Environmental
Resources
Management

399 Boylston Street, 6th Floor
Boston, MA 02116
(617) 646-7800
(617) 267-6447 (fax)

ERM

MA6910168

2 December 2005
Reference: 0033502

US Environmental Protection Agency
RGP-NOC Processing
Municipal Assistance Unit (CMU)
1 Congress Street, Suite 1100
Boston, MA 02114-2023

DEC - 6 2005

Subject: Notice of Intent
Remediation General Permit
The Gillette Company
South Boston, Massachusetts

To Whom It May Concern::

On behalf of The Gillette Company (Gillette), Environmental Resources Management (ERM) is submitting this Notice of Intent (NOI) for application of a Remedial General Permit (RGP) under the National Pollution Discharge Elimination System requirements. A groundwater pump and treat system is currently in operation at the Gillette South Boston Manufacturing Center (SBMC) (Figure 1) and is discharging treated water to Fort Point Channel under National Pollution Discharge Elimination System (NPDES) Permit "Exclusion" letter, #MA-04I-045.

BACKGROUND

Contamination at the site was first identified in 1994 when chlorinated volatile organic compounds (VOCs) were detected in groundwater during a pre-purchase due diligence investigation conducted by Gillette as part of the acquisition of an abutting property. The Massachusetts Department of Environmental Protection (DEP) assigned Release Tracking Number (RTN) 3-11312 to the site.

In accordance with the Massachusetts Contingency Plan (MCP), remedial activities are being conducted as part of Comprehensive Response Actions under the supervision of a Licensed Site Professional (LSP). A Phase IV Remedy Implementation Plan (Phase IV) Modification was submitted to the DEP to document site conditions and remedial plans for the site. The Phase IV modification includes installation of a groundwater Pump & Treat (P&T) system to minimize the migration of chlorinated

VOCs off-site in the shallow bedrock aquifer. The site is currently in remedy operation status.

Treated groundwater is discharged to the Gillette storm water drainage system, which ultimately discharges to Fort Point Channel (Figure 3). The treatment system was activated in July of 2005.

The system is currently operating intermittently while water softening and iron removal treatments are implemented. Therefore, the system water streams have not been sampled for the complete parameter list in Appendix III of the RGP. When the system is back to routine operation, the water streams will be sampled for the full parameter list for a VOC site and submitted in the next appropriate month data summary report.

If you have any questions or comments please contact the undersigned at (617) 646-7800.

Sincerely,

John C. Drobinski, P.G., LSP
Principle-in-Charge

Rachel B Leary
Project Manager

rbl
enclosures: Figure 1 Site Locus Map

Attachment Notice of Intent

cc: Massachusetts Department of Environmental Protection
Division of Watershed Management
627 Main Street, 2nd Floor
Worchester, MA 01608

City Of Boston

ATTACHMENT

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**: The Gillette Company, South Boston Manufacturing Center		**Facility/site** address: One Gillette Park		
Location of **facility/site**: longitude: 71 03 latitude: 42 20	Facility SIC code(s): 3421	Street: One Gillette Park		
b) Name of **facility/site owner:** The Gillette Company, Sandra Bisset		Town: Boston		
Email address of owner: Sandra_Bisset@Gillette.com		State: MA	Zip: 02127	County: Suffolk
Telephone no.of facility/site **owner**: (617) 463-2582				
Fax no. of facility/site **owner**: (617) 463-4302		**Owner** is (check one): 1. Federal____ 2. State/Tribal_____ 3. Private ✔ 4. other, if so, describe:		
Address of **owner** (if different from site):				
Street:				
Town:	State:	Zip:	County:	
c) Legal name of **operator**: The Gillette Company (same as above)	**Operator** telephone no:			
	Operator fax no.:		**Operator** email:	
Operator contact name and title:				

DEC - 6 2005

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: MA-04I-045
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: 3-13952
3. state agency contact information: name, location, and telephone number:
MA DEP, Scott Greene, One Winter St. Boston, (617) 654-6500

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: MA0003832
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:
See Appendix A.

b) Provide the following information about each discharge:	1) Number of discharge points: 1	2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft^3/s)? Max. flow 0.05 Average flow 0.02 Is maximum flow a **design value**? Y✔ N___ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.

3) Latitude and longitude of each discharge within 100 feet: pt.1:long._____ lat._____; 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 08/17/05 end 08/01/35	
d) Please attach a line drawing or flow schematic showing water flow through the facility including: See Figure 2. 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	160.2	100			15000	
2. Total Residual Chlorine	✔		1	Grab	330.5	200	ND		ND	
3. Total Petroleum Hydrocarbons	✔		1	Grab	8100	200	ND		ND	
4. Cyanide	✔		1	Grab	335.2	10	ND		ND	
5. Benzene	✔		8	Grab	8260	100	ND		ND	
6. Toluene	✔		8	Grab	8260	100	ND		ND	
7. Ethylbenzene	✔		8	Grab	8260	100	ND		ND	
8. (m,p,o) Xylenes	✔		8	Grab	8260	100	ND		ND	
9. Total BTEX[4]	✔		8	Grab	8260	100	ND		ND	

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide (1,2- Dibromo-methane)	✔		8	Grab	8260	100	ND		ND	
11. Methyl-tert-Butyl Ether (MtBE)	✔		8	Grab	8260	200	ND		ND	
12. tert-Butyl Alcohol (TBA)	✔		8	Grab	8260	5000	ND		ND	
13. tert-Amyl Methyl Ether (TAME)	✔		8	Grab	8260	100	ND		ND	
14. Naphthalene	✔		8	Grab	8260	100	ND		ND	
15. Carbon Tetra-chloride	✔		8	Grab	8260	100	ND		ND	
16. 1,4 Dichlorobenzene	✔		8	Grab	8260	100	ND		ND	
17. 1,2 Dichlorobenzene	✔		8	Grab	8260	100	ND		ND	
18. 1,3 Dichlorobenzene	✔		8	Grab	8260	100	ND		ND	
19. 1,1 Dichloroethane	✔		8	Grab	8260	100	ND		ND	
20. 1,2 Dichloroethane	✔		8	Grab	8260	100	ND		ND	
21. 1,1 Dichloroethylene	✔		8	Grab	8260	100	ND		ND	
22. cis-1,2 Dichloro-ethylene		✔	8	Grab	8260	100	35000		1575	
23. Dichloromethane (Methylene Chloride)	✔		8	Grab	8260	100	ND		ND	
24. Tetrachloroethylene		✔	8	Grab	8260	100	5000		436	

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	✔		8	Grab	8260	100	ND		ND	
26. 1,1,2 Trichloroethane	✔		8	Grab	8260	100	ND		ND	
27. Trichloroethylene		✔	8	Grab	8260	100	15000		24000	
28. Vinyl Chloride		✔	8	Grab	8260	100	10000		140	
29. Acetone	✔		8	Grab	8260	2500	ND		ND	
30. 1,4 Dioxane	✔		8	Grab	8260	20000	ND		ND	
31. Total Phenols	✔		1	Grab	8270	50	ND		ND	
32. Pentachlorophenol	✔		1	Grab	8270	50	ND		ND	
33. Total Phthalates [5] (Phthalate esthers)	✔		1	Grab	8270	50	ND		ND	
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✔		1	Grab	8270	50	ND		ND	
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	✔		1	Grab	8270	50	ND		ND	
a. Benzo(a) Anthracene	✔		1	Grab	8270	2	ND		ND	
b. Benzo(a) Pyrene	✔		1	Grab	8270	2	ND		ND	
c. Benzo(b)Fluoranthene	✔		1	Grab	8270	2	ND		ND	
d. Benzo(k) Fluoranthene	✔		1	Grab	8270	2	ND		ND	
e. Chrysene	✔		1	Grab	8270	2	ND		ND	

