

GZA
GeoEnvironmental, Inc.

Engineers and
Scientists

MA6910399

December 9, 2008
File No. 13190.36



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

One Edgewater Drive
Norwood
Massachusetts
02062
781-278-3700
FAX 781-278-5701
<http://www.gza.com>

Re: Submittal of Notice of Intent (NOI)
Excavation Dewatering – Bonny Brook (North Pool & South Pool)
244 Worcester Street
North Grafton, Massachusetts
MassDEP - RTN No. 2-0535

Dear Mr. Alvarez:

GZA GeoEnvironmental, Inc. (GZA), on behalf of Wyman Gordon Company (WG), has prepared this Notice of Intent (NOI) for application of a National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) for proposed remediation activities at the above referenced location (Figures 1 and 2). This NOI is being submitted for conducting Phase IV Remedial Implementation Plan (RIP) activities for portions of Bonny Brook as per Massachusetts Contingency Plan (MCP: 310 CMR 40.0870). The RIP for the Bonny Brook was submitted to the Massachusetts Department of Environmental Protection on January 18, 2008 and defines the proposed excavation activities for remediation of portions of Bonny Brook. As there is a likely need to discharge water generated from the dewatering of the area of the brook to be excavated, the enclosed NOI form provides required information on the general site conditions, proposed treatment system, discharge location and receiving water, and analytical results for the Bonny Brook area identified as Bonny Brook (North Pool & South Pool) which is shown in the Figure 3.

The excavation, dewatering, and discharge of treated water are scheduled to begin late summer 2009.

SITE DESCRIPTION

WG's North Grafton plant, located at 244 Worcester Street (Route 122), manufactures large specialty metal parts, primarily for the military and the aerospace industry. Operations conducted at the plant include forging, milling, and etching.

Bonny Brook originates from wetlands south of Route 122, upstream of the WG property. The brook flows through a culvert under Route 122 and enters the WG property near the Grafton/Millbury town line (see Figure 2). Bonny Brook flows



through WG property, between the WG North Grafton Facility and the WG Millbury property, and thence northward along the National Grid Company power line property that separates the two WG facilities (Figure 2). At the northwest corner of the North Grafton facility, the brook turns eastward for approximately 650 feet before heading north through a culvert under the CSX Railroad right-of-way. North of the railroad tracks, Bonny Brook flows through a commercial/light industrial area, then through a residential property before entering Flint Pond.

PROPOSED ACTIVITIES

The objective of the proposed remedial action is to remove surficial sediments and sludge from portions of the Bonny Brook (North Pool & South Pool) impact area. The proposed location of excavation is depicted in Figure 3. As shown on this figure, it is anticipated that approximately 1,400 square feet of surficial sludge deposits will be excavated to an average depth of 1.5 feet below grade. The limits of the excavation vertically and horizontally will be based on visual observations. If visual impacts are observed at greater than 1.5 feet below surface, the depth of sediment removal will be increased (with a maximum depth of about 2.5 feet) in order to remove the most heavily impacted sediment observed within the pools. This material will be transported to an off-site facility for disposal.

Water generated during dewatering activities will be treated as described in the attached NOI submittal, sampled as required and discharged from the location of the proposed dewatering treatment system downstream of the North Pool excavation.

Please do not hesitate to contact the undersigned at (781) 278-3700 if you have any questions or require further information.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

A handwritten signature in black ink, appearing to read "John A. Colbert".

John A. Colbert
Senior Project Manager

A handwritten signature in black ink, appearing to read "Gregg McBride".

Gregg McBride
Principal



Enclosures:

- Attachment 1: NOI Form
- Attachment 2: Figure 1 - Site Locus Map
- Attachment 3: Figure 2 - Overview of Wyman Gordon Company
- Attachment 4: Figure 3 - Proposed Activity Plan of Bonny Brook Area
- Attachment 5: Figure 4 - Process Flow Diagram
- Attachment 6: Laboratory Analytical Results
- Attachment 7: Supplemental Information - 7Q10 data for Bonny Brook (North Pool & South Pool)
- Attachment 8: Copy of a letter from Tribal Historic Preservation Officer

cc: Mr. Bradford C. Middlesworth, P.E.
MassDEP – Northeast Region
File

ATTACHMENT 1

NOI FORM

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: Wyman-Gordon		Facility/site address: 244 Worcester St., North	
Location of facility/site: North Grafton, MA longitude: -71.72 latitude: 42.23	Facility SIC code(s):	Street: Worcester	
b) Name of facility/site owner: Wyman-Gordon		Town: North Grafton	
Email address of owner:		State:	Zip:
Telephone no. of facility/site owner: (508) 839-8183		MA	01536
Fax no. of facility/site owner:		Owner is (check one): 1. Federal___ 2. State/Tribal___	
Address of owner (if different from site):		3. Private ☒ 4. other, if so, describe:	
Street:			
Town:	State:	Zip:	County:
c) Legal name of operator: Bradford C. Middlesworth		Operator telephone no: (508) 839-8158	
		Operator fax no.:	Operator email: bmiddle
Operator contact name and title:			
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: **MA**

2. permit or license # assigned: MCP RTN 2-0535

3. state agency contact information: name, location, and telephone number:

Michael LeBlanc, DEP Central Regional Office, 627 Main St., Worcester, MA 01608, 508-767-2830

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: **MA 0004341**

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:

During the Phase IV implementation activities at the Bonny Brook wetland location, there is a likely need to discharge water generated from the dewatering of the wetland areas to be excavated.

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 0.22 cfs
Average flow 0.11cfs 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. -7143.65 lat. 4214.33; 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 06/01/09 end 12/30/09

d) Please attach a line drawing or flow schematic showing water flow through the facility including: (SEE FIGURE 4)

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 (ug/L)	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids		✓	1	grab	160.2	2000	150,000		150,000	
2. Total Residual Chlorine	✓		1	grab	Sm4500-CLD	20	BDL		BDL	
3. Total Petroleum Hydrocarbons		✓	1	grab	1664	500	6700		6700	
4. Cyanide	✓		1	grab	335.2	10	BDL		BDL	
5. Benzene	✓		1	grab	8260	0.50	BDL		BDL	
6. Toluene	✓		1	grab	8260	0.50	BDL		BDL	
7. Ethylbenzene	✓		1	grab	8260	0.50	BDL		BDL	
8. (m,p,o) Xylenes	✓		1	grab	8260	1.50	BDL		BDL	
9. Total BTEX ⁴	✓		1	grab	8260	3.0	BDL		BDL	

