



**FIRST SEMI-ANNUAL ENVIRONMENTAL
MONITORING REPORT
(JANUARY-APRIL OF 2011)
CHARBERT DIVISION OF NFA
RICHMOND, RHODE ISLAND
RIDEM CASE # 99-037**

PREPARED FOR:

Charbert, Division of NFA
Richmond, Rhode Island

PREPARED BY:

GZA GeoEnvironmental, Inc.
Providence, Rhode Island

June 2011
File No. 32795.41

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June 8, 2011
File No. 32795.41



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Mr. Gary Jablonski
Rhode Island Department of Environmental Management
Office of Waste Management
235 Promenade Street
Providence, Rhode Island 02908

Re: First Semi-Annual (January-April 2011) Environmental Monitoring Report
Charbert Division of NFA
Richmond, Rhode Island
RIDEM Case # 99-037

Dear Mr. Jablonski:

This letter with attachments serves as the first semi-annual Environmental Monitoring Report for the above referenced facility. The work was conducted in compliance with the May 2011 Environmental Monitoring Plan (EMP) to address the applicable requirements of Section 9.00 of the RIDEM's Rules and Regulations for the Investigation and Remediation of Hazardous Materials Releases, (DEM-DSR01-93 Remediation Regulations) for the Charbert facility located at 299 Church Street in Richmond, Rhode Island. Figure 1, attached provides a site locus plan. It was prepared by GZA GeoEnvironmental, Inc., on behalf of our client Charbert Division of NFA.

This report follows 12 quarters of site wide monitoring under the Interim Compliance Monitoring Plan. The samples for this semi-annual round were collected on April 7th of 2011. Samples were collected and analyzed in accordance with the methods provided in the EMP approved by RIDEM on May 19, 2011.

DATA SUMMARY

The following subsections summarize the results of the ongoing environmental monitoring at the facility. This information is subject to the Limitations presented in Attachment A:

Groundwater Monitoring Results

- The first semi-annual round of groundwater sampling was conducted on April 7, 2011 and consisted of 19 overburden monitoring wells and 3 bedrock monitoring wells within areas of active treatment and along the downgradient compliance boundaries. See the attached Figure 2 for monitoring well locations. Groundwater



was analyzed for volatile organic compounds (VOCs) via EPA Method 8260B. The detected analytes have been summarized and compared to RIDEM's GA Groundwater Objectives and Groundwater Quality Preventative Action Limits (PALs) in the attached Tables 1 through 33. The laboratory certificates of analysis are provided in Attachment B.

- Groundwater sampling was performed in general accordance with EPA's January 19, 2010 *Low Stress (low flow) Purging and Sampling Procedure* (Low Flow SOP). Low flow sampling equipment (exclusive of tubing which is dedicated) was decontaminated prior to use on-site and between each location following EPA's recommended protocols. Water quality monitoring for stabilization was conducted utilizing an YSI multi-meter in a flow through cell. Field equipment used to perform the testing was calibrated according to the manufacturer's instructions before each sampling day, and confirmatory readings were taken at the end of each sampling day.

Air Sparge and Soil Vapor Extraction System Monitoring Results

- On April 26, 2010 RIDEM approved GZA's request to conduct bi-monthly (6-times annually) monitoring of the air sparge and soil vapor extraction system. GZA has been conducting the bi-monthly monitoring during the odd numbered months of the year (January, March, May, July, September and November).
- On March 30, 2011, RIDEM approved GZA's recommendation that the interior AS/SVE system be shut down for six months and the interior groundwater monitoring wells be resampled in October 2011 to evaluate contaminant rebound. The interior AS/SVE system, with the exception of the boiler room, was shut down on April 1, 2011.
- The air sparge and soil vapor extraction bi-monthly monitoring report and associated data tables for January and March of 2011 are included as Attachment C. Soil vapor extraction and sparge wells for the interior and exterior remedial systems are shown on Figures 3. The bi-monthly report includes the following information:

Soil Vapor Extraction System

During each visit, the following data was measured and recorded at each of the vent wells:

1. Air flow rates;
2. Vacuum response in inches of water column (WC);
3. Total volatile organic compound (TVOC) measurements using a PID equipped with a 10.6 eV lamp; and



4. Oxygen (O₂), carbon dioxide (CO₂) and Lower Explosive Limit (LEL) measurements were collected utilizing a Land-Tech infrared gas meter.

Air Sparge System

During each visit, the following information was measured and recorded at each of the sparge points:

1. Air flow rates; and
2. Air pressures.

EVALUATION

The April 7, 2011 groundwater results have been compared to the applicable groundwater standards for Rhode Island. Contaminants were observed at concentrations that exceeded the RIDEM GA Groundwater Objectives or RIDEM's Preventative Action Limits (PALs) in 14 of the 19 overburden monitoring wells and in 2 of the 3 bedrock zone samples. Monitoring wells GZ-26, GP-22 and RIZ-21 showed no detection of any of the target analytes (i.e., full VOCs by EPA 8260B). Vinyl chloride, cis-1,2-dichloroethene, trichloroethene (TCE) and tetrachloroethene (PCE) were the primary contaminants that exceeded their GA Groundwater Objectives. Tables 1 through 33 show the detected constituents and field parameters for all program wells for this sampling event as well as the previous monitoring results.

As shown on these tables, the detected levels of each of these compounds are within historical ranges of analytical data collected from the Site. A comparison of baseline results with the first semi-annual results shows that there have been changes in the distribution of contaminant concentrations within the identified zone of contamination. There are also changes in the ratio of parent to daughter products (i.e., PCE concentrations relative to TCE, 1,2-DCE and VC). The observed changes are not unexpected given the treatment level and disturbance to the aquifer introduced by the sparging system. As shown in Tables 1 through 33, contaminant concentrations in some wells have declined significantly (e.g., GZ-19, GP-28, GZ-21, GZ-24, GZ-25 and GP-26), while concentrations in other wells have increased (e.g., GZ-28, GZ-27, GZ-ML-4-Z-1 and MW-4A). The decrease in chlorinated daughter products is also consistent with a decrease in the level of reductive dechlorination caused by the oxygen introduced by the sparging system.


The Semi Annual monitoring program will be continued through October 2012. At that time, an evaluation will be made of the appropriate future sampling frequency, and locations.



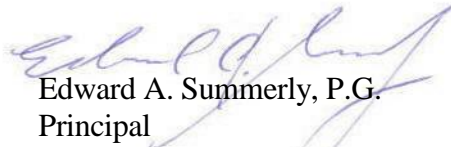
We trust that this information fulfills your present needs. If you have any questions please call Stephen Andrus or Edward Summerly at (401) 421-4140 or email at stephen.andrus@gza.com.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.


Stephen Andrus, P.E.
Assistant Project Manager


Albert Flori
Project Reviewer


Edward A. Summerly, P.G.
Principal

EAS/SA:blm

CC: Tracy Nelson Hay, Richmond Town Clerk (CD)
Clark Memorial Library – Charbert Repository (CD)

Attachments: Tables 1 through 33: Detected Constituents Summary
Figure 1: Locus Plan
Figure 2: Monitoring Well Locations
Figure 3: Interior and Exterior AS-SVE Monitoring System
Appendix A – Limitations
Appendix B – Laboratory Certificates of Analysis
Appendix C – AS/SVE System Monitoring Data

TABLES

TABLE 1
MW-GZ-21 DETECTED CONSTITUENTS SUMMARY

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-21 Shallow Aquifer Monitoring Well Screen From 10'-20' BGS Sample Location Approx. 15' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALS	Units	Date															
					Baseline 1/2/2008		04/01/2008		07/07/2008		10/01/2008		01/05/2009		04/01/2009		07/09/2009		10/12/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																				
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	8.4	1.0	2.8	1.0	3.4	1.0	2.3	1.0	<	1.0	1.0	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	7.8	1.0	10.0	1.0	7.7	1.0	4.7	1.0	1.7	1.0	<	1.0	<	1.0	1.8	1.0
	Trichloroethene	5	2.5	ug/L	3.5	1.0	1.7	1.0	2.3	1.0	2.7	1.0	1.7	1.0	1.4	1.0	1.4	1.0	2.4	1.0
	Tetrachloroethene	5	2.5	ug/L	7.2	1.0	2.4	1.0	7.6	1.0	6.1	1.0	6.2	1.0	7.1	1.0	4.1	1.0	2.5	1.0
TOTAL PETROLEUM HYDROCARBON																				
Mod. EPA 8100	Hydrocarbon Content	NS	NS	ug/L	<	200	NT	NT	NT	<	200	NT	NT	NT	NT	NT	NT	NT	NT	NT
FIELD PARAMETERS																				
	pH	NS	NS	SU	4.0	5.0	5.7	6.2	5.4	6.4	7.0	6.2								
	CONDUCTIVITY	NS	NS	mS/cm	0.337	0.660	0.480	0.378	0.788	0.369	0.406	0.885								
	TURBIDITY	NS	NS	NTU	5	3	80	12	4	4	108	1								
	DISSOLVED OXYGEN	NS	NS	mg/L	1.0	0.0	1.4	0.6	0.45	6.51	0.0	0.0								
	TEMPERATURE	NS	NS	°C	16.4	14.4	14.8	17.9	13.2	9.8	13.0	16.0								
	ORP	NS	NS	mV	191	-58	-64	34	67	-64	-33	-8								

GZ-21 Shallow Aquifer Monitoring Well Screen From 10'-20' BGS Sample Location Approx. 15' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALS	Units	Date													
					12/31/2009		04/30/2010		07/08/2010		10/13/2010		01/05/2011		04/07/2011			
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit		
VOLATILE ORGANICS																		
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	<	1.0	<	1.0	1.7	1.0	1.5	1.0	<	1.0	<	1.0
	Trichloroethene	5	2.5	ug/L	<	1.0	<	1.0	1.2	1.0	2.1	1.0	3.5	1.0	<	1.0	<	1.0
	Tetrachloroethene	5	2.5	ug/L	2.0	1.0	3.2	1.0	3.1	1.0	3.6	1.0	2.8	1.0	1.7	1.0		
TOTAL PETROLEUM HYDROCARBON																		
Mod. EPA 8100	Hydrocarbon Content	NS	NS	ug/L	270	200	NT	NT	NT	<	200	NT						
FIELD PARAMETERS																		
	pH	NS	NS	SU	5.5	5.9	6.4	6.2	6.0	6.1								
	CONDUCTIVITY	NS	NS	mS/cm	0.380	0.387	0.476	0.135	0.346	0.225								
	TURBIDITY	NS	NS	NTU	4	0	210	1	NT	1								
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0	0.0	0.2	0.5	0.7	2.0								
	TEMPERATURE	NS	NS	°C	11.7	10.2	17.1	15.6	12.3	10.7								
	ORP	NS	NS	mV	59	140	NT	109	110	100								

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

< = NOT DETECTED

NS = NO STANDARD

NT = NOT TESTED

BGS = BELOW GROUND SURFACE

**TABLE 2
MW-GZ-22 DETECTED CONSTITUENTS SUMMARY**

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-22 Deep Aquifer Monitoring Well Screen From 25'-30' BGS Sample Location Approx. 27.5' BGS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date																
				Baseline 1/2/2008		04/01/2008		07/07/2008		10/01/2008		01/05/2009		04/01/2009		07/08/2009		10/12/2009		
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	
VOLATILE ORGANICS																				
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Trichloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Tetrachloroethene	5	2.5	ug/L	14	1.0	12	1.0	86	1.0	<	1.0	28	1.0	17	1.0	35	1.0	45	1.0
FIELD PARAMETERS																				
	pH	NS	NS	SU	4.0	5.0	5.1	6.1	6.4	6.3	6.2	6.3								
	CONDUCTIVITY	NS	NS	mS/cm	0.330	0.218	0.173	0.146	0.128	0.127	0.137	0.227								
	TURBIDITY	NS	NS	NTU	5	5	25	31	126	141	NT	20								
	DISSOLVED OXYGEN	NS	NS	mg/L	1.0	0.0	1.5	0.5	0.2	0.1	0.0	0.0								
	TEMPERATURE	NS	NS	°C	15.8	15.1	15.9	16.6	11.7	11.0	14.0	14.5								
	ORP	NS	NS	mV	198	91	32	154	81	12	76	-25								

GZ-22 Deep Aquifer Monitoring Well Screen From 25'-30' BGS Sample Location Approx. 27.5' BGS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date												
				12/31/2009		04/30/2010		07/08/2010		10/13/2010		01/05/2011		04/07/2011		
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	
VOLATILE ORGANICS																
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Trichloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	1.0	1.0	<	1.0	<	1.0
	Tetrachloroethene	5	2.5	ug/L	49	1.0	57	1.0	50	1.0	50	1.0	39	1.0	51	1.0
FIELD PARAMETERS																
	pH	NS	NS	SU	5.1	6.0	6.5	6.3	6.2	6.3						
	CONDUCTIVITY	NS	NS	mS/cm	0.139	0.126	0.17	0.134	0.116	0.093						
	TURBIDITY	NS	NS	NTU	55	5	260	1	1	1						
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0	0.0	0.8	0.3	0.2	1.6						
	TEMPERATURE	NS	NS	°C	11.8	11.1	16.4	14.9	12.5	11.5						
	ORP	NS	NS	mV	36	101	75	NT	38	89						

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

< = NOT DETECTED

NS = NO STANDARD

NT = NOT TESTED

BGS = BELOW GROUND SURFACE

**TABLE 3
MW-GZ-23 DETECTED CONSTITUENTS SUMMARY**

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-23 Shallow Aquifer Monitoring Well Screen From 10'-20' BGS Sample Location Approx. 15' BGS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date																
				Baseline 1/2/2008		04/01/2008		07/07/2008		10/01/2008		01/05/2009		04/01/2009		07/08/2009		10/12/2009		
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	
VOLATILE ORGANICS																				
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	<	1.0	6.5	1.0	<	1.0	<	1.0	3	1.0	3.4	1.0	6.4	1.0
	Trichloroethene	5	2.5	ug/L	<	1.0	1.8	1.0	27	1.0	1.8	1.0	1.4	1.0	14	1.0	21	1.0	18	1.0
	Tetrachloroethene	5	2.5	ug/L	<	1.0	2.4	1.0	59	1.0	1.7	1.0	2	1.0	24	1.0	17	1.0	10	1.0
TOTAL PETROLEUM HYDROCARBON																				
Mod. EPA 8100	Hydrocarbon Content	NS	NS	ug/L	<	200	NT	NT	NT	<	200	NT	NT	NT	NT	NT	NT	NT	NT	
FIELD PARAMETERS																				
	pH	NS	NS	SU	4.0	5.0	5.7	6.5	6.5	6.3	6.7	6.4								
	CONDUCTIVITY	NS	NS	mS/cm	0.339	0.428	0.254	0.109	0.129	0.481	0.335	0.266								
	TURBIDITY	NS	NS	NTU	157	0	224	12.2	4	2	59	0								
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0	0.0	0.3	0.1	0.1	0.0	0.0	0.1								
	TEMPERATURE	NS	NS	°C	16.6	16.1	15.4	14.6	11.6	11.8	13.7	12.8								
	ORP	NS	NS	mV	-8	-60	-78	-106	25	-77	-39	-258								

GZ-23 Shallow Aquifer Monitoring Well Screen From 10'-20' BGS Sample Location Approx. 15' BGS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date												
				12/31/2009		04/30/2010		07/08/2010		10/13/2010		01/05/2010		04/07/2011		
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	
VOLATILE ORGANICS																
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	1.4	1.0	11	1.0	2.4	1.0	1.1	1.0	1.1	1.0	<	1.0
	Trichloroethene	5	2.5	ug/L	1.4	1.0	46	1.0	15	1.0	6.9	1.0	2.1	1.0	6.3	1.0
	Tetrachloroethene	5	2.5	ug/L	<	1.0	29	1.0	30	1.0	1.2	1.0	<	1.0	3.3	1.0
TOTAL PETROLEUM HYDROCARBON																
Mod. EPA 8100	Hydrocarbon Content	NS	NS	ug/L	<	200	NT	NT	NT	<	200	NT				
FIELD PARAMETERS																
	pH	NS	NS	SU	5.6	6.0	6.4	6.4	6.3	6.2						
	CONDUCTIVITY	NS	NS	mS/cm	0.134	0.144	0.456	0.195	0.131	0.111						
	TURBIDITY	NS	NS	NTU	5	0	393	4	1	2						
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0	0.2	0.2	0.1	0.7	0.5						
	TEMPERATURE	NS	NS	°C	10.5	12.2	16.1	14.2	10.7	11.7						
	ORP	NS	NS	mV	-59	-8	NT	34	-97	-21						

Notes:

PAL = RIDEM's Preventative Action Limit

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**TABLE 4
MW-GZ-21 DETECTED CONSTITUENTS SUMMARY**

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-19 Deep Aquifer Monitoring Well Screen From 25'-30' BGS Sample Location Approx. 27.5' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date																	
					Baseline 1/2/2008		04/01/2008		07/07/2008		10/01/2008		01/05/2009		04/01/2009		07/08/2009		10/12/2009		12/31/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																						
EPA 8260	cis-1,2-Dichloroethene	70	35	ug/L	4.6	1.0	<	250	4.2	1.0	<	250	<	250	<	3	<	10	<	5	<	5
	1,1,1-Trichloroethane	200	100	ug/L	13	1.0	<	250	9.0	1.0	<	250	<	250	<	3	<	10	<	5	<	5
	1,1,2-Trichloroethane	200	100	ug/L	<	1.0	<	250	<	1.0	<	250	<	250	<	3	<	10	12	5	<	5
	Trichloroethene	5	2.5	ug/L	260	1.0	390	250	200	1.0	<	250	<	250	<	3	<	10	7.7	5	<	5
	Tetrachloroethene	5	2.5	ug/L	16,000	1.0	20,000	250	19,000	1.0	16,000	250	8,400	250	2,900	3	1,300	10	780	5	650	5
FIELD PARAMETERS																						
	pH	NS	NS	SU	4.0	5.0		5.0		6.1		6.4		6.2		6.3		6.3		5.0		5.0
	CONDUCTIVITY	NS	NS	mS/cm	0.338	0.453		0.106		0.085		0.114		0.211		0.130		0.145		0.108		0.108
	TURBIDITY	NS	NS	NTU	68	1		240		31.7		4		3		27.4		5		5		5
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0	0.0		0.3		0.1		0.2		0.8		0.0		0.3		0.0		0.0
	TEMPERATURE	NS	NS	°C	16.5	15.6		15.6		14		12.4		11.6		14.1		12.7		11.8		11.8
	ORP	NS	NS	mV	24	79		105		113		51		58		89		-10		73		73

GZ-19 Deep Aquifer Monitoring Well Screen From 25'-30' BGS Sample Location Approx. 27.5' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
					04/30/2010		07/13/2010		10/13/2010		01/05/2011		04/07/2011	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS														
EPA 8260	cis-1,2-Dichloroethene	70	35	ug/L	<	5	<	5	<	5	<	5		2.5
	Trichloroethene	5	2.5	ug/L	<	5	<	5	<	5	<	5		2.5
	Tetrachloroethene	5	2.5	ug/L	600	5	570	5	560	5	480	5	410	2.5
FIELD PARAMETERS														
	pH	NS	NS	SU	6.0	6.3		6.2		6.2		6.1		6.1
	CONDUCTIVITY	NS	NS	mS/cm	0.122	0.166		0.110		0.107		0.097		0.097
	TURBIDITY	NS	NS	NTU	5	0		4		2.1		1		1
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0	0.1		0.4		1.2		0.2		0.2
	TEMPERATURE	NS	NS	°C	12.1	16.7		13.8		12		12.3		12.3
	ORP	NS	NS	mV	85	154		135		96		136		136

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

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**TABLE 5
MW-RIZ-7 DETECTED CONSTITUENTS SUMMARY**

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

RIZ-7 Shallow Aquifer Monitoring Well Screen From 5'-15' BGS Sample Location Approx. 7.5' BGS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date																
				Baseline 1/2/2008		04/01/2008		07/07/2008		10/01/2008		01/05/2009		04/01/2009		07/08/2009		10/12/2009		
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	
VOLATILE ORGANICS																				
EPA 8260	Vinyl Chloride	2	1	ug/L	15	1.0	120	1.0	85	2.5	100	1.0	130	1.0	150	1.0	130	2.5	97	1.0
	trans-1,2-Dichloroethene	100	50	ug/L	<	1.0	2.6	1.0	3.1	2.5	3	1.0	3.6	1.0	5.6	1.0	5.4	2.5	2.8	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	2.5	1.0	64	1.0	41	2.5	54	1.0	100	1.0	190	1.0	160	2.5	57	1.0
	Tetrachloroethene	5	2.5	ug/L	<	1.0	<	1.0	7	2.5	<	1.0	<	1.0	<	1.0	<	2.5	<	1.0
	Ethylbenzene	700	350	ug/L	<	1.0	2.7	1.0	2.8	2.5	<	1.0	<	1.0	<	1.0	<	2.5	<	1.0
	m&p-Xylene	NS	NS	ug/L	<	2.0	2.9	2.0	<	5.0	<	2.0	<	2.0	<	2.0	<	5.0	<	2.0
	o-Xylene	NS	NS	ug/L	1.7	1.0	2.6	1.0	3.2	2.5	1.6	1.0	1.3	1.0	<	1.0	<	2.5	1.1	1.0
	Total Xylenes	1000	500	ug/L	1.7	2.0	5.7	2.0	3.2	5.0	1.6	2.0	<	2.0	<	2.0	<	5.0	1.1	2.0
	2-Chlorotoluene	NS	NS	ug/L	1.0	1.0	1.2	1.0	<	2.5	3.2	1.0	3	1.0	2.8	1.0	3.6	2.5	3.5	1.0
	N-Propylbenzene	NS	NS	ug/L	<	1.0	<	1.0	1.0	2.5	<	1.0	<	1.0	<	1.0	<	2.5	<	1.0
sec-Butylbenzene	NS	NS	ug/L	<	1.0	<	1.0	1.0	2.5	<	1.0	<	1.0	<	1.0	<	2.5	<	1.0	
TOTAL PETROLEUM HYDROCARBON																				
Mod. EPA 8100	Hydrocarbon Content	NS	NS	ug/L	300	200	NT	NT	NT	NT	570	200	NT	NT	NT	NT	NT	NT	NT	
FIELD PARAMETERS																				
	pH	NS	NS	SU	4.0	5.0	6.1	6.4	6.7	6.4	7.6	6.7								
	CONDUCTIVITY	NS	NS	mS/cm	0.786	0.748	0.357	0.249	0.316	0.090	0.474	0.332								
	TURBIDITY	NS	NS	NTU	5	0	153	20	0	3	5									
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.1								
	TEMPERATURE	NS	NS	°C	16.5	14.4	15.8	15.8	13.1	10.7	13.6	14.5								
	ORP	NS	NS	mV	-23	-53	-112	-117	5	-92	-46	-149								

RIZ-7 Shallow Aquifer Monitoring Well Screen From 5'-15' BGS Sample Location Approx. 7.5' BGS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date												
				12/31/2009		04/30/2010		07/13/2010		10/13/2010		01/05/2011		04/07/2011		
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	
VOLATILE ORGANICS																
EPA 8260	Vinyl Chloride	2	1	ug/L	49	1.0	82	1.0	43	1.0	110	1.0	69	1.0	69	1.0
	trans-1,2-Dichloroethene	100	50	ug/L	1.5	1.0	2.1	1.0	1.9	1.0	3.0	1.0	2.1	1.0	2.5	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	42	1.0	51	1.0	70	1.0	78	1.0	46	1.0	80	1.0
	Trichloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Tetrachloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	2-Chlorotoluene	NS	NS	ug/L	2.5	1.0	2.8	1.0	1.1	1.0	2.4	1.0	<	1.0	1.5	1.0
TOTAL PETROLEUM HYDROCARBON																
Mod. EPA 8100	Hydrocarbon Content	NS	NS	ug/L	470	200	NT	NT	NT	230	200	NT				
FIELD PARAMETERS																
	pH	NS	NS	SU	5.9	6.4	6.6	6.8	6.7	6.6						
	CONDUCTIVITY	NS	NS	mS/cm	0.227	0.229	0.399	0.227	0.221	0.117						
	TURBIDITY	NS	NS	NTU	5	0	0	4	1	1						
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0	0.0	4.0	0.3	0.1	0.2						
	TEMPERATURE	NS	NS	°C	12.2	10.5	16.9	15.3	12.6	13.1						
	ORP	NS	NS	mV	-85	-99	60	-10	127	-22						