[5] The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene	✔		1	Grab	8270	2	ND		ND	
g. Indeno(1,2,3-cd) Pyrene	✔		1	Grab	8270	2	ND		ND	
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	✔		1	Grab	8270	2	ND		ND	
h. Acenaphthene	✔		1	Grab	8270	2	ND		ND	
i. Acenaphthylene	✔		1	Grab	8270	2	ND		ND	
j. Anthracene	✔		1	Grab	8270	2	ND		ND	
k. Benzo(ghi) Perylene	✔		1	Grab	8270	2	ND		ND	
l. Fluoranthene	✔		1	Grab	8270	2	ND		ND	
m. Fluorene	✔		1	Grab	8270	2	ND		ND	
n. Naphthalene-	✔		1	Grab	8270	2	ND		ND	
o. Phenanthrene	✔		1	Grab	8270	2	ND		ND	
p. Pyrene	✔		1	Grab	8270	2	ND		ND	
37. Total Polychlorinated Biphenyls (PCBs)	✔		1	Grab	8082	.5	ND		ND	
38. Antimony	✔		1	Grab	6010B	25	ND		ND	
39. Arsenic	✔		1	Grab	6010B	10	ND		ND	
40. Cadmium	✔		1	Grab	6010B	5	ND		ND	
41. Chromium III	✔		1	Grab	6010B	5	ND		ND	
42. Chromium VI	✔		1	Grab	HACH	10	ND		ND	

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	15	ND		ND	
44. Lead	✔		1	Grab	6010B	10	ND		ND	
45. Mercury	✔		1	Grab	7470A	.5	ND		ND	
46. Nickel	✔		1	Grab	6010B	10	ND		ND	
47. Selenium	✔		1	Grab	6010B	25	ND		ND	
48. Silver	✔		1	Grab	6010B	5	ND		ND	
49. Zinc		✔	1	Grab	6010B	5			19	
50. Iron		✔	2	Grab	6010B	500	27000		7000	
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? Iron
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: Iron DF: 100	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: 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:

See Appendix B.

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

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

See Appendix B.

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:

See Appendix A.

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 SB,

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 510 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)?
Priority Organics, Pathogens

Is there a TMDL? Yes____ No ✔ If yes, for which pollutant(s)?

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

a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes____ No ✔
Has any consultation with the federal services been completed ? No ✔ or is consultation underway? Yes____ No____
What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (~~check~~ one):
a "no jeopardy" opinion? _____ or written concurrence____ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?

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

7. Supplemental information. :

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

See Appendix D for essential fish habitat evaluation.

A copy of the complete influent analysis is provided in Appendix E. All other analytical data has been previously submitted to the EPA and MA DEP under monthly inspection reports for the discharge under exclusion permit requirements.

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: The Gillette Company, South Boston Manufacturing Center, Sandra Bisset

Operator signature: Sandra Bisset

Title: Manager Safety/Environment

Date: 11/17/05

Scale 1:25,000

0.5 km 0 500 m

0.5 mi 0 1,000 ft

N

Figure 1 - Site Locus

Gillette Sobin Park South, South Boston, MA

ERM

R:\Gillette\South Boston\Gillette South Boston memo.dwg (10/26/2005 - 2:45pm Boston)

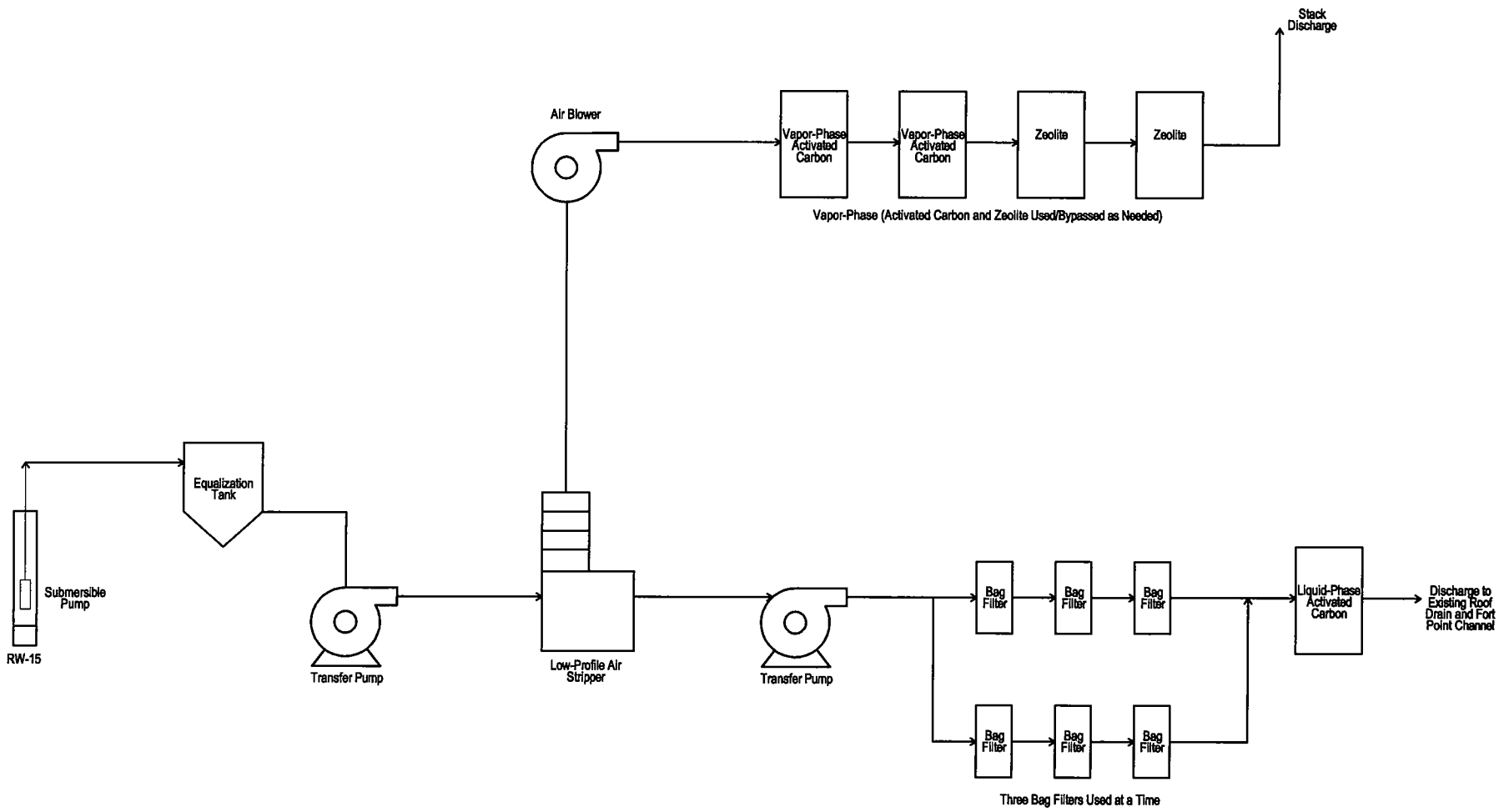

Figure 2 - Pump & Treat System
Process Flow Diagram
Gillette Sobin Park South - South Boston, MA

Not to Scale

ERM

R:\Gillette\South Boston\Pump system.dwg (10/26/2005 - 2:47pm Boston)