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/L)	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	8260	1.0	BDL		BDL	
11. Methyl-tert-Butyl Ether (MtBE)	✓		1	grab	8260	0.50	BDL		BDL	
12. tert-Butyl Alcohol (TBA)	✓		1	grab	8260	13	BDL		BDL	
13. tert-Amyl Methyl Ether (TAME)	✓		1	grab	8260	1.0	BDL		BDL	
14. Naphthalene	✓		1	grab	8260	1.0	BDL		BDL	
15. Carbon Tetra-chloride	✓		1	grab	8260	0.50	BDL		BDL	
16. 1,4 Dichlorobenzene	✓		1	grab	8260	0.50	BDL		BDL	
17. 1,2 Dichlorobenzene	✓		1	grab	8260	0.50	BDL		BDL	
18. 1,3 Dichlorobenzene	✓		1	grab	8260	0.50	BDL		BDL	
19. 1,1 Dichloroethane	✓		1	grab	8260	0.50	BDL		BDL	
20. 1,2 Dichloroethane	✓		1	grab	8260	0.50	BDL		BDL	
21. 1,1 Dichloroethylene	✓		1	grab	8260	0.50	BDL		BDL	
22. cis-1,2 Dichloro-ethylene	✓		1	grab	8260	0.50	BDL		BDL	
23. Dichloromethane (Methylene Chloride)	✓		1	grab	8260	1.0	BDL		BDL	
24. Tetrachloroethylene	✓		1	grab	8260	0.50	BDL		BDL	

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/L)	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	✓		1	grab	8260	0.50	BDL		BDL	
26. 1,1,2 Trichloroethane	✓		1	grab	8260	0.50	BDL		BDL	
27. Trichloroethylene	✓		1	grab	8260	0.50	BDL		BDL	
28. Vinyl Chloride	✓		1	grab	8260	0.50	BDL		BDL	
29. Acetone	✓		1	grab	8260	13	BDL		BDL	
30. 1,4 Dioxane	✓		1	grab	8260	50	BDL		BDL	
31. Total Phenols	✓		1	grab	8270	10	BDL		BDL	
32. Pentachlorophenol	✓		1	grab	8270	50	BDL		BDL	
33. Total Phthalates ⁶ (Phthalate esthers)	✓		1	grab	8270	65	BDL		BDL	
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✓		1	grab	8270	10	BDL		BDL	
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)										
a. Benzo(a) Anthracene	✓		1	grab	8270	20	BDL		BDL	
b. Benzo(a) Pyrene	✓		1	grab	8270	20	BDL		BDL	
c. Benzo(b)Fluoranthene	✓		1	grab	8270	20	BDL		BDL	
d. Benzo(k) Fluoranthene	✓		1	grab	8270	20	BDL		BDL	
e. Chrysene	✓		1	grab	8270	20	BDL		BDL	

⁶The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/L)	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene	✓		1	grab	8270	2.0	BDL		BDL	
g. Indeno(1,2,3-cd) Pyrene	✓		1	grab	8270	2.0	BDL		BDL	
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)										
h. Acenaphthene	✓		1	grab	8270	2.0	BDL		BDL	
i. Acenaphthylene	✓		1	grab	8270	2.0	BDL		BDL	
j. Anthracene	✓		1	grab	8270	2.0	BDL		BDL	
k. Benzo(ghi) Perylene	✓		1	grab	8270	2.0	BDL		BDL	
l. Fluoranthene	✓		1	grab	8270	2.0	BDL		BDL	
m. Fluorene	✓		1	grab	8270	2.0	BDL		BDL	
n. Naphthalene-	✓		1	grab	8270	2.0	BDL		BDL	
o. Phenanthrene	✓		1	grab	8270	2.0	BDL		BDL	
p. Pyrene	✓		1	grab	8270	2.0	BDL		BDL	
37. Total Polychlorinated Biphenyls (PCBs)	✓		1	grab	608	3.5	BDL		BDL	
38. Antimony	✓		1	grab	6010B	25	BDL		BDL	
39. Arsenic		✓	1	grab	6010B	5	15		15	
40. Cadmium	✓		1	grab	6010B	5	BDL		BDL	
41. Chromium III		✓	1	grab	6010B	5	70		70	
42. Chromium VI	✓		1	grab	SM3500CRD	5	BDL		BDL	

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 (ug/L)	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper	☐	☒	1	grab	6010B	5.0	300		300	
44. Lead	☐	☒	1	grab	6010B	10	73		73	
45. Mercury	☒	☐	1	grab	7470A	0.2	BDL		BDL	
46. Nickel	☐	☒	1	grab	6010B	10.0	58		58	
47. Selenium	☒	☐	1	grab	6010B	25	BDL		BDL	
48. Silver	☒	☐	1	grab	6010B	5	BDL		BDL	
49. Zinc	☐	☒	1	grab	6010B	10	520		520	
50. Iron	☐	☒	1	grab	6010B	25	13,000		13,000	
Other (describe):	☐	☐								

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

<i>Step 1:</i> Do any of the metals in the influent have a reasonable potential to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y ☒ N ☐	If yes, which metals? Arsenic, Chromium III, Copper, Lead, Nickel, Zinc, Iron
<i>Step 2:</i> For any metals which have reasonable potential to exceed the Appendix III limits, calculate the dilution factor (DF) using the formula in Part I.A.3.c) (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metals: Arsenic, Chromium III, Copper, Lead, Nickel, Zinc, Iron DF: <u>1.16</u> (SEE ATTACHED STREAM STAT REPORT)	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, Chromium III, Nickel, Copper, Lead, Iron, Zinc

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 <u>50 gpm</u> Maximum flow rate of treatment system <u>100 gpm</u> Design flow rate of treatment system <u>50 gpm</u>						
d) A description of chemical additives being used or planned to be used (attach MSDS sheets): <u>NONE</u>						

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: <u>Treated water discharges from the location of proposed treatment system downstream of the south pool excavation into the existing culvert. Discharged water flows via a channel and wetlands to Flint Pond.</u>						
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 <u>Class B</u> ,						
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water <u>0.0365</u> 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)? <u>Phosphorous</u> Is there a TMDL? Yes ☒ No ☐ If yes, for which pollutant(s)? <u>Phosphorous</u>						