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

< = NOT DETECTED

NT = NOT TESTED

NS = NO STANDARD

BGS = BELOW GROUND SUF

**TABLE 6
MW-GP-28 DETECTED CONSTITUENTS SUMMARY**

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GP-28 Shallow Aquifer Monitoring Well Screen From 3'-15' BGS Sample Location Approx. 9' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date															
					Baseline 1/2/2008		04/01/2008		07/07/2008		10/01/2008		01/05/2009		04/01/2009		07/08/2009		10/12/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																				
EPA 8260	Vinyl Chloride	2	1	ug/L	1,200	5.0	180	2.5	<	1.0	10	1.0	140	1.0	52	50.0	440	5.0	18	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	1,400	5.0	200	2.5	6.2	1.0	2.9	1.0	940	1.0	2,900	50.0	560	5.0	12	1.0
	Trichloroethene	5	2.5	ug/L	<	5.0	<	2.5	<	1.0	<	1.0	350	1.0	<	50.0	23	5.0	<	1.0
	Tetrachloroethene	5	2.5	ug/L	<	5.0	<	2.5	<	1.0	<	1.0	2,900	1.0	<	50.0	15	5.0	1.5	1.0
	trans-1,2-Dichloroethene	100	50	ug/L	11	5.0	<	2.5	<	1.0	<	1.0	<	25.0	<	50.0	7	5.0	<	1.0
	Ethylbenzene	700	350	ug/L	<	5.0	<	2.5	1.2	1.0	<	1.0	<	1.0	<	50.0	<	5.0	<	1.0
	o-Xylene	NS	NS	ug/L	<	5.0	<	2.5	1.8	1.0	1.9	1.0	<	1.0	<	50.0	<	5.0	<	1.0
	Total Xylenes	1000	500	ug/L	<	10	<	5.0	1.8	2.0	<	2.0	<	2.0	<	50.0	<	10.0	<	2.0
	2-Chlorotoluene	NS	NS	ug/L	<	5.0	<	2.5	1.3	1.0	1.0	1.0	<	1.0	<	50.0	<	5.0	<	1.0
TOTAL PETROLEUM HYDROCARBON																				
Mod. EPA 8100	Hydrocarbon Content	NS	NS	ug/L	350	200	NT	NT	NT	NT	290	200	NT	NT	NT	NT	NT	NT	NT	
FIELD PARAMETERS																				
	pH	NS	NS	SU	4.0	5.0	5.5	6.5	6.9	6.8	7.2	6.7								
	CONDUCTIVITY	NS	NS	mS/cm	0.900	0.492	0.700	0.410	0.135	0.191	0.230	0.197								
	TURBIDITY	NS	NS	NTU	5	30	270	116	420	399	11	4								
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0	0.0	0.6	0.1	0.32	0	0.71	0.19								
	TEMPERATURE	NS	NS	°C	12.0	11.1	17.6	16.8	5.9	7.9	19.6	15.1								
	ORP	NS	NS	mV	-47	-71	-112	-144	8	-117	-138									

GP-28 Shallow Aquifer Monitoring Well Screen From 3'-15' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date											
					01/04/2010		04/30/2010		07/10/2010		10/13/2010		01/05/2011		04/07/2011	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																
EPA 8260	Vinyl Chloride	2	1	ug/L	28	1.0	150	1.0	62	1.0	4	1.0	26	1.0	19	2.5
	cis-1,2-Dichloroethene	70	35	ug/L	91	1.0	500	1.0	100	1.0	2.4	1.0	180	1.0	260	2.5
	Trichloroethene	5	2.5	ug/L	6.4	1.0	46	1.0	7.2	1.0	<	1.0	19	1.0	39	2.5
	Tetrachloroethene	5	2.5	ug/L	<	1.0	30	1.0	61	1.0	<	1.0	2.9	1.0	28	2.5
	trans-1,2-Dichloroethene	100	50	ug/L	1.3	1.0	<	1.0	1.5	1.0	<	1.0	1.7	1.0	<	2.5
	2-Chlorotoluene	NS	NS	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	2.5
TOTAL PETROLEUM HYDROCARBON																
Mod. EPA 8100	Hydrocarbon Content	NS	NS	ug/L	240	200	NT	NT	NT	<	200	NT				
FIELD PARAMETERS																
	pH	NS	NS	SU	6.5	6.7	6.7	6.6	6.9	6.2						
	CONDUCTIVITY	NS	NS	mS/cm	0.443	0.156	0.277	0.169	0.153	0.115						
	TURBIDITY	NS	NS	NTU	5	0	0	3	2	2						
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0	3.4	0.8	0.0	0.2	0.3						
	TEMPERATURE	NS	NS	°C	6.2	11.2	21.2	17.5	6.5	9.1						
	ORP	NS	NS	mV	21	-101	-10	-33	-115	-108						

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

< = NOT DETECTED

NT = NOT TESTED

NS = NO STANDARD

BGS = BELOW GROUND SURFI

**TABLE 7
MW-GZ-24 DETECTED CONSTITUENTS SUMMARY**

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-24 Deep Aquifer Monitoring Well Screen From 24'-34' BGS Sample Location Approx. 29' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date											
					Baseline 7/10/2009		06/17/2010		07/08/2010		10/13/2010		01/05/2011		04/07/2011	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																
EPA 8260	Vinyl Chloride	2	1	ug/L	30	5.0	63	2.5	62	1.0	150	1.0	250	1.0	63	1.0
	trans-1,2-Dichloroethene	100	50	ug/L	5	5.0	3	2.5	1.5	1.0	11	1.0	9	1.0		1.0
	cis-1,2-Dichloroethene	70	35	ug/L	390	5.0	210	2.5	100	1.0	960	1.0	740	1.0	64	1.0
	Trichloroethene	5	2.5	ug/L	22	5.0	11	2.5	7	1.0	22	1.0	24	1.0	6	1.0
	Tetrachloroethene	5	2.5	ug/L	150	5.0	100	2.5	61	1.0	46	1.0	65	1.0	39	1.0
FIELD PARAMETERS																
	pH	NS	NS	SU	7.6		5.9		6.6		6.3		6.6		6.7	
	CONDUCTIVITY	NS	NS	mS/cm	0.233		0.180		0.429		0.170		0.127		0.128	
	TURBIDITY	NS	NS	NTU	0		3		0		1		1		2	
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0		1.6		1.81		0.42		0.69		0.1	
	TEMPERATURE	NS	NS	°C	14.0		15.2		15.9		14.8		11.6		12.5	
	ORP	NS	NS	mV	-65		7		79		-7		-1		-52	

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

< = NOT DETECTED

NS = NO STANDARD

NT = NOT TESTED

BGS = BELOW GROUND SURFACE

**TABLE 8
MW-RIZ-5 DETECTED CONSTITUENTS SUMMARY**

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

RIZ-5 Shallow Aquifer Monitoring Well Screen From 9.5'-19.5' BGS Sample Location Approx. 14.5' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date															
					Baseline 1/2/2008		04/01/2008		07/07/2008		10/01/2008		01/05/2009		04/01/2009		07/08/2009		10/12/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																				
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	<	2.5	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	2.9	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Trichloroethene	5	2.5	ug/L	2.4	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Tetrachloroethene	5	2.5	ug/L	5.3	1.0	<	1.0	<	1.0	<	1.0	1.9	1.0	<	1.0	<	1.0	<	1.0
TOTAL PETROLEUM HYDROCARBON																				
Mod. EPA 8100	Hydrocarbon Content	NS	NS	ug/L	<	200	NT		NT		NT		<	200	NT		NT		NT	
FIELD PARAMETERS																				
	pH	NS	NS	SU	4.0		5.0		5.6		6.0		6.6		7.0		6.3		6.8	
	CONDUCTIVITY	NS	NS	mS/cm	0.465		0.919		0.181		0.226		0.353		0.221		0.165		0.185	
	TURBIDITY	NS	NS	NTU	64		110		713		325		1		5		3		3	
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0		7.0		7.4		8.59		3.55		12.51		10.3		9.69	
	TEMPERATURE	NS	NS	°C	14.7		13.5		14.2		14.5		11.4		11.5		12.9		13.6	
	ORP	NS	NS	mV	26		135		140		154		143		42		119		-44	

RIZ-5 Shallow Aquifer Monitoring Well Screen From 9.5'-19.5' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date					
					12/31/2009		01/05/2011		04/07/2011	
					Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS										
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	NT	
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	<	1.0	NT	
	Trichloroethene	5	2.5	ug/L	<	1.0	<	1.0	NT	
	Tetrachloroethene	5	2.5	ug/L	<	1.0	<	1.0	NT	
TOTAL PETROLEUM HYDROCARBON										
Mod. EPA 8100	Hydrocarbon Content	NS	NS	ug/L	<	200	<	200	NT	
FIELD PARAMETERS										
	pH	NS	NS	SU	5.1		6.7		NT	
	CONDUCTIVITY	NS	NS	mS/cm	0.234		0.247		NT	
	TURBIDITY	NS	NS	NTU	5		1		NT	
	DISSOLVED OXYGEN	NS	NS	mg/L	0		10.24		NT	
	TEMPERATURE	NS	NS	°C	12		11.9		NT	
	ORP	NS	NS	mV	68		105		NT	

Notes:
 PAL = RIDEM's Preventative Action Limit
RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN
PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE
 < = NOT DETECTED
 NS = NO STANDARD
 NT = NOT TESTED
 BGS = BELOW GROUND SURFACE

**TABLE 9
MW-GZ-20 DETECTED CONSTITUENTS SUMMARY**

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-20 Deep Aquifer Monitoring Well Screen From 25'-30' BGS Sample Location Approx. 27.5' BGS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date																
				Baseline 1/2/2008		04/01/2008		07/07/2008		10/01/2008		01/05/2009		04/01/2009		07/08/2009		10/12/2009		
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	
VOLATILE ORGANICS																				
EPA 8260	Vinyl Chloride	2	1	ug/L	1.2	1.0	1.3	1.0	<	5.0	<	5.0	35	5.0	48	10.0	71	10.0	84	10.0
	cis-1,2-Dichloroethene	70	35	ug/L	52	1.0	64	1.0	120	5.0	230	5.0	500	5.0	600	10.0	830	10.0	790	10.0
	1,1,2-Trichloroethane	200	100	ug/L	<	1.0	<	1.0	<	5.0	<	5.0	<	5.0	<	10.0	<	10.0	35	10.0
	Trichloroethene	5	2.5	ug/L	52	1.0	60	1.0	99	5.0	180	5.0	400	5.0	520	10.0	690	10.0	1,200	10.0
	Tetrachloroethene	5	2.5	ug/L	89	1.0	130	1.0	230	5.0	430	5.0	880	5.0	110	10.0	1,200	10.0	2,100	10.0
FIELD PARAMETERS																				
	pH	NS	NS	SU	4.0		5.0		5.4		6.1		6.4		6.4		6.4		6.3	
	CONDUCTIVITY	NS	NS	mS/cm	0.346		0.220		0.124		0.139		0.132		0.148		0.163		0.146	
	TURBIDITY	NS	NS	NTU	280		165		585		118		42		185		52		5	
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0		0.0		0.6		0.1		0.23		1.0		0.0		0.0	
	TEMPERATURE	NS	NS	°C	15.3		14.6		15.0		14.4		12.0		11.9		14.5		12.6	
	ORP	NS	NS	mV	8		-38		66		73		86		40		86		-7	

GZ-20 Deep Aquifer Monitoring Well Screen From 25'-30' BGS Sample Location Approx. 27.5' BGS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date												
				12/31/2009		04/30/2010		07/13/2010		10/13/2010		01/05/2011		04/07/2011		
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	
VOLATILE ORGANICS																
EPA 8260	Vinyl Chloride	2	1	ug/L	66	25	72	25	44	25	50	25	69	25	77	25
	cis-1,2-Dichloroethene	70	35	ug/L	740	25	870	25	510	25	520	25	630	25	670	25
	Trichloroethene	5	2.5	ug/L	1,300	25	1,400	25	1,300	25	1,400	25	1,500	25	1,300	25
	Tetrachloroethene	5	2.5	ug/L	2,300	25	2,400	25	2,800	25	3,100	25	2,900	25	2,400	25
FIELD PARAMETERS																
	pH	NS	NS	SU	5.1		6.2		6.2		6.1		6.4		6.3	
	CONDUCTIVITY	NS	NS	mS/cm	0.125		0.140		0.183		0.125		0.121		0.114	
	TURBIDITY	NS	NS	NTU	112		5		0		2		4		1	
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0		0.1		1.2		0.4		0.1		0.2	
	TEMPERATURE	NS	NS	°C	11.7		11.8		15.1		13.6		12.2		12.9	
	ORP	NS	NS	mV	59		51		202		119		116		112	

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

< = NOT DETECTED

NS = NO STANDARD

NT = NOT TESTED

NS = NO STANDARD

**TABLE 10
MW-GP-26 DETECTED CONSTITUENTS SUMMARY**

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GP-26 Shallow Aquifer Monitoring Well Screen From 4'-16' BGS Sample Location Approx. 10' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date															
					Baseline 1/2/2008		04/01/2008		07/07/2008		10/01/2008		01/05/2009		04/01/2009		07/08/2009		10/12/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																				
EPA 8260	Vinyl Chloride	2	1	ug/L	530	25	100	1.0	100	5.0	16	10	96	10	9	2.5	81	10.0	42	1.0
	1,1-Dichloroethene	7	3.5	ug/L	<	25	1.1	1.0	<	5.0	<	10	<	10	<	2.5	<	10.0	<	1.0
	trans-1,2-Dichloroethene	100	50	ug/L	70	25	20	1.0	<	5.0	19	10	<	10	<	2.5	<	10.0	1.4	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	6,800	25	2,100	1.0	160	5.0	2,300	100	1,200	100	110	2.5	910	10.0	190	1.0
	Trichloroethene	5	2.5	ug/L	1,200	25	2,500	1.0	82	5.0	2,300	100	1,600	100	120	2.5	310	10.0	41	1.0
	Tetrachloroethene	5	2.5	ug/L	1,800	25	4,100	1.0	330	5.0	2,900	100	2,100	100	210	2.5	330	10.0	30	1.0
TOTAL PETROLEUM HYDROCARBON																				
Mod. EPA 8100	Hydrocarbon Content	NS	NS	ug/L	800	200	NT	NT	NT	450	200	NT	NT	NT	NT	NT	NT	NT	NT	
FIELD PARAMETERS																				
	pH	NS	NS	SU	4.0		6.0		5.3		6.5		6.8		6.6		7.0		6.7	
	CONDUCTIVITY	NS	NS	mS/cm	3.00		3.49		0.462		0.341		0.490		0.267		0.449		0.278	
	TURBIDITY	NS	NS	NTU	5		1		51		31		5		35		19		4	
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0		0.0		0.3		0.3		0.3		0		0		0.2	
	TEMPERATURE	NS	NS	°C	13.9		12.5		14.6		17.7		10.4		10.6		15.4		14.5	
	ORP	NS	NS	mV	31		61		-40		-8		89		10		-24		-122	

GP-26 Shallow Aquifer Monitoring Well Screen From 4'-16' BGS Sample Location Approx. 10' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date											
					01/04/2010		04/30/2010		07/08/2010		10/13/2010		01/05/2011		04/07/2011	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																
EPA 8260	Vinyl Chloride	2	1	ug/L	29	5.0	15	5.0	3.6	2.0	<	2.0	<	1.0	<	1.0
	trans-1,2-Dichloroethene	100	50	ug/L	<	5.0	1.2	5.0	<	1.0	<	1.0	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	640	5.0	170	5.0	5.8	1.0	<	1.0	1.2	1.0	1.5	1.0
	Trichloroethene	5	2.5	ug/L	470	5.0	40	5.0	13	1.0	<	1.0	<	1.0	<	1.0
	Tetrachloroethene	5	2.5	ug/L	490	5.0	56	5.0	32	1.0	<	1.0	<	1.0	<	1.0
TOTAL PETROLEUM HYDROCARBON																
Mod. EPA 8100	Hydrocarbon Content	NS	NS	ug/L	660	200	NT	NT	NT	<	200	NT	NT	NT	NT	NT
FIELD PARAMETERS																
	pH	NS	NS	SU	6.3		7.2		6.9		6.8		6.6		6.9	
	CONDUCTIVITY	NS	NS	mS/cm	0.346		0.269		0.305		0.268		0.108		0.185	
	TURBIDITY	NS	NS	NTU	5		2		NT		1		0		2	
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0		11.7		0.4		0.6		0.0		0.4	
	TEMPERATURE	NS	NS	°C	10.4		10.4		16.5		16.4		12.3		11.5	
	ORP	NS	NS	mV	31		-136		5		-11		-7		-75	

Notes:

NS = NO STANDARD

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

< = NOT DETECTED

NT = NOT TESTED

NS = NO STANDARD

BGS = BELOW GROUND SURF.

**TABLE 11
MW-GZ-7 DETECTED CONSTITUENTS SUMMARY**

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-7 Deep Aquifer Monitoring Well Screen From 33'-43' BGS Sample Location Approx. 38' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date															
					Baseline 1/2/2008		04/01/2008		07/07/2008		10/01/2008		01/05/2009		04/01/2009		07/08/2009		10/12/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																				
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	1.3	1.0	<	1.0	<	1.0	<	1.0	2.2	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	13	1.0	140	1.0	33	1.0	4.2	1.0	72	1.0	100	1.0	27	1.0
	Trichloroethene	5	2.5	ug/L	<	1.0	74	1.0	140	1.0	37	1.0	<	1.0	97	1.0	42	1.0	43	1.0
	Tetrachloroethene	5	2.5	ug/L	<	1.0	26	1.0	15	1.0	7.1	1.0	<	1.0	30	1.0	18	1.0	28	1.0
FIELD PARAMETERS																				
	pH	NS	NS	SU	4.0	5.0	5.5	6.3	7.2	6.6	7.7	6.5								
	CONDUCTIVITY	NS	NS	mS/cm	0.223	0.359	0.226	0.106	0.168	0.185	0.175	0.166								
	TURBIDITY	NS	NS	NTU	5	5	17	0.3	4	1.4	2	4								
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0	0.0	1.0	0.4	0.3	0.0	0.0	0.1								
	TEMPERATURE	NS	NS	°C	14.5	14.3	13.9	13.9	12.2	12.6	13.5	12.6								
	ORP	NS	NS	mV	-8	-55	-80	-48	-18	-74	-98	-114								

GZ-7 Deep Aquifer Monitoring Well Screen From 33'-43' BGS Sample Location Approx. 38' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date											
					01/04/2010		04/30/2010		07/08/2010		10/13/2010		01/05/2011		04/07/2011	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	<	1.0	150	1.0	<	1.0	1.6	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	24	1.0	260	1.0	60	1.0	510	1.0	16	1.0	78	1.0
	Trichloroethene	5	2.5	ug/L	14	1.0	40	1.0	17	1.0	350	1.0	17	1.0	81	1.0
	Tetrachloroethene	5	2.5	ug/L	9.7	1.0	56	1.0	41	1.0	600	1.0	5.1	1.0	63	1.0
FIELD PARAMETERS																
	pH	NS	NS	SU	6.4	6.8	6.6	6.3	6.9	6.6						
	CONDUCTIVITY	NS	NS	mS/cm	0.185	0.15	0.179	0.119	0.111	0.117						
	TURBIDITY	NS	NS	NTU	5	0	114	2	0	1						
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0	0.1	0.6	0.3	0.0	0.2						
	TEMPERATURE	NS	NS	°C	11.0	11.0	16.5	14.1	15.1	13.1						
	ORP	NS	NS	mV	32	-98	69	57	41	-22						

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

< = NOT DETECTED

NS = NO STANDARD

NT = NOT TESTED

BGS = BELOW GROUND SURFACE

**TABLE 12
MW-GZ-3 DETECTED CONSTITUENTS SUMMARY**

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-3 Deep Aquifer Monitoring Well Screen From 30'-40' BGS Sample Location Approx. 35' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date															
					Baseline 1/2/2008		04/01/2008		07/07/2008		10/01/2008		01/06/2009		04/01/2009		07/08/2009		10/12/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																				
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	3.1	1.0	<	10	8.1	10	16	5	19	5	35	5
	cis-1,2-Dichloroethene	70	35	ug/L	9.3	1.0	16	1.0	65	1.0	86	10	110	10	180	5	180	5	230	5
	Trichloroethene	5	2.5	ug/L	10	1.0	17	1.0	91	1.0	93	10	81	10	150	5	180	5	210	5
	Tetrachloroethene	5	2.5	ug/L	12	1.0	22	1.0	440	1.0	180	10	160	10	450	5	560	5	630	5
FIELD PARAMETERS																				
	pH	NS	NS	SU	4.0	5.0	5.1	6.5	6.2	6.4	7.4	6.5								
	CONDUCTIVITY	NS	NS	mS/cm	0.339	0.392	0.206	0.114	0.415	0.419	0.171	0.152								
	TURBIDITY	NS	NS	NTU	5	5	34	7	5	4	19	3								
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0	0.0	0.7	0.28	0.25	0	0	0.1								
	TEMPERATURE	NS	NS	°C	15.4	15.4	14.8	14.6	12.4	12.2	13.1	13.1								
	ORP	NS	NS	mV	-15	8	-22	-41	49	-25	-41	-90								

GZ-3 Deep Aquifer Monitoring Well Screen From 30'-40' BGS Sample Location Approx. 35' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date											
					01/04/2010		04/30/2010		07/08/2010		10/13/2010		01/05/2011		04/07/2011	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																
EPA 8260	Vinyl Chloride	2	1	ug/L	23	5	84	5	56	5	<	5	71	2.5	87	2.5
	cis-1,2-Dichloroethene	70	35	ug/L	160	5	450	5	290	5	23	5	250	2.5	300	2.5
	Trichloroethene	5	2.5	ug/L	130	5	380	5	320	5	14	5	130	2.5	190	2.5
	Tetrachloroethene	5	2.5	ug/L	370	5	610	5	600	5	4.9	5	230	2.5	340	2.5
FIELD PARAMETERS																
	pH	NS	NS	SU	6.4	6.5	6.4	6.3	6.5	6.5						
	CONDUCTIVITY	NS	NS	mS/cm	0.150	0.149	0.265	0.128	0.363	61.000						
	TURBIDITY	NS	NS	NTU	2	5	230	4	3	1						
	DISSOLVED OXYGEN	NS	NS	mg/L	1.0	0.0	1.5	0.3	3.9	1.0						
	TEMPERATURE	NS	NS	°C	11.6	11.1	15.3	14.6	12.8	12.5						
	ORP	NS	NS	mV	14	-33	46	58	78	34						

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

< = NOT DETECTED

NS = NO STANDARD

NT = NOT TESTED

BGS = BELOW GROUND SURFACE

TABLE 13
MW-GZ-25 DETECTED CONSTITUENTS SUMMARY

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-25 Deep Aquifer Monitoring Well Screen From 20'-30' BGS Sample Location Approx. 25' BGS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date												
				Baseline 7/10/2009		06/17/2010		07/08/2010		10/13/2010		01/05/2011		04/07/2011		
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	
VOLATILE ORGANICS																
EPA 8260	Vinyl Chloride	2	1	ug/L	<	2.5	<	2.5	<	2.5	<	2.5	<	1.0	<	1.0
	trans-1,2-Dichloroethene	100	50	ug/L	<	2.5	<	2.5	<	2.5	<	2.5	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	11.0	2.5	14.0	2.5	36	2.5	6.4	2.5	3.3	1.0	3	1.0
	Trichloroethene	5	2.5	ug/L	15	2.5	16	2.5	35	2.5	10	2.5	4.8	1.0	4.1	1.0
	Tetrachloroethene	5	2.5	ug/L	220	2.5	200	2.5	200	2.5	130	2.5	63	1.0	47	1.0
FIELD PARAMETERS																
	pH	NS	NS	SU	6.7		6.3		6.7		6.5		6.3		6.3	
	CONDUCTIVITY	NS	NS	mS/cm	0.174		0.153		0.179		0.169		0.227		0.117	
	TURBIDITY	NS	NS	NTU	0		3		0		3		2		1	
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0		0.6		1.36		0.19		1.2		0.2	
	TEMPERATURE	NS	NS	°C	14.0		14.3		15.4		16.8		12.7		10.7	
	ORP	NS	NS	mV	20		-18		70		23		18		9	