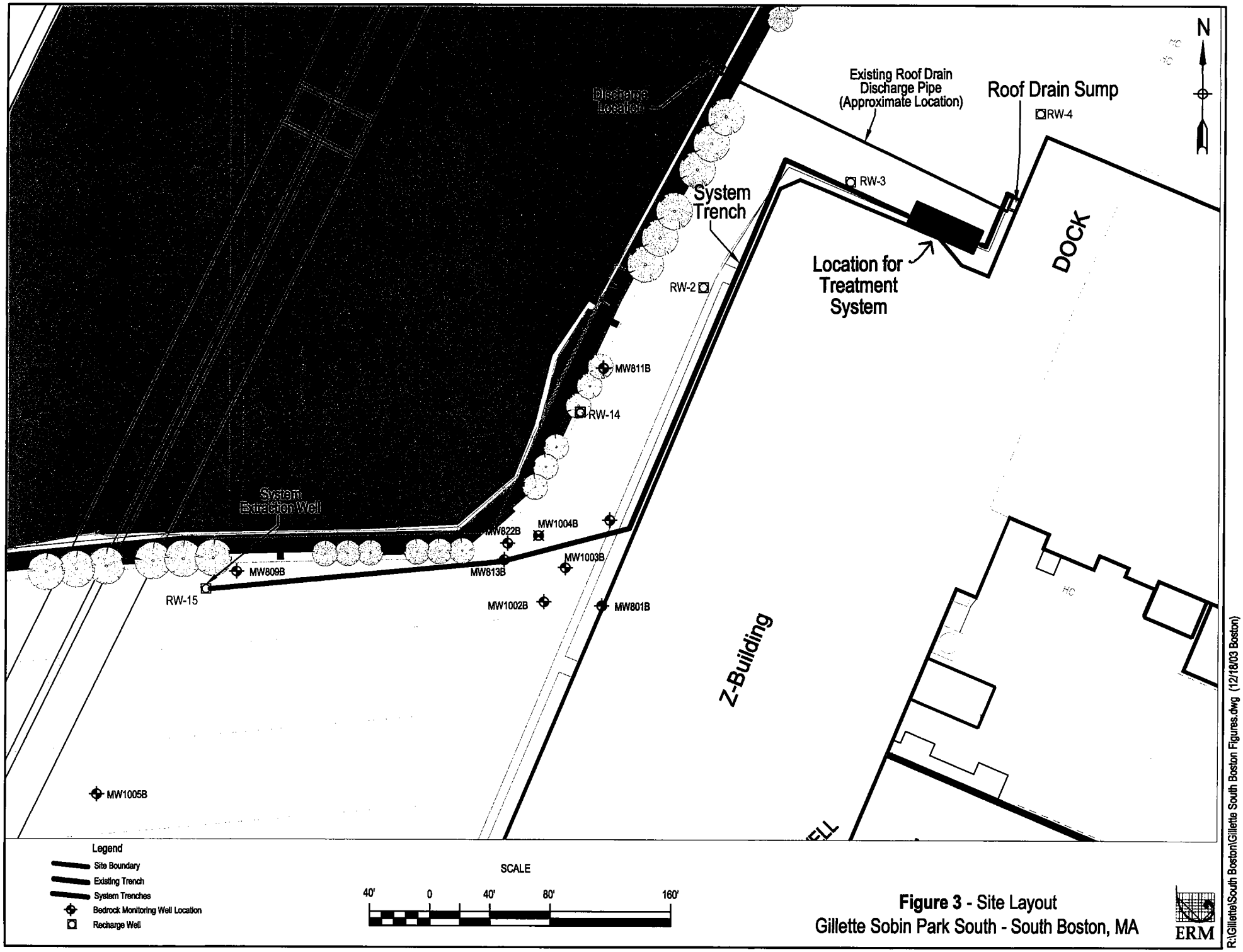

Figure 3 - Site Layout
Gillette Sobin Park South - South Boston, MA

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APPENDIX E

INFLUENT ANALYTICAL DATA

APPENDIX B CHEMICAL ADDITIVES

The groundwater pump and treat system is currently operating without any chemical additives. Gillette is currently in the process of evaluating the use of a water softening additive to address water hardness issues that is causing fouling in the air stripper and in the liquid activated carbon. The purpose of treatment is to maintain calcium solubility in the water stream.

A MSDS is attached of a potential additive, which will be implemented on a trial basis. PermTreat ® PC-191 will be added at 4 ppm to the system influent.

Gillette will update the EPA of any modification to the water treatment process.

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

Laboratory Identification Numbers:
MA and ME: MA092 NH: 2028
CT: PH0579 RI: LAO00236
NELAC - NYS DOH: 11063

ANALYTICAL DATA REPORT

GZA GeoEnvironmental, Inc.
One Edgewater Drive
Norwood, MA 02062
781-278-3700
John Colbert

Project No.:	01.0018293.00
Work Order No.:	0511-00126
Date Received:	11/14/05
Date Reported:	11/22/05

SAMPLE INFORMATION

Date Sampled	Matrix	Laboratory ID	Sample ID
11/14/2005	Aqueous	0511-00126 001	Sys Inf 111405

The laboratory report shall not be reproduced except in full without the written consent of the laboratory.

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

ANALYTICAL REPORT

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

John Colbert

Project Name: Gillette
Project No.: 01.0018293.00

Date Received: 11/14/05
Date Reported: 11/22/05
Work Order No.: 0511-00126

PROJECT NARRATIVE:

1. Sample Receipt

The samples were received on 11/14/05 via _x_GZA courier, __EC, __FEDEX, or ___hand delivered.
The samples were received intact for all requested analyses.

MADEP Defined "Presumptive Certainty" is required for this project.

Does the Chain-of-Custody indicate that samples are Drinking Water? ( )yes (x)no

Were the samples received between 2-6 degrees C (Temperature= 5.5 degrees C)? (x)yes ( )no

Were the samples received with method specific preservatives within holding time? (x)yes ( )no

2. Subcontracted Analyses

Analyses were subcontracted to Rhode Island Analytical (RIAL) on 11/14/05;

Certification MA: MA-RI015, NH: 253700 A&B, CT: PH-0508, ME: RI015, RI: RI-033, NY:11726,

The data is included in GZA's report for ease of electronic data transfer and is indicated by "XXX" in the tech column. The data report from the subcontractor is attached.

3. EPA Method 8270 - SVOCs

Attach QC 8270 11/15/05 - Aqueous

4. EPA Method 6010B/7470A - Metals

Attach QC 6010B 11/15/05 - Aqueous
Attach QC Mercury 11/15/05 - Aqueous

5. EPA Method 8082 - PCBs

Attach QC 8082 11/16/05 - Aqueous

The laboratory report shall not be reproduced except in full without the written consent of the laboratory.

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

ANALYTICAL REPORT

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

John Colbert

Project Name: Gillette
Project No.: 01.0018293.00

Date Received: 11/14/05
Date Reported: 11/22/05
Work Order No.: 0511-00126

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6. EPA Method 8260 - VOCs

Attach QC 8260 11/19/05 - Aqueous

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

ANALYTICAL REPORT

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

John Colbert

Project Name: Gillette
Project No.: 01.0018293.00

Date Received: 11/14/05
Date Reported: 11/22/05
Work Order No.: 0511-00126

MADEP MCP ANALYTICAL METHOD REPORT CERTIFICATION FORM:

An affirmative response to the following three questions is required for "Presumptive Certainty" status.

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 [✓] No[1] [ ]

Were all QA/QC performance standards for specified analytical methods(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 [✓] No[1] [ ]

Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in Section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"? Yes [✓] No[1] [ ]

A response to the following two questions is required for "Presumptive Certainty" status.

Were all QC performance standards and recommendations for the specified methods achieved? Yes [✓] No[1] [ ]

Were results for all analyte-list compounds/elements for the specified method(s) reported? Yes [ ] No[1] [✓]

[1] *All Negative responses must be addressed in an attached 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: KWalsh **Date:** 11/22/05

Printed Name: **Kathryn Walsh** **Position:** **Laboratory Supervisor**

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

ANALYTICAL REPORT

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

John Colbert

Project Name: Gillette
Project No.: 01.0018293.00

Date Received: 11/14/05
Date Reported: 11/22/05
Work Order No.: 0511-00126

LABORATORY STATEMENTS:

Abbreviations:
% R = % Recovery
DF = Dilution 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.

