLK063010
Matrix: (soil/water/air) WATER
Lab File ID: B063014.D
Sample wt/vol: 1000 (g/ml) ML
Date Sampled: 6/23/2010
Level: (low/med) LOW
Date Extracted: 6/30/2010
% Moisture:
Date Analyzed: 6/30/2010
Concentrated Extract Volume: 1000 (uL)
Dilution Factor: 1.0
Injection Volume: 1.0 (uL)
Analyst's Initials:

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	3.0	U
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

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

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: New England Testing Laboratory Case No.: V0625-19

Lab Code: RI010 Client Name: Campbell Enviromental

	Sample ID	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	TOT OUT
01	SBLK063010	14	15	48	52	57	53	0
02	LCS063010	26	16	62	66	86	70	0
03	MW-SB-15	24	16	63	71	75	62	0

QC LIMITS

S1	=	2-Fluorophenol	(10-102)
S2	=	Phenol-d6	(10-102)
S3	=	Nitrobenzene-d5	(11-120)
S4	=	2-Fluorobiphenyl	(32-109)
S5	=	2,4,6-Tribromophenol	(30-155)
S6	=	Terphenyl-d14	(20-144)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

New England Testing Laboratory, Inc.

Semivolatile Water Laboratory Control Spike

Date Extracted: 6/30/2010
Date Analyzed: 6/30/2010

	Amount Spiked ug/L	Result, ug/L	Recovery %	Lower Recovery Limit	Upper Recovery Limit
n-Nitrosodimethylamine	50.0	16.38	33	10	69
Pyridine	50.0	15.53	31	10	72
Phenol	50.0	9.69	19	10	67
Aniline	50.0	23.4	47	14	92
bis(2-Chloroethyl)ether	50.0	34.28	69	26	97
2-Chlorophenol	50.0	26.32	53	30	85
1,3-Dichlorobenzene	50.0	29.47	59	26	87
1,4-Dichlorobenzene	50.0	28.64	57	26	89
Benzyl alcohol	50.0	27.72	55	32	89
1,2-Dichlorobenzene	50.0	30.24	60	27	92
2-Methylphenol	50.0	23.52	47	32	86
bis(2-chloroisopropyl)ether	50.0	31.17	62	24	95
3- & 4-Methylphenol	50.0	20.83	42	28	80
n-Nitroso-di-n-propylamine	50.0	34.91	70	31	106
Hexachloroethane	50.0	29.35	59	24	89
Nitrobenzene	50.0	31.82	64	26	100
Isophorone	50.0	34.38	69	26	115
2-Nitrophenol	50.0	30.93	62	25	104
2,4-Dimethylphenol	50.0	33.42	67	28	114
bis(2-Chloroethoxy)methane	50.0	36.52	73	28	112
2,4-Dichlorophenol	50.0	31.95	64	28	105
1,2,4-Trichlorobenzene	50.0	30.47	61	26	98
Naphthalene	50.0	32.92	66	27	104
4-Chloroaniline	50.0	32.23	64	28	107
Hexachlorobutadiene	50.0	33.57	67	26	107
4-Chloro-3-methylphenol	50.0	32.73	65	29	116
2-Methylnaphthalene	50.0	32.78	66	27	104
Hexachlorocyclopentadiene	50.0	27.58	55	10	115
2,4,6-Trichlorophenol	50.0	35.78	72	35	114
2,4,5-Trichlorophenol	50.0	38.94	78	34	123
2-Chloronaphthalene	50.0	33.8	68	33	108
2-Nitroaniline	50.0	41.24	82	37	124
Dimethyl phthalate	50.0	41.59	83	40	119
Acenaphthylene	50.0	36.34	73	35	113
2,6-Dinitrotoluene	50.0	41.47	83	41	128
3-Nitroaniline	50.0	37.35	75	26	152
Acenaphthene	50.0	37.43	75	34	112
2,4-Dinitrophenol	50.0	41.23	82	15	146
4-Nitrophenol	50.0	12.13	24	10	101
Dibenzofuran	50.0	39.33	79	36	116
2,4-Dinitrotoluene	50.0	42.52	85	41	129
Diethyl phthalate	50.0	43.21	86	39	121

Semivolatile Water Laboratory Control Spike

Date Extracted: 6/30/2010
Date Analyzed: 6/30/2010

Fluorene	50.0	39.74	79	40	118
4-Chlorophenyl phenyl ether	50.0	39.19	78	38	110
4-Nitroaniline	50.0	40.66	81	32	148
4,6-Dinitro-2-methylphenol	50.0	42.94	86	33	125
n-Nitrosodiphenylamine	50.0	50.48	101	53	138
4-Bromophenyl phenyl ether	50.0	41.59	83	36	117
Hexachlorobenzene	50.0	41.57	83	48	117
Pentachlorophenol	50.0	45.91	92	54	127
Phenanthrene	50.0	43.77	88	48	115
Anthracene	50.0	43.83	88	45	121
Di-n-butylphthalate	50.0	43.75	88	38	132
Fluoranthene	50.0	45.45	91	48	122
Pyrene	50.0	43.75	88	45	120
Butyl benzyl phthalate	50.0	46.79	94	34	142
Benzo(a)anthracene	50.0	43.49	87	52	117
Chrysene	50.0	43.98	88	47	118
bis(2-Ethylhexyl)phthalate	50.0	46.44	93	33	145
Di-n-octyl phthalate	50.0	49.11	98	16	159
Benzo(b)fluoranthene	50.0	44.84	90	45	132
Benzo(k)fluoranthene	50.0	45.88	92	46	130
Benzo(a)pyrene	50.0	46.28	93	46	138
Indeno(1,2,3-cd)pyrene	50.0	47.81	96	41	153
Dibenz(a,h)anthracene	50.0	47.4	95	48	146
Benzo(g,h,i)perylene	50.0	47.02	94	36	158

V0625-19

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue
North Providence, RI 02904
1-888-863-8522

CHAIN OF CUSTODY RECORD

PROJ. NO.