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

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NT = NOT TESTED

BGS = BELOW GROUND SURFACE

TABLE 14
MW-GZ-27 DETECTED CONSTITUENTS SUMMARY

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-27 Shallow Aquifer Monitoring Well Screen From 3'-15' BGS Sample Location Approx. 8' BGS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date										
				Baseline 6/17/2010		07/18/2010		10/13/2010		01/05/2011		04/07/2011		
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	
VOLATILE ORGANICS														
EPA 8260	Vinyl Chloride	2	1	ug/L	11	1.0	16	1.0	21	1.0	88	2.5	210	2.5
	trans-1,2-Dichloroethene	100	50	ug/L	<	1.0	<	1.0	<	1.0	4.2	2.5	11	2.5
	cis-1,2-Dichloroethene	70	35	ug/L	20	1.0	45	1.0	44	1.0	380	2.5	1,000	2.5
	Trichloroethene	5	2.5	ug/L	<	1.0	1	1.0	1.4	1.0	45	2.5	67	2.5
	Tetrachloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	12	2.5	17	2.5
FIELD PARAMETERS														
	pH	NS	NS	SU	6.5		6.9		6.5		6.8		6.9	
	CONDUCTIVITY	NS	NS	mS/cm	0.142		0.209		0.201		0.247		0.220	
	TURBIDITY	NS	NS	NTU	2		0		1		2		2	
	DISSOLVED OXYGEN	NS	NS	mg/L	1.1		1.2		0.2		0.1		0.2	
	TEMPERATURE	NS	NS	°C	16.0		17.9		19		10.7		7.3	
	ORP	NS	NS	mV	-7		12		-12		-58		-86	

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

< = NOT DETECTED

NS = NO STANDARD

NT = NOT TESTED

BGS = BELOW GROUND SURFACE

TABLE 15
MW-GZ-26 DETECTED CONSTITUENTS SUMMARY

*First Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-26 Deep Aquifer Monitoring Well Screen From 20'-30' BGS Sample Location Approx. 25' BGS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date												
				Baseline 7/10/2009		06/17/2010		07/08/2010		10/13/2010		01/05/2011		04/07/2011		
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	
VOLATILE ORGANICS																
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Trichloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Tetrachloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
FIELD PARAMETERS																
	pH	NS	NS	SU	5.7	5.5	6.5	6.0	6.1	6.0						
	CONDUCTIVITY	NS	NS	mS/cm	0.156	0.135	0.160	0.133	0.120	0.104						
	TURBIDITY	NS	NS	NTU	0	4	144	1	1	3						
	DISSOLVED OXYGEN	NS	NS	mg/L	1.5	1.8	1.2	1	1.1	1.4						
	TEMPERATURE	NS	NS	°C	14.0	14.0	15.6	15.1	12.3	10.4						
	ORP	NS	NS	mV	175	55	72	140	128	134						

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

< = NOT DETECTED

NS = NO STANDARD

NT = NOT TESTED

BGS = BELOW GROUND SURFACE

TABLE 16
MW-GZ-28 DETECTED CONSTITUENTS SUMMARY

*First semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-28 Shallow Aquifer Monitoring Well Screen From 3'-15' BGS Sample Location Approx. 8' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
					Baseline		07/18/2010		10/13/2010		01/05/2011		04/07/2011	
					6/17/2010	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result
VOLATILE ORGANICS														
EPA 8260	Vinyl Chloride	2	1	ug/L	26	2.5	16	1.0	17	1.0	<	1.0	19	1.0
	trans-1,2-Dichloroethene	100	50	ug/L	<	2.5	1.2	1.0	<	1.0	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	210	2.5	130	1.0	85	1.0	<	1.0	260	1.0
	Trichloroethene	5	2.5	ug/L	78	2.5	37	1.0	8	1.0	<	1.0	39	1.0
	Tetrachloroethene	5	2.5	ug/L	52	2.5	25	1.0	<	1.0	<	1.0	28	1.0
FIELD PARAMETERS														
	pH	NS	NS	SU	6.2		7.2		6.6		7.1		7.1	
	CONDUCTIVITY	NS	NS	mS/cm	0.154		0.234		0.206		0.279		0.140	
	TURBIDITY	NS	NS	NTU	3		0		4		2		3	
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0		1.2		0.3		0.2		0.3	
	TEMPERATURE	NS	NS	°C	15.0		18.7		18.8		10.3		7.5	
	ORP	NS	NS	mV	-30		-24		-50		-72		-95	

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

< = NOT DETECTED

NS = NO STANDARD

NT = NOT TESTED

BGS = BELOW GROUND SURFACE

TABLE 17
MW-RIZ-13 DETECTED CONSTITUENTS SUMMARY

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

RIZ-13 Shallow Aquifer Monitoring Well Screen From 14'-24' BGS Sample Location Approx. 19' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date															
					Baseline 1/2/2008		04/01/2008		07/07/2008		10/01/2008		01/06/2009		04/01/2009		07/09/2009		10/12/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																				
EPA 8260	Vinyl Chloride	2	1	ug/L	4.4	1.0	<	1.0	<	1.0	<	1.0	1.1	1.0	<	1.0	<	1.0		
	Tetrahydrofuran	NS	NS	ug/L	<	10.0	<	10.0	<	10.0	<	10.0	<	10.0	<	10.0	17	10.0	<	10.0
	cis-1,2-Dichloroethene	70	35	ug/L	6.6	1.0	<	1.0	<	1.0	<	1.0	3.8	1.0	<	1.0	<	1.0	<	1.0
	Trichloroethene	5	2.5	ug/L	5.6	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Tetrachloroethene	5	2.5	ug/L	6.9	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
TOTAL PETROLEUM HYDROCARBON																				
Mod. EPA 8100	Hydrocarbon Content	NS	NS	ug/L	<	200	NT	NT	NT	NT	NT	1,100	200	NT	NT	NT	NT	NT		
FIELD PARAMETERS																				
	pH	NS	NS	SU	5.0	6.0	4.8	6.83	5.8	5.6	4.5	4.8								
	CONDUCTIVITY	NS	NS	mS/cm	0.392	0.900	0.773	0.361	0.875	0.571	0.562	0.910								
	TURBIDITY	NS	NS	NTU	3	5	208	54.8	4	88	22.2	11								
	DISSOLVED OXYGEN	NS	NS	mg/L	1.0	10.0	12.0	7.7	5.7	10.1	8.9	8.8								
	TEMPERATURE	NS	NS	°C	14.8	14.8	15.6	16.2	12.4	9.8	13.3	15.2								
	ORP	NS	NS	mV	28	56	34	-9	176	109	290	-160								

RIZ-13 Shallow Aquifer Monitoring Well Screen From 14'-24' BGS Sample Location Approx. 19' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date					
					01/04/2010		01/05/2011		04/07/2011	
					Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS										
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	NT	
	Tetrahydrofuran	NS	NS	ug/L	<	10.0	<	10.0	NT	
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	<	1.0	NT	
	Trichloroethene	5	2.5	ug/L	<	1.0	<	1.0	NT	
	Tetrachloroethene	5	2.5	ug/L	<	1.0	<	1.0	NT	
TOTAL PETROLEUM HYDROCARBON										
Mod. EPA 8100	Hydrocarbon Content	NS	NS	ug/L	680	200	<	200	NT	
FIELD PARAMETERS										
	pH	NS	NS	SU	5.2	5.7	NT			
	CONDUCTIVITY	NS	NS	mS/cm	0.822	0.309	NT			
	TURBIDITY	NS	NS	NTU	5	6	NT			
	DISSOLVED OXYGEN	NS	NS	mg/L	0.2	9.7	NT			
	TEMPERATURE	NS	NS	°C	11.4	13.1	NT			
	ORP	NS	NS	mV	193	195	NT			

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

NS = NO STANDARD

< = NOT DETECTED

NS = NO STANDARD

NT = NOT TESTED

BGS = BELOW GROUND SURFACE

TABLE 18
MW-RIZ-1 DETECTED CONSTITUENTS SUMMARY

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

RIZ-1 Shallow Aquifer Monitoring Well Screen From 5'-15' BGS Sample Location Approx. 10' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date															
					Baseline 1/2/2008		04/01/2008		07/07/2008		10/01/2008		01/06/2009		04/01/2009		07/09/2009		10/12/2009	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																				
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Trichloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Tetrachloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
TOTAL PETROLEUM HYDROCARBON																				
Mod. EPA 8100	Hydrocarbon Content	NS	NS	ug/L	<	200	NT	NT	NT	<	200	NT	NT	NT	NT	NT	NT	NT	NT	
FIELD PARAMETERS																				
	pH	NS	NS	SU	4.0	5.1	4.9	5.42	5.5	5.8	5.3	5.9								
	CONDUCTIVITY	NS	NS	mS/cm	0.912	0.368	0.508	0.199	0.342	0.79	0.962	0.515								
	TURBIDITY	NS	NS	NTU	5	4	3	1	3	5	3.4	1								
	DISSOLVED OXYGEN	NS	NS	mg/L	4.0	5.8	5.2	3	5.6	7.3	7.1	6.0								
	TEMPERATURE	NS	NS	°C	13.5	9.8	13.5	19.2	11.3	9.2	16.1	18.2								
	ORP	NS	NS	mV	256	168	189	248	222	115	222	-22								

RIZ-1 Shallow Aquifer Monitoring Well Screen From 5'-15' BGS Sample Location Approx. 10' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date					
					01/04/2010		01/05/2011		01/05/2011	
					Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS										
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	NT	
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	<	1.0	NT	
	Trichloroethene	5	2.5	ug/L	<	1.0	<	1.0	NT	
	Tetrachloroethene	5	2.5	ug/L	<	1.0	<	1.0	NT	
TOTAL PETROLEUM HYDROCARBON										
Mod. EPA 8100	Hydrocarbon Content	NS	NS	ug/L	<	200	NT	NT		
FIELD PARAMETERS										
	pH	NS	NS	SU	6.3	5.6	NT			
	CONDUCTIVITY	NS	NS	mS/cm	0.362	0.420	NT			
	TURBIDITY	NS	NS	NTU	0	1	NT			
	DISSOLVED OXYGEN	NS	NS	mg/L	4.4	3.5	NT			
	TEMPERATURE	NS	NS	°C	11.1	11.5	NT			
	ORP	NS	NS	mV	185	155	NT			

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

< = NOT DETECTED

NS = NO STANDARD

NT = NOT TESTED

BGS = BELOW GROUND SURFACE

TABLE 19
MW-RIZ-6 DETECTED CONSTITUENTS SUMMARY

*First Semi-Annual EMP
 Charbert Facility
 Richmond, Rhode Island*

RIZ-6 Shallow Aquifer Monitoring Well Screen From 5'-15' BGS Sample Location Approx. 10' BGS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
				Baseline 1/2/2008		01/05/2009		01/04/2010		01/05/2011		04/07/2011	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS													
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	NT
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	NT
	Trichloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	NT
	Tetrachloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	NT
TOTAL PETROLEUM HYDROCARBON													
Mod. EPA 8100	Hydrocarbon Content	NS	NS	ug/L	<	200	<	200	<	200	<	200	NT
FIELD PARAMETERS													
	pH	NS	NS	SU	4.0	6.8	6.54	6.8	NT				
	CONDUCTIVITY	NS	NS	mS/cm	0.312	0.142	0.302	0.135	NT				
	TURBIDITY	NS	NS	NTU	5	4	5	2.0	NT				
	DISSOLVED OXYGEN	NS	NS	mg/L	0.0	1.9	0.64	0.18	NT				
	TEMPERATURE	NS	NS	°C	14.1	11.6	11.5	12.2	NT				
	ORP	NS	NS	mV	-28	19	33	-117	NT				

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

< = NOT DETECTED

NS = NO STANDARD

NT = NOT TESTED

BGS = BELOW GROUND SURFACE

TABLE 20
MW-GP-22 DETECTED CONSTITUENTS SUMMARY

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GP-22				RIDEM GA		RIDEM Groundwater		Date																				
Shallow Aquifer Monitoring Well Screen From 3'-15' BGS Sample Location Approx. 8' BGS				Groundwater Objectives		Quality PALS		Units	2/15/2005		4/25/2008		7/7/2008		10/3/2008		10/28/2008		1/6/2009		4/1/2009		7/9/2009		10/12/2009			
									Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit		
VOLATILE ORGANICS																												
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Trichloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Tetrachloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	12	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
VOLATILE ORGANICS																												
GP-22				RIDEM GA		RIDEM Groundwater		Units	Date																			
Shallow Aquifer Monitoring Well Screen From 3'-15' BGS Sample Location Approx. 8' BGS				Groundwater Objectives		Quality PALS		Units	4/30/2010		7/13/2010		10/12/2010		1/5/2011		4/7/2011											
									Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit										
VOLATILE ORGANICS																												
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Trichloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
	Tetrachloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0
FIELD PARAMETERS																												
	pH	NS	NS	SU		5.9		5.9		5.7		5.7		5.5														
	CONDUCTIVITY	NS	NS	mS/cm		0.211		0.204		0.212		0.175		0.123														
	TURBIDITY	NS	NS	NTU		0		0		2		2.0		1														
	DISSOLVED OXYGEN	NS	NS	mg/L		5.3		6.3		7		6.80		8.1														
	TEMPERATURE	NS	NS	°C		11.9		18.2		17.1		9.6		9.3														
	ORP	NS	NS	mV		157		237		204		152		193														

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

< = NOT DETECTED

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NT = NOT TESTED

BGS = BELOW GROUND SURFACE

TABLE 21
MW-RIZ-21 DETECTED CONSTITUENTS SUMMARY

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

RIZ-21 Shallow Aquifer Monitoring Well Screen From 9'-19' BGS Sample Location Approx. 14' BGS				RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date																	
							4/25/2008		7/7/2008		10/3/2008		10/28/2008		1/6/2009		4/1/2009		7/9/2009		10/12/2009		1/4/2010	
							Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																								
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0				
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0				
	Trichloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0				
	Tetrachloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0				

RIZ-21 Shallow Aquifer Monitoring Well Screen From 9'-19' BGS Sample Location Approx. 14' BGS				RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
							4/30/2010		7/13/2010		10/12/2010		1/5/2011		4/7/2011	
							Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0		
	cis-1,2-Dichloroethene	70	35	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0		
	Trichloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0		
	Tetrachloroethene	5	2.5	ug/L	<	1.0	<	1.0	<	1.0	<	1.0	<	1.0		
FIELD PARAMETERS																
	pH	NS	NS	SU	5.5	5.7	5.7	5.7	5.7	5.5						
	CONDUCTIVITY	NS	NS	mS/cm	0.084	0.218	0.243	0.258	0.123							
	TURBIDITY	NS	NS	NTU	0	66	2	1.0	1							
	DISSOLVED OXYGEN	NS	NS	mg/L	7.7	0.7	5	9.50	8.1							
	TEMPERATURE	NS	NS	°C	8.5	16.1	14.3	11.4	9.3							
	ORP	NS	NS	mV	198	203	215	223	193							

Notes:

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PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

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TABLE 22
MW-GZ-11 DETECTED CONSTITUENTS SUMMARY

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-1 Deep Aquifer Monitoring Well Screen From 44'-54' BGS Sample Location Approx. 49' BGS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	UNITS	DATE																	
				8/6/2004		2/15/2005		4/25/2008		7/7/2008		10/3/2008		1/6/2009		4/1/2009		7/9/2009		10/12/2009	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																					
EPA 8260	1,2,4-Trimethylbenzene	NS	NS	ug/L	<	1	<	1	<	1	4.2	1	4.2	1	3.9	1	<	1	<	1	
	1,1-Dichloroethane	NS	NS	ug/L	2.2	1	2.0	1	1.0	1	<	1	1.5	1	1.8	1	1.8	1	2.3	1	
	1,2,3-Trichlorobenzene	NS	NS	ug/L	<	1	8.3	1	<	1	<	1	<	1	<	1	<	1	<	1	
	1,2,4-Trichlorobenzene	70	35	ug/L	9.5	1	<	1	3.0	1	<	1	<	1	<	1	3.6	1	4.3	1	
	cis-1,2-Dichloroethene	70	35	ug/L	7.3	1	68	1	29	1	20	1	39	1	45	1	41	1	50	1	
	Tetrachloroethene	5	2.5	ug/L	2.2	1	2.0	1	<	1	1.2	1	1.6	1	2.0	1	2.1	1	2.1	1	
	trans-1,2-Dichloroethene	100	50	ug/L	<	1	1.0	1	<	1	<	1	<	1	<	1	<	1	<	1	
	Trichloroethene	5	2.5	ug/L	1.2	1	8.6	1	5.0	1	4.2	1	8.0	1	10	1	9.6	1	10	1	
	Vinyl Chloride	2	1	ug/L	1.1	1	1.4	1	<	1	<	1	<	1	<	1	<	1	<	1	

GZ-1 Deep Aquifer Monitoring Well Screen From 44'-54' BGS Sample Location Approx. 49' BGS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	UNITS	Date												
				1/4/2010		4/30/2010		7/13/2010		10/12/2010		1/5/2011		4/7/2011		
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	
VOLATILE ORGANICS																
EPA 8260	1,2,4-Trimethylbenzene	NS	NS	ug/L	<	1	<	1	<	1		1	<	1	<	1
	1,1-Dichloroethane	NS	NS	ug/L	<	1	<	1	<	1		1	<	1	1.6	1
	1,2,3-Trichlorobenzene	NS	NS	ug/L	2.2	1	2.6	1	2.4	1	2.4	1	2.0	1	<	1
	1,2,4-Trichlorobenzene	70	35	ug/L	<	1	<	1	<	1		1	<	1	<	1
	cis-1,2-Dichloroethene	70	35	ug/L	2.4	1	3.7	1	3.8	1	3.0	1	3.9	1	35	1
	Tetrachloroethene	5	2.5	ug/L	46	1	64	1	53	1	56	1	48	1	1.3	1
	trans-1,2-Dichloroethene	100	50	ug/L	1.9	1	2.5	1	2.5	1	2.2	1	2.1	1	<	1
	Trichloroethene	5	2.5	ug/L	<	1	<	1	<	1		1	<	1	7.1	1
	Vinyl Chloride	2	1	ug/L	9.8	1	13	1	11	1	12	1	10	1	<	1
	FIELD PARAMETERS															
pH	NS	NS	SU	7.3	7.1	7.0	7.7	7.6	7.4							
CONDUCTIVITY	NS	NS	mS/cm	0.591	0.334	0.436	0.268	0.433	0.248							
TURBIDITY	NS	NS	NTU	5	0	94	2.0	2	3							
DISSOLVED OXYGEN	NS	NS	mg/L	0.1	0.0	2	0.10	1.7	1.3							
TEMPERATURE	NS	NS	°C	10.7	10.9	16	17.1	11.7	11							
ORP	NS	NS	mV	-101	-106	26	204	-116	-89							

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

< = NOT DETECTED

NS = NO STANDARD

NT = NOT TESTED

BGS = BELOW GROUND SURFACE

**TABLE 23
MW-4A DETECTED CONSTITUENTS SUMMARY**

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

MW-4A	RIDEM GA	RIDEM Groundwater	UNITS	DATE															
				3/15/2005		6/2/2005		9/1/2005		12/6/2005		2/28/2006		5/31/2006		8/31/2006		12/7/2006	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
Shallow Aquifer Monitoring Well Screen From 5'-15' BGS Sample Location Approx. 7.5' BGS	Groundwater Objectives	Quality PALs																	
EPA 8260	VOLATILE ORGANICS:																		
Naphthalene	100	50	ug/L	1.2	1.0	1.7	1	1.6	1	<	1	<	1	<	1	<	1	<	1
4-Methyl-2-Pentanone	NS	NS	ug/L	<	2.0	<	2	2.7	2	<	2	<	2	<	2	<	2	<	25
2-Butanone	NS	NS	ug/L	<	25	<	25	<	25	26	25	<	25	<	25	<	25	<	25
Dichloromethane	5	2.5	ug/L	<	1	<	1	6.2	1	<	1	<	1	<	1	<	1	<	1

MW-4A	RIDEM GA	RIDEM Groundwater	UNITS	DATE															
				3/1/2007		5/31/2007		9/5/2007		12/3/2007		2/21/2008		6/2/2008		9/3/2008		12/2/2008	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
Shallow Aquifer Monitoring Well Screen From 5'-15' BGS Sample Location Approx. 7.5' BGS	Groundwater Objectives	Quality PALs																	
EPA 8260	VOLATILE ORGANICS:																		
Naphthalene	100	50	ug/L	<	1	<	1	2.1	1	<	2	<	2	<	2	<	2	<	2

MW-4A	RIDEM GA	RIDEM Groundwater	UNITS	DATE															
				3/3/2009		6/1/2009		9/1/2009		12/4/2009		3/2/2010		6/11/2010		10/14/2010		1/5/2011	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
Shallow Aquifer Monitoring Well Screen From 5'-15' BGS Sample Location Approx. 7.5' BGS	Groundwater Objectives	Quality PALs																	
EPA 8260	VOLATILE ORGANICS:																		
Tetrachloroethene	5	2.5	ug/L	<	1	<	1	<	1	<	1	1.5	1	2.1	1	1.7	1	5.2	1

MW-4A	RIDEM GA	RIDEM Groundwater	UNITS	DATE	
				4/7/2011	
				Result	Limit
Shallow Aquifer Monitoring Well Screen From 5'-15' BGS Sample Location Approx. 7.5' BGS	Groundwater Objectives	Quality PALs			
EPA 8260	VOLATILE ORGANICS:				
Tetrachloroethene	5	2.5	ug/L	10	1
FIELD PARAMETERS					
pH	NS	NS	SU	5.3	
CONDUCTIVITY	NS	NS	mS/cm	0.720	
TURBIDITY	NS	NS	NTU	3	
DISSOLVED OXYGEN	NS	NS	mg/L	0.4	
TEMPERATURE	NS	NS	°C	10.5	
ORP	NS	NS	mV	5	

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

< = NOT DETECTED

NT = NOT TESTED

NS = NO STANDARD

BGS = BELOW GROUND SU

**TABLE 24
GZ-ML-1 ZONE 1 DETECTED CONSTITUENTS SUMMARY**

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-ML-1 ZONE-1 Bedrock Aquifer Monitoring Well Zone Screen From 122'-132' BGS	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
				Baseline 6/21/2007		08/09/2007		10/08/2008		04/26/2010		04/07/2011	
				Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS													
EPA 8260	Dichloromethane	5	2.5	ug/L	<	1	1.1	1	<	1	<	1	NT
	2-Butanone	NS	NS	ug/L	<	25	<	25	<	25	<	25	NT
	Chloroform	80	50	ug/L	18	1	16	1	1.6	1	<	1	NT
	Bromodichloromethane	80	50	ug/L	1.6	1	<	1	<	1	<	1	NT
	Toluene	1000	500	ug/L	2	1	2	1	2	1	<	1	NT
FIELD PARAMETERS													
	pH	NS	NS	SU	10.5		11.2		8.2		8.7	NT	
	CONDUCTIVITY	NS	NS	mS/cm	0.644		NT		0.256		0.240	NT	
	TURBIDITY	NS	NS	NTU	0		28		3		9	NT	
	DISSOLVED OXYGEN	NS	NS	mg/L	3.4		7.0		2.4		2.3	NT	
	TEMPERATURE	NS	NS	°C	15		14.6		12.7		15.3	NT	
	ORP	NS	NS	mV	82		-173		-30		-38	NT	

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

< = NOT DETECTED

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**TABLE 25
GZ-ML-1 ZONE 3 DETECTED CONSTITUENTS SUMMARY**

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-ML-1 ZONE-3 Bedrock Aquifer Monitoring Well Zone Screen From 170.5'-182.5' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
					Baseline 6/21/2007		08/09/2007		10/08/2008		04/26/2010		04/07/2011	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
EPA 8260		VOLATILE ORGANICS												
		Acetone	NS	NS	ug/L	<	1	<	1	52	1	110	1	NT
		1,1-Dichloroethane	NS	NS	ug/L	<	25	<	25	460	25	820	25	
		Chloroform	80	50	ug/L	6.6	1	3.7	1	<	1	<	1	NT
		Toluene	1000	500	ug/L	3.9	1	3.8	1	<	1	1.7	1	NT
		FIELD PARAMETERS												
		pH	NS	NS	SU	9.8		9.3		6		5.5		NT
		CONDUCTIVITY	NS	NS	mS/cm	0.162		NT		0.353		0.347		NT
		TURBIDITY	NS	NS	NTU	0		6		119		110		NT
		DISSOLVED OXYGEN	NS	NS	mg/L	0.5		5.1		0.5		0.1		NT
		TEMPERATURE	NS	NS	°C	13.5		14.1		12.9		15.5		NT
		ORP	NS	NS	mV	-9		-105		32		-79		NT

Notes:

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RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