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

ANALYTICAL REPORT

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One Edgewater Drive
Norwood, MA 02062

John Colbert

Project Name: Gillette
Project No.: 01.0018293.00

Date Received: 11/14/05
Date Reported: 11/22/05
Work Order No.: 0511-00126

Sample ID: Sys Inf 111405
Sample Date: 11/14/2005

Sample No.: 001

Test Performed	Method	Results	Units	Tech	Analysis Date
SEMI-VOLATILE ORGANICS	EPA 8270			CMG	11/16/05
ACID FRACTION:	EPA 8270				
Phenol	EPA 8270	<10	ug/L	CMG	11/16/05
2-Chlorophenol	EPA 8270	<10	ug/L	CMG	11/16/05
2-Methylphenol	EPA 8270	<10	ug/L	CMG	11/16/05
3&4-Methylphenol	EPA 8270	<10	ug/L	CMG	11/16/05
2-Nitrophenol	EPA 8270	<10	ug/L	CMG	11/16/05
2,4-Dimethylphenol	EPA 8270	<10	ug/L	CMG	11/16/05
Benzoic Acid	EPA 8270	<10	ug/L	CMG	11/16/05
2,4-Dichlorophenol	EPA 8270	<10	ug/L	CMG	11/16/05
4-Chloro-3-Methylphenol	EPA 8270	<20	ug/L	CMG	11/16/05
2,4,6-Trichlorophenol	EPA 8270	<10	ug/L	CMG	11/16/05
2,4,5-Trichlorophenol	EPA 8270	<10	ug/L	CMG	11/16/05
2,4-Dinitrophenol	EPA 8270	<100	ug/L	CMG	11/16/05
4-Nitrophenol	EPA 8270	<50	ug/L	CMG	11/16/05
4,6-Dinitro-2-Methylphenol	EPA 8270	<50	ug/L	CMG	11/16/05
Pentachlorophenol	EPA 8270	<50	ug/L	CMG	11/16/05
BASE-NEUTRAL FRACTION:					
n-Nitrosodimethylamine	EPA 8270	<10	ug/L	CMG	11/16/05
bis(2-Chloroethyl)Ether	EPA 8270	<10	ug/L	CMG	11/16/05
1,3-Dichlorobenzene	EPA 8270	<10	ug/L	CMG	11/16/05
1,4-Dichlorobenzene	EPA 8270	<10	ug/L	CMG	11/16/05
Benzyl Alcohol	EPA 8270	<20	ug/L	CMG	11/16/05
1,2-Dichlorobenzene	EPA 8270	<10	ug/L	CMG	11/16/05
bis(2-Chloroisopropyl)Ether	EPA 8270	<10	ug/L	CMG	11/16/05
n-Nitrosodi-n-Propylamine	EPA 8270	<10	ug/L	CMG	11/16/05
Hexachloroethane	EPA 8270	<10	ug/L	CMG	11/16/05
Nitrobenzene	EPA 8270	<10	ug/L	CMG	11/16/05
Isophorone	EPA 8270	<10	ug/L	CMG	11/16/05
bis(2-Chloroethoxy)Methane	EPA 8270	<10	ug/L	CMG	11/16/05
1,2,4-Trichlorobenzene	EPA 8270	<10	ug/L	CMG	11/16/05
Naphthalene	EPA 8270	<2.0	ug/L	CMG	11/16/05

GZA GeoEnvironmental, Inc.

ANALYTICAL REPORT

Project Name: Gillette
Project No.: 01.0018293.00

Work Order No.: 0511-00126

Sample ID: Sys Inf 111405
Sample Date: 11/14/2005

Sample No.: 001

Test Performed	Method	Results	Units	Tech	Analysis Date
4-Chloroaniline	EPA 8270	<20	ug/L	CMG	11/16/05
Hexachlorobutadiene	EPA 8270	<10	ug/L	CMG	11/16/05
2-Methylnaphthalene	EPA 8270	<2.0	ug/L	CMG	11/16/05
Hexachlorocyclopentadiene	EPA 8270	<50	ug/L	CMG	11/16/05
2-Chloronaphthalene	EPA 8270	<10	ug/L	CMG	11/16/05
2-Nitroaniline	EPA 8270	<50	ug/L	CMG	11/16/05
Dimethylphthalate	EPA 8270	<10	ug/L	CMG	11/16/05
Acenaphthylene	EPA 8270	<2.0	ug/L	CMG	11/16/05
2,6-Dinitrotoluene	EPA 8270	<10	ug/L	CMG	11/16/05
3-Nitroaniline	EPA 8270	<50	ug/L	CMG	11/16/05
Acenaphthene	EPA 8270	<2.0	ug/L	CMG	11/16/05
Dibenzofuran	EPA 8270	<10	ug/L	CMG	11/16/05
2,4-Dinitrotoluene	EPA 8270	<10	ug/L	CMG	11/16/05
Diethylphthalate	EPA 8270	<10	ug/L	CMG	11/16/05
Fluorene	EPA 8270	<2.0	ug/L	CMG	11/16/05
4-Chlorophenyl Phenyl Ether	EPA 8270	<10	ug/L	CMG	11/16/05
4-Nitroaniline	EPA 8270	<20	ug/L	CMG	11/16/05
n-Nitrosodiphenylamine	EPA 8270	<10	ug/L	CMG	11/16/05
4-Bromophenyl Phenyl Ether	EPA 8270	<10	ug/L	CMG	11/16/05
Hexachlorobenzene	EPA 8270	<10	ug/L	CMG	11/16/05
Phenanthrene	EPA 8270	<2.0	ug/L	CMG	11/16/05
Anthracene	EPA 8270	<2.0	ug/L	CMG	11/16/05
Carbazole	EPA 8270	<10	ug/L	CMG	11/16/05
di-n-Butylphthalate	EPA 8270	<15	ug/L	CMG	11/16/05
Fluoranthene	EPA 8270	<2.0	ug/L	CMG	11/16/05
Pyrene	EPA 8270	<2.0	ug/L	CMG	11/16/05
Butylbenzylphthalate	EPA 8270	<10	ug/L	CMG	11/16/05
Benzo [a] Anthracene	EPA 8270	<2.0	ug/L	CMG	11/16/05
3,3'-Dichlorobenzidine	EPA 8270	<20	ug/L	CMG	11/16/05
Chrysene	EPA 8270	<2.0	ug/L	CMG	11/16/05
bis(2-Ethylhexyl)Phthalate	EPA 8270	<10	ug/L	CMG	11/16/05
di-n-Octylphthalate	EPA 8270	<10	ug/L	CMG	11/16/05
Benzo [b] Fluoranthene	EPA 8270	<2.0	ug/L	CMG	11/16/05
Benzo [k] Fluoranthene	EPA 8270	<2.0	ug/L	CMG	11/16/05
Benzo [a] Pyrene	EPA 8270	<2.0	ug/L	CMG	11/16/05
Indeno [1,2,3-cd] Pyrene	EPA 8270	<2.0	ug/L	CMG	11/16/05
Dibenzo [a,h] Anthracene	EPA 8270	<2.0	ug/L	CMG	11/16/05
Benzo [g,h,i] Perylene	EPA 8270	<2.0	ug/L	CMG	11/16/05
Surrogates:	EPA 8270				
***2-Fluorophenol	EPA 8270	22.3	% R	CMG	11/16/05

GZA GeoEnvironmental, Inc.