PROJECT NAME/LOCATION: Former WHS Building B & C, 2 Grove Worcester MA

CLIENT: Campbell Environmental Inc

REPORT TO:

INVOICE TO:

DATE	TIME	COMP	GRAB	SAMPLE I.D.	AQUEOUS	SOIL	OTHER	NO. OF CONTAINERS	PRESERVATIVE	Total TESTS**	Phenolics	Total CN	8270	PCBs		REMARKS
6-23-10	315		X	MW SB-13	X			2	H_2SO_4	X						
6-23-10	315		X	MW SB-13	X			2	NaOH		X					
6-23-10	320		X	MW SB-13	X			1	NON			X				
6-23-10	400		X	MW SB-13	X			1	NON				X			field filtered

Sampled by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	6-23-10 405	Kurt Donovan	6-25-10 3:05
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	6-25-10	Kurt Donovan	6-25-10 3:05
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time
Kurt Donovan	6-25-10 4:15	Crystal Russell	6/25/10 4:15

Laboratory Remarks:
Temp. received: 4°C
Cooled ☐

Special Instructions:
List Specific Detection Limit Requirements:

Turnaround (Business Days)_____

**Netlab Subcontracts the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve, Salmonella, Carbamates

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number V0607-04

Prepared for:

Attn: George Campbell
Campbell Environmental
38 Sunset Drive
Northboro, MA 01532

Report Date: June 14, 2010

Lab # RI010

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

ANALYTICAL METHOD REPORT CERTIFICATION FORM

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

Project Location: 2 Grove, Worcester, MA RTN[1]:

This form provides certifications for the following data set: V0607-04

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

SW-846 Methods Used					
	8260B (x)	8151A ( )	8330 ( )	6010B (x)	7470A/1A ( )
	8270C ( )	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

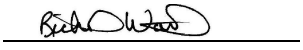
A	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of Custody documentation for the data set?	Yes (X) No[1] ( )
B	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement 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 (X) No[1] ( ) Not Applicable ( )
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:  Position: Laboratory Director

Printed Name: Richard Warila Date: 6/14/2010

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on June 7, 2010. 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. This report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is V0607-04.

Custody records are included in this report.

Project: 2 Grove, Worcester, MA

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
Building B & C	6/3/10	Water	Table II

TABLE II Analysis and Methods

ANALYSIS	PREPARATION METHOD	DETERMINATIVE METHOD
TPH	NA	1664A
Total Residual Chlorine	NA	4500Cl-D
TSS	NA	2540D
EDB	NA	504.1
Volatile Organic Compounds	5030	8260B/624
Hexavalent Chromium	NA	3500 Cr-D
Trivalent 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

This method is documented in:
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, USEPA/OSW.

CASE NARRATIVE:

Sample Receipt:

No sample for ms/msd/duplicate analysis was supplied. No field blank was supplied. (This does not qualify the analytical results but does prevent conducting these SW-846 {Chapter 1, Section 3.4} QA Audits.)

The samples were all appropriately cooled and preserved upon receipt.

The samples were received in the appropriate containers.

The chain of custody was adequately completed and corresponded to the samples submitted.

Metals:

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

VOC:

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

EDB:

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

Building B & C

Parameter	Result, mg/L	Reporting Limit	Date Analyzed
Total Residual Chlorine	0.4	0.01	6/7/10 @17:45
Hexavalent Chromium	ND	0.01	6/7/10 @ 17:10
Trivalent Chromium	ND	0.01	6/7/10 @ 17:10
Total Suspended Solids	168	16	6/11/10
TPH	47.0	2	6/11/10

ND=Not Detected

METALS RESULTS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Metals Analysis Department certifies that the results included in this section have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

New England Testing Laboratory, Inc.

METALS RESULTS

Case Number: V0607-04
Sample ID: Building B & C
Date collected: 06/03/10
Matrix WATER
Sample Type: TOTAL

Analyst MG/MT

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Antimony	7440-36-0	3010A	6010B	ND	0.003	0.01	mg/l	6/10/10	6/14/10
Arsenic	7440-38-2	3010A	6010B	0.106	0.003	0.01	mg/l	6/10/10	6/14/10
Cadmium	7440-43-9	3010A	6010B	ND	0.001	0.005	mg/l	6/10/10	6/14/10
Chromium	7440-47-3	3010A	6010B	0.002	0.001	0.005	mg/l	6/10/10	6/14/10
Copper	7440-50-8	3010A	6010B	0.022	0.005	0.02	mg/l	6/10/10	6/14/10
Iron	7439-89-6	3010A	6010B	27.5	0.013	0.05	mg/l	6/10/10	6/14/10
Lead	7439-92-1	3010A	6010B	0.003	0.001	0.005	mg/l	6/10/10	6/14/10
Mercury	7439-97-6	3010A	6010B	ND	0.0002	0.0002	mg/l	6/10/10	6/10/10
Nickel	7440-02-0	3010A	6010B	0.005	0.001	0.005	mg/l	6/10/10	6/14/10
Selenium	7782-49-2	3010A	6010B	ND	0.003	0.01	mg/l	6/10/10	6/14/10
Silver	7440-22-4	3010A	6010B	ND	0.001	0.005	mg/l	6/10/10	6/14/10
Zinc	7440-66-6	3010A	6010B	0.174	0.005	0.02	mg/l	6/10/10	6/14/10