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**TABLE 26
GZ-ML-2 ZONE 1 DETECTED CONSTITUENTS SUMMARY**

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-ML-2 ZONE-1 Bedrock Aquifer Monitoring Well Zone Screen From 97.5'-110' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date									
					Baseline 6/21/2007		08/09/2007		10/08/2008		04/26/2010		04/07/2011	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS														
EPA 8260	Methyl-Tert-Butyl-Ether	40	20	ug/L	1.1	1	1.2	1	<	1	<	1	NT	
	Toluene	1000	500	ug/L	2.3	1	3	1	<	1	<	1	NT	
FIELD PARAMETERS														
	pH	NS	NS	SU	7.5		7.4		8.1		7		NT	
	CONDUCTIVITY	NS	NS	mS/cm	0.36		NT		0.384		0.464		NT	
	TURBIDITY	NS	NS	NTU	0		41		5		6		NT	
	DISSOLVED OXYGEN	NS	NS	mg/L	2.8		5.6		0.4		2.4		NT	
	TEMPERATURE	NS	NS	°C	13.6		15.8		13.4		14		NT	
	ORP	NS	NS	mV	-159		-80		-140		-115		NT	

Notes:

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NT = NOT TESTED

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TABLE 27
GZ-ML-2 ZONE 3 DETECTED CONSTITUENTS SUMMARY

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-ML-2 ZONE-3 Bedrock Aquifer Monitoring Well Zone Screen From 191.5'-201' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date										
					Baseline 6/21/2007		08/09/2007		10/08/2008		04/26/2010		04/07/2011		
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	
VOLATILE ORGANICS															
EPA 8260	Methyl-Tert-Butyl-Ether	40	20	ug/L	1.0	1	<	1	<	1	<	1	<	1	NT
	2-Butanone	NS	NS	ug/L	<	25	33	25	<	25	<	25	<	25	NT
	Toluene	1000	500	ug/L	1.8	1	6	1	5	1	<	1	<	1	NT
FIELD PARAMETERS															
	pH	NS	NS	SU	7.7	6.8	7.7	7.2	7.2	7.2	7.2	7.2	7.2	7.2	NT
	CONDUCTIVITY	NS	NS	mS/cm	0.369	NT	0.495	0.555	0.555	0.555	0.555	0.555	0.555	0.555	NT
	TURBIDITY	NS	NS	NTU	8	0	13	22	22	22	22	22	22	22	NT
	DISSOLVED OXYGEN	NS	NS	mg/L	2.2	9.6	0.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	NT
	TEMPERATURE	NS	NS	°C	13.2	14.4	13.2	13.1	13.1	13.1	13.1	13.1	13.1	13.1	NT
	ORP	NS	NS	mV	-180	-184	-159	-148	-148	-148	-148	-148	-148	-148	NT

Notes:

PAL = RIDEM's Preventative Action Limit

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PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

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TABLE 28
GZ-ML-3 ZONE 1 DETECTED CONSTITUENTS SUMMARY

*First Semi-Annual EMP
 Charbert Facility
 Richmond, Rhode Island*

GZ-ML-3 ZONE-1 Bedrock Aquifer Monitoring Well Zone Screen From 49'-65' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date											
					Baseline 6/21/2007		08/09/2007		08/09/07 Blind Duplicate		10/08/2008		04/26/2010		04/07/2011	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																
EPA 8260	Vinyl Chloride	2	1	ug/L	<	100	<	50	<	50	<	50	<	50	<	50
	cis-1,2-Dichloroethene	70	35	ug/L	110	100	260	50	270	50	87	50	<	50	65	50
	Trichloroethene	5	2.5	ug/L	<	100	190	50	200	50	<	50	<	50	42	50
	Tetrachloroethene	5	2.5	ug/L	3,700	100	3,400	50	3,400	50	1,300	50	5,500	50	3,700	50
FIELD PARAMETERS																
	pH	NS	NS	SU	7.6		5.7				6.6		6.7		6.8	
	CONDUCTIVITY	NS	NS	mS/cm	0.126		NT				0.136		0.148		0.102	
	TURBIDITY	NS	NS	NTU	9		2				9		73		71	
	DISSOLVED OXYGEN	NS	NS	mg/L	4.5		3.8				0.7		3.3		1.4	
	TEMPERATURE	NS	NS	°C	13.2		14.3				13.8		15.1		11.9	
	ORP	NS	NS	mV	-132		63				-3		-8		78	

Notes:

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RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

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TABLE 29
GZ-ML-3 ZONE 3 DETECTED CONSTITUENTS SUMMARY

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-ML-3 ZONE-3 Bedrock Aquifer Monitoring Well Zone Screen From 142.5'-158' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date											
					Baseline 6/21/2007		6/21/2007 Blind Duplicate		08/09/2007		10/08/2008		04/26/2010		04/07/2011	
					Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS																
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1	<	1	<	1	<	1	<	1	NT	
	cis-1,2-Dichloroethene	70	35	ug/L	2.5	1	<	1	1.1	1	1	1	<	1	NT	
	Benzene	5	2.5	ug/L	1.1	1	<	1	<	1	<	1	<	1	NT	
	Toluene	1,000	500	ug/L	3.6	1	<	1	<	1	3.1	1	<	1	NT	
FIELD PARAMETERS																
	pH	NS	NS	SU	6.5				6.2		7		6.5		NT	
	CONDUCTIVITY	NS	NS	mS/cm	0.163				NT		0.237		0.261		NT	
	TURBIDITY	NS	NS	NTU	0				20		34		16		NT	
	DISSOLVED OXYGEN	NS	NS	mg/L	2.5				4.6		0.7		2.2		NT	
	TEMPERATURE	NS	NS	°C	13.4				15.3		14.5		13.4		NT	
	ORP	NS	NS	mV	-124				-40		-42		-33		NT	

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

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TABLE 30
GZ-ML-4 ZONE 1 DETECTED CONSTITUENTS SUMMARY

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-ML-4 ZONE-1 Bedrock Aquifer Monitoring Well Zone Screen From 44'-56.3' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date					
					Baseline 4/27/2010		06/01/2010		04/07/2011	
					Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS										
EPA 8260	Vinyl Chloride	2	1	ug/L	<	2	<	2	<	2
	Acetone	NS	NS	ug/L	59	10	13	10	<	10
	cis-1,2-Dichloroethene	70	35	ug/L	<	1	<	1	24	1
	Trichloroethene	5	2.5	ug/L	<	1	1.3	1	31	1
	Toluene	1,000	500	ug/L	1.8	1	1.5	1	<	1
	Tetrachloroethene	5	2.5	ug/L	<	1	77	1	130	1
FIELD PARAMETERS										
	pH	NS	NS	SU	6.3	6.9	6.4			
	CONDUCTIVITY	NS	NS	mS/cm	0.304	0.600	0.836			
	TURBIDITY	NS	NS	NTU	83	77	27			
	DISSOLVED OXYGEN	NS	NS	mg/L	2.2	2.3	0.5			
	TEMPERATURE	NS	NS	°C	13.4	14.5	12.3			
	ORP	NS	NS	mV	-33	-81	-55			

Notes:

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RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

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NT = NOT TESTED

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**TABLE 31
GZ-ML-4 ZONE 3 DETECTED CONSTITUENTS SUMMARY**

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-ML-4 ZONE-3 Bedrock Aquifer Monitoring Well Zone Screen From 181.8'-194.3' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date					
					Baseline 4/27/2010		06/01/2010		04/07/2011	
					Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS										
EPA 8260	Vinyl Chloride	2	1	ug/L	<	2	<	2	NT	
	Acetone	NS	NS	ug/L	<	10	<	10	NT	
	cis-1,2-Dichloroethene	70	35	ug/L	<	1	<	1	NT	
	Trichloroethene	5	2.5	ug/L	<	1	<	1	NT	
	Toluene	1,000	500	ug/L	<	1	<	1	NT	
	Tetrachloroethene	5	2.5	ug/L	<	1	<	1	NT	
FIELD PARAMETERS										
	pH	NS	NS	SU		6.9		6.3	NT	
	CONDUCTIVITY	NS	NS	mS/cm		0.311		0.319	NT	
	TURBIDITY	NS	NS	NTU		191		58	NT	
	DISSOLVED OXYGEN	NS	NS	mg/L		2.9		4.0	NT	
	TEMPERATURE	NS	NS	°C		13.1		16.8	NT	
	ORP	NS	NS	mV		-131		-108	NT	

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

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**TABLE 32
GZ-ML-5 ZONE 2 DETECTED CONSTITUENTS SUMMARY**

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-ML-5 ZONE-2 Bedrock Aquifer Monitoring Well Zone Screen From 45.6'-61.4' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date					
					Baseline 4/27/2010		06/01/2010		04/07/2011	
					Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS										
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1	<	1	<	1
	cis-1,2-Dichloroethene	70	35	ug/L	19	1	19	1	13	1
	Trichloroethene	5	2.5	ug/L	2.6	1	2.4	1	2.1	1
	Tetrachloroethene	5	2.5	ug/L	<	1	<	1	<	1
FIELD PARAMETERS										
	pH	NS	NS	SU	6.7	6.8	6.9			
	CONDUCTIVITY	NS	NS	mS/cm	0.256	0.900	0.169			
	TURBIDITY	NS	NS	NTU	13	66	1			
	DISSOLVED OXYGEN	NS	NS	mg/L	2.7	4.2	0.3			
	TEMPERATURE	NS	NS	°C	14.4	15.9	11.7			
	ORP	NS	NS	mV	-45	-85	-57			

Notes:

PAL = RIDEM's Preventative Action Limit

RIDEM GA EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED GREEN

PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

< = NOT DETECTED

NS = NO STANDARD

NT = NOT TESTED

BGS = BELOW GROUND SURFACE

**TABLE 33
GZ-ML-5 ZONE 3 DETECTED CONSTITUENTS SUMMARY**

*First Semi-Annual EMP
Charbert Facility
Richmond, Rhode Island*

GZ-ML-5 ZONE-3 Bedrock Aquifer Monitoring Well Zone Screen From 86.3'-140' BGS		RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	Units	Date					
					Baseline 4/27/2010		06/01/2010		04/07/2011	
					Result	Limit	Result	Limit	Result	Limit
VOLATILE ORGANICS										
EPA 8260	Vinyl Chloride	2	1	ug/L	<	1	<	1	NT	
	cis-1,2-Dichloroethene	70	35	ug/L	6.1	1	3.3	1	NT	
	Trichloroethene	5	2.5	ug/L	<	1	<	1	NT	
	Tetrachloroethene	5	2.5	ug/L	<	1	<	1	NT	
FIELD PARAMETERS										
	pH	NS	NS	SU	7.0		6.7		NT	
	CONDUCTIVITY	NS	NS	mS/cm	0.232		0.287		NT	
	TURBIDITY	NS	NS	NTU	27		68		NT	
	DISSOLVED OXYGEN	NS	NS	mg/L	3.3		2.9		NT	
	TEMPERATURE	NS	NS	°C	13.9		16.4		NT	
	ORP	NS	NS	mV	-32		-37		NT	

Notes:

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PALs EXCEEDANCES ARE IN BOLD AND HIGHLIGHTED BLUE

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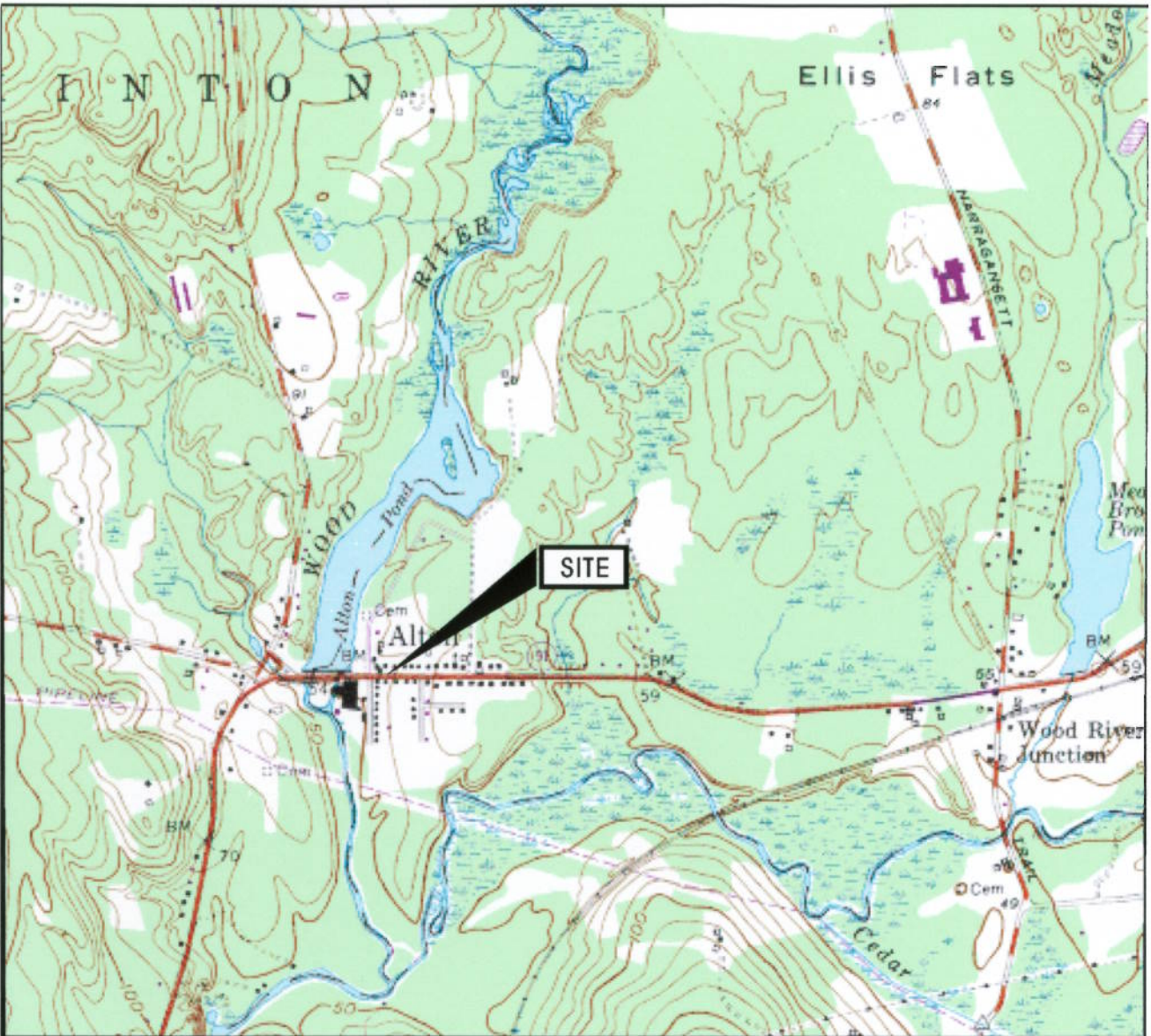
BGS = BELOW GROUND SURFACE

FIGURES

(COREL FILE: G:\JOBS\ENV\32795.16-EAS\LOCUS.CDR)

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FILE NO. 32795.16



FROM USGS WESTERLY, RI QUADRANGLE MAP

(DIGITAL TOPOGRAPHIC MAPS PROVIDED BY MAPTECH, INC.)

(CONTOUR ELEVATIONS ARE IN METERS ABOVE NGVD, AT 3 METER INTERVALS)

APPROXIMATE SCALE IN FEET



CHARBERT FACILITY

ALTON
RHODE ISLAND

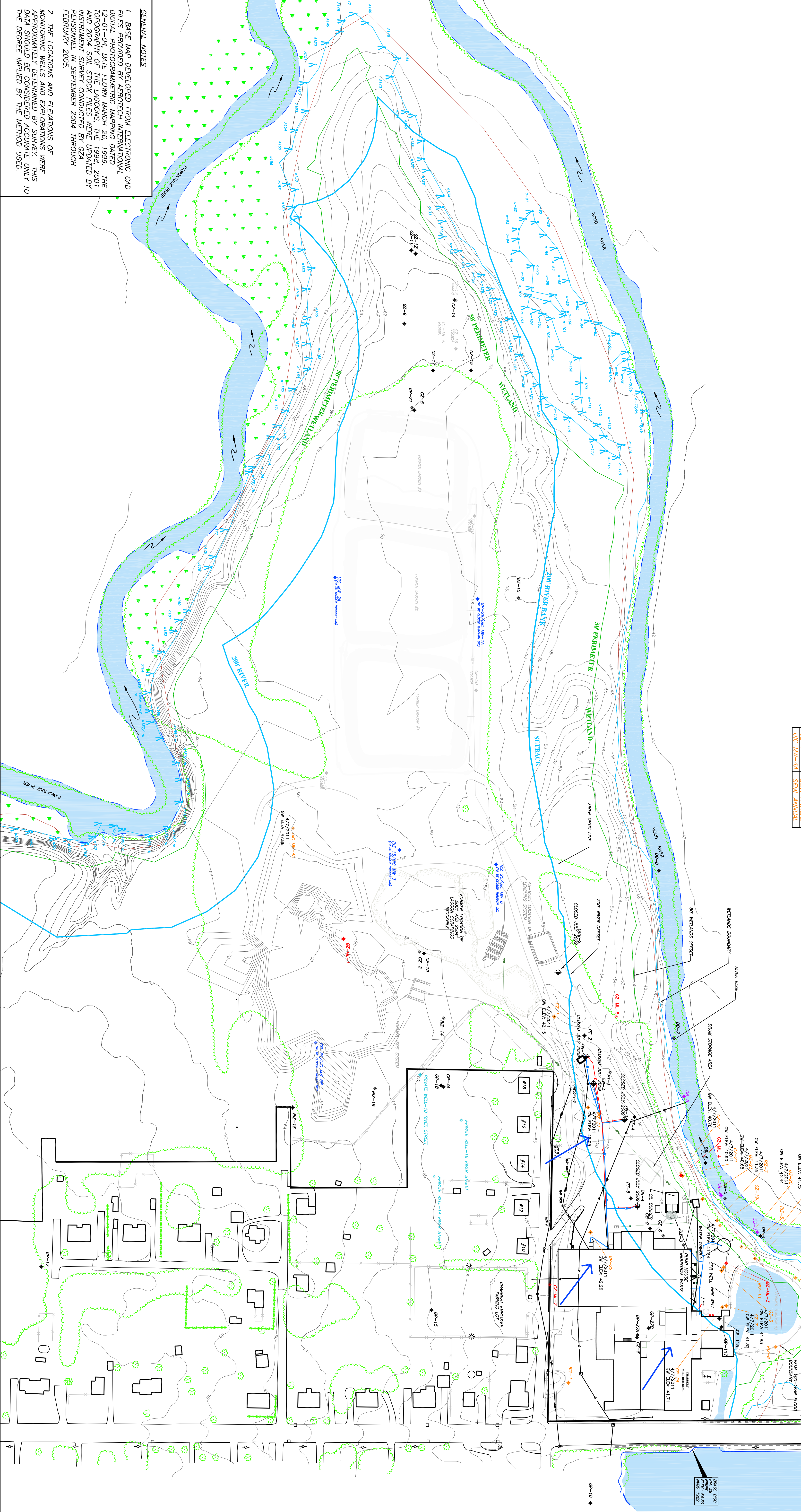
LOCUS PLAN

March-2008

FIGURE NO. 1

LEGEND

- 200 FT. RIVER BANK BUFFER
 - 50 FT. WETLAND BUFFER
 - SEWER LINE
 - INDUSTRIAL WASTEWATER LINE
 - UNDERGROUND ELECTRICAL LINE
 - STORM WATER DRAINAGE LINE
 - OIL LINE
 - EXISTING SEWER FORCE MAIN
 - OVERHEAD UTILITY
 - FEMA 100 FLOOD LEVEL
 - POST INDICATOR VALVE
 - FIRE HYDRANT
 - UTILITY POLE
 - CHAIN LINK FENCE
 - EXISTING SURFACE CONTOURS
 - EDGE OF RIVER
-
- 2007 DIAPHRAGM BAG MONITORING LOCATION
 - 2008-2010 AND FUTURE SAMPLING EVENT DIFFUSION BAG MONITORING LOCATION
 - FORMER UIC PROGRAM GROUNDWATER MONITORING WELL
 - EXISTING MULTI-LEVEL BEDROCK MONITORING WELL
 - EMP GROUNDWATER MONITORING WELL
 - EXISTING GROUNDWATER MONITORING WELL
 - FORMER EXTRACTION WELL
 - INFERRED GROUNDWATER FLOW DIRECTION BASED ON SIP GROUNDWATER CONTOUR PLANS CLOSED BY GZA
-
- AS-BUILT LOCATION OF AIR SPARGE WELL
 - AS-BUILT LOCATION OF SOIL VAPOR EXTRACTION WELL
 - AS-BUILT LOCATION OF SUB-SLAB VENT
 - AS-BUILT LOCATION OF SOIL VAPOR EXTRACTION TRENCH



GENERAL NOTES

1. BASE MAP DEVELOPED FROM ELECTRONIC CAD FILES PROVIDED BY AEROTECH INTERNATIONAL DIGITAL PHOTOGRAMMETRIC MAPPING DATED 12-01-04. DATE FLOWN MARCH 26, 1999. THE MONITORING WELL LOCATIONS, THE 1996, 2001 AND 2004 SOIL STOCK MONITORING WELL INSTRUMENT SURVEY CONDUCTED BY GZA PERSONNEL IN SEPTEMBER 2004 THROUGH FEBRUARY 2005.

2. THE LOCATIONS AND ELEVATIONS OF MONITORING WELLS AND EXPLORATIONS WERE APPROXIMATELY DETERMINED BY SURVEY. THIS DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.