ANALYTICAL REPORT

Project Name: Gillette
Project No.: 01.0018293.00

Work Order No.: 0511-00126

Sample ID: Sys Inf 111405
Sample Date: 11/14/2005

Sample No.: 001

Test Performed	Method	Results	Units	Tech	Analysis Date
***Phenol-D6	EPA 8270	54.8	% R	CMG	11/16/05
***Nitrobenzene-D5	EPA 8270	53.6	% R	CMG	11/16/05
***2-Fluorobiphenyl	EPA 8270	66.6	% R	CMG	11/16/05
***2,4,6-Tribromophenol	EPA 8270	73.2	% R	CMG	11/16/05
***P-Terphenyl-D14	EPA 8270	80.6	% R	CMG	11/16/05
Extraction	EPA 3510C	1.0	DF	JEJ	11/15/05
POLYCHLORINATED BIPHENYLS	EPA 8082			TAJ	11/17/05
Aroclor 1268	EPA 8082	<0.50	ug/L	TAJ	11/17/05
Aroclor 1262	EPA 8082	<0.50	ug/L	TAJ	11/17/05
Aroclor 1260	EPA 8082	<0.50	ug/L	TAJ	11/17/05
Aroclor 1254	EPA 8082	<0.50	ug/L	TAJ	11/17/05
Aroclor 1248	EPA 8082	<0.50	ug/L	TAJ	11/17/05
Aroclor 1242/1016	EPA 8082	<0.50	ug/L	TAJ	11/17/05
Aroclor 1232	EPA 8082	<1.0	ug/L	TAJ	11/17/05
Aroclor 1221	EPA 8082	<0.50	ug/L	TAJ	11/17/05
Surrogates:	EPA 8082				
***Tetrachloro-m-xylene	EPA 8082	35.4	% R	TAJ	11/17/05
***Tetrachloro-m-xylene	EPA 8082	37.4	% R	TAJ	11/17/05
***Decachlorobiphenyl	EPA 8082	61.2	% R	TAJ	11/17/05
***Decachlorobiphenyl	EPA 8082	50.3	% R	TAJ	11/17/05
Extraction	EPA 3510C	1.0	DF	TAJ	11/16/05
TOTAL PETROLEUM HYDROCARBONS	Mod. EPA 8100			RJD	11/16/05
Hydrocarbon Content		<200	ug/L	RJD	11/16/05
Surrogate:					
***p-Terphenyl		67.8	% R	RJD	11/16/05
Extraction	EPA 3510C	1.0	DF	RJD	11/16/05
PRIORITY POLLUTANT METALS				AJY	11/17/05
Silver	EPA 6010B	<0.0050	mg/L	AJY	11/17/05
Arsenic	EPA 6010B	<0.010	mg/L	AJY	11/17/05
Beryllium	EPA 6010B	<0.0050	mg/L	AJY	11/17/05
Cadmium	EPA 6010B	<0.0050	mg/L	AJY	11/17/05
Chromium	EPA 6010B	<0.0050	mg/L	AJY	11/17/05
Copper	EPA 6010B	<0.015	mg/L	AJY	11/17/05
Mercury	EPA 7470A	<0.00050	mg/L	AJY	11/18/05
Nickel	EPA 6010B	<0.010	mg/L	AJY	11/17/05
Lead	EPA 6010B	<0.010	mg/L	AJY	11/17/05
Antimony	EPA 6010B	<0.025	mg/L	AJY	11/17/05
Selenium	EPA 6010B	<0.025	mg/L	AJY	11/17/05
Thallium	EPA 6010B	<0.025	mg/L	AJY	11/17/05
Zinc	EPA 6010B	0.019	mg/L	AJY	11/17/05

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Test Performed	Method	Results	Units	Tech	Analysis Date
Iron	EPA 6010B	3.23	mg/L	AJY	11/17/05
VOLATILE ORGANICS	EPA 8260			MQS	11/19/05
Dichlorodifluoromethane	EPA 8260	<400	ug/L	MQS	11/19/05
Chloromethane	EPA 8260	<400	ug/L	MQS	11/19/05
Vinyl Chloride	EPA 8260	<200	ug/L	MQS	11/19/05
Bromomethane	EPA 8260	<400	ug/L	MQS	11/19/05
Chloroethane	EPA 8260	<200	ug/L	MQS	11/19/05
Trichlorofluoromethane	EPA 8260	<400	ug/L	MQS	11/19/05
Diethylether	EPA 8260	<1000	ug/L	MQS	11/19/05
Acetone	EPA 8260	<5000	ug/L	MQS	11/19/05
1,1-Dichloroethene	EPA 8260	<200	ug/L	MQS	11/19/05
Carbon Disulfide	EPA 8260	<10000	ug/L	MQS	11/19/05
Dichloromethane	EPA 8260	<200	ug/L	MQS	11/19/05
tert-Butyl alcohol (TBA)	EPA 8260	<5000	ug/L	MQS	11/19/05
Methyl-Tert-Butyl-Ether	EPA 8260	<200	ug/L	MQS	11/19/05
trans-1,2-Dichloroethene	EPA 8260	<200	ug/L	MQS	11/19/05
1,1-Dichloroethane	EPA 8260	<200	ug/L	MQS	11/19/05
Di-isopropyl ether (DIPE)	EPA 8260	<400	ug/L	MQS	11/19/05
Ethyl tert-butyl ether (ETBE)	EPA 8260	<400	ug/L	MQS	11/19/05
2-Butanone	EPA 8260	<5000	ug/L	MQS	11/19/05
2,2-Dichloropropane	EPA 8260	<200	ug/L	MQS	11/19/05
cis-1,2-Dichloroethene	EPA 8260	2200	ug/L	MQS	11/19/05
Chloroform	EPA 8260	<200	ug/L	MQS	11/19/05
Bromochloromethane	EPA 8260	<200	ug/L	MQS	11/19/05
Tetrahydrofuran	EPA 8260	<2000	ug/L	MQS	11/19/05
1,1,1-Trichloroethane	EPA 8260	<200	ug/L	MQS	11/19/05
1,1-Dichloropropene	EPA 8260	<200	ug/L	MQS	11/19/05
Carbon Tetrachloride	EPA 8260	<200	ug/L	MQS	11/19/05
1,2-Dichloroethane	EPA 8260	<200	ug/L	MQS	11/19/05
Benzene	EPA 8260	<200	ug/L	MQS	11/19/05
tert-Amyl methyl ether (TAME)	EPA 8260	<400	ug/L	MQS	11/19/05
Trichloroethene	EPA 8260	29000	ug/L	MQS	11/19/05
1,4-Dioxane	EPA 8260	<20000	ug/L	MQS	11/19/05
1,2-Dichloropropane	EPA 8260	<200	ug/L	MQS	11/19/05
Bromodichloromethane	EPA 8260	<200	ug/L	MQS	11/19/05
Dibromomethane	EPA 8260	<200	ug/L	MQS	11/19/05
4-Methyl-2-Pentanone	EPA 8260	<400	ug/L	MQS	11/19/05
cis-1,3-Dichloropropene	EPA 8260	<200	ug/L	MQS	11/19/05
Toluene	EPA 8260	<200	ug/L	MQS	11/19/05
trans-1,3-Dichloropropene	EPA 8260	<200	ug/L	MQS	11/19/05

GZA GeoEnvironmental, Inc.