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: Wyman-Gordon

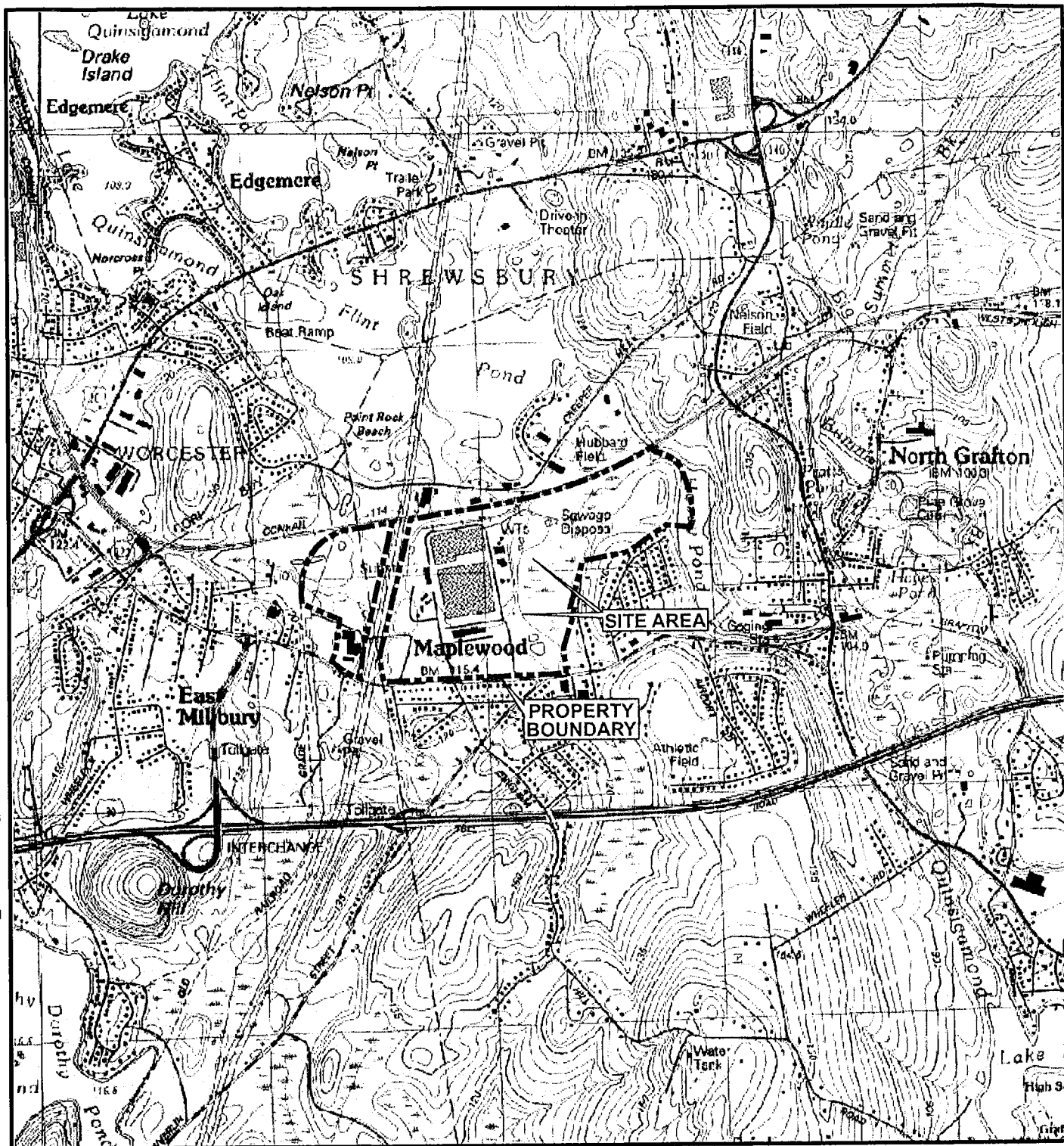
Operator signature: Bradford L. Middlesworth

Title: Division Environmental Manager

Date: 12/9/08

ATTACHMENT 2

FIGURE 1 – SITE LOCUS MAP



SOURCE : SCANNED USGS TOPOGRAPHIC QUADRANGLES
SCANNED BY THE MASSACHUSETTS EXECUTIVE OFFICE OF

Data Supplied by :



ATTACHMENT 3

FIGURE 2 – OVERVIEW OF WYMAN GORDON COMPANY

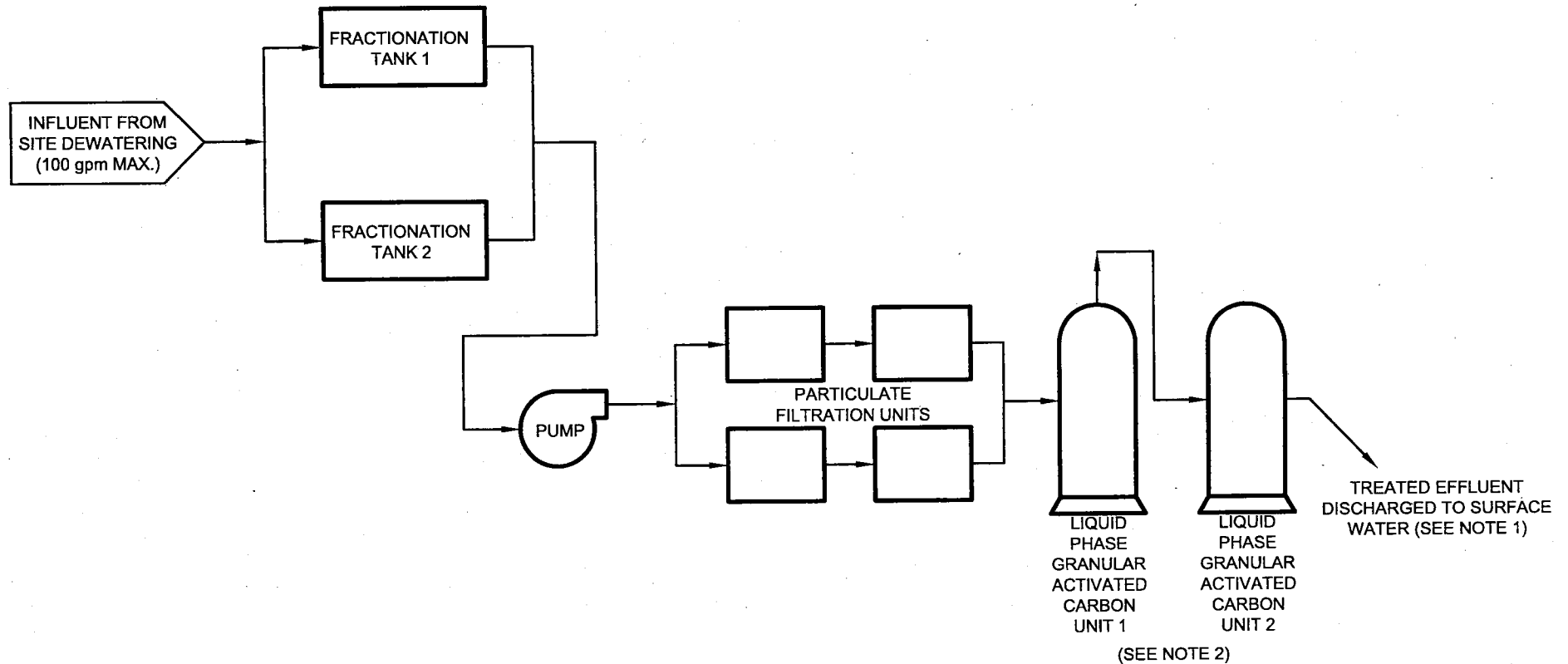
ATTACHMENT 4

FIGURE 3 – PROPOSED ACTIVITY PLAN OF BONNY BROOK AREA



ATTACHMENT 5

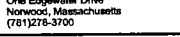
FIGURE 4 – PROCESS FLOW DIAGRAM



NOTE:

- DISCHARGE FROM THE VARIOUS LOCATIONS SHALL BE AS FOLLOWS:
 - EAST WETLANDS NE17 = DISCHARGE TO BE LOCATED AT DISCHARGE FOR THE RMF.
 - NPDES 009 CHANNEL = DISCHARGE TO BE TO NPDES 009 CHANNEL DOWNSTREAM OF REMEDIATION AREA.
 - BONNY BROOK = DISCHARGE TO BE TO BONNY BROOK DOWNSTREAM OF REMEDIATION AREA.
- BASED ON ANALYTICAL RESULTS OF THE DISCHARGE AN IONIZATION EXCHANGE UNIT MAY ALSO BE NEEDED.