EMU WELLS LOCATION	WELLS FREQUENCY
02-1	ANNUAL
02-2	ANNUAL
02-3	ANNUAL
02-4	ANNUAL
02-5	ANNUAL
02-6	ANNUAL
02-7	ANNUAL
02-8	ANNUAL
02-9	ANNUAL
02-10	ANNUAL
02-11	ANNUAL
02-12	ANNUAL
02-13	ANNUAL
02-14	ANNUAL
02-15	ANNUAL
02-16	ANNUAL
02-17	ANNUAL
02-18	ANNUAL
02-19	ANNUAL
02-20	ANNUAL
02-21	ANNUAL
02-22	ANNUAL
02-23	ANNUAL
02-24	ANNUAL
02-25	ANNUAL
02-26	ANNUAL
02-27	ANNUAL
02-28	ANNUAL
02-29	ANNUAL
02-30	ANNUAL
02-31	ANNUAL
02-32	ANNUAL
02-33	ANNUAL
02-34	ANNUAL
02-35	ANNUAL
02-36	ANNUAL
02-37	ANNUAL
02-38	ANNUAL
02-39	ANNUAL
02-40	ANNUAL
02-41	ANNUAL

EMP BEDROCK WELLS LOCATION	ZONE	SAMPLING FREQUENCY
02-M1-1	ZONE 1	ANNUAL
02-M1-2	ZONE 2	ANNUAL
02-M1-3	ZONE 3	ANNUAL
02-M1-4	ZONE 4	ANNUAL
02-M1-5	ZONE 5	ANNUAL



<p>CHARBERT FACILITY ALTON, RHODE ISLAND</p>	<p>PROJ MGR: SMA DESIGNED BY: SMA REVIEWED BY: EAS OPERATOR: SMA CHECKER: ALF DATE: APR. 2011</p>	<p>SCALE: 1" = 100'</p>									
<p>ENVIRONMENTAL MONITORING PLAN SITEPLAN AND MONITORING WELL LOCATIONS</p>	<p>PROJECT NO. 32795.41</p> <p>FIGURE NO. 2</p>	<p>GZA GeoEnvironmental, Inc. Engineers and Scientists</p> <p>530 BROADWAY PROVIDENCE, RHODE ISLAND 02909</p> <p>(401) 421-4140 (401) 791-8613</p>	<table border="1" style="width: 100%;"> <thead> <tr> <th>REV. NO.</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>LEGEND REVISED PER RIDEM COMMENTS</td> <td>SMA</td> <td>05-03-11</td> </tr> </tbody> </table>	REV. NO.	DESCRIPTION	BY	DATE	1	LEGEND REVISED PER RIDEM COMMENTS	SMA	05-03-11
REV. NO.	DESCRIPTION	BY	DATE								
1	LEGEND REVISED PER RIDEM COMMENTS	SMA	05-03-11								

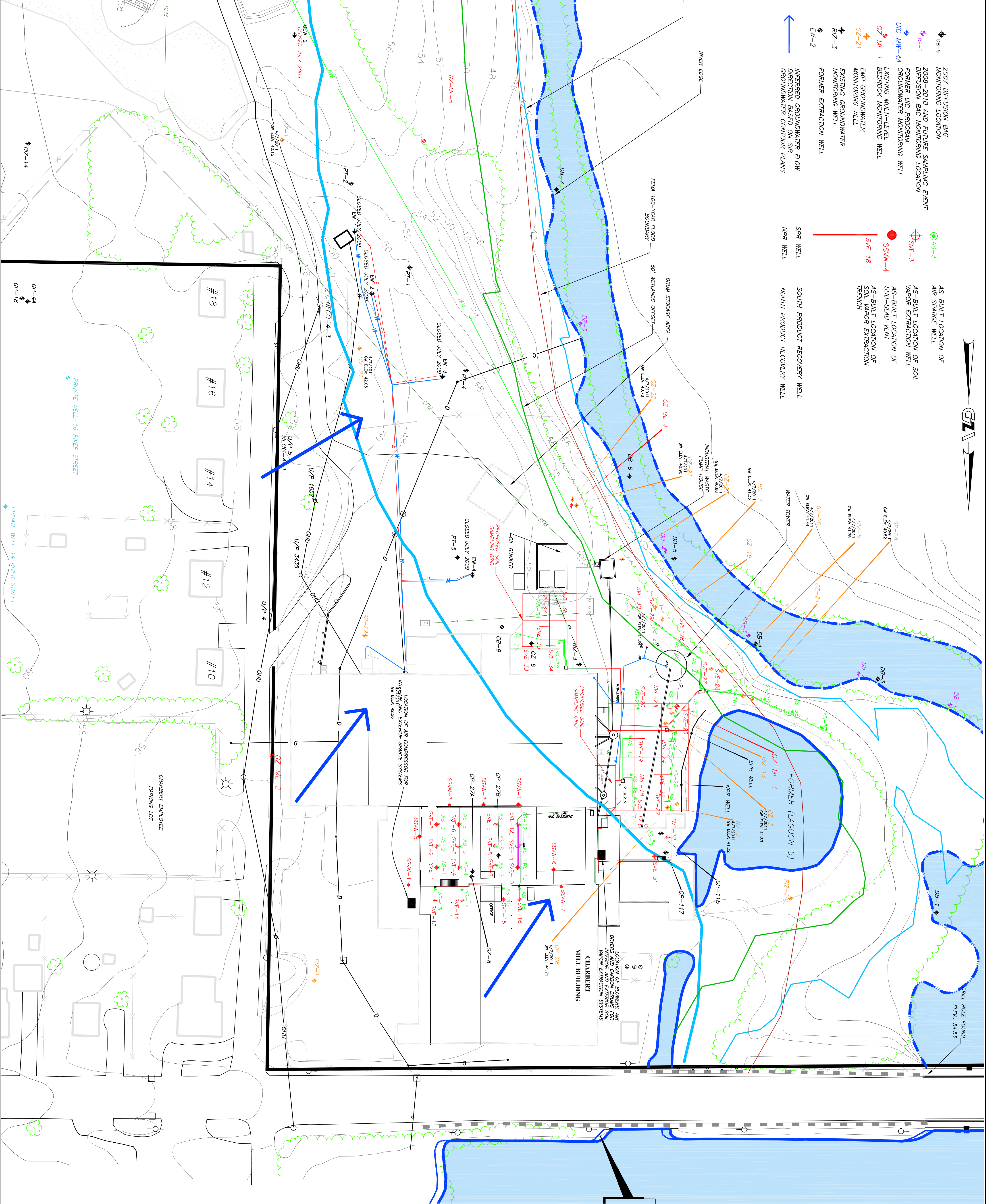
LEGEND

- 200 FT. RIVER BANK BUFFER
- 50 FT. WETLAND BUFFER
- SEWER LINE
- INDUSTRIAL WASTEWATER LINE
- UNDERGROUND ELECTRICAL LINE
- STORM WATER DRAINAGE LINE
- OIL LINE
- EXISTING SEWER FORCE MAIN
- OVERHEAD UTILITY
- FEMA 100 FLOOD LEVEL
- POST INDICATOR VALVE
- FIRE HYDRANT
- UTILITY POLE
- CHAIN LINK FENCE
- EXISTING SURFACE CONTOURS
- EDGE OF RIVER
- 2007 DIFFUSION BAG MONITORING LOCATION
- 2009-2010 AND FUTURE SAMPLING EVENT DIFFUSION BAG MONITORING LOCATION
- FORMER UIC PROGRAM GROUNDWATER MONITORING WELL
- EXISTING MULTI-LEVEL BEDROCK MONITORING WELL
- EMP GROUNDWATER MONITORING WELL
- EXISTING GROUNDWATER MONITORING WELL
- FORMER EXTRACTION WELL
- INFERRED GROUNDWATER FLOW DIRECTION BASED ON SFR GROUNDWATER CONTOUR PLANS
- SFR WELL
- NPR WELL
- SOUTH PRODUCT RECOVERY WELL
- NORTH PRODUCT RECOVERY WELL
- AS-BUILT LOCATION OF AIR SPARGE WELL
- AS-BUILT LOCATION OF SOIL VAPOR EXTRACTION WELL
- AS-BUILT LOCATION OF SUB-SLAB VENT
- AS-BUILT LOCATION OF SOIL VAPOR EXTRACTION TRENCH
- AS-3
- SVE-3
- AS-BUILT LOCATION OF SOIL VAPOR EXTRACTION TRENCH
- SSW-4
- SVE-18

GENERAL NOTES

1. BASE MAP DEVELOPED FROM ELECTRONIC CAD FILES PROVIDED BY AEROTECH INTERNATIONAL DIGITAL PHOTOGRAMMETRIC MAPPING DATED 12-01-04. DATE FLOWN MARCH 26, 1999. THE MONITORING LOCATIONS OF THE LAGOONS, THE 1996, 2001 AND 2004 SFR SURVEYS, AND THE 1996, 2001 INSTRUMENT SURVEY CONDUCTED BY GZA PERSONNEL IN SEPTEMBER 2004 THROUGH FEBRUARY 2005.

2. THE LOCATIONS AND ELEVATIONS OF MONITORING WELLS AND EXPLORATIONS WERE APPROXIMATELY DETERMINED BY SURVEY. THIS DATA SHOULD BE CONSIDERED ACCURATE ONLY TO THE DEGREE IMPLIED BY THE METHOD USED.



<p>CHARBERT FACILITY ALTON, RHODE ISLAND</p>		<p>PROJ MGR: SMA DESIGNED BY: SMA REVIEWED BY: EAS OPERATOR: SMA CHECKER: ALF DATE: APRIL 2011</p>	<p>SCALE: 1" = 40' 0 20 40 80</p>	<p>1 LEGEND REVISED PER RIDEM COMMENTS SMA 05-03-11</p>
<p>PROJECT NO. 32795.41</p>	<p>ENVIRONMENTAL MONITORING PLAN AIR SPARGE AND SOIL VAPOR EXTRACTION WELL LOCATIONS</p>	<p>GZA GeoEnvironmental, Inc. Engineers and Scientists 530 BROADWAY PROVIDENCE, RHODE ISLAND 02909</p>	<p>REV. NO. DESCRIPTION BY DATE</p>	

APPENDIX A
LIMITATIONS

GEOHYDROLOGICAL LIMITATIONS

1. The conclusions and recommendations submitted in this report are based in part upon the data obtained from a limited number of soil samples from widely spaced subsurface explorations. The nature and extent of variations between these explorations may not become evident until further investigation. If variations or other latent conditions then appear evident, it will be necessary to reevaluate the recommendations of this report.
2. The generalized soil profile described in the text is intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized and have been developed by interpretations of widely spaced explorations and samples; actual soil transitions are probably more gradual. For specific information, refer to the boring logs.
3. Water level readings have been made in the test pits, borings and/or observation wells at times and under conditions stated on the exploration logs. These data have been reviewed and interpretations have been made in the text of this report. However, it must be noted that fluctuations in the level of the groundwater may occur due to variations in rainfall and other factors different from those prevailing at the time measurements were made.
4. The conclusions and recommendations contained in this report are based in part upon various types of chemical data and are contingent upon their validity. These data have been reviewed and interpretations made in the report. As indicated within the report, some of these data are preliminary "screening" level data, and should be confirmed with quantitative analyses if more specific information is necessary. Moreover, it should be noted that variations in the types and concentrations of contaminants and variations in their flow paths may occur due to seasonal water table fluctuations, past disposal practices, the passage of time, and other factors. Should additional chemical data become available in the future, these data should be reviewed by GZA, and the conclusions and recommendations presented therein modified accordingly.
5. Chemical analyses have been performed for specific parameters during the course of this study, as detailed in the text. It must be noted that additional constituents not searched for during the current study may be present in soil and groundwater at the site.
6. It is recommended that this firm be retained to provide further engineering services during design, implementation, and/or construction of any remedial measures, if necessary. This is to observe compliance with the concepts and recommendations contained herein and to allow design changes in the event that subsurface conditions differ from those anticipated.

APPENDIX B

LABORATORY CERTIFICATES OF ANALYSIS



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 REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project No.: **03.0032795.29**
Work Order No.: **1104-00056**
Date Received: **04/08/2011**
Date Reported: **04/22/2011**

SAMPLE INFORMATION

Date Sampled	Matrix	Laboratory ID	Sample ID
04/07/2011	Aqueous	1104-00056 001	GZ-3
04/07/2011	Aqueous	1104-00056 002	GZ-7
04/07/2011	Aqueous	1104-00056 003	GP-26
04/07/2011	Aqueous	1104-00056 004	RIZ-7
04/07/2011	Aqueous	1104-00056 005	GZ-19
04/07/2011	Aqueous	1104-00056 006	GZ-20
04/07/2011	Aqueous	1104-00056 007	GP-28
04/07/2011	Aqueous	1104-00056 008	GZ-21
04/07/2011	Aqueous	1104-00056 009	GZ-22
04/07/2011	Aqueous	1104-00056 010	GZ-23
04/07/2011	Aqueous	1104-00056 011	GZ-24
04/07/2011	Aqueous	1104-00056 012	GZ-25
04/07/2011	Aqueous	1104-00056 013	GZ-26
04/07/2011	Aqueous	1104-00056 014	GZ-27
04/07/2011	Aqueous	1104-00056 015	GZ-28
04/07/2011	Aqueous	1104-00056 016	GP-22
04/07/2011	Aqueous	1104-00056 017	RIZ-21
04/07/2011	Aqueous	1104-00056 018	GZ-1
04/07/2011	Aqueous	1104-00056 019	MW-4A
04/07/2011	Aqueous	1104-00056 020	GZ-ML-3
04/07/2011	Aqueous	1104-00056 021	GZ-ML-4
04/07/2011	Aqueous	1104-00056 022	GZ-ML-5
04/07/2011	Aqueous	1104-00056 023	BD
04/07/2011	Aqueous	1104-00056 024	TBLK 040711



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**

Project No.: **03.0032795.29**

Date Received: **04/08/2011**

Date Reported: **04/22/2011**

Work Order No.: **1104-00056**

PROJECT NARRATIVE:

1. Sample Receipt

The samples were received on 04/08/11 via x_GZA courier, EC, FEDEX, or hand delivered. The temperature of the x_temperature blank/ cooler air, was 5.8 degrees C. The temperature requirement for most analyses is above freezing to 6 degrees C. The samples were received intact for all requested analyses.

The chain of custody indicates that the samples, when required, were chemically preserved in accordance with the method they reference.

2. EPA Method 8260 - VOCs

The elevated reporting limits for samples GZ-3 (1104-00056-001), GZ-19 (1104-00056-005), GZ-20 (1104-00056-006), GZ-27 (1104-00056-014), GZ-28 (1104-00056-015) and GZ-ML-3 (1104-00056-020) are due to initial dilution of the sample in order to get target compounds within the calibration range of the instrument. The dilution was based upon screening data for the sample.

Attach QC 8260 4/14/2011 (1) "S" - Aqueous
Attach QC 8260 4/14/2011 (2) "S" - Aqueous
Attach QC 8260 4/15/2011 "S" - Aqueous



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Date Reported: **04/22/2011**

Work Order No.: **1104-00056**

Data Authorized By: _____

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

Abbreviations:

% R = % Recovery
DF = Dilution Factor
DFS = Dilution Factor Solids
CF = Calculation Factor
DO = Diluted Out

Method Key:

Method 8260: The current version of the method is 8260B.
Method 8270: The current version of the method is 8270D.
Method 6010: The current version of the method is 6010C.
Method 8081: The current version of the method is 8081B.
Method 8082: The current version of the method is 8082A.
Method 7471: The current version of the method is 7471B.

The current Metals preparation methods are: 3010A (aqueous) and 3051 (solid).

Please note that the laboratory signed copy of the chain of custody record is an integral part of the data report.

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

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.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **GZ-3**

Sample No.: **001**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/14/2011
Dichlorodifluoromethane	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
Chloromethane	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
Vinyl chloride	EPA 8260	87	2.5	ug/L	MQS	04/14/2011
Bromomethane	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
Chloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Trichlorofluoromethane	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
Diethylether	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
Acetone	EPA 8260	<25	25	ug/L	MQS	04/14/2011
1,1-Dichloroethene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Carbon disulfide	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
Dichloromethane	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
Methyl tert-butyl ether	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
trans-1,2-Dichloroethene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,1-Dichloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
2-Butanone (MEK)	EPA 8260	<25	25	ug/L	MQS	04/14/2011
2,2-Dichloropropane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
cis-1,2-Dichloroethene	EPA 8260	300	2.5	ug/L	MQS	04/14/2011
Chloroform	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Bromochloromethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Tetrahydrofuran	EPA 8260	<25	25	ug/L	MQS	04/14/2011
1,1,1-Trichloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,1-Dichloropropene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Carbon tetrachloride	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,2-Dichloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Benzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Trichloroethene	EPA 8260	190	2.5	ug/L	MQS	04/14/2011
1,2-Dichloropropane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Bromodichloromethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Dibromomethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<25	25	ug/L	MQS	04/14/2011
cis-1,3-Dichloropropene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Toluene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
trans-1,3-Dichloropropene	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
1,1,2-Trichloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
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Providence, RI 02903

Stephen Andrus

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Date Received: **04/08/2011**

Date Reported: **04/22/2011**

Work Order No.: **1104-00056**

Sample ID: **GZ-3**

Sample No.: **001**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<25	25	ug/L	MQS	04/14/2011
1,3-Dichloropropane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Tetrachloroethene	EPA 8260	340	2.5	ug/L	MQS	04/14/2011
Dibromochloromethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,2-Dibromoethane (EDB)	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
Chlorobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Ethylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
m&p-Xylene	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
o-Xylene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Styrene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Bromoform	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
Isopropylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,2,3-Trichloropropane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Bromobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
n-Propylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
2-Chlorotoluene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,3,5-Trimethylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
4-Chlorotoluene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
tert-Butylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,2,4-Trimethylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
sec-Butylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
p-Isopropyltoluene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,3-Dichlorobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,4-Dichlorobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
n-Butylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,2-Dichlorobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
1,2,4-Trichlorobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Hexachlorobutadiene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Naphthalene	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
1,2,3-Trichlorobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	96.1	70-130	% R	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **GZ-3**

Sample No.: **001**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	93.0	70-130	% R	MQS	04/14/2011
***4-Bromofluorobenzene	EPA 8260	91.8	70-130	% R	MQS	04/14/2011
Preparation	EPA 5030B	2.5		CF	MQS	04/14/2011



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Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **GZ-7**

Sample No.: **002**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/14/2011
Dichlorodifluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Chloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Vinyl chloride	EPA 8260	1.6	1.0	ug/L	MQS	04/14/2011
Bromomethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Chloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Trichlorofluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Diethylether	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Acetone	EPA 8260	<10	10	ug/L	MQS	04/14/2011
1,1-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Carbon disulfide	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Dichloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Methyl tert-butyl ether	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
trans-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,1-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
2-Butanone (MEK)	EPA 8260	<10	10	ug/L	MQS	04/14/2011
2,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
cis-1,2-Dichloroethene	EPA 8260	78	1.0	ug/L	MQS	04/14/2011
Chloroform	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Bromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Tetrahydrofuran	EPA 8260	<10	10	ug/L	MQS	04/14/2011
1,1,1-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,1-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Carbon tetrachloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Benzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Trichloroethene	EPA 8260	81	1.0	ug/L	MQS	04/14/2011
1,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Bromodichloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Dibromomethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<10	10	ug/L	MQS	04/14/2011
cis-1,3-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Toluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
trans-1,3-Dichloropropene	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
1,1,2-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-7**

Sample No.: **002**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<10	10	ug/L	MQS	04/14/2011
1,3-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Tetrachloroethene	EPA 8260	63	1.0	ug/L	MQS	04/14/2011
Dibromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Chlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Ethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
m&p-Xylene	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
o-Xylene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Styrene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Bromoform	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Isopropylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2,3-Trichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Bromobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
n-Propylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
2-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,3,5-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
4-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
tert-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2,4-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
sec-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
p-Isopropyltoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,3-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,4-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
n-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
1,2,4-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Hexachlorobutadiene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Naphthalene	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
1,2,3-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	94.0	70-130	% R	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-7**

Sample No.: **002**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	93.1	70-130	% R	MQS	04/14/2011
***4-Bromofluorobenzene	EPA 8260	92.0	70-130	% R	MQS	04/14/2011
Preparation	EPA 5030B	1.0		CF	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GP-26**

Sample No.: **003**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/14/2011
Dichlorodifluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Chloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Vinyl chloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Bromomethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Chloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Trichlorofluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Diethylether	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Acetone	EPA 8260	<10	10	ug/L	MQS	04/14/2011
1,1-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Carbon disulfide	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Dichloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Methyl tert-butyl ether	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
trans-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,1-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
2-Butanone (MEK)	EPA 8260	<10	10	ug/L	MQS	04/14/2011
2,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
cis-1,2-Dichloroethene	EPA 8260	1.5	1.0	ug/L	MQS	04/14/2011
Chloroform	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Bromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Tetrahydrofuran	EPA 8260	<10	10	ug/L	MQS	04/14/2011
1,1,1-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,1-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Carbon tetrachloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Benzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Trichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Bromodichloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Dibromomethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<10	10	ug/L	MQS	04/14/2011
cis-1,3-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Toluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
trans-1,3-Dichloropropene	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
1,1,2-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **GP-26**

Sample No.: **003**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<10	10	ug/L	MQS	04/14/2011
1,3-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Tetrachloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Dibromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Chlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Ethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
m&p-Xylene	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
o-Xylene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Styrene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Bromoform	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Isopropylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2,3-Trichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Bromobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
n-Propylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
2-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,3,5-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
4-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
tert-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2,4-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
sec-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
p-Isopropyltoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,3-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,4-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
n-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
1,2,4-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Hexachlorobutadiene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Naphthalene	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
1,2,3-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	88.7	70-130	% R	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GP-26**

Sample No.: **003**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	92.3	70-130	% R	MQS	04/14/2011
***4-Bromofluorobenzene	EPA 8260	91.0	70-130	% R	MQS	04/14/2011
Preparation	EPA 5030B	1.0		CF	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **RIZ-7**

Sample No.: **004**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/14/2011
Dichlorodifluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Chloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Vinyl chloride	EPA 8260	69	1.0	ug/L	MQS	04/14/2011
Bromomethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Chloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Trichlorofluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Diethylether	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Acetone	EPA 8260	<10	10	ug/L	MQS	04/14/2011
1,1-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Carbon disulfide	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Dichloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Methyl tert-butyl ether	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
trans-1,2-Dichloroethene	EPA 8260	2.5	1.0	ug/L	MQS	04/14/2011
1,1-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
2-Butanone (MEK)	EPA 8260	<10	10	ug/L	MQS	04/14/2011
2,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
cis-1,2-Dichloroethene	EPA 8260	80	1.0	ug/L	MQS	04/14/2011
Chloroform	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Bromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Tetrahydrofuran	EPA 8260	<10	10	ug/L	MQS	04/14/2011
1,1,1-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,1-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Carbon tetrachloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Benzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Trichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Bromodichloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Dibromomethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<10	10	ug/L	MQS	04/14/2011
cis-1,3-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Toluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
trans-1,3-Dichloropropene	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
1,1,2-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **RIZ-7**

Sample No.: **004**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<10	10	ug/L	MQS	04/14/2011
1,3-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Tetrachloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Dibromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Chlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Ethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
m&p-Xylene	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
o-Xylene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Styrene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Bromoform	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
Isopropylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2,3-Trichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Bromobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
n-Propylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
2-Chlorotoluene	EPA 8260	1.5	1.0	ug/L	MQS	04/14/2011
1,3,5-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
4-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
tert-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2,4-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
sec-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
p-Isopropyltoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,3-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,4-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
n-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
1,2,4-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Hexachlorobutadiene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Naphthalene	EPA 8260	<2.0	2.0	ug/L	MQS	04/14/2011
1,2,3-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/14/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	94.4	70-130	% R	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **RIZ-7**

Sample No.: **004**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	92.9	70-130	% R	MQS	04/14/2011
***4-Bromofluorobenzene	EPA 8260	89.9	70-130	% R	MQS	04/14/2011
Preparation	EPA 5030B	1.0		CF	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-19**

Sample No.: **005**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/14/2011
Dichlorodifluoromethane	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
Chloromethane	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
Vinyl chloride	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Bromomethane	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
Chloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Trichlorofluoromethane	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
Diethylether	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
Acetone	EPA 8260	<25	25	ug/L	MQS	04/14/2011
1,1-Dichloroethene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Carbon disulfide	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
Dichloromethane	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
Methyl tert-butyl ether	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
trans-1,2-Dichloroethene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,1-Dichloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
2-Butanone (MEK)	EPA 8260	<25	25	ug/L	MQS	04/14/2011
2,2-Dichloropropane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
cis-1,2-Dichloroethene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Chloroform	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Bromochloromethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Tetrahydrofuran	EPA 8260	<25	25	ug/L	MQS	04/14/2011
1,1,1-Trichloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,1-Dichloropropene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Carbon tetrachloride	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,2-Dichloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Benzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Trichloroethene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,2-Dichloropropane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Bromodichloromethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Dibromomethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<25	25	ug/L	MQS	04/14/2011
cis-1,3-Dichloropropene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Toluene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
trans-1,3-Dichloropropene	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
1,1,2-Trichloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-19**

Sample No.: **005**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<25	25	ug/L	MQS	04/14/2011
1,3-Dichloropropane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Tetrachloroethene	EPA 8260	410	2.5	ug/L	MQS	04/14/2011
Dibromochloromethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,2-Dibromoethane (EDB)	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
Chlorobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Ethylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
m&p-Xylene	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
o-Xylene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Styrene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Bromoform	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
Isopropylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,2,3-Trichloropropane	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Bromobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
n-Propylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
2-Chlorotoluene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,3,5-Trimethylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
4-Chlorotoluene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
tert-Butylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,2,4-Trimethylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
sec-Butylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
p-Isopropyltoluene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,3-Dichlorobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,4-Dichlorobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
n-Butylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,2-Dichlorobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
1,2,4-Trichlorobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Hexachlorobutadiene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Naphthalene	EPA 8260	<5.0	5.0	ug/L	MQS	04/14/2011
1,2,3-Trichlorobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/14/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	88.4	70-130	% R	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-19**

Sample No.: **005**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	93.9	70-130	% R	MQS	04/14/2011
***4-Bromofluorobenzene	EPA 8260	88.8	70-130	% R	MQS	04/14/2011
Preparation	EPA 5030B	2.5		CF	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-20**