ND indicates not Detected

METALS RESULTS

Sample ID: METHOD BLANK

Matrix WATER **Analyst** MG/MT

Sample Type: Preparation Blank

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Antimony	7440-36-0	3010A	6010B	ND	0.003	0.01	mg/l	6/10/10	6/14/10
Arsenic	7440-38-2	3010A	6010B	ND	0.003	0.01	mg/l	6/10/10	6/14/10
Cadmium	7440-43-9	3010A	6010B	ND	0.001	0.005	mg/l	6/10/10	6/14/10
Chromium	7440-47-3	3010A	6010B	ND	0.001	0.005	mg/l	6/10/10	6/14/10
Copper	7440-50-8	3010A	6010B	ND	0.005	0.02	mg/l	6/10/10	6/14/10
Iron	7439-89-6	3010A	6010B	ND	0.013	0.05	mg/l	6/10/10	6/14/10
Lead	7439-92-1	3010A	6010B	ND	0.001	0.005	mg/l	6/10/10	6/14/10
Mercury	7439-97-6	3010A	6010B	ND	0.0002	0.0002	mg/l	6/10/10	6/10/10
Nickel	7440-02-0	3010A	6010B	ND	0.001	0.005	mg/l	6/10/10	6/14/10
Selenium	7782-49-2	3010A	6010B	ND	0.003	0.01	mg/l	6/10/10	6/14/10
Silver	7440-22-4	3010A	6010B	ND	0.001	0.005	mg/l	6/10/10	6/14/10
Zinc	7440-66-6	3010A	6010B	ND	0.005	0.02	mg/l	6/10/10	6/14/10

ND indicates not Detected

LABORATORY CONTROL SAMPLE RECOVERY

Parameter	True Value	Result	Units	Recovery, %	Internal LCL, %	Internal UCL, %	Date Analyzed
Antimony	1.00	0.93	mg/l	93	80	120	6/14/10
Arsenic	0.20	0.20	mg/l	99	80	106	6/14/10
Cadmium	1.00	0.95	mg/l	95	80	109	6/14/10
Chromium	1.00	0.93	mg/l	93	80	110	6/14/10
Copper	1.00	1.10	mg/l	110	80	112	6/14/10
Iron	10.00	9.87	mg/l	99	80	119	6/14/10
Lead	1.00	0.96	mg/l	96	80	116	6/14/10
Mercury	0.001	0.001	mg/l	98	84	118	6/10/10
Nickel	1.00	0.91	mg/l	91	80	120	6/14/10
Selenium	0.20	0.19	mg/l	94	80	102	6/14/10
Silver	0.60	0.59	mg/l	98	80	119	6/14/10
Zinc	1.00	0.99	mg/l	99	80	105	6/14/10

RESULTS: EDB

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

Sample: Building B&C		Analyst's Initials: JW
Case No. V0607-04		
Date Collected: 6/3/10		
Sample Matrix: Water		
Subject: EDB		
Prep Method: NA	Date Extracted	Date Analyzed
Analytical Method: EPA 504.1	6/14/10	6/14/10
Compound	Concentration, ug/l (ppb)	Reporting Limit
EDB	N.D.	0.02

RESULTS: VOLATILE ORGANIC COMPOUNDS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0607-04
Method: 8260/624
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Campbell Environmental
Lab Sample ID: Building B & C
Lab File ID: C060923.D
Date Sampled: 6/3/2010
Date Analyzed: 6/9/2010
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	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	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	3.3	
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

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

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0607-04
Method: 8260/624
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Campbell Environmental
Lab Sample ID: Building B & C
Lab File ID: C060923.D
Date Sampled: 6/3/2010
Date Analyzed: 6/9/2010
Dilution Factor: 1.0
Soil Aliquot Volume: (uL)

CAS NO.	COMPOUND	UNITS: ug/L	Q
100-41-4	Ethylbenzene	1.6	
1330-20-7	m & p-Xylene	5.7	
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
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	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
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	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

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0607-04
Method: 8260/624
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Campbell Environmental
Lab Sample ID: VBLK060910
Lab File ID: C060905.D
Date Sampled: 6/3/2010
Date Analyzed: 6/9/2010
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	1.0	U
1634-04-4	tert-Butyl methyl ether	1.0	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

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

VOLATILE ORGANICS ANALYSIS DATA SHEET

Case No.: V0607-04
Method: 8260/624
Matrix: (soil/water) WATER
Sample wt/vol: 5.0 (g/ml) ML
% Moisture
Soil Extract Volume: (uL)
Analyst's Initials:

Client Name: Campbell Environmental
Lab Sample ID: VBLK060910
Lab File ID: C060905.D
Date Sampled: 6/3/2010
Date Analyzed: 6/9/2010
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
108-86-1	Bromobenzene	1.0	U
96-18-4	1,2,3-Trichloropropane	1.0	U
95-49-8	2-Chlorotoluene	1.0	U
103-65-1	n-Propylbenzene	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
75-65-0	tert butyl alcohol	1.0	U
541-73-1	1,3-Dichlorobenzene	1.0	U
109-99-9	Tetrahydrofuran	1.0	U
106-46-7	1,4-Dichlorobenzene	1.0	U
60-29-7	Diethyl Ether	1.0	U
104-51-8	n-Butylbenzene	1.0	U
95-50-1	1,2-Dichlorobenzene	1.0	U
96-12-8	1,2-Dibromo-3-chloropropane	1.0	U
120-82-1	1,2,4-Trichlorobenzene	1.0	U
87-68-3	Hexachlorobutadiene	1.0	U
91-20-3	Naphthalene	1.0	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

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: New England Testing Laboratory Contract: 2 Grove, Worcest

Lab Code: RI010 Case No.: V0607-04 SAS No.: Campb SDG No.: Campbell

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	TOT OUT
01	VLCS060910	105	95	111	0
02	VBLK060910	94	97	109	0
03	BUILDING B & C	94	98	99	0

QC LIMITS

SMC1	=	4-Bromofluorobenzene	(70-130)
SMC2	=	Toluene-D8	(70-130)
SMC3	=	1,2-Dichloroethane-D4	(70-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