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Sample No.: 001

Test Performed	Method	Results	Units	Tech	Analysis Date
1,1,2-Trichloroethane	EPA 8260	<200	ug/L	MQS	11/19/05
2-Hexanone	EPA 8260	<400	ug/L	MQS	11/19/05
1,3-Dichloropropane	EPA 8260	<200	ug/L	MQS	11/19/05
Tetrachloroethene	EPA 8260	460	ug/L	MQS	11/19/05
Dibromochloromethane	EPA 8260	<200	ug/L	MQS	11/19/05
1,2-Dibromoethane (EDB)	EPA 8260	<400	ug/L	MQS	11/19/05
Chlorobenzene	EPA 8260	<200	ug/L	MQS	11/19/05
1,1,1,2-Tetrachloroethane	EPA 8260	<200	ug/L	MQS	11/19/05
Ethylbenzene	EPA 8260	<200	ug/L	MQS	11/19/05
m&p-xylene	EPA 8260	<200	ug/L	MQS	11/19/05
o-Xylene	EPA 8260	<200	ug/L	MQS	11/19/05
Styrene	EPA 8260	<200	ug/L	MQS	11/19/05
Bromoform	EPA 8260	<400	ug/L	MQS	11/19/05
Isopropylbenzene	EPA 8260	<200	ug/L	MQS	11/19/05
1,1,2,2-Tetrachloroethane	EPA 8260	<200	ug/L	MQS	11/19/05
1,2,3-Trichloropropane	EPA 8260	<200	ug/L	MQS	11/19/05
Bromobenzene	EPA 8260	<200	ug/L	MQS	11/19/05
N-Propylbenzene	EPA 8260	<200	ug/L	MQS	11/19/05
2-Chlorotoluene	EPA 8260	<200	ug/L	MQS	11/19/05
1,3,5-Trimethylbenzene	EPA 8260	<200	ug/L	MQS	11/19/05
4-Chlorotoluene	EPA 8260	<200	ug/L	MQS	11/19/05
tert-Butylbenzene	EPA 8260	<200	ug/L	MQS	11/19/05
1,2,4-Trimethylbenzene	EPA 8260	<200	ug/L	MQS	11/19/05
sec-Butylbenzene	EPA 8260	<200	ug/L	MQS	11/19/05
p-Isopropyltoluene	EPA 8260	<200	ug/L	MQS	11/19/05
1,3-Dichlorobenzene	EPA 8260	<200	ug/L	MQS	11/19/05
1,4-Dichlorobenzene	EPA 8260	<200	ug/L	MQS	11/19/05
n-Butylbenzene	EPA 8260	<200	ug/L	MQS	11/19/05
1,2-Dichlorobenzene	EPA 8260	<200	ug/L	MQS	11/19/05
1,2-Dibromo-3-Chloropropane	EPA 8260	<1000	ug/L	MQS	11/19/05
1,2,4-Trichlorobenzene	EPA 8260	<200	ug/L	MQS	11/19/05
Hexachlorobutadiene	EPA 8260	<200	ug/L	MQS	11/19/05
Naphthalene	EPA 8260	<200	ug/L	MQS	11/19/05
1,2,3-Trichlorobenzene	EPA 8260	<200	ug/L	MQS	11/19/05
Surrogates:	EPA 8260				
***1,2-Dichloroethane-D4	EPA 8260	114	% R	MQS	11/19/05
***Toluene-D8	EPA 8260	115	% R	MQS	11/19/05
***4-Bromofluorobenzene	EPA 8260	97.6	% R	MQS	11/19/05
Preparation	EPA 5030B	200	DF	MQS	11/19/05
Hexavalent Chromium	HACH Method	<0.01	mg/L	AJY	11/22/05

GZA GeoEnvironmental, Inc.

ANALYTICAL REPORT

Project Name: Gillette
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Work Order No.: 0511-00126

Sample ID: Sys Inf 111405
Sample Date: 11/14/2005

Sample No.: 001

Test Performed	Method	Results	Units	Tech	Analysis Date
SUBCONTRACTED ANALYTES					
Total Suspended Solids	EPA 160.2	15	mg/L	XXX	11/17/05
Total Cyanide	EPA 335.2	<0.01	mg/L	XXX	11/17/05
Residual Chlorine	EPA 330.5	<0.2	mg/L	XXX	11/14/05

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
MA092

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

Method Blank

Date Extracted:	11/15/05
Date Analyzed:	11/16/05
File Name:	K9342

Semi-Volatile Organics	**Result**	**Reporting Limit**
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 alchohol	ND	20
1,2-dichlorobenzene	ND	10
2-methylphenol	ND	10
bis(2-chloroisopropyl)ether	ND	10
3&4-methylphenol	ND	10
n-nitrosodi-n-propylamine	ND	10
hexachloroethane	ND	10
nitrobenzene	ND	10
isophrone	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
napthalene	ND	2.0
4-chloroaniline	ND	10
hexachlorobutadiene	ND	10
4-chloro-3-methylphenol	ND	20
2-methylnapthalene	ND	2.0
aniline	ND	10
hexachlorocyclopentadiene	ND	50
2,4,6-trichlorophenol	ND	10
2,4,5-trichlorophenol	ND	10
2-chloronapthalene	ND	10
2-nitroaniline	ND	50
dimethylphthalate	ND	10
acenapthylene	ND	2.0
2,6-dinitrotoluene	ND	10
3-nitroaniline	ND	50
acenaphthene	ND	2.0
2,4-dinitrophenol	ND	100
dibenzofuran	ND	10
4-nitrophenol	ND	50
2,4-dinitrotoluene	ND	10
diethylphthalate	ND	10
fluorene	ND	2.0
4-chlorophenyl phenyl ether	ND	10
4-nitroaniline	ND	20
4,6-dinitro-2-methylphenol	ND	50
n-nitrosodiphenylamine	ND	10
4-bromophenyl phenyl ether	ND	10
hexachlorobenzene	ND	10
pentachlorophenol	ND	50
phenanthrene	ND	2.0
anthracene	ND	2.0
carbazole	ND	10
di-n-butylphthalate	ND	15
fluoranthene	ND	2.0
benzidine	ND	10
pyrene	ND	2.0
butylbenzylphthalate	ND	10
benz [a] anthracene	ND	2.0
3,3'-dichlorobenzidine	ND	20
chrysene	ND	2.0
bis(2-ethylhexyl)phthalate	ND	10
di-n-octylphthalate	ND	10
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	17.3	15-110
PHENOL-D6	9.7	15-110
NITROBENZENE-D5	69.2	30-130
2-FLUOROBIPHENYL	84.8	30-130
2,4,6-TRIBROMOPHENOL	88.4	15-110
p-TERPHENYL-D14	97.4	30-130

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748
MA092

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

Laboratory Control Sample

Date Extracted:	11/15/05		
Date Analyzed:	11/16/05		
File Name:	K9343		
Spike Concentration = 20ug/L	**% Recovery**	**Acceptance Limits**	**Verdict**
n-nitrosodimethylamine	30.6	40-140	out
pyridine	20.2	40-140	out
phenol	16.5	30-130	out
bis(2-chloroethyl)ether	85.3	40-140	ok
2-chlorophenol	74.7	30-130	ok
1,3-dichlorobenzene	78.0	40-140	ok
1,4-dichlorobenzene	80.5	40-140	ok
benzyl alchohol	45.7	40-140	ok
1,2-dichlorobenzene	83.8	40-140	ok
2-methylphenol	53.1	30-130	ok
bis(2-chloroisopropyl)ether	73.7	40-140	ok
3&4-methylphenol	77.9	30-130	ok
n-nitrosodi-n-propylamine	96.4	40-140	ok
hexachloroethane	37.9	40-140	out
nitrobenzene	86.1	40-140	ok
isophrone	84.7	40-140	ok
2-nitrophenol	75.5	30-130	ok
2,4-dimethylphenol	75.0	30-130	ok
benzoic acid	9.52	30-130	out
bis(2-chloroethoxy)methane	78.3	40-140	ok
2,4-dichlorophenol	86.8	30-130	ok
1,2,4-trichlorobenzene	81.4	40-140	ok
napthalene	95.8	40-140	ok
4-chloroaniline	75.5	40-140	ok
hexachlorobutadiene	79.9	40-140	ok
4-chloro-3-methylphenol	83.7	30-130	ok
2-methylnapthalene	96.5	40-140	ok
aniline	38.5	40-140	out
hexachlorocyclopentadiene	2.88	40-140	out
2,4,6-trichlorophenol	87.2	30-130	ok
2,4,5-trichlorophenol	93.3	30-130	ok
2-chloronapthalene	92.2	40-140	ok
2-nitroaniline	93.8	40-140	ok
dimethylphthalate	94.0	40-140	ok
acenapthylene	96.8	40-140	ok
2,6-dinitrotoluene	103	40-140	ok
3-nitroaniline	79.2	40-140	ok
acenaphthene	101	40-140	ok
2,4-dinitrophenol	48.3	30-130	ok
dibenzofuran	94.9	40-140	ok
4-nitrophenol	13.3	30-130	out
2,4-dinitrotoluene	91.0	40-140	ok
diethylphthalate	106	40-140	ok
fluorene	104	40-140	ok
4-chlorophenyl phenyl ether	99.6	40-140	ok
4-nitroaniline	95.2	40-140	ok
4,6-dinitro-2-methylphenol	61.3	30-130	ok
n-nitrosodiphenylamine	101	40-140	ok
4-bromophenyl phenyl ether	98.9	40-140	ok
hexachlorobenzene	100	40-140	ok
pentachlorophenol	87.3	30-130	ok
phenanthrene	111	40-140	ok
anthracene	124	40-140	ok
carbazole	121	40-140	ok
di-n-butylphthalate	105	40-140	ok
fluoranthene	101	40-140	ok
benzidine	0.07	40-140	out
pyrene	111	40-140	ok
butylbenzylphthalate	92.6	40-140	ok
benz [a] anthracene	103	40-140	ok
3,3'-dichlorobenzidine	136	40-140	ok
chrysene	103	40-140	ok
bis(2-ethylhexyl)phthalate	108	40-140	ok
di-n-octylphthalate	87.3	40-140	ok
benzo [b] fluoranthene	86.7	40-140	ok
benzo [k] fluoranthene	95.2	40-140	ok
benzo [a] pyrene	89.5	40-140	ok
indeno [1,2,3-cd] pyrene	89.4	40-140	ok
dibenz [a,h] anthracene	97.3	40-140	ok
benzo [ghi] perylene	82.4	40-140	ok