Sample No.: **006**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/15/2011
Dichlorodifluoromethane	EPA 8260	<50	50	ug/L	MQS	04/15/2011
Chloromethane	EPA 8260	<50	50	ug/L	MQS	04/15/2011
Vinyl chloride	EPA 8260	77	25	ug/L	MQS	04/15/2011
Bromomethane	EPA 8260	<50	50	ug/L	MQS	04/15/2011
Chloroethane	EPA 8260	<25	25	ug/L	MQS	04/15/2011
Trichlorofluoromethane	EPA 8260	<50	50	ug/L	MQS	04/15/2011
Diethylether	EPA 8260	<50	50	ug/L	MQS	04/15/2011
Acetone	EPA 8260	<250	250	ug/L	MQS	04/15/2011
1,1-Dichloroethene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
Carbon disulfide	EPA 8260	<50	50	ug/L	MQS	04/15/2011
Dichloromethane	EPA 8260	<50	50	ug/L	MQS	04/15/2011
Methyl tert-butyl ether	EPA 8260	<25	25	ug/L	MQS	04/15/2011
trans-1,2-Dichloroethene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
1,1-Dichloroethane	EPA 8260	<25	25	ug/L	MQS	04/15/2011
2-Butanone (MEK)	EPA 8260	<250	250	ug/L	MQS	04/15/2011
2,2-Dichloropropane	EPA 8260	<25	25	ug/L	MQS	04/15/2011
cis-1,2-Dichloroethene	EPA 8260	670	25	ug/L	MQS	04/15/2011
Chloroform	EPA 8260	<25	25	ug/L	MQS	04/15/2011
Bromochloromethane	EPA 8260	<25	25	ug/L	MQS	04/15/2011
Tetrahydrofuran	EPA 8260	<250	250	ug/L	MQS	04/15/2011
1,1,1-Trichloroethane	EPA 8260	<25	25	ug/L	MQS	04/15/2011
1,1-Dichloropropene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
Carbon tetrachloride	EPA 8260	<25	25	ug/L	MQS	04/15/2011
1,2-Dichloroethane	EPA 8260	<25	25	ug/L	MQS	04/15/2011
Benzene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
Trichloroethene	EPA 8260	1300	25	ug/L	MQS	04/15/2011
1,2-Dichloropropane	EPA 8260	<25	25	ug/L	MQS	04/15/2011
Bromodichloromethane	EPA 8260	<25	25	ug/L	MQS	04/15/2011
Dibromomethane	EPA 8260	<25	25	ug/L	MQS	04/15/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<250	250	ug/L	MQS	04/15/2011
cis-1,3-Dichloropropene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
Toluene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
trans-1,3-Dichloropropene	EPA 8260	<50	50	ug/L	MQS	04/15/2011
1,1,2-Trichloroethane	EPA 8260	<25	25	ug/L	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-20**

Sample No.: **006**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<250	250	ug/L	MQS	04/15/2011
1,3-Dichloropropane	EPA 8260	<25	25	ug/L	MQS	04/15/2011
Tetrachloroethene	EPA 8260	2400	25	ug/L	MQS	04/15/2011
Dibromochloromethane	EPA 8260	<25	25	ug/L	MQS	04/15/2011
1,2-Dibromoethane (EDB)	EPA 8260	<50	50	ug/L	MQS	04/15/2011
Chlorobenzene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<25	25	ug/L	MQS	04/15/2011
Ethylbenzene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
m&p-Xylene	EPA 8260	<50	50	ug/L	MQS	04/15/2011
o-Xylene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
Styrene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
Bromoform	EPA 8260	<50	50	ug/L	MQS	04/15/2011
Isopropylbenzene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<25	25	ug/L	MQS	04/15/2011
1,2,3-Trichloropropane	EPA 8260	<25	25	ug/L	MQS	04/15/2011
Bromobenzene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
n-Propylbenzene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
2-Chlorotoluene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
1,3,5-Trimethylbenzene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
4-Chlorotoluene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
tert-Butylbenzene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
1,2,4-Trimethylbenzene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
sec-Butylbenzene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
p-Isopropyltoluene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
1,3-Dichlorobenzene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
1,4-Dichlorobenzene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
n-Butylbenzene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
1,2-Dichlorobenzene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<50	50	ug/L	MQS	04/15/2011
1,2,4-Trichlorobenzene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
Hexachlorobutadiene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
Naphthalene	EPA 8260	<50	50	ug/L	MQS	04/15/2011
1,2,3-Trichlorobenzene	EPA 8260	<25	25	ug/L	MQS	04/15/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	91.4	70-130	% R	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **GZ-20**

Sample No.: **006**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	93.9	70-130	% R	MQS	04/15/2011
***4-Bromofluorobenzene	EPA 8260	92.8	70-130	% R	MQS	04/15/2011
Preparation	EPA 5030B	25		CF	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GP-28**

Sample No.: **007**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/15/2011
Dichlorodifluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Vinyl chloride	EPA 8260	17	1.0	ug/L	MQS	04/15/2011
Bromomethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Trichlorofluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Diethylether	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Acetone	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,1-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Carbon disulfide	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Dichloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Methyl tert-butyl ether	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
trans-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
2-Butanone (MEK)	EPA 8260	<10	10	ug/L	MQS	04/15/2011
2,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
cis-1,2-Dichloroethene	EPA 8260	33	1.0	ug/L	MQS	04/15/2011
Chloroform	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Tetrahydrofuran	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,1,1-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Carbon tetrachloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Benzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Trichloroethene	EPA 8260	4.4	1.0	ug/L	MQS	04/15/2011
1,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromodichloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Dibromomethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<10	10	ug/L	MQS	04/15/2011
cis-1,3-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Toluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
trans-1,3-Dichloropropene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,1,2-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GP-28**

Sample No.: **007**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,3-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Tetrachloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Dibromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Ethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
m&p-Xylene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
o-Xylene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Styrene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromoform	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Isopropylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2,3-Trichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
n-Propylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
2-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,3,5-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
4-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
tert-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2,4-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
sec-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
p-Isopropyltoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,3-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,4-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
n-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,2,4-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Hexachlorobutadiene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Naphthalene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,2,3-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	86.8	70-130	% R	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GP-28**

Sample No.: **007**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	92.8	70-130	% R	MQS	04/15/2011
***4-Bromofluorobenzene	EPA 8260	88.8	70-130	% R	MQS	04/15/2011
Preparation	EPA 5030B	1.0		CF	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-21**

Sample No.: **008**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/15/2011
Dichlorodifluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Vinyl chloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromomethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Trichlorofluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Diethylether	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Acetone	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,1-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Carbon disulfide	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Dichloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Methyl tert-butyl ether	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
trans-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
2-Butanone (MEK)	EPA 8260	<10	10	ug/L	MQS	04/15/2011
2,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
cis-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Chloroform	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Tetrahydrofuran	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,1,1-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Carbon tetrachloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Benzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Trichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromodichloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Dibromomethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<10	10	ug/L	MQS	04/15/2011
cis-1,3-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Toluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
trans-1,3-Dichloropropene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,1,2-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-21**

Sample No.: **008**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,3-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Tetrachloroethene	EPA 8260	1.7	1.0	ug/L	MQS	04/15/2011
Dibromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Ethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
m&p-Xylene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
o-Xylene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Styrene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromoform	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Isopropylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2,3-Trichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
n-Propylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
2-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,3,5-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
4-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
tert-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2,4-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
sec-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
p-Isopropyltoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,3-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,4-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
n-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,2,4-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Hexachlorobutadiene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Naphthalene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,2,3-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	83.6	70-130	% R	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **GZ-21**

Sample No.: **008**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	90.8	70-130	% R	MQS	04/15/2011
***4-Bromofluorobenzene	EPA 8260	90.0	70-130	% R	MQS	04/15/2011
Preparation	EPA 5030B	1.0		CF	MQS	04/14/2011



ANALYTICAL REPORT

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 140 Broadway
 Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-22**

Sample No.: **009**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/15/2011
Dichlorodifluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Vinyl chloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromomethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Trichlorofluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Diethylether	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Acetone	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,1-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Carbon disulfide	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Dichloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Methyl tert-butyl ether	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
trans-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
2-Butanone (MEK)	EPA 8260	<10	10	ug/L	MQS	04/15/2011
2,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
cis-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Chloroform	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Tetrahydrofuran	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,1,1-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Carbon tetrachloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Benzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Trichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromodichloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Dibromomethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<10	10	ug/L	MQS	04/15/2011
cis-1,3-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Toluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
trans-1,3-Dichloropropene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,1,2-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-22**

Sample No.: **009**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,3-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Tetrachloroethene	EPA 8260	51	1.0	ug/L	MQS	04/15/2011
Dibromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Ethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
m&p-Xylene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
o-Xylene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Styrene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromoform	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Isopropylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2,3-Trichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
n-Propylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
2-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,3,5-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
4-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
tert-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2,4-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
sec-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
p-Isopropyltoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,3-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,4-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
n-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,2,4-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Hexachlorobutadiene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Naphthalene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,2,3-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	88.1	70-130	% R	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-22**

Sample No.: **009**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	93.5	70-130	% R	MQS	04/15/2011
***4-Bromofluorobenzene	EPA 8260	87.8	70-130	% R	MQS	04/15/2011
Preparation	EPA 5030B	1.0		CF	MQS	04/14/2011



ANALYTICAL REPORT

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140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **GZ-23**

Sample No.: **010**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/15/2011
Dichlorodifluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Vinyl chloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromomethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Trichlorofluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Diethylether	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Acetone	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,1-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Carbon disulfide	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Dichloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Methyl tert-butyl ether	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
trans-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
2-Butanone (MEK)	EPA 8260	<10	10	ug/L	MQS	04/15/2011
2,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
cis-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Chloroform	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Tetrahydrofuran	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,1,1-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Carbon tetrachloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Benzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Trichloroethene	EPA 8260	6.3	1.0	ug/L	MQS	04/15/2011
1,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromodichloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Dibromomethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<10	10	ug/L	MQS	04/15/2011
cis-1,3-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Toluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
trans-1,3-Dichloropropene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,1,2-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-23**

Sample No.: **010**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,3-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Tetrachloroethene	EPA 8260	3.3	1.0	ug/L	MQS	04/15/2011
Dibromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Ethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
m&p-Xylene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
o-Xylene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Styrene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromoform	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Isopropylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2,3-Trichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
n-Propylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
2-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,3,5-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
4-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
tert-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2,4-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
sec-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
p-Isopropyltoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,3-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,4-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
n-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,2,4-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Hexachlorobutadiene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Naphthalene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,2,3-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	97.7	70-130	% R	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **GZ-23**

Sample No.: **010**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	91.9	70-130	% R	MQS	04/15/2011
***4-Bromofluorobenzene	EPA 8260	90.2	70-130	% R	MQS	04/15/2011
Preparation	EPA 5030B	1.0		CF	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-24**

Sample No.: **011**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/15/2011
Dichlorodifluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Vinyl chloride	EPA 8260	63	1.0	ug/L	MQS	04/15/2011
Bromomethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Trichlorofluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Diethylether	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Acetone	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,1-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Carbon disulfide	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Dichloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Methyl tert-butyl ether	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
trans-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
2-Butanone (MEK)	EPA 8260	<10	10	ug/L	MQS	04/15/2011
2,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
cis-1,2-Dichloroethene	EPA 8260	64	1.0	ug/L	MQS	04/15/2011
Chloroform	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Tetrahydrofuran	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,1,1-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Carbon tetrachloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Benzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Trichloroethene	EPA 8260	5.5	1.0	ug/L	MQS	04/15/2011
1,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromodichloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Dibromomethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<10	10	ug/L	MQS	04/15/2011
cis-1,3-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Toluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
trans-1,3-Dichloropropene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,1,2-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-24**

Sample No.: **011**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,3-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Tetrachloroethene	EPA 8260	39	1.0	ug/L	MQS	04/15/2011
Dibromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Ethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
m&p-Xylene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
o-Xylene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Styrene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromoform	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Isopropylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2,3-Trichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
n-Propylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
2-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,3,5-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
4-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
tert-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2,4-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
sec-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
p-Isopropyltoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,3-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,4-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
n-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,2,4-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Hexachlorobutadiene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Naphthalene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,2,3-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	89.4	70-130	% R	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-24**

Sample No.: **011**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	94.2	70-130	% R	MQS	04/15/2011
***4-Bromofluorobenzene	EPA 8260	92.5	70-130	% R	MQS	04/15/2011
Preparation	EPA 5030B	1.0		CF	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-25**

Sample No.: **012**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/15/2011
Dichlorodifluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Vinyl chloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromomethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Trichlorofluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Diethylether	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Acetone	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,1-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Carbon disulfide	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Dichloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Methyl tert-butyl ether	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
trans-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
2-Butanone (MEK)	EPA 8260	<10	10	ug/L	MQS	04/15/2011
2,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
cis-1,2-Dichloroethene	EPA 8260	3.0	1.0	ug/L	MQS	04/15/2011
Chloroform	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Tetrahydrofuran	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,1,1-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Carbon tetrachloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Benzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Trichloroethene	EPA 8260	4.1	1.0	ug/L	MQS	04/15/2011
1,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromodichloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Dibromomethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<10	10	ug/L	MQS	04/15/2011
cis-1,3-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Toluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
trans-1,3-Dichloropropene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,1,2-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-25**

Sample No.: **012**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,3-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Tetrachloroethene	EPA 8260	47	1.0	ug/L	MQS	04/15/2011
Dibromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Ethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
m&p-Xylene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
o-Xylene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Styrene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromoform	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Isopropylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2,3-Trichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
n-Propylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
2-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,3,5-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
4-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
tert-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2,4-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
sec-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
p-Isopropyltoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,3-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,4-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
n-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,2,4-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Hexachlorobutadiene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Naphthalene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,2,3-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	94.6	70-130	% R	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-25**

Sample No.: **012**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	94.6	70-130	% R	MQS	04/15/2011
***4-Bromofluorobenzene	EPA 8260	94.3	70-130	% R	MQS	04/15/2011
Preparation	EPA 5030B	1.0		CF	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-26**

Sample No.: **013**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/15/2011
Dichlorodifluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Vinyl chloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromomethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Trichlorofluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Diethylether	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Acetone	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,1-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Carbon disulfide	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Dichloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Methyl tert-butyl ether	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
trans-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
2-Butanone (MEK)	EPA 8260	<10	10	ug/L	MQS	04/15/2011
2,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
cis-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Chloroform	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Tetrahydrofuran	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,1,1-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Carbon tetrachloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Benzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Trichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromodichloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Dibromomethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<10	10	ug/L	MQS	04/15/2011
cis-1,3-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Toluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
trans-1,3-Dichloropropene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,1,2-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-26**

Sample No.: **013**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,3-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Tetrachloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Dibromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Chlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Ethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
m&p-Xylene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
o-Xylene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Styrene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromoform	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
Isopropylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2,3-Trichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Bromobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
n-Propylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
2-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,3,5-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
4-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
tert-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2,4-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
sec-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
p-Isopropyltoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,3-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,4-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
n-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,2,4-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Hexachlorobutadiene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Naphthalene	EPA 8260	<2.0	2.0	ug/L	MQS	04/15/2011
1,2,3-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/15/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	95.3	70-130	% R	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **GZ-26**

Sample No.: **013**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	92.1	70-130	% R	MQS	04/15/2011
***4-Bromofluorobenzene	EPA 8260	92.4	70-130	% R	MQS	04/15/2011
Preparation	EPA 5030B	1.0		CF	MQS	04/14/2011



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Stephen Andrus

Project Name.: **Charbert ICMP**
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Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-27**

Sample No.: **014**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/15/2011
Dichlorodifluoromethane	EPA 8260	<20	20	ug/L	MQS	04/15/2011
Chloromethane	EPA 8260	<20	20	ug/L	MQS	04/15/2011
Vinyl chloride	EPA 8260	210	10	ug/L	MQS	04/15/2011
Bromomethane	EPA 8260	<20	20	ug/L	MQS	04/15/2011
Chloroethane	EPA 8260	<10	10	ug/L	MQS	04/15/2011
Trichlorofluoromethane	EPA 8260	<20	20	ug/L	MQS	04/15/2011
Diethylether	EPA 8260	<20	20	ug/L	MQS	04/15/2011
Acetone	EPA 8260	<100	100	ug/L	MQS	04/15/2011
1,1-Dichloroethene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
Carbon disulfide	EPA 8260	<20	20	ug/L	MQS	04/15/2011
Dichloromethane	EPA 8260	<20	20	ug/L	MQS	04/15/2011
Methyl tert-butyl ether	EPA 8260	<10	10	ug/L	MQS	04/15/2011
trans-1,2-Dichloroethene	EPA 8260	11	10	ug/L	MQS	04/15/2011
1,1-Dichloroethane	EPA 8260	<10	10	ug/L	MQS	04/15/2011
2-Butanone (MEK)	EPA 8260	<100	100	ug/L	MQS	04/15/2011
2,2-Dichloropropane	EPA 8260	<10	10	ug/L	MQS	04/15/2011
cis-1,2-Dichloroethene	EPA 8260	1000	10	ug/L	MQS	04/15/2011
Chloroform	EPA 8260	<10	10	ug/L	MQS	04/15/2011
Bromochloromethane	EPA 8260	<10	10	ug/L	MQS	04/15/2011
Tetrahydrofuran	EPA 8260	<100	100	ug/L	MQS	04/15/2011
1,1,1-Trichloroethane	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,1-Dichloropropene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
Carbon tetrachloride	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,2-Dichloroethane	EPA 8260	<10	10	ug/L	MQS	04/15/2011
Benzene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
Trichloroethene	EPA 8260	67	10	ug/L	MQS	04/15/2011
1,2-Dichloropropane	EPA 8260	<10	10	ug/L	MQS	04/15/2011
Bromodichloromethane	EPA 8260	<10	10	ug/L	MQS	04/15/2011
Dibromomethane	EPA 8260	<10	10	ug/L	MQS	04/15/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<100	100	ug/L	MQS	04/15/2011
cis-1,3-Dichloropropene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
Toluene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
trans-1,3-Dichloropropene	EPA 8260	<20	20	ug/L	MQS	04/15/2011
1,1,2-Trichloroethane	EPA 8260	<10	10	ug/L	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-27**

Sample No.: **014**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<100	100	ug/L	MQS	04/15/2011
1,3-Dichloropropane	EPA 8260	<10	10	ug/L	MQS	04/15/2011
Tetrachloroethene	EPA 8260	17	10	ug/L	MQS	04/15/2011
Dibromochloromethane	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,2-Dibromoethane (EDB)	EPA 8260	<20	20	ug/L	MQS	04/15/2011
Chlorobenzene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<10	10	ug/L	MQS	04/15/2011
Ethylbenzene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
m&p-Xylene	EPA 8260	<20	20	ug/L	MQS	04/15/2011
o-Xylene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
Styrene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
Bromoform	EPA 8260	<20	20	ug/L	MQS	04/15/2011
Isopropylbenzene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,2,3-Trichloropropane	EPA 8260	<10	10	ug/L	MQS	04/15/2011
Bromobenzene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
n-Propylbenzene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
2-Chlorotoluene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,3,5-Trimethylbenzene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
4-Chlorotoluene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
tert-Butylbenzene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,2,4-Trimethylbenzene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
sec-Butylbenzene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
p-Isopropyltoluene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,3-Dichlorobenzene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,4-Dichlorobenzene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
n-Butylbenzene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,2-Dichlorobenzene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<20	20	ug/L	MQS	04/15/2011
1,2,4-Trichlorobenzene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
Hexachlorobutadiene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
Naphthalene	EPA 8260	<20	20	ug/L	MQS	04/15/2011
1,2,3-Trichlorobenzene	EPA 8260	<10	10	ug/L	MQS	04/15/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	98.4	70-130	% R	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **GZ-27**

Sample No.: **014**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	90.9	70-130	% R	MQS	04/15/2011
***4-Bromofluorobenzene	EPA 8260	92.5	70-130	% R	MQS	04/15/2011
Preparation	EPA 5030B	10		CF	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
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Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **GZ-28**

Sample No.: **015**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/15/2011
Dichlorodifluoromethane	EPA 8260	<5.0	5.0	ug/L	MQS	04/15/2011
Chloromethane	EPA 8260	<5.0	5.0	ug/L	MQS	04/15/2011
Vinyl chloride	EPA 8260	19	2.5	ug/L	MQS	04/15/2011
Bromomethane	EPA 8260	<5.0	5.0	ug/L	MQS	04/15/2011
Chloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
Trichlorofluoromethane	EPA 8260	<5.0	5.0	ug/L	MQS	04/15/2011
Diethylether	EPA 8260	<5.0	5.0	ug/L	MQS	04/15/2011
Acetone	EPA 8260	<25	25	ug/L	MQS	04/15/2011
1,1-Dichloroethene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
Carbon disulfide	EPA 8260	<5.0	5.0	ug/L	MQS	04/15/2011
Dichloromethane	EPA 8260	<5.0	5.0	ug/L	MQS	04/15/2011
Methyl tert-butyl ether	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
trans-1,2-Dichloroethene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
1,1-Dichloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
2-Butanone (MEK)	EPA 8260	<25	25	ug/L	MQS	04/15/2011
2,2-Dichloropropane	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
cis-1,2-Dichloroethene	EPA 8260	260	2.5	ug/L	MQS	04/15/2011
Chloroform	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
Bromochloromethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
Tetrahydrofuran	EPA 8260	<25	25	ug/L	MQS	04/15/2011
1,1,1-Trichloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
1,1-Dichloropropene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
Carbon tetrachloride	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
1,2-Dichloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
Benzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
Trichloroethene	EPA 8260	39	2.5	ug/L	MQS	04/15/2011
1,2-Dichloropropane	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
Bromodichloromethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
Dibromomethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<25	25	ug/L	MQS	04/15/2011
cis-1,3-Dichloropropene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
Toluene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
trans-1,3-Dichloropropene	EPA 8260	<5.0	5.0	ug/L	MQS	04/15/2011
1,1,2-Trichloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-28**

Sample No.: **015**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<25	25	ug/L	MQS	04/15/2011
1,3-Dichloropropane	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
Tetrachloroethene	EPA 8260	28	2.5	ug/L	MQS	04/15/2011
Dibromochloromethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
1,2-Dibromoethane (EDB)	EPA 8260	<5.0	5.0	ug/L	MQS	04/15/2011
Chlorobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
Ethylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
m&p-Xylene	EPA 8260	<5.0	5.0	ug/L	MQS	04/15/2011
o-Xylene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
Styrene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
Bromoform	EPA 8260	<5.0	5.0	ug/L	MQS	04/15/2011
Isopropylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
1,2,3-Trichloropropane	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
Bromobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
n-Propylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
2-Chlorotoluene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
1,3,5-Trimethylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
4-Chlorotoluene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
tert-Butylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
1,2,4-Trimethylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
sec-Butylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
p-Isopropyltoluene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
1,3-Dichlorobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
1,4-Dichlorobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
n-Butylbenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
1,2-Dichlorobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<5.0	5.0	ug/L	MQS	04/15/2011
1,2,4-Trichlorobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
Hexachlorobutadiene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
Naphthalene	EPA 8260	<5.0	5.0	ug/L	MQS	04/15/2011
1,2,3-Trichlorobenzene	EPA 8260	<2.5	2.5	ug/L	MQS	04/15/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	91.9	70-130	% R	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
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Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **GZ-28**

Sample No.: **015**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	92.0	70-130	% R	MQS	04/15/2011
***4-Bromofluorobenzene	EPA 8260	89.4	70-130	% R	MQS	04/15/2011
Preparation	EPA 5030B	2.5		CF	MQS	04/14/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GP-22**

Sample No.: **016**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/16/2011
Dichlorodifluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Vinyl chloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromomethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Trichlorofluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Diethylether	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Acetone	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,1-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Carbon disulfide	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Dichloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Methyl tert-butyl ether	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
trans-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
2-Butanone (MEK)	EPA 8260	<10	10	ug/L	MQS	04/16/2011
2,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
cis-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Chloroform	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Tetrahydrofuran	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,1,1-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Carbon tetrachloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Benzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Trichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromodichloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Dibromomethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<10	10	ug/L	MQS	04/16/2011
cis-1,3-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Toluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
trans-1,3-Dichloropropene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,1,2-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GP-22**

Sample No.: **016**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,3-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Tetrachloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Dibromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Ethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
m&p-Xylene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
o-Xylene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Styrene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromoform	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Isopropylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2,3-Trichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
n-Propylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
2-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,3,5-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
4-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
tert-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2,4-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
sec-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
p-Isopropyltoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,3-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,4-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
n-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,2,4-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Hexachlorobutadiene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Naphthalene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,2,3-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	84.0	70-130	% R	MQS	04/16/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **GP-22**

Sample No.: **016**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	90.2	70-130	% R	MQS	04/16/2011
***4-Bromofluorobenzene	EPA 8260	90.7	70-130	% R	MQS	04/16/2011
Preparation	EPA 5030B	1.0		CF	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **RIZ-21**

Sample No.: **017**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/16/2011
Dichlorodifluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Vinyl chloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromomethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Trichlorofluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Diethylether	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Acetone	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,1-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Carbon disulfide	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Dichloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Methyl tert-butyl ether	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
trans-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
2-Butanone (MEK)	EPA 8260	<10	10	ug/L	MQS	04/16/2011
2,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
cis-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Chloroform	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Tetrahydrofuran	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,1,1-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Carbon tetrachloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Benzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Trichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromodichloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Dibromomethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<10	10	ug/L	MQS	04/16/2011
cis-1,3-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Toluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
trans-1,3-Dichloropropene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,1,2-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **RIZ-21**