Volatile Organics Laboratory Control Spike

Date Analyzed: 06/09/2010 **Sample ID: VLCS060910**

Compound	Spike Added (ug/L)	Spike Result (ug/L)	Recovery, %	Lower Control Limit, %	Upper Control Limit, %
1,1-Dichloroethene	50.0	58.0	116	70	130
Benzene	50.0	55.6	111	70	130
Trichloroethene	50.0	52.4	105	70	130
Toluene	50.0	52.6	105	70	130
Chlorobenzene	50.0	45.9	92	70	130

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue
North Providence, RI 02904
1-888-863-8522

TOTAL metals: Antimony Arsenic Cadmium Chromium+3 Copper Lead Nickel Selenium Chromium+6 Silver Zinc IRON

CHAIN OF CUSTODY RECORD

L0607-04

PROJ. NO.

PROJECT NAME/LOCATION: 2 Grove, Worcester, MA Building B & C

CLIENT: CAMPBELL ENVIRONMENTAL INC

REPORT TO:

INVOICE TO:

DATE	TIME	COMP	GRAB	SAMPLE I.D.	AQUEOUS	SOIL	OTHER	NO. OF CONTAINERS	PRESERVATIVE	TESTS** TPH	Total metals	Total Chloride	TSS	EDB	VOCs 8260	REMARKS
6/3/10	4:30 pm		X		X			1	HCL	X						
↓	↓		X		X			1	Nitric		X					
			X		X			1	NON			X	X			
↓	↓		X		X			3	HCL					X	X	

Sampled by: (Signature) — Date/Time: 6/4/10 4:30

Relinquished by: (Signature) — Date/Time: 6/7/10 1:30

Relinquished by: (Signature) — Date/Time: 6/7/10 1:35

Received by: (Signature) — Date/Time:

Received by: (Signature) — Date/Time: 6/7/10 1:30

Received for Laboratory by: (Signature) — Date/Time: 6/7/10 13:35

Laboratory Remarks:
Temp. received: _____
Cooled ☐

Special Instructions:
List Specific Detection Limit Requirements:

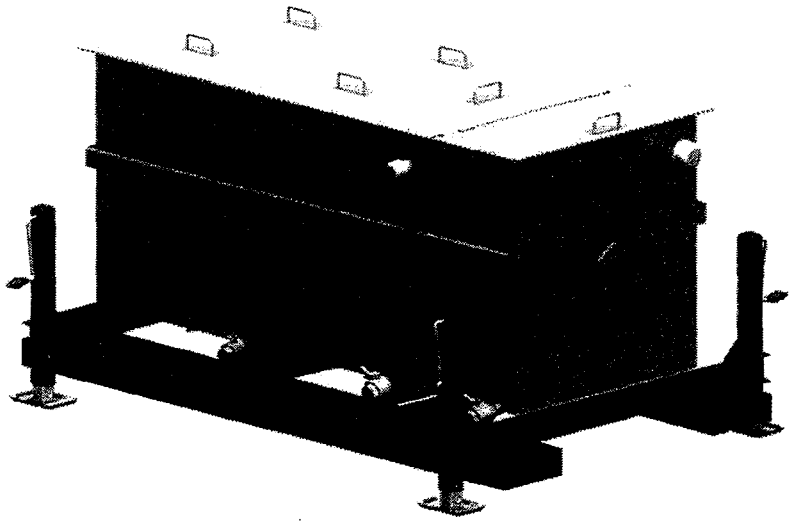
Turnaround (Business Days)_____

**Netlab Subcontracts the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve, Salmonella, Carbamates

OWS 100

Oil Water Separator

- Meets API 421 Specifications



FEATURES

- Removes free and dispersed non-emulsified oil
- Removes settleable solids
- Gravity flow oil skimmer
- Easy cleaning via removable vapor tight lids and 4 bottom drains
- No moving parts
- No power required
- Portable – skid mounted
- Leveling jackstands

TECHNICAL INFORMATION

- Parallel corrugated plate gravity displacement type separator.
- Designed in accordance with API 421 to remove free and dispersed non-emulsified oil and settleable solids
- 3 cubic feet sludge capacity

MATERIAL SPECIFICATIONS

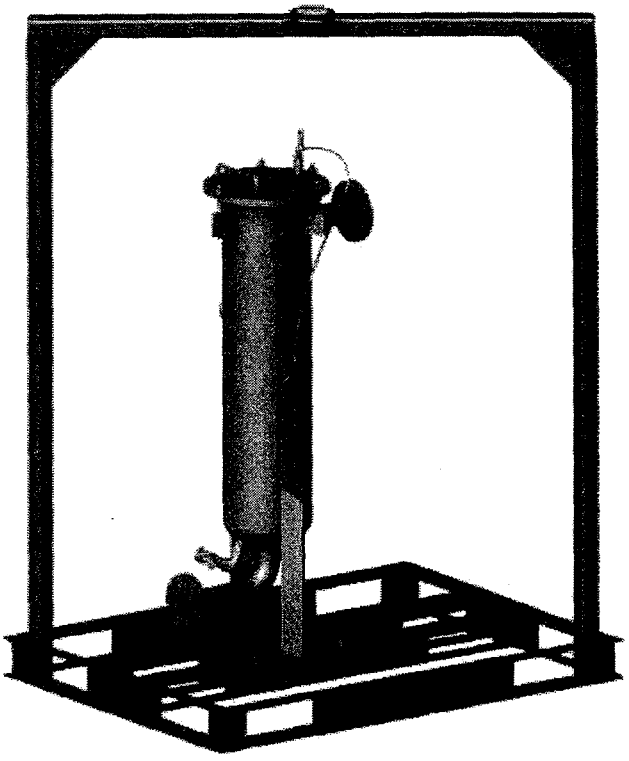
- Chambers constructed of 304 stainless steel
- Coalescing packs are made of a special oil attracting material with ½" media standard
- OWS 100 Requires 6 coalescing packs
  Packs are supplied seperately
  Each pack is 4' long x 1' wide x 1' tall
- Inlet and outlet are 4" 150# flanges
- Oil drain is 2" male threaded pipe
- Sludge drains are 2" ball valves, female threaded outlet
- Overflow drain is 3" male threaded pipe
- Separator footprint:
  96" Long x 66" Wide x 52" High
- Shipping Weight – 1,400 lbs. (Skid Mounted)