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

PREPARED BY:	 GZA GeoEnvironmental, Inc. Engineers and Scientists One Edgewater Drive Norwood, Massachusetts (781) 276-3700	EAST WETLAND AND BONNY BROOK NORTH GRAFTON, MASSACHUSETTS	PROJ MGR:	JAC	DATE	09-29-2008	FIGURE 4
PREPARED FOR:	 WYMAN GORDON A GZA Company		DESIGNED BY:	SC	PROJECT NO.	13190.36	
			REVIEWED BY:	JAC	REVISION NO.		
			DRAWN BY:	GAS			
			CHECKED BY:	RP			
			SCALE:	NOT TO SCALE			

ATTACHMENT 6

LABORATORY ANALYTICAL RESULTS



GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
(781) 278-4700

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ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
One Edgewater Drive
Norwood, MA 02062

Michele Simoneaux

Project Name.: **Wyman-Gordon**

Project No.: **01.0013190.36**

Date Received: **07/28/2008**

Date Reported: **08/07/2008**

Work Order No.: **0807-00184**

LABORATORY STATEMENTS:

NELAC certification, as indicated by the NELAC ID Number, is per analyte. For a complete list of NELAC validated analytes, please contact the laboratory.

Abbreviations:

% R = % Recovery

DF = Dilution Factor

CF = Calculation Factor

DO = Diluted Out

Method Key:

Method 8260: The current version of the method is 8260B.

Method 8021: The current version of the method is 8021B.

Method 8270: The current version of the method is 8270C.

Method 6010: The current version of the method is 6010B.

Soil data is reported on a dry weight basis unless otherwise specified.

Matrix Spike / Matrix Spike Duplicate sets are performed as per method and are reported at the end of the analytical report if assigned on the Chain of Custody.



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
One Edgewater Drive
Norwood, MA 02062

Michele Simoneaux

Project Name.: **Wyman-Gordon**
Project No.: **01.0013190.36**

Date Received: **07/28/2008**
Date Reported: **08/07/2008**
Work Order No.: **0807-00184**

Sample ID: **SW - 5**

Sample No.: **003**

Sample Date: **07/28/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260			MQS	08/04/2008
Dichlorodifluoromethane	EPA 8260	<1.0	ug/L	MQS	08/04/2008
Chloromethane	EPA 8260	<1.0	ug/L	MQS	08/04/2008
Vinyl Chloride	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Bromomethane	EPA 8260	<1.0	ug/L	MQS	08/04/2008
Chloroethane	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Trichlorofluoromethane	EPA 8260	<1.0	ug/L	MQS	08/04/2008
Diethylether	EPA 8260	<2.5	ug/L	MQS	08/04/2008
Acetone	EPA 8260	<13	ug/L	MQS	08/04/2008
1,1-Dichloroethene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Freon 113	EPA 8260	<1.0	ug/L	MQS	08/04/2008
Carbon Disulfide	EPA 8260	<25	ug/L	MQS	08/04/2008
Dichloromethane	EPA 8260	<1.0	ug/L	MQS	08/04/2008
tert-Butyl alcohol (TBA)	EPA 8260	<13	ug/L	MQS	08/04/2008
Methyl-Tert-Butyl-Ether	EPA 8260	<0.50	ug/L	MQS	08/04/2008
trans-1,2-Dichloroethene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
1,1-Dichloroethane	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Di-isopropyl ether (DIPE)	EPA 8260	<1.0	ug/L	MQS	08/04/2008
Ethyl tert-butyl ether ETBE	EPA 8260	<1.0	ug/L	MQS	08/04/2008
2-Butanone	EPA 8260	<13	ug/L	MQS	08/04/2008
2,2-Dichloropropane	EPA 8260	<0.50	ug/L	MQS	08/04/2008
cis-1,2-Dichloroethene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Chloroform	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Bromochloromethane	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Tetrahydrofuran	EPA 8260	<5.0	ug/L	MQS	08/04/2008
1,1,1-Trichloroethane	EPA 8260	<0.50	ug/L	MQS	08/04/2008
1,1-Dichloropropene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Carbon Tetrachloride	EPA 8260	<0.50	ug/L	MQS	08/04/2008
1,2-Dichloroethane	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Benzene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
tert-Amyl methyl ether TAME	EPA 8260	<1.0	ug/L	MQS	08/04/2008
Trichloroethene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
1,4-Dioxane	EPA 8260	<50	ug/L	MQS	08/04/2008
1,2-Dichloropropane	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Bromodichloromethane	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Dibromomethane	EPA 8260	<0.50	ug/L	MQS	08/04/2008
4-Methyl-2-Pentanone	EPA 8260	<13	ug/L	MQS	08/04/2008



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Sample Date: **07/28/2008**

Test Performed	Method	Results	Units	Tech	Analysis Date
cis-1,3-Dichloropropene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Toluene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
trans-1,3-Dichloropropene	EPA 8260	<1.0	ug/L	MQS	08/04/2008
1,1,2-Trichloroethane	EPA 8260	<0.50	ug/L	MQS	08/04/2008
2-Hexanone	EPA 8260	<13	ug/L	MQS	08/04/2008
1,3-Dichloropropane	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Tetrachloroethene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Dibromochloromethane	EPA 8260	<0.50	ug/L	MQS	08/04/2008
1,2-Dibromoethane (EDB)	EPA 8260	<1.0	ug/L	MQS	08/04/2008
Chlorobenzene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
1,1,1,2-Tetrachloroethane	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Ethylbenzene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
m&p-Xylene	EPA 8260	<1.0	ug/L	MQS	08/04/2008
o-Xylene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Styrene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Bromoform	EPA 8260	<1.0	ug/L	MQS	08/04/2008
Isopropylbenzene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
1,1,2,2-Tetrachloroethane	EPA 8260	<0.50	ug/L	MQS	08/04/2008
1,2,3-Trichloropropane	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Bromobenzene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
N-Propylbenzene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
2-Chlorotoluene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
1,3,5-Trimethylbenzene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
4-Chlorotoluene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
tert-Butylbenzene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
1,2,4-Trimethylbenzene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
sec-Butylbenzene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
p-Isopropyltoluene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
1,3-Dichlorobenzene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
1,4-Dichlorobenzene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
n-Butylbenzene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
1,2-Dichlorobenzene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
1,2-Dibromo-3-Chloropropane	EPA 8260	<2.5	ug/L	MQS	08/04/2008
1,2,4-Trichlorobenzene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Hexachlorobutadiene	EPA 8260	<0.50	ug/L	MQS	08/04/2008
Naphthalene	EPA 8260	<1.0	ug/L	MQS	08/04/2008
1,2,3-Trichlorobenzene	EPA 8260	<0.50	ug/L	MQS	08/04/2008