Sample No.: **017**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,3-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Tetrachloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Dibromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Ethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
m&p-Xylene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
o-Xylene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Styrene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromoform	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Isopropylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2,3-Trichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
n-Propylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
2-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,3,5-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
4-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
tert-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2,4-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
sec-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
p-Isopropyltoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,3-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,4-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
n-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,2,4-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Hexachlorobutadiene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Naphthalene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,2,3-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	89.6	70-130	% R	MQS	04/16/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **RIZ-21**

Sample No.: **017**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	90.5	70-130	% R	MQS	04/16/2011
***4-Bromofluorobenzene	EPA 8260	90.3	70-130	% R	MQS	04/16/2011
Preparation	EPA 5030B	1.0		CF	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**

Project No.: **03.0032795.29**

Date Received: **04/08/2011**

Date Reported: **04/22/2011**

Work Order No.: **1104-00056**

Sample ID: **GZ-1**

Sample No.: **018**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/16/2011
Dichlorodifluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Vinyl chloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromomethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Trichlorofluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Diethylether	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Acetone	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,1-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Carbon disulfide	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Dichloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Methyl tert-butyl ether	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
trans-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1-Dichloroethane	EPA 8260	1.6	1.0	ug/L	MQS	04/16/2011
2-Butanone (MEK)	EPA 8260	<10	10	ug/L	MQS	04/16/2011
2,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
cis-1,2-Dichloroethene	EPA 8260	35	1.0	ug/L	MQS	04/16/2011
Chloroform	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Tetrahydrofuran	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,1,1-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Carbon tetrachloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Benzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Trichloroethene	EPA 8260	7.1	1.0	ug/L	MQS	04/16/2011
1,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromodichloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Dibromomethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<10	10	ug/L	MQS	04/16/2011
cis-1,3-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Toluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
trans-1,3-Dichloropropene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,1,2-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **GZ-1**

Sample No.: **018**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,3-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Tetrachloroethene	EPA 8260	1.3	1.0	ug/L	MQS	04/16/2011
Dibromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Ethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
m&p-Xylene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
o-Xylene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Styrene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromoform	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Isopropylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2,3-Trichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
n-Propylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
2-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,3,5-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
4-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
tert-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2,4-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
sec-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
p-Isopropyltoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,3-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,4-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
n-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,2,4-Trichlorobenzene	EPA 8260	2.6	1.0	ug/L	MQS	04/16/2011
Hexachlorobutadiene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Naphthalene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,2,3-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	86.5	70-130	% R	MQS	04/16/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **GZ-1**

Sample No.: **018**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	93.4	70-130	% R	MQS	04/16/2011
***4-Bromofluorobenzene	EPA 8260	87.5	70-130	% R	MQS	04/16/2011
Preparation	EPA 5030B	1.0		CF	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **MW-4A**

Sample No.: **019**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/16/2011
Dichlorodifluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Vinyl chloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromomethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Trichlorofluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Diethylether	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Acetone	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,1-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Carbon disulfide	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Dichloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Methyl tert-butyl ether	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
trans-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
2-Butanone (MEK)	EPA 8260	<10	10	ug/L	MQS	04/16/2011
2,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
cis-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Chloroform	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Tetrahydrofuran	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,1,1-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Carbon tetrachloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Benzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Trichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromodichloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Dibromomethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<10	10	ug/L	MQS	04/16/2011
cis-1,3-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Toluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
trans-1,3-Dichloropropene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,1,2-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **MW-4A**

Sample No.: **019**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,3-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Tetrachloroethene	EPA 8260	10	1.0	ug/L	MQS	04/16/2011
Dibromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Ethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
m&p-Xylene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
o-Xylene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Styrene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromoform	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Isopropylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2,3-Trichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
n-Propylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
2-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,3,5-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
4-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
tert-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2,4-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
sec-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
p-Isopropyltoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,3-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,4-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
n-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,2,4-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Hexachlorobutadiene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Naphthalene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,2,3-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	87.8	70-130	% R	MQS	04/16/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **MW-4A**

Sample No.: **019**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	91.5	70-130	% R	MQS	04/16/2011
***4-Bromofluorobenzene	EPA 8260	87.3	70-130	% R	MQS	04/16/2011
Preparation	EPA 5030B	1.0		CF	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **GZ-ML-3**
Sample Date: **04/07/2011**

Sample No.: **020**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/16/2011
Dichlorodifluoromethane	EPA 8260	<50	50	ug/L	MQS	04/16/2011
Chloromethane	EPA 8260	<50	50	ug/L	MQS	04/16/2011
Vinyl chloride	EPA 8260	<25	25	ug/L	MQS	04/16/2011
Bromomethane	EPA 8260	<50	50	ug/L	MQS	04/16/2011
Chloroethane	EPA 8260	<25	25	ug/L	MQS	04/16/2011
Trichlorofluoromethane	EPA 8260	<50	50	ug/L	MQS	04/16/2011
Diethylether	EPA 8260	<50	50	ug/L	MQS	04/16/2011
Acetone	EPA 8260	<250	250	ug/L	MQS	04/16/2011
1,1-Dichloroethene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
Carbon disulfide	EPA 8260	<50	50	ug/L	MQS	04/16/2011
Dichloromethane	EPA 8260	<50	50	ug/L	MQS	04/16/2011
Methyl tert-butyl ether	EPA 8260	<25	25	ug/L	MQS	04/16/2011
trans-1,2-Dichloroethene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
1,1-Dichloroethane	EPA 8260	<25	25	ug/L	MQS	04/16/2011
2-Butanone (MEK)	EPA 8260	<250	250	ug/L	MQS	04/16/2011
2,2-Dichloropropane	EPA 8260	<25	25	ug/L	MQS	04/16/2011
cis-1,2-Dichloroethene	EPA 8260	65	25	ug/L	MQS	04/16/2011
Chloroform	EPA 8260	<25	25	ug/L	MQS	04/16/2011
Bromochloromethane	EPA 8260	<25	25	ug/L	MQS	04/16/2011
Tetrahydrofuran	EPA 8260	<250	250	ug/L	MQS	04/16/2011
1,1,1-Trichloroethane	EPA 8260	<25	25	ug/L	MQS	04/16/2011
1,1-Dichloropropene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
Carbon tetrachloride	EPA 8260	<25	25	ug/L	MQS	04/16/2011
1,2-Dichloroethane	EPA 8260	<25	25	ug/L	MQS	04/16/2011
Benzene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
Trichloroethene	EPA 8260	42	25	ug/L	MQS	04/16/2011
1,2-Dichloropropane	EPA 8260	<25	25	ug/L	MQS	04/16/2011
Bromodichloromethane	EPA 8260	<25	25	ug/L	MQS	04/16/2011
Dibromomethane	EPA 8260	<25	25	ug/L	MQS	04/16/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<250	250	ug/L	MQS	04/16/2011
cis-1,3-Dichloropropene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
Toluene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
trans-1,3-Dichloropropene	EPA 8260	<50	50	ug/L	MQS	04/16/2011
1,1,2-Trichloroethane	EPA 8260	<25	25	ug/L	MQS	04/16/2011



ANALYTICAL REPORT

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Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-ML-3**

Sample No.: **020**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<250	250	ug/L	MQS	04/16/2011
1,3-Dichloropropane	EPA 8260	<25	25	ug/L	MQS	04/16/2011
Tetrachloroethene	EPA 8260	3700	25	ug/L	MQS	04/16/2011
Dibromochloromethane	EPA 8260	<25	25	ug/L	MQS	04/16/2011
1,2-Dibromoethane (EDB)	EPA 8260	<50	50	ug/L	MQS	04/16/2011
Chlorobenzene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<25	25	ug/L	MQS	04/16/2011
Ethylbenzene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
m&p-Xylene	EPA 8260	<50	50	ug/L	MQS	04/16/2011
o-Xylene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
Styrene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
Bromoform	EPA 8260	<50	50	ug/L	MQS	04/16/2011
Isopropylbenzene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<25	25	ug/L	MQS	04/16/2011
1,2,3-Trichloropropane	EPA 8260	<25	25	ug/L	MQS	04/16/2011
Bromobenzene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
n-Propylbenzene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
2-Chlorotoluene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
1,3,5-Trimethylbenzene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
4-Chlorotoluene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
tert-Butylbenzene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
1,2,4-Trimethylbenzene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
sec-Butylbenzene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
p-Isopropyltoluene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
1,3-Dichlorobenzene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
1,4-Dichlorobenzene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
n-Butylbenzene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
1,2-Dichlorobenzene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<50	50	ug/L	MQS	04/16/2011
1,2,4-Trichlorobenzene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
Hexachlorobutadiene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
Naphthalene	EPA 8260	<50	50	ug/L	MQS	04/16/2011
1,2,3-Trichlorobenzene	EPA 8260	<25	25	ug/L	MQS	04/16/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	85.3	70-130	% R	MQS	04/16/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **GZ-ML-3**
Sample Date: **04/07/2011**

Sample No.: **020**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	90.8	70-130	% R	MQS	04/16/2011
***4-Bromofluorobenzene	EPA 8260	86.3	70-130	% R	MQS	04/16/2011
Preparation	EPA 5030B	25		CF	MQS	04/15/2011



ANALYTICAL REPORT

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 140 Broadway
 Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-ML-4**

Sample No.: **021**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/16/2011
Dichlorodifluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Vinyl chloride	EPA 8260	3.2	1.0	ug/L	MQS	04/16/2011
Bromomethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Trichlorofluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Diethylether	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Acetone	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,1-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Carbon disulfide	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Dichloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Methyl tert-butyl ether	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
trans-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
2-Butanone (MEK)	EPA 8260	<10	10	ug/L	MQS	04/16/2011
2,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
cis-1,2-Dichloroethene	EPA 8260	24	1.0	ug/L	MQS	04/16/2011
Chloroform	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Tetrahydrofuran	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,1,1-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Carbon tetrachloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Benzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Trichloroethene	EPA 8260	31	1.0	ug/L	MQS	04/16/2011
1,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromodichloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Dibromomethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<10	10	ug/L	MQS	04/16/2011
cis-1,3-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Toluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
trans-1,3-Dichloropropene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,1,2-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-ML-4**
 Sample Date: **04/07/2011**

Sample No.: **021**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,3-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Tetrachloroethene	EPA 8260	130	1.0	ug/L	MQS	04/16/2011
Dibromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Ethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
m&p-Xylene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
o-Xylene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Styrene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromoform	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Isopropylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2,3-Trichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
n-Propylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
2-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,3,5-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
4-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
tert-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2,4-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
sec-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
p-Isopropyltoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,3-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,4-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
n-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,2,4-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Hexachlorobutadiene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Naphthalene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,2,3-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	94.6	70-130	% R	MQS	04/16/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-ML-4**
 Sample Date: **04/07/2011**

Sample No.: **021**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	90.6	70-130	% R	MQS	04/16/2011
***4-Bromofluorobenzene	EPA 8260	88.9	70-130	% R	MQS	04/16/2011
Preparation	EPA 5030B	1.0		CF	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-ML-5**
 Sample Date: **04/07/2011**

Sample No.: **022**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/16/2011
Dichlorodifluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Vinyl chloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromomethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Trichlorofluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Diethylether	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Acetone	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,1-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Carbon disulfide	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Dichloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Methyl tert-butyl ether	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
trans-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
2-Butanone (MEK)	EPA 8260	<10	10	ug/L	MQS	04/16/2011
2,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
cis-1,2-Dichloroethene	EPA 8260	13	1.0	ug/L	MQS	04/16/2011
Chloroform	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Tetrahydrofuran	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,1,1-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Carbon tetrachloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Benzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Trichloroethene	EPA 8260	2.1	1.0	ug/L	MQS	04/16/2011
1,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromodichloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Dibromomethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<10	10	ug/L	MQS	04/16/2011
cis-1,3-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Toluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
trans-1,3-Dichloropropene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,1,2-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-ML-5**
 Sample Date: **04/07/2011**

Sample No.: **022**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,3-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Tetrachloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Dibromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Ethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
m&p-Xylene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
o-Xylene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Styrene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromoform	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Isopropylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2,3-Trichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
n-Propylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
2-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,3,5-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
4-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
tert-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2,4-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
sec-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
p-Isopropyltoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,3-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,4-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
n-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,2,4-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Hexachlorobutadiene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Naphthalene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,2,3-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	93.4	70-130	% R	MQS	04/16/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **GZ-ML-5**
 Sample Date: **04/07/2011**

Sample No.: **022**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	92.0	70-130	% R	MQS	04/16/2011
***4-Bromofluorobenzene	EPA 8260	89.1	70-130	% R	MQS	04/16/2011
Preparation	EPA 5030B	1.0		CF	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **BD**
 Sample Date: **04/07/2011**

Sample No.: **023**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/16/2011
Dichlorodifluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Vinyl chloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromomethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Trichlorofluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Diethylether	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Acetone	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,1-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Carbon disulfide	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Dichloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Methyl tert-butyl ether	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
trans-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
2-Butanone (MEK)	EPA 8260	<10	10	ug/L	MQS	04/16/2011
2,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
cis-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Chloroform	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Tetrahydrofuran	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,1,1-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Carbon tetrachloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Benzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Trichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromodichloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Dibromomethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<10	10	ug/L	MQS	04/16/2011
cis-1,3-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Toluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
trans-1,3-Dichloropropene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,1,2-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**

Project No.: **03.0032795.29**

Date Received: **04/08/2011**

Date Reported: **04/22/2011**

Work Order No.: **1104-00056**

Sample ID: **BD**

Sample No.: **023**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,3-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Tetrachloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Dibromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Ethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
m&p-Xylene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
o-Xylene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Styrene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromoform	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Isopropylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2,3-Trichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
n-Propylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
2-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,3,5-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
4-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
tert-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2,4-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
sec-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
p-Isopropyltoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,3-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,4-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
n-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,2,4-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Hexachlorobutadiene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Naphthalene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,2,3-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	83.6	70-130	% R	MQS	04/16/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
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Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **BD**
Sample Date: **04/07/2011**

Sample No.: **023**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	91.0	70-130	% R	MQS	04/16/2011
***4-Bromofluorobenzene	EPA 8260	86.1	70-130	% R	MQS	04/16/2011
Preparation	EPA 5030B	1.0		CF	MQS	04/15/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
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Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **TBLK 040711**

Sample No.: **024**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
VOLATILE ORGANICS	EPA 8260				MQS	04/16/2011
Dichlorodifluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Vinyl chloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromomethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Trichlorofluoromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Diethylether	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Acetone	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,1-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Carbon disulfide	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Dichloromethane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Methyl tert-butyl ether	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
trans-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
2-Butanone (MEK)	EPA 8260	<10	10	ug/L	MQS	04/16/2011
2,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
cis-1,2-Dichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Chloroform	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Tetrahydrofuran	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,1,1-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Carbon tetrachloride	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Benzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Trichloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromodichloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Dibromomethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
4-Methyl-2-pentanone (MIBK)	EPA 8260	<10	10	ug/L	MQS	04/16/2011
cis-1,3-Dichloropropene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Toluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
trans-1,3-Dichloropropene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,1,2-Trichloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
 Project No.: **03.0032795.29**

Date Received: **04/08/2011**
 Date Reported: **04/22/2011**
 Work Order No.: **1104-00056**

Sample ID: **TBLK 040711**

Sample No.: **024**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
2-Hexanone	EPA 8260	<10	10	ug/L	MQS	04/16/2011
1,3-Dichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Tetrachloroethene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Dibromochloromethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dibromoethane (EDB)	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Chlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1,1,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Ethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
m&p-Xylene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
o-Xylene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Styrene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromoform	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
Isopropylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,1,2,2-Tetrachloroethane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2,3-Trichloropropane	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Bromobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
n-Propylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
2-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,3,5-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
4-Chlorotoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
tert-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2,4-Trimethylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
sec-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
p-Isopropyltoluene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,3-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,4-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
n-Butylbenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
1,2-Dibromo-3-chloropropane	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,2,4-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Hexachlorobutadiene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Naphthalene	EPA 8260	<2.0	2.0	ug/L	MQS	04/16/2011
1,2,3-Trichlorobenzene	EPA 8260	<1.0	1.0	ug/L	MQS	04/16/2011
Surrogates:	EPA 8260					
***1,2-Dichloroethane-D4	EPA 8260	90.5	70-130	% R	MQS	04/16/2011



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Stephen Andrus

Project Name.: **Charbert ICMP**
Project No.: **03.0032795.29**

Date Received: **04/08/2011**
Date Reported: **04/22/2011**
Work Order No.: **1104-00056**

Sample ID: **TBLK 040711**

Sample No.: **024**

Sample Date: **04/07/2011**

Test Performed	Method	Results	Reporting Limit	Units	Tech	Analysis Date
***Toluene-D8	EPA 8260	91.6	70-130	% R	MQS	04/16/2011
***4-Bromofluorobenzene	EPA 8260	91.1	70-130	% R	MQS	04/16/2011
Preparation	EPA 5030B	1.0		CF	MQS	04/15/2011

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

Method Blank			Laboratory Control Sample				Laboratory Control Sample Duplicate						
Date Analyzed:	4/14/2011		Date Analyzed:	4/14/2011			Date Analyzed:	4/14/2011					
Volatile Organics	Conc. ug/L	Acceptance Limit	Spike Concentration = 20ug/L	% Recovery	Acceptance Limits	Verdict	% Recovery	Acceptance Limits	Verdict	RPD	Limit	Verdict	
dichlorodifluoromethane	< 1.0	< 1.0	dichlorodifluoromethane	87.6	70-130	ok	81.4	70-130	ok	7.40	<25	ok	
chloromethane	< 1.0	< 1.0	chloromethane	89.3	70-130	ok	83.6	70-130	ok	6.62	<25	ok	
vinyl chloride	< 0.5	< 0.5	vinyl chloride	88.9	80-120	ok	82.8	70-130	ok	7.18	<25	ok	
bromomethane	< 1.0	< 1.0	bromomethane	85.8	70-130	ok	81.3	70-130	ok	5.28	<25	ok	
chloroethane	< 0.5	< 0.5	chloroethane	89.8	70-130	ok	84.6	70-130	ok	6.00	<25	ok	
trichlorofluoromethane	< 1.0	< 1.0	trichlorofluoromethane	80.1	70-130	ok	75.1	70-130	ok	6.45	<25	ok	
diethyl ether	< 2.5	< 2.5	diethyl ether	81.7	70-130	ok	82.1	70-130	ok	0.53	<25	ok	
acetone	< 10	< 10	acetone	83.1	70-130	ok	83.6	70-130	ok	0.64	<25	ok	
1,1-dichloroethene	< 0.5	< 0.5	1,1-dichloroethene	82.1	80-120	ok	77.1	70-130	ok	6.28	<25	ok	
carbon disulfide	< 5.0	< 5.0	carbon disulfide	82.2	70-130	ok	76.8	70-130	ok	6.86	<25	ok	
dichloromethane	< 1.0	< 1.0	dichloromethane	79.1	70-130	ok	74.8	70-130	ok	5.61	<25	ok	
methyl-tert-butyl-ether	< 0.5	< 0.5	methyl-tert-butyl-ether	83.0	70-130	ok	80.5	70-130	ok	3.11	<25	ok	
trans-1,2-dichloroethene	< 0.5	< 0.5	trans-1,2-dichloroethene	84.8	70-130	ok	82.2	70-130	ok	3.22	<25	ok	
1,1-dichloroethane	< 0.5	< 0.5	1,1-dichloroethane	88.3	70-130	ok	84.3	70-130	ok	4.66	<25	ok	
2-butanone	< 10	< 10	2-butanone	89.3	70-130	ok	85.8	70-130	ok	3.95	<25	ok	
2,2-dichloropropane	< 0.5	< 0.5	2,2-dichloropropane	89.2	70-130	ok	82.5	70-130	ok	7.78	<25	ok	
cis-1,2-dichloroethene	< 0.5	< 0.5	cis-1,2-dichloroethene	86.5	70-130	ok	82.1	70-130	ok	5.26	<25	ok	
chloroform	< 0.5	< 0.5	chloroform	84.1	80-120	ok	80.9	70-130	ok	3.85	<25	ok	
bromochloromethane	< 0.5	< 0.5	bromochloromethane	90.0	70-130	ok	86.7	70-130	ok	3.80	<25	ok	
tetrahydrofuran	< 5.0	< 5.0	tetrahydrofuran	94.3	70-130	ok	91.8	70-130	ok	2.63	<25	ok	
1,1,1-trichloroethane	< 0.5	< 0.5	1,1,1-trichloroethane	80.4	70-130	ok	76.2	70-130	ok	5.30	<25	ok	
1,1-dichloropropene	< 0.5	< 0.5	1,1-dichloropropene	89.1	70-130	ok	82.8	70-130	ok	7.27	<25	ok	
carbon tetrachloride	< 0.5	< 0.5	carbon tetrachloride	83.8	70-130	ok	79.9	70-130	ok	4.68	<25	ok	
1,2-dichloroethane	< 0.5	< 0.5	1,2-dichloroethane	87.6	70-130	ok	83.1	70-130	ok	5.24	<25	ok	
benzene	< 0.5	< 0.5	benzene	87.9	70-130	ok	84.3	70-130	ok	4.08	<25	ok	
trichloroethene	< 0.5	< 0.5	trichloroethene	89.7	70-130	ok	84.1	70-130	ok	6.38	<25	ok	
1,2-dichloropropane	< 0.5	< 0.5	1,2-dichloropropane	91.4	80-120	ok	85.6	70-130	ok	6.58	<25	ok	
bromodichloromethane	< 0.5	< 0.5	bromodichloromethane	84.9	70-130	ok	82.1	70-130	ok	3.43	<25	ok	
1,2-dibromoethane	< 0.5	< 0.5	1,2-dibromoethane	79.1	70-130	ok	80.6	70-130	ok	1.94	<25	ok	
4-methyl-2-pentanone	< 10	< 10	4-methyl-2-pentanone	89.8	70-130	ok	88.0	70-130	ok	2.07	<25	ok	
cis-1,3-dichloropropene	< 0.5	< 0.5	cis-1,3-dichloropropene	87.2	70-130	ok	86.0	70-130	ok	1.35	<25	ok	
toluene	< 0.5	< 0.5	toluene	86.6	80-120	ok	83.8	70-130	ok	3.27	<25	ok	
trans-1,3-dichloropropene	< 1.0	< 1.0	trans-1,3-dichloropropene	87.6	70-130	ok	83.9	70-130	ok	4.34	<25	ok	
1,1,2-trichloroethane	< 0.5	< 0.5	1,1,2-trichloroethane	94.3	70-130	ok	87.9	70-130	ok	7.00	<25	ok	
2-hexanone	< 10	< 10	2-hexanone	98.2	70-130	ok	93.7	70-130	ok	4.66	<25	ok	
1,3-dichloropropane	< 0.5	< 0.5	1,3-dichloropropane	97.4	70-130	ok	88.4	70-130	ok	9.62	<25	ok	
tetrachloroethene	< 0.5	< 0.5	tetrachloroethene	89.9	70-130	ok	82.0	70-130	ok	9.17	<25	ok	
dibromochloromethane	< 0.5	< 0.5	dibromochloromethane	94.9	70-130	ok	82.9	70-130	ok	13.5	<25	ok	
1,2-dibromoethane (EDB)	< 1.0	< 1.0	1,2-dibromoethane (EDB)	95.3	70-130	ok	87.0	70-130	ok	9.11	<25	ok	
chlorobenzene	< 0.5	< 0.5	chlorobenzene	92.2	70-130	ok	86.2	70-130	ok	6.67	<25	ok	
1,1,1,2-tetrachloroethane	< 0.5	< 0.5	1,1,1,2-tetrachloroethane	92.6	70-130	ok	86.3	70-130	ok	7.04	<25	ok	
ethylbenzene	< 0.5	< 0.5	ethylbenzene	93.8	80-120	ok	86.6	70-130	ok	8.03	<25	ok	
1,1,2,2-tetrachloroethane	< 0.5	< 0.5	1,1,2,2-tetrachloroethane	94.4	70-130	ok	89.0	70-130	ok	5.90	<25	ok	
m&p-xylene	< 1.0	< 1.0	m&p-xylene	92.0	70-130	ok	84.0	70-130	ok	9.12	<25	ok	
o-xylene	< 0.5	< 0.5	o-xylene	92.5	70-130	ok	87.3	70-130	ok	5.79	<25	ok	
styrene	< 0.5	< 0.5	styrene	94.5	70-130	ok	89.3	70-130	ok	5.60	<25	ok	
bromoform	< 1.0	< 1.0	bromoform	90.2	70-130	ok	87.1	70-130	ok	3.56	<25	ok	
isopropylbenzene	< 0.5	< 0.5	isopropylbenzene	91.0	70-130	ok	89.0	70-130	ok	2.31	<25	ok	
1,2,3-trichloropropane	< 0.5	< 0.5	1,2,3-trichloropropane	94.6	70-130	ok	99.0	70-130	ok	4.60	<25	ok	
bromobenzene	< 0.5	< 0.5	bromobenzene	94.5	70-130	ok	89.8	70-130	ok	5.02	<25	ok	
n-propylbenzene	< 0.5	< 0.5	n-propylbenzene	94.8	70-130	ok	90.4	70-130	ok	4.79	<25	ok	
2-chlorotoluene	< 0.5	< 0.5	2-chlorotoluene	92.8	70-130	ok	87.9	70-130	ok	5.39	<25	ok	
1,3,5-trimethylbenzene	< 0.5	< 0.5	1,3,5-trimethylbenzene	93.7	70-130	ok	87.8	70-130	ok	6.55	<25	ok	
4-chlorotoluene	< 0.5	< 0.5	4-chlorotoluene	92.6	70-130	ok	87.3	70-130	ok	5.87	<25	ok	
tert-butyl-benzene	< 0.5	< 0.5	tert-butyl-benzene	93.7	70-130	ok	89.3	70-130	ok	4.81	<25	ok	
1,2,4-trimethylbenzene	< 0.5	< 0.5	1,2,4-trimethylbenzene	92.9	70-130	ok	89.6	70-130	ok	3.64	<25	ok	
sec-butyl-benzene	< 0.5	< 0.5	sec-butyl-benzene	93.6	70-130	ok	90.0	70-130	ok	3.95	<25	ok	
p-isopropyltoluene	< 0.5	< 0.5	p-isopropyltoluene	95.9	70-130	ok	90.8	70-130	ok	5.43	<25	ok	
1,3-dichlorobenzene	< 0.5	< 0.5	1,3-dichlorobenzene	97.3	70-130	ok	90.9	70-130	ok	6.84	<25	ok	
1,4-dichlorobenzene	< 0.5	< 0.5	1,4-dichlorobenzene	95.2	70-130	ok	92.4	70-130	ok	2.94	<25	ok	
n-butylbenzene	< 0.5	< 0.5	n-butylbenzene	96.1	70-130	ok	89.4	70-130	ok	7.17	<25	ok	
1,2-dichlorobenzene	< 0.5	< 0.5	1,2-dichlorobenzene	93.7	70-130	ok	89.6	70-130	ok	4.51	<25	ok	
1,2-dibromo-3-chloropropane	< 2.5	< 2.5	1,2-dibromo-3-chloropropane	99.6	70-130	ok	97.5	70-130	ok	2.16	<25	ok	
1,2,4-trichlorobenzene	< 0.5	< 0.5	1,2,4-trichlorobenzene	94.7	70-130	ok	91.1	70-130	ok	3.86	<25	ok	
hexachlorobutadiene	< 0.5	< 0.5	hexachlorobutadiene	93.2	70-130	ok	88.0	70-130	ok	5.77	<25	ok	
naphthalene	< 1.0	< 1.0	naphthalene	101	70-130	ok	98.4	70-130	ok	2.10	<25	ok	