FLOW RATES ARE BASED UPON SPECIFIC GRAVITY, AS SHOWN BELOW				
SPECIFIC GRAVITY:	**0.7**	**0.85**	**0.9**	**0.95**
FLOW RATE (GPM):	**150**	**100**	**75**	**30**

RAIN FOR RENT

Postal Box 2248 • Bakersfield CA 93303
800 742-7246 • 661 399-9124 • FAX 661 393-1542
Internet: www.rainforrent.com

BF 100
Up to 100 GPM



Features

- Manifold connections are 2" 150 lb flanges
- Single bag filter
- Bag filter for high solids holding capacity
- Replaceable bag filters from 100 to 1 micron nominal rating
- No moving parts
- Skid mounted

Technical

- Bag filter chambers connect in parallel
- Units are fitted with bleed valves and pressure gauges
- System can stand alone for sediment removal or be used in combination with filter equipment
- Footprint: 48" long x 36" wide x 66" high
- Dry weight: 325 lbs.

Material Specifications

- Chambers constructed of 304 Stainless Steel
- Piping constructed of 304 stainless steel
- Each bag filter chamber holds one (1) 7" x 30" double- stitched filter bag
- Maximum operating pressure: 125psi
- Stainless Steel inlet and outlet manifolds

Available Accessories

- Power Prime Pumps
- Spill Guard Containment berms
- Stainless Steel 304 and Carbon Steel storage tanks in
- Bi-Level, Mixer, Weir and Manifold configurations
- Polyethylene storage tanks
- Cartridge and bag filters
- HDPE pipe and fittings
- Roll off boxes, dewatering bins and vacuum boxes
- Flow meters and pressure reducing/ sustaining valves
- Aluminum Victaulic pipe and fittings
- Suction and discharge hose

Rain for Rent
P.O. Box 2248
Bakersfield CA 93303
800-742-7246
661-393-1542
FAX 661-393-1542
www.rainforrent.com
info@rainforrent.com

Aqua-Scrub® Low Pressure Liquid Phase Adsorbers

The Aqua-Scrub® adsorbers are designed to provide uniform water flow for consistent treatment and to ensure efficient carbon usage. These adsorbers can be cost effectively used in applications including:

- Groundwater remediation
- Wastewater filtration
- Pilot testing
- Leachate treatment
- Dechlorination
- Spill cleanup

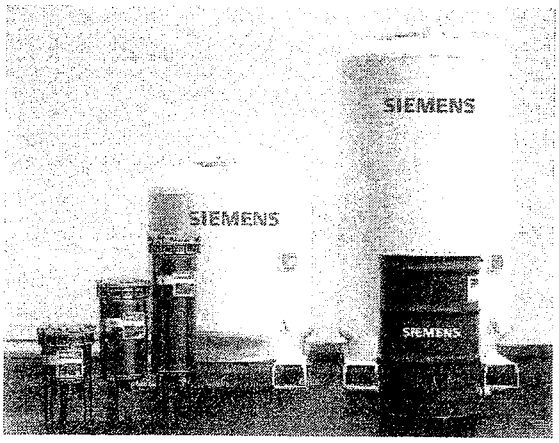
Installation, Start Up and Operation

The Aqua-Scrub® adsorbers are shipped filled with dry activated carbon that must be properly wetted and deaerated prior to use.

Your Siemens sales representative can assist with details on installation, preferred operating conditions and carbon usage calculations using our extensive isotherm database.

At the time of purchase or rental of the Aqua-Scrub® adsorbers, arrangements should be made for the reactivation of the spent carbon. Siemens will provide instructions and assistance to obtain acceptance of RCRA or non-RCRA spent carbon for reactivation.

Aqua-Scrub® adsorbers must be drained and the inlet/outlet plugged prior to shipment. Spent carbon cannot be received until the acceptance process has been completed.



Benefits and Design Features

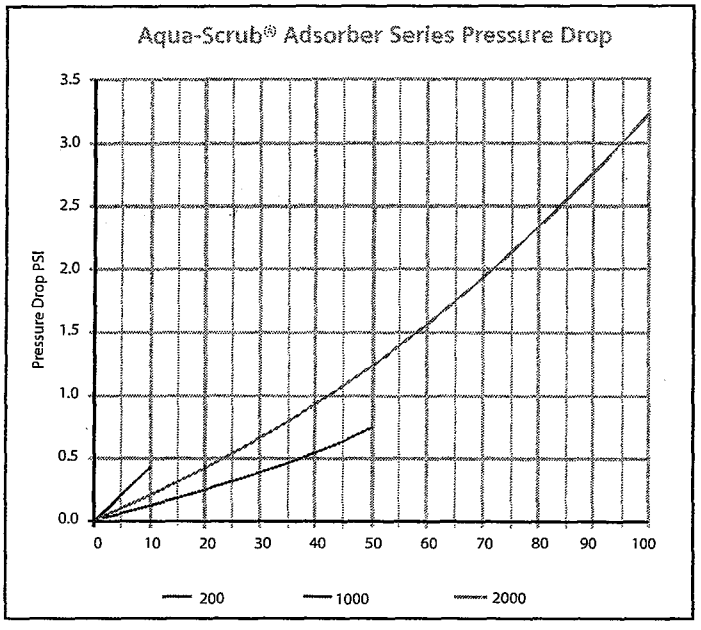
- Rugged carbon steel construction, internally/externally welded seams
- SSPC-SP5 surface preparation, fusion bonded epoxy internal lining, rust preventative urethane exterior coat (Aqua-Scrub® 1000/2000 Adsorbers)
- Approved for the transport of hazardous spent carbon
- Aqua-Scrub® 1000/2000 can be easily moved with a forklift
- Adsorbers are available to reduce the inlet/outlet to 1" FNPT (Aqua-Scrub® 2000 Adsorbers) and 2" FNPT (Aqua-Scrub® 1000/2000 Adsorbers)
- Cartridge and bag prefilters available
- Aqua-Scrub® 1000/2000 Adsorbers are available for rental or purchase