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Sample No.: **003**

Test Performed	Method	Results	Units	Tech	Analysis Date
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	92.2	% R	MQS	08/04/2008
***Toluene-D8	EPA 8260	97.0	% R	MQS	08/04/2008
***4-Bromofluorobenzene	EPA 8260	90.4	% R	MQS	08/04/2008
Preparation	EPA 5030B	0.5	CF	MQS	08/04/2008
SEMI-VOLATILE ORGANICS	EPA 8270			CMG	08/04/2008
ACID FRACTION:	EPA 8270				
Phenol	EPA 8270	<10	ug/L	CMG	08/04/2008
2-Chlorophenol	EPA 8270	<10	ug/L	CMG	08/04/2008
2-Methylphenol	EPA 8270	<10	ug/L	CMG	08/04/2008
3&4-Methylphenol	EPA 8270	<10	ug/L	CMG	08/04/2008
2-Nitrophenol	EPA 8270	<10	ug/L	CMG	08/04/2008
2,4-Dimethylphenol	EPA 8270	<10	ug/L	CMG	08/04/2008
Benzoic Acid	EPA 8270	<10	ug/L	CMG	08/04/2008
2,4-Dichlorophenol	EPA 8270	<10	ug/L	CMG	08/04/2008
4-Chloro-3-Methylphenol	EPA 8270	<20	ug/L	CMG	08/04/2008
2,4,6-Trichlorophenol	EPA 8270	<10	ug/L	CMG	08/04/2008
2,4,5-Trichlorophenol	EPA 8270	<10	ug/L	CMG	08/04/2008
2,4-Dinitrophenol	EPA 8270	<100	ug/L	CMG	08/04/2008
4-Nitrophenol	EPA 8270	<50	ug/L	CMG	08/04/2008
4,6-Dinitro-2-Methylphenol	EPA 8270	<50	ug/L	CMG	08/04/2008
Pentachlorophenol	EPA 8270	<50	ug/L	CMG	08/04/2008
BASE-NEUTRAL FRACTION:					
n-Nitrosodimethylamine	EPA 8270	<10	ug/L	CMG	08/04/2008
bis(2-Chloroethyl)Ether	EPA 8270	<10	ug/L	CMG	08/04/2008
1,3-Dichlorobenzene	EPA 8270	<10	ug/L	CMG	08/04/2008
1,4-Dichlorobenzene	EPA 8270	<10	ug/L	CMG	08/04/2008
Benzyl Alcohol	EPA 8270	<20	ug/L	CMG	08/04/2008
1,2-Dichlorobenzene	EPA 8270	<10	ug/L	CMG	08/04/2008
bis(2-Chloroisopropyl)Ether	EPA 8270	<10	ug/L	CMG	08/04/2008
n-Nitrosodi-n-Propylamine	EPA 8270	<10	ug/L	CMG	08/04/2008
Hexachloroethane	EPA 8270	<10	ug/L	CMG	08/04/2008
Nitrobenzene	EPA 8270	<10	ug/L	CMG	08/04/2008
Isophorone	EPA 8270	<10	ug/L	CMG	08/04/2008
bis(2-Chloroethoxy)Methane	EPA 8270	<10	ug/L	CMG	08/04/2008
1,2,4-Trichlorobenzene	EPA 8270	<10	ug/L	CMG	08/04/2008
Naphthalene	EPA 8270	<2.0	ug/L	CMG	08/04/2008



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Sample Date: **07/28/2008**

Sample No.: **003**

Test Performed	Method	Results	Units	Tech	Analysis Date
4-Chloroaniline	EPA 8270	<20	ug/L	CMG	08/04/2008
Hexachlorobutadiene	EPA 8270	<10	ug/L	CMG	08/04/2008
2-Methylnaphthalene	EPA 8270	<2.0	ug/L	CMG	08/04/2008
Hexachlorocyclopentadiene	EPA 8270	<50	ug/L	CMG	08/04/2008
2-Chloronaphthalene	EPA 8270	<10	ug/L	CMG	08/04/2008
2-Nitroaniline	EPA 8270	<50	ug/L	CMG	08/04/2008
Dimethylphthalate	EPA 8270	<10	ug/L	CMG	08/04/2008
Acenaphthylene	EPA 8270	<2.0	ug/L	CMG	08/04/2008
2,6-Dinitrotoluene	EPA 8270	<10	ug/L	CMG	08/04/2008
3-Nitroaniline	EPA 8270	<50	ug/L	CMG	08/04/2008
Acenaphthene	EPA 8270	<2.0	ug/L	CMG	08/04/2008
Dibenzofuran	EPA 8270	<10	ug/L	CMG	08/04/2008
2,4-Dinitrotoluene	EPA 8270	<10	ug/L	CMG	08/04/2008
Diethylphthalate	EPA 8270	<10	ug/L	CMG	08/04/2008
Fluorene	EPA 8270	<2.0	ug/L	CMG	08/04/2008
4-Chlorophenyl Phenyl Ether	EPA 8270	<10	ug/L	CMG	08/04/2008
4-Nitroaniline	EPA 8270	<20	ug/L	CMG	08/04/2008
n-Nitrosodiphenylamine	EPA 8270	<10	ug/L	CMG	08/04/2008
4-Bromophenyl Phenyl Ether	EPA 8270	<10	ug/L	CMG	08/04/2008
Hexachlorobenzene	EPA 8270	<10	ug/L	CMG	08/04/2008
Phenanthrene	EPA 8270	<2.0	ug/L	CMG	08/04/2008
Anthracene	EPA 8270	<2.0	ug/L	CMG	08/04/2008
Carbazole	EPA 8270	<10	ug/L	CMG	08/04/2008
di-n-Butylphthalate	EPA 8270	<15	ug/L	CMG	08/04/2008
Fluoranthene	EPA 8270	<2.0	ug/L	CMG	08/04/2008
Pyrene	EPA 8270	<2.0	ug/L	CMG	08/04/2008
Butylbenzylphthalate	EPA 8270	<10	ug/L	CMG	08/04/2008
Benzo [a] Anthracene	EPA 8270	<2.0	ug/L	CMG	08/04/2008
3,3'-Dichlorobenzidine	EPA 8270	<20	ug/L	CMG	08/04/2008
Chrysene	EPA 8270	<2.0	ug/L	CMG	08/04/2008
bis(2-Ethylhexyl)Phthalate	EPA 8270	<10	ug/L	CMG	08/04/2008
di-n-Octylphthalate	EPA 8270	<10	ug/L	CMG	08/04/2008
Benzo [b] Fluoranthene	EPA 8270	<2.0	ug/L	CMG	08/04/2008
Benzo [k] Fluoranthene	EPA 8270	<2.0	ug/L	CMG	08/04/2008
Benzo [a] Pyrene	EPA 8270	<2.0	ug/L	CMG	08/04/2008
Indeno [1,2,3-cd] Pyrene	EPA 8270	<2.0	ug/L	CMG	08/04/2008
Dibenzo [a,h] Anthracene	EPA 8270	<2.0	ug/L	CMG	08/04/2008