CAM criteria allows 15% of analytes to exceed criteria.

Surrogates:	**Recovery (%)**	**Acceptance Limits**	**Verdict**
2-FLUOROPHENOL	23.3	15-110	ok
PHENOL-D6	13.9	15-110	out
NITROBENZENE-D5	78.6	30-130	ok
2-FLUOROBIPHENYL	86.2	30-130	ok
2,4,6-TRIBROMOPHENOL	93.5	15-110	ok
p-TERPHENYL-D14	104	30-130	ok

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: 11/15/2005

QC Sample	Method Blank	Lab Control Sample
Units	mg/L	% Recovery
Acceptance Limits	Results	80-120
Analyte		
Silver (Ag)	<0.005	104
Aluminum (Al)	NA	NA
Arsenic (As)	<0.010	108
Boron (B)	NA	NA
Barium (Ba)	<0.005	107
Beryllium (Be)	<0.005	110
Calcium (Ca)	NA	NA
Cadmium (Cd)	<0.005	107
Cobalt (Co)	NA	NA
Chromium (Cr)	<0.005	109
Copper (Cu)	<0.015	111
Iron (Fe)	<0.025	107
Magnesium (Mg)	NA	NA
Manganese (Mn)	NA	NA
Molybdenum (Mo)	NA	NA
Nickel (Ni)	<0.010	109
Lead (Pb)	<0.010	105
Antimony (Sb)	<0.025	109
Selenium (Se)	<0.025	110
Strontium (Sr)	NA	NA
Titanium (Ti)	NA	NA
Thallium (Tl)	<0.025	104
Vanadium (V)	NA	NA
Zinc (Zn)	<0.010	111

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: 11/15/2005

QC Sample	Method Blank	Lab Control Sample
Units	mg/L	% Recovery
Acceptance Limits	Results	85-115%
Analyte		
Mercury (Hg)	<0.00050	114

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

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

EPA METHOD 8082 ANALYSIS
QUALITY CONTROL AQUEOUS

DATE EXTRACTED: 11/16/05
DATE ANALYZED: 11/16/05

METHOD BLANK POLYCHLORINATED BIPHENYLS as AROCLORS	Concentration ug/L-PPB		Quantitation Limit ug/L-PPB
Aroclor 1262	ND		0.2
Aroclor 1260	ND		0.2
Aroclor 1254	ND		0.2
Aroclor 1248	ND		0.2
Aroclor 1242/1016	ND		0.2
Aroclor 1232	ND		0.2
Aroclor 1221	ND		0.2
Surrogates:	(A)	(B)	
Tetrachloro-m-xylene	61.7	70.9	30-150
Decachlorobiphenyl	45.1	67.3	30-150

LABORATORY CONTROL SAMPLE (LCS)	% Recovery		Acceptance Limits
	(A)	(B)	
Aroclor 1016	75.7	112	40-140
Aroclor 1260	93.5	117	40-140
Surrogates:			
Tetrachloro-m-xylene	62.7	80.1	30-150
Decachlorobiphenyl	69.7	65.8	30-150

*Matrix Spike / Duplicate Spike performed as required per method if sufficient sample is provided, and reported if requested on Chain of Custody.

GZA GeoEnvironmental, Inc.
106 South Street
Hopkinton, MA 01748

EPA Method 8260 / 524.2 Aqueous Method Blank (MB) and Laboratory Control Sample (LCS) Data

Method Blank

Date Analyzed:	11/19/05	
Volatile Organics	**Conc. ug/L**	**Acceptance Limit**
dichlorodifluoromethane	< 1.0	< 1.0
chloromethane	< 1.0	< 1.0
vinyl chloride	< 1.0	< 1.0
bromomethane	< 1.0	< 1.0
chloroethane	< 1.0	< 1.0
trichlorofluoromethane	< 1.0	< 1.0
diethyl ether	< 2.0	< 2.0
acetone	< 25	< 25
1,1-dichloroethene	< 0.5	< 0.5
FREON-113	< 1.0	< 1.0
carbon disulfide	< 1.0	< 1.0
dichloromethane	< 1.0	< 1.0
tert-butyl alcohol (TBA)	< 25	< 25
methyl-tert-butyl-ether	< 1.0	< 1.0
trans-1,2-dichloroethene	< 0.5	< 0.5
1,1-dichloroethane	< 0.5	< 0.5
di-isopropyl ether (DIPE)	< 1.0	< 1.0
ethyl tert-butyl ether (EtBE)	< 1.0	< 1.0
2-butanone	< 25	< 25
2,2-dichloropropane	< 0.5	< 0.5
cis-1,2-dichloroethene	< 0.5	< 0.5
chloroform	< 0.5	< 0.5
bromochloromethane	< 0.5	< 0.5
tetrahydrafuran	< 5.0	< 5.0
1,1,1-trichloroethane	< 0.5	< 0.5
1,1-dichloropropene	< 0.5	< 0.5
carbon tetrachloride	< 0.5	< 0.5
1,2-dichloroethane	< 0.5	< 0.5
benzene	< 0.5	< 0.5
tert-amyl methyl ether (TAME)	< 1.0	< 1.0
trichloroethene	< 0.5	< 0.5
1,2-dichloropropane	< 0.5	< 0.5
bromodichloromethane	< 0.5	< 0.5
1,4-Dioxane	< 50	< 50
dibromomethane	< 0.5	< 0.5
4-methyl-2-pentanone	< 1.0	< 1.0
cis-1,3-dichloropropene	< 0.5	< 0.5
toluene	< 0.5	< 0.5
trans-1,3-dichloropropene	< 0.5	< 0.5
1,1,2-trichloroethane	< 1.0	< 1.0
2-hexanone	< 1.0	< 1.0
1,3-dichloropropane	< 0.5	< 0.5
tetrachloroethene	< 0.5	< 0.5
dibromochloromethane	< 0.5	< 0.5
1,2-dibromoethane (EDB)	< 0.5	< 0.5
chlorobenzene	< 0.5	< 0.5
1,1,1,2-tetrachloroethane	< 0.5	< 0.5
ethylbenzene	< 0.5	< 0.5
1,1,2,2-tetrachloroethane	< 0.5	< 0.5
m&p-xylene	< 0.5	< 0.5
o-xylene	< 0.5	< 0.5
styrene	< 0.5	< 0.5
bromoform	< 0.5	< 0.5
isopropylbenzene	< 0.5	< 0.5
1,2,3-trichloropropane	< 0.5	< 0.5
bromobenzene	< 0.5	< 0.5
n-propylbenzene	< 0.5	< 0.5
2-chlorotoluene	< 0.5	< 0.5
1,3,5-trimethylbenzene	< 0.5	< 0.5
4-chlorotoluene	< 0.5	< 0.5
tert-butyl-benzene	< 0.5	< 0.5
1,2,4-trimethylbenzene	< 0.5	< 0.5
sec-butyl-benzene	< 0.5	< 0.5
p-isopropyltoluene	< 2.5	< 2.5
1,3-dichlorobenzene	< 0.5	< 0.5
1,4-dichlorobenzene	< 0.5	< 0.5
n-butylbenzene	< 0.5	< 0.5
1,2-dichlorobenzene	< 0.5	< 0.5
1,2-dibromo-3-chloropropane	< 1.0	< 1.0
1,2,4-trichlorobenzene	< 0.5	< 0.5
hexachlorobutadiene	< 0.5	< 0.5
naphthalene	< 0.5	< 0.5
1,2,3-trichlorobenzene	< 0.5	< 0.5