Piping Manifold (Optional)

- 2"/3" sch 80 PVC piping and valves (optional carbon steel and stainless steel piping)
- Series or parallel operation
- Clean utility water connection for manual backflush
- Sampling ports and pressure gauges
- Flexible hoses with Kamlok fittings allow ease of installation and removal but require external operations

SPECIFICATIONS			
Aqua-Scrub® Adsorber Model No.	200	1000	2000
Dimensions, diameter x overall height	22" x 34"	48" x 57"	48" x 95"
Vessel Construction	Carbon Steel	Carbon Steel	Carbon Steel
Inlet/Outlet Connection	2" FNPT/2"MNPT	4" FNPT	4" FNPT
Manway	Top	18"	18"
Internal Piping	PVC	PVC	PVC
Interior Coating	Epoxy	Epoxy	Epoxy
Exterior Coating	Enamel	Polyester	Polyester
Carbon Bed Volume (cu.ft.)	6.8	34	68
Cross Section (sq.ft.)	2.6	12.3	12.3
Vessel Weight (lbs) Shipping (carbon) Operating (approx)	 250 500	 1890 4280	 3190 7250
Flow, GPM (max.)	10	50	100
Pressure, psig (max.)	6	25	25
Temperature, °F (max)(4)	140°	140°	140°
Pounds of Carbon	200	1000	2000
Backflush rates (GPM)	5-10	40-50	40-50

For detailed specifications or dimensional information or drawings, contact your local Siemens Water Technologies sales representative.



Wet activated carbon readily adsorbs atmospheric oxygen. Dangerously low oxygen levels may exist in closed vessels or poorly ventilated storage areas. Workers should follow all applicable state and federal safety guidelines for entering oxygen depleted areas.

All information presented herein is believed reliable and in accordance with accepted engineering practices. Siemens makes no warranties as to the completeness of this information. Users are responsible for evaluating individual product suitability for specific applications. Siemens assumes no liability whatsoever for any special, indirect or consequential damages arising from the sale, resale or misuse of its products.

Siemens
Water Technologies
2430 Rose Place
Roseville, MN 55113
800.525.0658 phone

RESINTECH ASM-10-HP

ANION EXCHANGE RESIN
ARSENIC SELECTIVE

RESINTECH ASM-10-HP is a strongly basic hybrid anion exchange resin specially formulated to selectively remove arsenic. It is supplied in the salt form as clean, moist, tough, uniform, spherical beads.

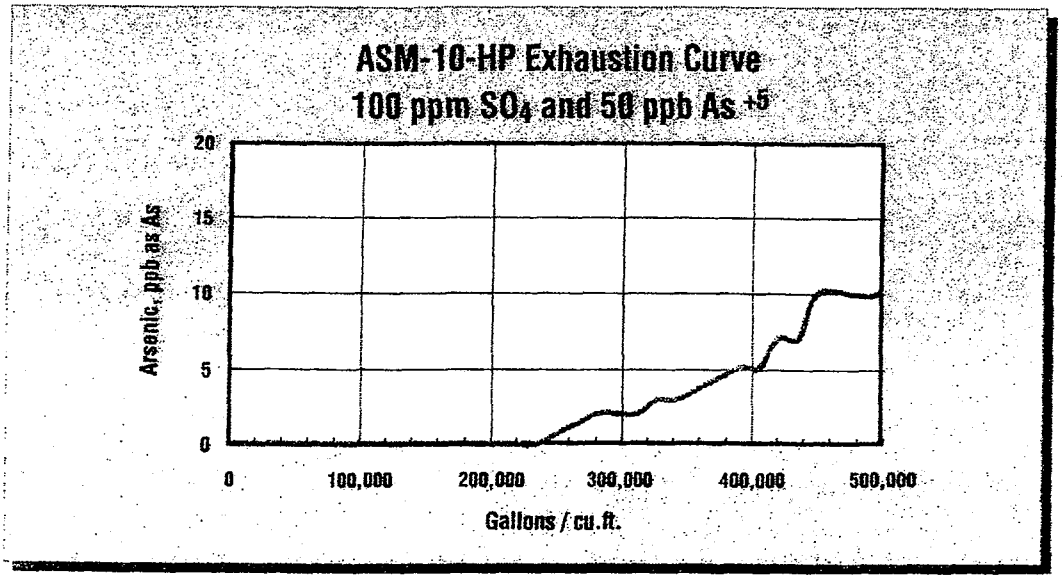
RESINTECH ASM-10-HP exhibits extraordinary throughput capacity in arsenic removal service on potable water supplies. Its performance is virtually unaffected by common anions, such as chlorides, bicarbonates or sulfates. It is effective over the entire pH range of potable water.

RESINTECH ASM-10-HP is also available in organic trap, perchlorate selective and nitrate selective configured resins. These resins are fully selective for arsenic, but still retain their original ion exchange selectivity.