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Test Performed	Method	Results	Units	Tech	Analysis Date
Benzo [g,h,i] Perylene	EPA 8270	<2.0	ug/L	CMG	08/04/2008
Surrogates:	EPA 8270				
***2-Fluorophenol	EPA 8270	21.7	% R	CMG	08/04/2008
***Phenol-D6	EPA 8270	43.3	% R	CMG	08/04/2008
***Nitrobenzene-D5	EPA 8270	36.5	% R	CMG	08/04/2008
***2-Fluorobiphenyl	EPA 8270	36.0	% R	CMG	08/04/2008
***2,4,6-Tribromophenol	EPA 8270	40.1	% R	CMG	08/04/2008
***P-Terphenyl-D14	EPA 8270	41.4	% R	CMG	08/04/2008
Extraction	EPA 3510C	1.0	DF	DAB	07/30/2008
METALS					
Antimony	EPA 6010B	<0.0050	mg/L	LLZ	07/30/2008
Arsenic	EPA 6010B	0.0045	mg/L	LLZ	07/30/2008
Cadmium	EPA 6010B	<0.0010	mg/L	LLZ	07/30/2008
Chromium	EPA 6010B	0.010	mg/L	LLZ	07/30/2008
Copper	EPA 6010B	0.037	mg/L	LLZ	07/30/2008
Lead	EPA 6010B	0.0067	mg/L	LLZ	07/30/2008
Mercury	EPA 7470A	<0.00040	mg/L	TN	07/30/2008
Nickel	EPA 6010B	0.0075	mg/L	LLZ	07/30/2008
Selenium	EPA 6010B	<0.0050	mg/L	LLZ	07/30/2008
Silver	EPA 6010B	<0.0010	mg/L	LLZ	07/30/2008
Zinc	EPA 6010B	0.067	mg/L	LLZ	07/30/2008
Iron	EPA 6010B	2.0	mg/L	LLZ	07/30/2008
Hexavalent Chromium	SM 3500CrD	<0.01	mg/L	LLZ	07/28/2008
SUBCONTRACTED ANALYTES					
Total Suspended Solids	EPA 160.2	150	mg/L	XXX	07/30/2008
Residual Chlorine	EPA 330.1	0.2	mg/L	XXX	07/29/2008
PESTICIDES AND PCBs	EPA 608				
Total Cyanide	EPA 335.2	<0.01	mg/L	XXX	07/31/2008
TPH via Method 1664	EPA 1664	6.7	mg/L	XXX	07/31/2008

GZA GEOENVIRONMENTAL, INC.
 ENVIRONMENTAL CHEMISTRY LABORATORY
 106 SOUTH ST, HOPKINTON, MA 01748
 MASSACHUSETTS LABORATORY I.D. NO. MA092

EPA METHOD 6010B ANALYSIS
Metals by ICP

QUALITY CONTROL - AQUEOUS

DATE PREPARED: 7/30/2008

QC Sample	Method Blank	Lab Control Sample	LC Duplicate	LCS/LCD Diff.
Units	mg/L	% Recovery	% Recovery	RPD
Acceptance Limits	Results	80-120	80-120	20%
Analyte				
Silver (Ag)	<0.0050	91.0	85.0	6.86
Aluminum (Al)	NA	NA	NA	NA
Arsenic (As)	<0.010	99.2	93.6	5.74
Boron (B)	NA	NA	NA	NA
Barium (Ba)	NA	NA	NA	NA
Beryllium (Be)	NA	NA	NA	NA
Calcium (Ca)	NA	NA	NA	NA
Cadmium (Cd)	<0.0050	96.5	90.4	6.48
Cobalt (Co)	NA	NA	NA	NA
Chromium (Cr)	<0.0050	97.4	91.3	6.40
Copper (Cu)	<0.015	114	115	1.40
Iron (Fe)	<0.025	104	97.2	6.44
Magnesium (Mg)	NA	NA	NA	NA
Manganese (Mn)	NA	NA	NA	NA
Molybdenum (Mo)	NA	NA	NA	NA
Nickel (Ni)	<0.010	99.0	92.8	6.41
Lead (Pb)	<0.010	96.4	90.9	5.89
Antimony (Sb)	<0.025	99.9	94.3	5.72
Selenium (Se)	<0.025	102	96.4	5.36
Strontium (Sr)	NA	NA	NA	NA
Titanium (Ti)	NA	NA	NA	NA
Thallium (Tl)	NA	NA	NA	NA
Vanadium (V)	NA	NA	NA	NA
Zinc (Zn)	<0.010	111	101	10.1
Zirconium (Zr)	NA	NA	NA	NA

Matrix Spike / Duplicate Spike performed as per method and reported if assigned on Chain of Custody.