Laboratory Control Sample

Date Analyzed:	11/19/05		
Spike Concentration = 20ug/L	**% Recovery**	**Acceptance Limits**	**Verdict**
dichlorodifluoromethane	103	70-130	ok
chloromethane	85.7	70-130	ok
vinyl chloride	96.8	70-130	ok
bromomethane	102	70-130	ok
chloroethane	107	70-130	ok
trichlorofluoromethane	101	70-130	ok
diethyl ether	102	70-130	ok
acetone	85.4	70-130	ok
1,1-dichloroethene	102	70-130	ok
FREON-113	105	70-130	ok
carbon disulfide	95.2	70-130	ok
dichloromethane	98.6	70-130	ok
tert-butyl alcohol (TBA)	110	70-130	ok
methyl-tert-butyl-ether	97.4	70-130	ok
trans-1,2-dichloroethene	103	70-130	ok
1,1-dichloroethane	93.1	70-130	ok
di-isopropyl ether (DIPE)	78.9	70-130	ok
ethyl tert-butyl ether (EtBE)	82.3	70-130	ok
2-butanone	102	70-130	ok
2,2-dichloropropane	95.9	70-130	ok
cis-1,2-dichloroethene	104	70-130	ok
chloroform	90.0	70-130	ok
bromochloromethane	114	70-130	ok
tetrahydrafuran	82.3	70-130	ok
1,1,1-trichloroethane	92.4	70-130	ok
1,1-dichloropropene	100	70-130	ok
carbon tetrachloride	95.4	70-130	ok
1,2-dichloroethane	83.9	70-130	ok
benzene	99.3	70-130	ok
tert-amyl methyl ether (TAME)	77.6	70-130	ok
trichloroethene	108	70-130	ok
1,2-dichloropropane	93.8	70-130	ok
bromodichloromethane	92.7	70-130	ok
1,4-Dioxane	101	70-130	ok
dibromomethane	105	70-130	ok
4-methyl-2-pentanone	86.6	70-130	ok
cis-1,3-dichloropropene	103	70-130	ok
toluene	108	70-130	ok
trans-1,3-dichloropropene	99.8	70-130	ok
1,1,2-trichloroethane	98.6	70-130	ok
2-hexanone	76.8	70-130	ok
1,3-dichloropropane	98.4	70-130	ok
tetrachloroethene	99.1	70-130	ok
dibromochloromethane	97.3	70-130	ok
1,2-dibromoethane (EDB)	97.0	70-130	ok
chlorobenzene	106	70-130	ok
1,1,1,2-tetrachloroethane	105	70-130	ok
ethylbenzene	108	70-130	ok
1,1,2,2-tetrachloroethane	101	70-130	ok
m&p-xylene	98.8	70-130	ok
o-xylene	86.3	70-130	ok
styrene	92.5	70-130	ok
bromoform	84.5	70-130	ok
isopropylbenzene	88.5	70-130	ok
1,2,3-trichloropropane	88.7	70-130	ok
bromobenzene	91.2	70-130	ok
n-propylbenzene	88.2	70-130	ok
2-chlorotoluene	87.1	70-130	ok
1,3,5-trimethylbenzene	90.4	70-130	ok
4-chlorotoluene	84.7	70-130	ok
tert-butyl-benzene	93.2	70-130	ok
1,2,4-trimethylbenzene	90.0	70-130	ok
sec-butyl-benzene	89.2	70-130	ok
p-isopropyltoluene	96.7	70-130	ok
1,3-dichlorobenzene	91.7	70-130	ok
1,4-dichlorobenzene	92.1	70-130	ok
n-butylbenzene	88.8	70-130	ok
1,2-dichlorobenzene	93.2	70-130	ok
1,2-dibromo-3-chloropropane	77.2	70-130	ok
1,2,4-trichlorobenzene	96.5	70-130	ok
hexachlorobutadiene	84.2	70-130	ok
naphthalene	93.6	70-130	ok
1,2,3-trichlorobenzene	92.6	70-130	ok

SMF criteria allows 5 compounds to be outside acceptance limits

Surrogates:	Recovery (%)	Acceptance Limits
DIBROMOFLUOROMETHANE	107	70-130
1,2-DICHLOROETHANE-D4	110	70-130
TOLUENE-D8	110	70-130
4-BROMOFLUOROBENZENE	96.5	70-130
1,2-DICHLOROBENZENE-D4	88.9	70-130

Surrogates:	Recovery (%)	Acceptance Limits	Verdict
DIBROMOFLUOROMETHANE	109	70-130	ok
1,2-DICHLOROETHANE-D4	108	70-130	ok
TOLUENE-D8	114	70-130	ok
4-BROMOFLUOROBENZENE	96.5	70-130	ok
1,2-DICHLOROBENZENE-D4	93.4	70-130	ok

Instrument: HP GC/MS "A"

WHITE COPY - Original YELLOW COPY - Lab Files PINK COPY - Project Manager

W.O. # 0511 0018B
(for lab use only)

CHAIN-OF-CUSTODY RECORD

Sample I.D.	Date/Time Sampled (Very Important)	Matrix A=Air S=Soil GW=Ground W. SW=Surface W. WW=Waste W. DW=Drinking W. Other (specify)	☐pH ☐Cond.	GC Screen (VOA)	☐524.2 ☐502.2	WW ONLY 624	☐601 ☐602	625	Formaldehyde	ANALYSIS REQUIRED 8260	8021	8021 - "8010" List	8021 "8020" List	8270 ☐PAH ☐BN	8082-PCBs Only	8081 - Past Only	TPH-GC (Mod. 8100)	TPH-GC w/FING	EPH (MA DEP)	VPH (MA DEP)	TCLP (Spec. Below)	Filtering (✓ if requested)	Metals ☐PPM-13 ☐R-8	Metals (List Below)	CN	Residual Chlorine	TSS		Total # of Cont.	Note #
Sys Inf 111405	11/14/05 13:45	GW								✓				✓	✓		✓						✓		✓	✓	✓			1

PRESERVATIVE (Cl - HCl, M=MeOH, N - HNO3, S - H2SO4, Na - NaOH, O - Other)*

CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, O-Other)*

RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
Michael E. Tourville	11/14/05 13:45	[signature] 11/14/05 1500
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:
RELINQUISHED BY:	DATE/TIME	RECEIVED BY:

NOTES: Preservatives, special reporting limits, known contamination, additional testing parameters, etc.:

OPlus Fe + HEX - Wilson

TB 0514

PROJECT MANAGER: Colbert EXT:

DATA REPORT ☑ PDF (Adobe) ☐ ASCII ☐ EXCEL Specify State

LAB USE:

TURNAROUND TIME: Standard Rush ___ Days, Approved by: ___ TEMP. OF COOLER 5.5 °C

11/14

GZA FILE NO: 01.0018293.00 P.O. NO. 11/14/05 1500 LG

PROJECT Gillette

LOCATION South Boston

COLLECTOR(S) Tourville SHEET 1 OF 1

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ACCREDITED IN ACCORDANCE WITH

GZAP003