FEATURES & BENEFITS

- **TREMENDOUS AFFINITY FOR ARSENIC OVER OTHER ANIONS**
  Highest arsenic removal capacity of organic based arsenic removal media
- **MADE FROM NSF/ANSI-61 VALIDATED ANION EXCHANGE RESIN**
- **NO ARSENIC DUMPING**
  Effluent arsenic levels will not exceed influent levels if resin is operated past exhaustion point
- **EFFECTIVE ACROSS THE ENTIRE POTABLE WATER pH RANGE**
- **SINGLE USE OR REGENERABLE APPLICATIONS**
- **SUPERIOR PHYSICAL STABILITY**
  Spherical and uniform particle size provide low pressure drop and greater resistance to bed compaction. Unlike granular, coated medias, ASM-10-HP will not shed particles.

Exhaustion Curve



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RESINTECH® ASM-10-HP

PHYSICAL PROPERTIES (Cl form)

Polymer Structure	Styrene with DVB
Functional Group	$R\text{-}N\text{-}R^{+}Cl^{-}$
Ionic Form, as shipped	Chloride
Physical Form	Tough, Spherical Beads
Screen Size Distribution	16 to 50 Nominal
- 50 mesh (U.S. Std)	Less than 1 Percent
pH Range	4 to 10
Water Retention	35 to 55 Percent
Solubility	Insoluble
Approximate Shipping Weight	44 lbs./ft^3
Total Capacity	>1.0 meq / mL
Sphericity	> 93 Percent

WATER QUALITY GUIDELINES

Feedwater quality (aside from arsenic) should generally be of potable quality. Please consult your ResinTech technical salesman for recommendations outside the following guidelines:

Conductivity	1000 micromhos/cm
Chloride	250 ppm
Sulfate	250 ppm
pH	5.5 to 9.5
Phosphate	5 ppm
Silica	10 ppm
Turbidity	5 NTU
Chlorine	0.3 ppm

SUGGESTED OPERATING CONDITIONS

Flow Rate	2 to 10 gpm/cu. ft.
	1 to 20 gpm/sq. ft.
Pressure Loss	25 psi max.
Temperature	170°F max.

OPERATING CAPACITY

Under ideal conditions, the 1st cycle throughput capacity for arsenic removal with approximately 50 ppb As^{+5} in the inlet is greater than 500,000 gallons per cu. ft., while producing less than 10 ppb of effluent arsenic. The throughput capacity varies inversely with changes in the influent arsenic levels.

RESINTECH ASM-10-HP has modest capacity for arsenite (As^{+3}). It is suggested that if the arsenite concentration exceeds 20% of the total arsenic present, the feedwater should be pre-chlorinated to ensure conversion to arsenate (As^{+5}).

ASM-10-HP is also selective for other oxy-anions, such as selenate. It will remove modest amounts of both phosphate and silica.

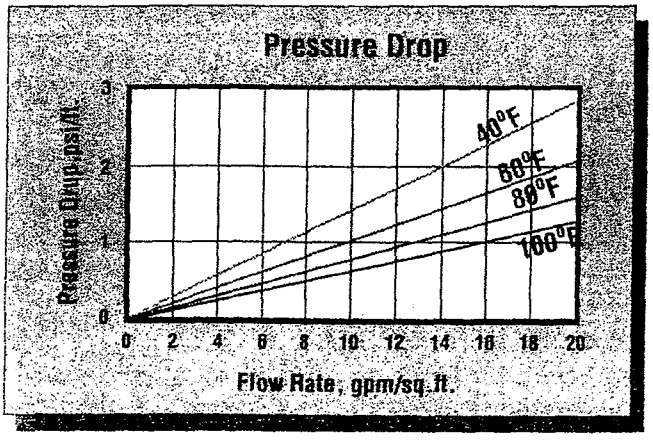
REGENERATION

ResinTech ASM-10-HP can be partially regenerated in the field with alkaline brine. For additional information contact your local ResinTech representative.

DISPOSAL

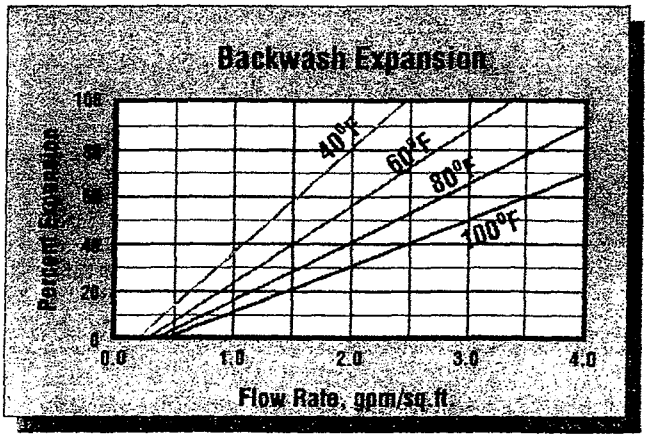
It is recommended that users review local regulations and consult with local authorities on the best method of disposal.

HYDRAULIC PROPERTIES



PRESSURE DROP

The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate at various water temperatures.



BACKWASH

After each cycle the resin bed should be backwashed at a rate that expands the bed 50 to 75 percent. This will remove any foreign matter and reclassify the bed.