GZA GEOENVIRONMENTAL, INC.
ENVIRONMENTAL CHEMISTRY LABORATORY
106 SOUTH ST, HOPKINTON, MA 01748
MASSACHUSETTS LABORATORY I.D. NO. MA092

EPA METHOD 7470A ANALYSIS
Mercury by Cold Vapor Atomic Absorption

QUALITY CONTROL - AQUEOUS

Date Prepared: 07/29/08

QC Sample	Method Blank	Lab Control Sample	Lab Control Sample Duplicate	LC/LCD Difference
Units	mg/L	% Recovery	% Recovery	RPD
Acceptance Limits	Results	80-120	80-120	20%
Analyte				
Mercury (Hg)	<0.00040	95.6	93.8	1.94

RPD = Relative Percent Difference

EPA Method 8270/825 Aqueous Method Blank (MB) and Laboratory Control Sample (LCS) Data

Method Blank

Date Extracted: 07/31/08
Date Analyzed: 08/04/08
File Name: L8322

	Result	Reporting Limit (ug/L)
Semi-Volatile Organics		
n-nitrosodimethylamine	ND	10
pyridine	ND	100
phenol	ND	10
bis(2-chloroethyl)ether	ND	10
2-chlorophenol	ND	10
1,3-dichlorobenzene	ND	10
1,4-dichlorobenzene	ND	10
benzyl alcohol	ND	20
1,2-dichlorobenzene	ND	10
2-methylphenol	ND	10
bis(2-chloroisopropyl)ether	ND	10
3,4-dimethylphenol	ND	10
n-nitrosod-n-propylamine	ND	10
acetophenone	ND	10
hexachloroethane	ND	10
nitrobenzene	ND	10
isophrene	ND	10
2-nitrophenol	ND	10
2,4-dimethylphenol	ND	10
benzoic acid	ND	10
bis(2-chloroethoxy)methane	ND	10
2,4-dichlorophenol	ND	10
1,2,4-trichlorobenzene	ND	10
naphthalene	ND	2.0
4-chloroaniline	ND	10
hexachlorobutadiene	ND	20
4-chloro-3-methylphenol	ND	2.0
2-methylnaphthalene	ND	10
aniline	ND	50
hexachlorocyclopentadiene	ND	10
2,4,6-trichlorophenol	ND	10
2,4,5-trichlorophenol	ND	10
2-chloronaphthalene	ND	50
2-nitroaniline	ND	10
dimethylphthalate	ND	2.0
acenaphthylene	ND	10
2,6-dinitrotoluene	ND	50
3-nitroaniline	ND	2.0
acenaphthene	ND	100
2,4-dinitrophenol	ND	10
dibenzofuran	ND	50
4-nitrophenol	ND	10
2,4-dinitrotoluene	ND	10
diethylphthalate	ND	2.0
fluorene	ND	10
4-chlorophenyl phenyl ether	ND	20
4-nitroaniline	ND	50
4,6-dinitro-2-methylphenol	ND	10
n-nitrosodiphenylamine	ND	10
azobenzene	ND	10
4-bromophenyl phenyl ether	ND	10
hexachlorobenzene	ND	50
pentachlorophenol	ND	2.0
phenanthrene	ND	2.0
anthracene	ND	10
carbazole	ND	15
di-n-butylphthalate	ND	2.0
fluoranthene	ND	2.0
pyrene	ND	10
butylbenzylphthalate	ND	2.0
benz [a] anthracene	ND	20
3,3'-dichlorobenzidine	ND	2.0
chrysene	ND	10
bis(2-ethylhexyl)phthalate	ND	10
di-n-octylphthalate	ND	2.0
benzo [b] fluoranthene	ND	2.0
benzo [k] fluoranthene	ND	2.0
benzo [a] pyrene	ND	2.0
indeno [1,2,3-cd] pyrene	ND	2.0
dibenz [a,h] anthracene	ND	2.0
benzo [ghi] perylene	ND	2.0

Surrogates:	Recovery (%)	Acceptance Limits
2-FLUOROPHENOL	23.3	15-110
2-CHLOROPHENOL-D4	15.1	15-110
NITROBENZENE-D5	53.9	30-130
2-FLUOROBIPHENYL	54.9	30-130
2,4,6-TRIBROMOPHENOL	61.4	15-100
p-TERPHEYL-D14	60.5	30-130

EPA Method 8270/625 Aqueous Method Blank (MB) and Laboratory Control Sample (LCS) Data