RESINTECH

CGS

CATION EXCHANGE RESIN
SOFTENING GRADE
Na FORM

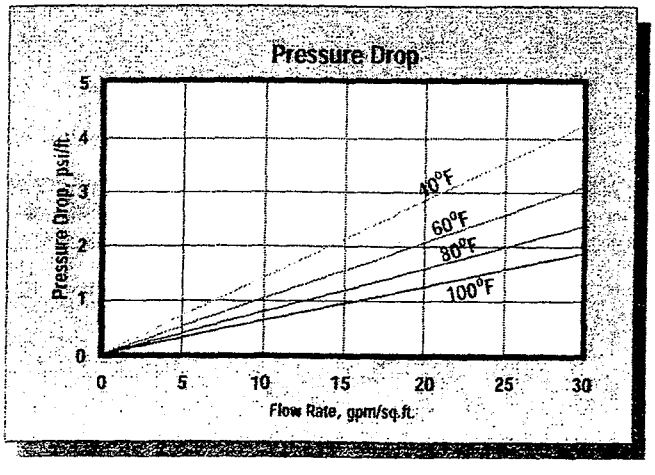
RESINTECH CGS is a high purity, light colored, high capacity, gel type sulfonated polystyrene cation resin supplied in the sodium form as moist, tough uniform spherical beads. *ResinTech CGS* specifically is intended for use in all water softening applications,including beverages, potable water and water used for food processing. It's high capacity and high DVB content provide long life and good chlorine resistance in all potable water applications. (It is also available as a dark colored product *RESINTECH CGS-BL* with identical properties.)

FEATURES & BENEFITS

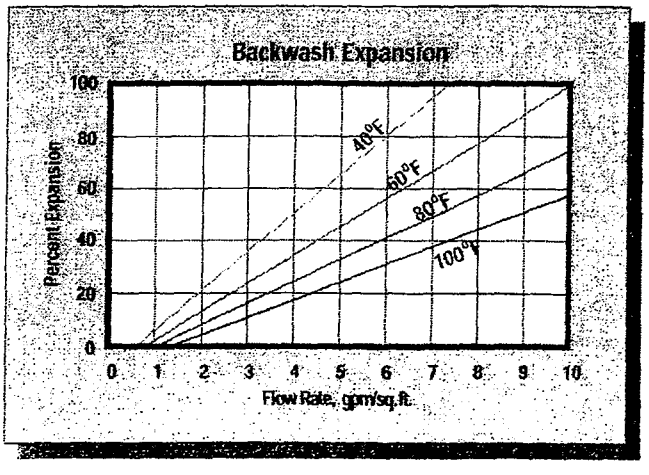
- **COMPLIES WITH FDA REGULATIONS FOR POTABLE WATER APPLICATIONS**
  Conforms to paragraph 21CFR173.25 of the Food Additives Regulations of the F.D.A.*
- **EXCELLENT REGENERATION EFFICIENCY**
  Virtually the same operating capacity as premium grade *ResinTech CG8-BL*
- **NSF/ANSI-61 VALIDATED**
- **UNIFORM PARTICLE SIZE**
  16 to plus 50 mesh range; gives a LOWER PRESSURE DROP while maintaining SUPERIOR KINETICS.
- **SUPERIOR PHYSICAL STABILITY**
  90% plus sphericity and high crush strengths together with a very uniform particle size provide greater resistance to head breakage while maintaining low pressure drops.
- **LOW COLOR THROW**

*For potable water applications, the resin must be properly pre-treated, usually by multiple exhaustion and regeneration cycles, to insure compliance with extractable levels.

HYDRAULIC PROPERTIES



PRESSURE DROP - The graph above shows the expected pressure loss per foot of bed depth as a function of flow rate, at various temperatures.



BACKWASH - After each cycle the resin bed should be backwashed at a rate that expands the bed 50 to 75 percent. This will remove any foreign matter and reclassify the bed. The graph above shows the expansion characteristics of *RESINTECH CGS* in the sodium form.

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RESINTECH® CGS

PHYSICAL PROPERTIES

Polymer Structure	Styrene Crosslinked with DVB
Functional Group	$R-(SO_3)^-M^+$
Ionic Form, as shipped	Sodium
Physical Form	Tough, Spherical Beads
Screen Size Distribution	16 to 50
+16 mesh (U.S. Std)	< 5 percent
-50 mesh (U.S. Std)	< 1 percent
pH Range	0 to 14
Sphericity	90+ percent
Uniformity Coefficient	Approx. 1.6
Water Retention	
Sodium Form	48 to 54 percent
Solubility	Insoluble
Shipping Weight	
Sodium Form	48 lbs./cu.ft.
Total Capacity	
Sodium Form	1.8 meq/ml min

SUGGESTED OPERATING CONDITIONS

Maximum Temperature	
Sodium Form	250^0 F
Minimum Bed Depth	24 inches
Backwash Rate	50 to 75% Bed Expansion
Regenerant (NaCl or KCl)	
Concentration	10 to 15 percent
Flow Rate	0.5 to 1.5 gpm/cu.ft.
Contact Time	> 20 minutes
Level	4 to 15 pounds/cu.ft.
Displacement Rate	Same as Regen Flow Rate
Volume	10 to 15 gallons/cu.ft.
Fast Rinse Rate	Same as Service Flow Rate
Volume	35 to 60 gallons/cu.ft.
Service Flow Rate	2 to 10 gpm/cu.ft.

OPERATING CAPACITY

Sodium Chloride (NaCl) Regeneration

The sodium cycle operating capacity of *RESINTECH CGS* for hardness removal at various regeneration levels with an influent calcium/magnesium ratio of 2/1 and a hardness level of 500 ppm, as $CaCO_3$, is shown in the following table:

Pounds NaOH/cu.ft.	Capacity Kilograins/cu.ft.
5	20.0
7.5	25.4
10	29.0
15	33.0

Potassium Chloride (KCl) Regeneration

The potassium cycle operating capacity of *RESINTECH CGS* for hardness removal at various regeneration levels with an influent calcium/magnesium ratio of 2/1 and a hardness level of 500 ppm, as $CaCO_3$, is shown in the following table:

Pounds NaOH/cu.ft.	Capacity Kilograins/cu.ft.
5	16.6
7.5	21.8
10	26.6
15	31.2

APPLICATIONS

Softening

RESINTECH CGS is ideally suited for industrial, commercial, or residential softening applications where free chlorine is not present because of its high capacity, uniform particle size and good physical stability.