Laboratory Control Sample

Date Extracted: 07/31/08
Date Analyzed: 08/04/08
File Name: L8323

Laboratory Control Sample Duplicate

Date Extracted: 07/31/08
Date Analyzed: 08/04/08
File Name: L8324

Spikes Concentration = 20ug/L	% Recovery	Acceptance Limits	Verdict	% Recovery	Acceptance Limits	Verdict	Relative % Diff	Limits	Verdict
n-nitrosodimethylamine	23.5	40-140	out	20.9	40-140	out	13	<20	ok
pyridine	15.7	40-140	out	7.49	40-140	out	71	<20	out
phenol	14.0	30-130	out	14.9	30-130	out	6.7	<20	ok
bis(2-chloroethyl)ether	46.8	40-140	ok	50.1	40-140	ok	0.56	<20	ok
2-chlorophenol	46.1	30-130	ok	49.6	30-130	ok	7.4	<20	ok
1,3-dichlorobenzene	41.4	40-140	ok	37.9	40-140	out	8.6	<20	ok
1,4-dichlorobenzene	41.5	40-140	ok	40.8	40-140	ok	1.6	<20	ok
benzyl alcohol	34.8	40-140	out	38.8	40-140	out	11	<20	ok
1,2-dichlorobenzene	45.1	40-140	ok	42.3	40-140	ok	6.4	<20	ok
2-methylphenol	38.0	30-130	ok	40.2	30-130	ok	5.8	<20	ok
bis(2-chloroisopropyl)ether	51.4	40-140	ok	49.4	40-140	ok	4.0	<20	ok
3,4-methylphenol	63.1	30-140	ok	70.6	30-130	ok	11	<20	ok
n-nitrosodi-n-propylamine	53.5	40-140	ok	52.7	40-140	ok	1.4	<20	ok
acetophenone	55.2	40-140	ok	58.8	40-140	ok	3.0	<20	ok
hexachloroethane	40.2	40-140	ok	38.5	40-140	out	9.7	<20	ok
nitrobenzene	53.1	40-140	ok	51.1	40-140	ok	3.8	<20	ok
isophrone	57.6	30-130	ok	57.1	30-130	ok	1.0	<20	ok
2-nitrophenol	56.4	30-130	ok	55.2	30-130	ok	2.2	<20	ok
2,4-dimethylphenol	49.1	30-130	ok	50.8	30-130	ok	2.9	<20	ok
benzoic acid	18.9	40-140	out	21.0	40-140	out	11	<20	ok
bis(2-chloroethoxy)methane	54.8	30-130	ok	58.3	30-130	ok	2.8	<20	ok
2,4-dichlorophenol	0.46	40-140	out	0.12	40-140	out	117	<20	out
1,2,4-trichlorobenzene	45.8	40-140	ok	43.4	40-140	ok	5.4	<20	ok
naphthalene	51.3	40-140	ok	49.5	40-140	ok	3.8	<20	ok
4-chloroaniline	52.1	40-140	ok	42.1	40-140	ok	21	<20	out
hexachlorobutadiene	42.3	30-130	ok	40.7	30-130	ok	4.0	<20	ok
4-chloro-3-methylphenol	50.6	40-140	ok	57.4	40-140	ok	13	<20	ok
2-methylnaphthalene	60.9	40-140	ok	49.7	40-140	ok	2.5	<20	ok
aniline	29.7	40-140	out	13.5	40-140	out	75	<20	out
hexachlorocyclopentadiene	26.4	30-130	out	24.8	30-130	out	6.3	<20	ok
2,4,6-trichlorophenol	56.6	30-130	ok	55.0	30-130	ok	2.8	<20	ok
2,4,5-trichlorophenol	55.7	40-140	ok	60.2	40-140	ok	7.9	<20	ok
2-chloronaphthalene	52.7	40-140	ok	52.4	40-140	ok	0.85	<20	ok
2-nitroaniline	51.7	40-140	ok	54.8	40-140	ok	5.4	<20	ok
dimethylphthalate	56.7	40-140	ok	56.7	40-140	ok	0.00	<20	ok
acenaphthylene	56.0	40-140	ok	55.1	40-140	ok	1.5	<20	ok
2,6-dinitrotoluene	51.0	40-140	ok	51.1	40-140	ok	0.27	<20	ok
3-nitroaniline	53.4	40-140	ok	50.4	40-140	ok	5.6	<20	ok
acenaphthene	54.4	30-130	ok	54.2	30-130	ok	0.48	<20	ok
2,4-dinitrophenol	43.4	40-140	ok	43.4	40-140	ok	0.18	<20	ok
dibenzofuran	57.0	30-130	ok	56.5	30-130	ok	0.85	<20	ok
4-nitrophenol	11.0	40-140	out	14.8	40-140	out	23	<20	out
2,4-dinitrotoluene	52.4	40-140	ok	51.9	40-140	ok	0.84	<20	ok
diethylphthalate	59.7	40-140	ok	58.7	40-140	ok	1.7	<20	ok
fluorene	58.6	40-140	ok	57.8	40-140	ok	1.2	<20	ok
4-chlorophenyl phenyl ether	55.3	40-140	ok	64.2	40-140	ok	2.0	<20	ok
4-nitroaniline	55.9	30-130	ok	57.7	30-130	ok	3.1	<20	ok
4,6-dinitro-2-methylphenol	47.7	40-140	ok	48.2	40-140	ok	3.2	<20	ok
n-nitrosodiphenylamine	48.5	40-140	ok	44.0	40-140	ok	9.6	<20	ok
azobenzene	52.7	40-140	ok	52.4	40-140	ok	0.49	<20	ok
4-bromophenyl phenyl ether	58.1	40-140	ok	54.3	40-140	ok	3.2	<20	ok
hexachlorobenzene	64.9	40-140	ok	54.3	40-140	ok	1.1	<20	ok
pentachlorophenol	60.3	40-140	ok	48.4	40-140	ok	3.7	<20	ok
phenanthrene	57.6	40-140	ok	57.1	40-140	ok	0.91	<20	ok
anthracene	60.9	40-140	ok	59.3	40-140	ok	2.6	<20	ok
carbazole	58.3	40-140	ok	57.0	40-140	ok	2.1	<20	ok
di-n-butylphthalate	63.1	40-140	ok	63.0	40-140	ok	0.14	<20	ok
fluoranthene	62.0	40-140	ok	60.9	40-140	ok	1.9	<20	ok
pyrene	58.8	40-140	ok	58.2	40-140	ok	0.82	<20	ok
butylbenzylphthalate	61.3	40-140	ok	61.2	40-140	ok	0.21	<20	ok
benz [a] anthracene	58.4	40-140	ok	57.9	40-140	ok	0.77	<20	ok
3,3'-dichlorobenzidine	58.1	40-140	ok	51.4	40-140	ok	8.8	<20	ok
chrysene	50.7	40-140	ok	49.2	40-140	ok	3.0	<20	ok
bis(2-ethylhexyl)phthalate	57.8	40-140	ok	57.4	40-140	ok	0.81	<20	ok
di-n-octylphthalate	53.2	40-140	ok	54.2	40-140	ok	1.8	<20	ok
benzo [b] fluoranthene	48.6	40-140	ok	49.3	40-140	ok	1.3	<20	ok
benzo [k] fluoranthene	50.4	40-140	ok	47.0	40-140	ok	6.9	<20	ok
benzo [a] pyrene	45.3	40-140	ok	44.3	40-140	ok	2.3	<20	ok
indeno [1,2,3-cd] pyrene	62.3	40-140	ok	59.8	40-140	ok	4.2	<20	ok
dibenz [a,h] anthracene	60.3	40-140	ok	57.7	40-141	ok	4.4	<20	ok
benzo [ghi] perylene	60.2	40-140	ok	57.6	40-142	ok	4.4	<20	ok

CAM criteria allows 15% of analytes to exceed criteria.

Surrogates:	Recovery (%)	Acceptance Limits	Verdict	Recovery (%)	Acceptance Limits	Verdict	Relative % Diff	Limits	Verdict
2-FLUOROPHENOL	21.6	15-110	ok	25.8	10-100	ok	18	<20	ok
2-CHLOROPHENOL-D4	48.1	15-110	ok	64.9	15-110	ok	13	<20	ok
NITROBENZENE-D5	52.1	30-130	ok	52.6	10-130	ok	0.98	<20	ok
2-FLUOROBIPHENYL	52.8	30-130	ok	55.2	10-105	ok	4.4	<20	ok
2,4,6-TRIBROMOPHENOL	61.5	15-110	ok	63.22	14-134	ok	2.7	<20	ok
p-TERPHENYL-D14	59.1	30-130	ok	64.37	11-102	ok	8.5	<20	ok

SMF criteria allows 5 compounds to be outside acceptance limits

W.O. # 02

Sample I.D.	Date/Time Sampled	Matrix A=Air S=Soil GW=Ground W. SW=Surface W. WW=Waste W. DW=Drinking W. P=Product Other (specify)	ANALYSIS REQUIRED																									
			J pH	J Cond.	GC Methane, Ethane, Ethene	EPA 8260	EPA 8260 - 8010 List I (Chlor)	EPA 8260 - 8021 List II	EPA 821 - 8020 List I (BTEX)	EPA 524.2 DW VOCs	EPA 624 WW VOCs	J 601 J 802 WW VOCs	EPA 8210 FULL SVOCs	EPA 8270 J PAH J A J B	EPA 625 WW SVOCs	EPA 821 PCBs	EPA 8081-Pest	TPH-3C (Micro-Grav)	TPH-3C w/FING.	EPH (MA DEP)	VPH (MA DEP)	Metals J PHM-13 J R-8	MCP 14 Metals (W/A)	Metals (List Below)**	TCLP - Specify Below	SPLP - Specify Below	EPA 300 J Cl J SO4	EPA 300 J NO2 J NO3
SW-3	1045am 7/28/08	SW			X							X			X		X						X					
SW-4	1215pm 7/28/08	SW			X							X			X		X					X						
SW-5	115pm 7/28/08	SW			X							X			X		X					X						
SW-2	240pm 7/28/08																X											