Surrogates:	Recovery (%)	Acceptance Limits	Surrogates:	Recovery (%)	Acceptance Limits	Verdict	Recovery (%)	Acceptance Limits	Verdict	RPD	Acceptance Limits	Verdict
DIBROMOFLUOROMETHANE	91.6	70-130	DIBROMOFLUOROMETHANE	90.9	70-130	ok	90.4	70-130	ok	0.50	<25	ok
1,2-DICHLOROETHANE-D4	91.8	70-130	1,2-DICHLOROETHANE-D4	88.6	70-130	ok	86.2	70-130	ok	2.68	<25	ok
TOLUENE-D8	90.0	70-130	TOLUENE-D8	91.4	70-130	ok	90.5	70-130	ok	0.95	<25	ok
4-BROMOFLUOROBENZENE	88.9	70-130	4-BROMOFLUOROBENZENE	92.9	70-130	ok	90.5	70-130	ok	2.56	<25	ok
1,2-DICHLOROBENZENE-D4	96.1	70-130	1,2-DICHLOROBENZENE-D4	97.9	70-130	ok	97.8	70-130	ok	0.08	<25	ok

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

Method Blank			Laboratory Control Sample				Laboratory Control Sample Duplicate						
Date Analyzed:	4/14/2011		Date Analyzed:	4/14/2011			Date Analyzed:	4/15/2011					
Volatile Organics	Conc. ug/L	Acceptance Limit	Spike Concentration = 20ug/L	% Recovery	Acceptance Limits	Verdict	% Recovery	Acceptance Limits	Verdict	RPD	Limit	Verdict	
dichlorodifluoromethane	< 1.0	< 1.0	dichlorodifluoromethane	83.0	70-130	ok	83.7	70-130	ok	0.80	<25	ok	
chloromethane	< 1.0	< 1.0	chloromethane	87.7	70-130	ok	87.8	70-130	ok	0.11	<25	ok	
vinyl chloride	< 0.5	< 0.5	vinyl chloride	88.5	80-120	ok	86.8	70-130	ok	1.93	<25	ok	
bromomethane	< 1.0	< 1.0	bromomethane	84.4	70-130	ok	83.8	70-130	ok	0.80	<25	ok	
chloroethane	< 0.5	< 0.5	chloroethane	91.3	70-130	ok	87.4	70-130	ok	4.41	<25	ok	
trichlorofluoromethane	< 1.0	< 1.0	trichlorofluoromethane	79.0	70-130	ok	79.7	70-130	ok	0.84	<25	ok	
diethyl ether	< 2.5	< 2.5	diethyl ether	79.5	70-130	ok	75.5	70-130	ok	5.16	<25	ok	
acetone	< 10	< 10	acetone	80.7	70-130	ok	75.2	70-130	ok	7.08	<25	ok	
1,1-dichloroethene	< 0.5	< 0.5	1,1-dichloroethene	81.5	80-120	ok	83.6	70-130	ok	2.52	<25	ok	
carbon disulfide	< 5.0	< 5.0	carbon disulfide	83.3	70-130	ok	84.1	70-130	ok	0.97	<25	ok	
dichloromethane	< 1.0	< 1.0	dichloromethane	77.7	70-130	ok	76.9	70-130	ok	1.13	<25	ok	
methyl-tert-butyl-ether	< 0.5	< 0.5	methyl-tert-butyl-ether	77.3	70-130	ok	75.7	70-130	ok	2.09	<25	ok	
trans-1,2-dichloroethene	< 0.5	< 0.5	trans-1,2-dichloroethene	86.1	70-130	ok	86.6	70-130	ok	0.59	<25	ok	
1,1-dichloroethane	< 0.5	< 0.5	1,1-dichloroethane	86.8	70-130	ok	88.5	70-130	ok	1.94	<25	ok	
2-butanone	< 10	< 10	2-butanone	80.8	70-130	ok	74.7	70-130	ok	7.90	<25	ok	
2,2-dichloropropane	< 0.5	< 0.5	2,2-dichloropropane	72.6	70-130	ok	72.7	70-130	ok	0.18	<25	ok	
cis-1,2-dichloroethene	< 0.5	< 0.5	cis-1,2-dichloroethene	85.7	70-130	ok	85.5	70-130	ok	0.23	<25	ok	
chloroform	< 0.5	< 0.5	chloroform	81.4	80-120	ok	83.5	70-130	ok	2.47	<25	ok	
bromochloromethane	< 0.5	< 0.5	bromochloromethane	85.6	70-130	ok	86.2	70-130	ok	0.61	<25	ok	
tetrahydrofuran	< 5.0	< 5.0	tetrahydrofuran	83.3	70-130	ok	76.9	70-130	ok	8.05	<25	ok	
1,1,1-trichloroethane	< 0.5	< 0.5	1,1,1-trichloroethane	80.5	70-130	ok	82.3	70-130	ok	2.31	<25	ok	
1,1,1-dichloropropane	< 0.5	< 0.5	1,1,1-dichloropropane	87.8	70-130	ok	87.8	70-130	ok	0.05	<25	ok	
carbon tetrachloride	< 0.5	< 0.5	carbon tetrachloride	82.1	70-130	ok	83.1	70-130	ok	1.30	<25	ok	
1,2-dichloroethane	< 0.5	< 0.5	1,2-dichloroethane	80.2	70-130	ok	77.1	70-130	ok	3.99	<25	ok	
benzene	< 0.5	< 0.5	benzene	88.9	70-130	ok	90.1	70-130	ok	1.31	<25	ok	
trichloroethene	< 0.5	< 0.5	trichloroethene	89.4	70-130	ok	89.6	70-130	ok	0.27	<25	ok	
1,2-dichloropropane	< 0.5	< 0.5	1,2-dichloropropane	89.1	80-120	ok	87.4	70-130	ok	1.94	<25	ok	
bromodichloromethane	< 0.5	< 0.5	bromodichloromethane	81.9	70-130	ok	80.6	70-130	ok	1.62	<25	ok	
1,1-dibromoethane	< 0.5	< 0.5	1,1-dibromoethane	78.5	70-130	ok	76.0	70-130	ok	3.33	<25	ok	
4-methyl-2-pentanone	< 10	< 10	4-methyl-2-pentanone	80.5	70-130	ok	75.6	70-130	ok	6.28	<25	ok	
cis-1,3-dichloropropene	< 0.5	< 0.5	cis-1,3-dichloropropene	81.6	70-130	ok	80.7	70-130	ok	1.06	<25	ok	
toluene	< 0.5	< 0.5	toluene	87.5	80-120	ok	88.3	70-130	ok	0.91	<25	ok	
trans-1,3-dichloropropene	< 1.0	< 1.0	trans-1,3-dichloropropene	78.1	70-130	ok	75.2	70-130	ok	3.73	<25	ok	
1,1,2-trichloroethane	< 0.5	< 0.5	1,1,2-trichloroethane	87.7	70-130	ok	87.8	70-130	ok	0.06	<25	ok	
2-hexanone	< 10	< 10	2-hexanone	84.8	70-130	ok	81.9	70-130	ok	3.43	<25	ok	
1,3-dichloropropane	< 0.5	< 0.5	1,3-dichloropropane	88.3	70-130	ok	89.4	70-130	ok	1.31	<25	ok	
tetrachloroethene	< 0.5	< 0.5	tetrachloroethene	90.3	70-130	ok	92.9	70-130	ok	2.83	<25	ok	
1,1,1,2-tetrachloroethane	< 0.5	< 0.5	1,1,1,2-tetrachloroethane	85.3	70-130	ok	83.7	70-130	ok	1.93	<25	ok	
1,2-dibromoethane (EDB)	< 1.0	< 1.0	1,2-dibromoethane (EDB)	89.0	70-130	ok	86.0	70-130	ok	3.52	<25	ok	
chlorobenzene	< 0.5	< 0.5	chlorobenzene	92.0	70-130	ok	94.5	70-130	ok	2.65	<25	ok	
1,1,1,2-tetrachloroethane	< 0.5	< 0.5	1,1,1,2-tetrachloroethane	88.5	70-130	ok	91.2	70-130	ok	3.01	<25	ok	
ethylbenzene	< 0.5	< 0.5	ethylbenzene	90.5	80-120	ok	93.6	70-130	ok	3.35	<25	ok	
1,1,2,2-tetrachloroethane	< 0.5	< 0.5	1,1,2,2-tetrachloroethane	87.0	70-130	ok	85.4	70-130	ok	1.82	<25	ok	
m&p-xylene	< 1.0	< 1.0	m&p-xylene	88.3	70-130	ok	90.2	70-130	ok	2.15	<25	ok	
o-xylene	< 0.5	< 0.5	o-xylene	92.1	70-130	ok	91.5	70-130	ok	0.62	<25	ok	
styrene	< 0.5	< 0.5	styrene	92.5	70-130	ok	91.9	70-130	ok	0.74	<25	ok	
bromoform	< 1.0	< 1.0	bromoform	83.1	70-130	ok	82.7	70-130	ok	0.49	<25	ok	
isopropylbenzene	< 0.5	< 0.5	isopropylbenzene	93.2	70-130	ok	94.3	70-130	ok	1.11	<25	ok	
1,2,3-trichloropropane	< 0.5	< 0.5	1,2,3-trichloropropane	91.8	70-130	ok	86.0	70-130	ok	6.61	<25	ok	
bromobenzene	< 0.5	< 0.5	bromobenzene	93.0	70-130	ok	90.9	70-130	ok	2.23	<25	ok	
n-propylbenzene	< 0.5	< 0.5	n-propylbenzene	94.2	70-130	ok	94.9	70-130	ok	0.68	<25	ok	
2-chlorotoluene	< 0.5	< 0.5	2-chlorotoluene	91.2	70-130	ok	90.1	70-130	ok	1.18	<25	ok	
1,3,5-trimethylbenzene	< 0.5	< 0.5	1,3,5-trimethylbenzene	94.1	70-130	ok	92.1	70-130	ok	2.19	<25	ok	
4-chlorotoluene	< 0.5	< 0.5	4-chlorotoluene	90.9	70-130	ok	89.2	70-130	ok	1.86	<25	ok	
tert-butyl-benzene	< 0.5	< 0.5	tert-butyl-benzene	94.3	70-130	ok	96.0	70-130	ok	1.73	<25	ok	
1,2,4-trimethylbenzene	< 0.5	< 0.5	1,2,4-trimethylbenzene	92.9	70-130	ok	92.3	70-130	ok	0.58	<25	ok	
sec-butyl-benzene	< 0.5	< 0.5	sec-butyl-benzene	95.3	70-130	ok	96.8	70-130	ok	1.56	<25	ok	
p-isopropyltoluene	< 0.5	< 0.5	p-isopropyltoluene	96.5	70-130	ok	96.2	70-130	ok	0.30	<25	ok	
1,3-dichlorobenzene	< 0.5	< 0.5	1,3-dichlorobenzene	94.7	70-130	ok	94.3	70-130	ok	0.43	<25	ok	
1,4-dichlorobenzene	< 0.5	< 0.5	1,4-dichlorobenzene	93.6	70-130	ok	92.7	70-130	ok	0.99	<25	ok	
n-butylbenzene	< 0.5	< 0.5	n-butylbenzene	93.3	70-130	ok	93.4	70-130	ok	0.10	<25	ok	
1,2-dichlorobenzene	< 0.5	< 0.5	1,2-dichlorobenzene	91.3	70-130	ok	90.0	70-130	ok	1.43	<25	ok	
1,2-dibromo-3-chloropropane	< 2.5	< 2.5	1,2-dibromo-3-chloropropane	96.3	70-130	ok	88.6	70-130	ok	8.31	<25	ok	
1,2,4-trichlorobenzene	< 0.5	< 0.5	1,2,4-trichlorobenzene	90.7	70-130	ok	88.1	70-130	ok	2.89	<25	ok	
hexachlorobutadiene	< 0.5	< 0.5	hexachlorobutadiene	93.0	70-130	ok	90.1	70-130	ok	3.22	<25	ok	
naphthalene	< 1.0	< 1.0	naphthalene	91.3	70-130	ok	88.0	70-130	ok	3.61	<25	ok	

Surrogates:	Recovery (%)	Acceptance Limits	Surrogates:	Recovery (%)	Acceptance Limits	Verdict	Recovery (%)	Acceptance Limits	Verdict	RPD	Acceptance Limits	Verdict
DIBROMOFLUOROMETHANE	92.6	70-130	DIBROMOFLUOROMETHANE	90.1	70-130	ok	91.9	70-130	ok	2.03	<25	ok
1,2-DICHLOROETHANE-D4	92.2	70-130	1,2-DICHLOROETHANE-D4	87.5	70-130	ok	87.9	70-130	ok	0.41	<25	ok
TOLUENE-D8	96.4	70-130	TOLUENE-D8	89.9	70-130	ok	92.1	70-130	ok	2.35	<25	ok
4-BROMOFLUOROBENZENE	92.8	70-130	4-BROMOFLUOROBENZENE	93.2	70-130	ok	93.1	70-130	ok	0.14	<25	ok
1,2-DICHLOROBENZENE-D4	95.9	70-130	1,2-DICHLOROBENZENE-D4	97.3	70-130	ok	97.0	70-130	ok	0.36	<25	ok

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

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

Method Blank			Laboratory Control Sample			Laboratory Control Sample Duplicate			RPD	Limit	Verdict	
Date Analyzed:	4/15/2011		Date Analyzed:	4/15/2011		Date Analyzed:	4/15/2011					
Conc. ug/L	Acceptance Limit		Spike Concentration = 20ug/L	% Recovery	Acceptance Limits	Verdict	% Recovery	Acceptance Limits	Verdict			
dichlorodifluoromethane	< 1.0	< 1.0	dichlorodifluoromethane	80.7	70-130	ok	82.4	70-130	ok	2.16	<25	ok
chloromethane	< 1.0	< 1.0	chloromethane	87.9	70-130	ok	90.2	70-130	ok	2.62	<25	ok
vinyl chloride	< 0.5	< 0.5	vinyl chloride	87.8	80-120	ok	87.7	70-130	ok	0.10	<25	ok
bromomethane	< 1.0	< 1.0	bromomethane	84.1	70-130	ok	85.9	70-130	ok	2.12	<25	ok
chloroethane	< 0.5	< 0.5	chloroethane	90.7	70-130	ok	88.2	70-130	ok	2.78	<25	ok
trichlorofluoromethane	< 1.0	< 1.0	trichlorofluoromethane	79.2	70-130	ok	80.7	70-130	ok	1.93	<25	ok
diethyl ether	< 2.5	< 2.5	diethyl ether	76.9	70-130	ok	77.0	70-130	ok	0.14	<25	ok
acetone	< 10	< 10	acetone	83.3	70-130	ok	76.2	70-130	ok	8.82	<25	ok
1,1-dichloroethene	< 0.5	< 0.5	1,1-dichloroethene	80.6	80-120	ok	80.0	70-130	ok	0.75	<25	ok
carbon disulfide	< 5.0	< 5.0	carbon disulfide	83.4	70-130	ok	82.8	70-130	ok	0.64	<25	ok
dichloromethane	< 1.0	< 1.0	dichloromethane	75.9	70-130	ok	72.9	70-130	ok	4.05	<25	ok
methyl-tert-butyl-ether	< 0.5	< 0.5	methyl-tert-butyl-ether	76.6	70-130	ok	77.7	70-130	ok	1.36	<25	ok
trans-1,2-dichloroethene	< 0.5	< 0.5	trans-1,2-dichloroethene	84.0	70-130	ok	84.7	70-130	ok	0.77	<25	ok
1,1-dichloroethane	< 0.5	< 0.5	1,1-dichloroethane	91.0	70-130	ok	87.4	70-130	ok	3.98	<25	ok
2-butanone	< 10	< 10	2-butanone	84.0	70-130	ok	75.1	70-130	ok	11.3	<25	ok
2,2-dichloropropane	< 0.5	< 0.5	2,2-dichloropropane	73.7	70-130	ok	75.3	70-130	ok	2.16	<25	ok
cis-1,2-dichloroethene	< 0.5	< 0.5	cis-1,2-dichloroethene	86.7	70-130	ok	84.2	70-130	ok	2.90	<25	ok
chloroform	< 0.5	< 0.5	chloroform	83.7	80-120	ok	82.7	70-130	ok	1.21	<25	ok
bromochloromethane	< 0.5	< 0.5	bromochloromethane	86.3	70-130	ok	86.9	70-130	ok	0.69	<25	ok
tetrahydrofuran	< 5.0	< 5.0	tetrahydrofuran	88.4	70-130	ok	79.0	70-130	ok	11.3	<25	ok
1,1,1-trichloroethane	< 0.5	< 0.5	1,1,1-trichloroethane	82.6	70-130	ok	80.6	70-130	ok	2.40	<25	ok
1,1-dichloropropene	< 0.5	< 0.5	1,1-dichloropropene	90.0	70-130	ok	87.2	70-130	ok	3.21	<25	ok
carbon tetrachloride	< 0.5	< 0.5	carbon tetrachloride	84.5	70-130	ok	84.8	70-130	ok	0.35	<25	ok
1,2-dichloroethane	< 0.5	< 0.5	1,2-dichloroethane	82.8	70-130	ok	79.1	70-130	ok	4.60	<25	ok
benzene	< 0.5	< 0.5	benzene	89.5	70-130	ok	86.9	70-130	ok	2.97	<25	ok
trichloroethene	< 0.5	< 0.5	trichloroethene	89.3	70-130	ok	88.7	70-130	ok	0.60	<25	ok
1,2-dichloropropane	< 0.5	< 0.5	1,2-dichloropropane	91.2	80-120	ok	86.9	70-130	ok	4.90	<25	ok
bromodichloromethane	< 0.5	< 0.5	bromodichloromethane	83.5	70-130	ok	79.4	70-130	ok	5.08	<25	ok
dibromomethane	< 0.5	< 0.5	dibromomethane	76.1	70-130	ok	73.4	70-130	ok	3.69	<25	ok
4-methyl-2-pentanone	< 10	< 10	4-methyl-2-pentanone	82.6	70-130	ok	76.6	70-130	ok	7.52	<25	ok
cis-1,3-dichloropropene	< 0.5	< 0.5	cis-1,3-dichloropropene	83.9	70-130	ok	80.9	70-130	ok	3.63	<25	ok
toluene	< 0.5	< 0.5	toluene	87.5	80-120	ok	85.0	70-130	ok	2.88	<25	ok
trans-1,3-dichloropropene	< 1.0	< 1.0	trans-1,3-dichloropropene	82.1	70-130	ok	75.5	70-130	ok	8.44	<25	ok
1,1,2-trichloroethane	< 0.5	< 0.5	1,1,2-trichloroethane	89.0	70-130	ok	89.8	70-130	ok	0.91	<25	ok
2-hexanone	< 10	< 10	2-hexanone	86.7	70-130	ok	85.2	70-130	ok	1.83	<25	ok
1,3-dichloropropane	< 0.5	< 0.5	1,3-dichloropropane	89.7	70-130	ok	89.5	70-130	ok	0.26	<25	ok
tetrachloroethene	< 0.5	< 0.5	tetrachloroethene	90.2	70-130	ok	91.2	70-130	ok	1.17	<25	ok
dibromochloromethane	< 0.5	< 0.5	dibromochloromethane	84.8	70-130	ok	86.0	70-130	ok	1.37	<25	ok
1,2-dibromoethane (EDB)	< 1.0	< 1.0	1,2-dibromoethane (EDB)	87.8	70-130	ok	89.2	70-130	ok	1.53	<25	ok
chlorobenzene	< 0.5	< 0.5	chlorobenzene	92.1	70-130	ok	94.2	70-130	ok	2.28	<25	ok
1,1,1,2-tetrachloroethane	< 0.5	< 0.5	1,1,1,2-tetrachloroethane	88.0	70-130	ok	90.5	70-130	ok	2.76	<25	ok
ethylbenzene	< 0.5	< 0.5	ethylbenzene	92.1	80-120	ok	93.0	70-130	ok	0.89	<25	ok
1,1,2,2-tetrachloroethane	< 0.5	< 0.5	1,1,2,2-tetrachloroethane	86.1	70-130	ok	86.4	70-130	ok	0.35	<25	ok
m&p-xylene	< 1.0	< 1.0	m&p-xylene	89.9	70-130	ok	90.3	70-130	ok	0.41	<25	ok
o-xylene	< 0.5	< 0.5	o-xylene	95.3	70-130	ok	93.6	70-130	ok	1.74	<25	ok
styrene	< 0.5	< 0.5	styrene	95.6	70-130	ok	92.7	70-130	ok	3.08	<25	ok
bromoforn	< 1.0	< 1.0	bromoforn	86.1	70-130	ok	83.8	70-130	ok	2.63	<25	ok
isopropylbenzene	< 0.5	< 0.5	isopropylbenzene	96.2	70-130	ok	94.9	70-130	ok	1.33	<25	ok
1,2,3-trichloropropane	< 0.5	< 0.5	1,2,3-trichloropropane	92.3	70-130	ok	83.6	70-130	ok	9.95	<25	ok
bromobenzene	< 0.5	< 0.5	bromobenzene	94.4	70-130	ok	92.8	70-130	ok	1.73	<25	ok
n-propylbenzene	< 0.5	< 0.5	n-propylbenzene	99.3	70-130	ok	96.5	70-130	ok	2.88	<25	ok
2-chlorotoluene	< 0.5	< 0.5	2-chlorotoluene	94.7	70-130	ok	92.0	70-130	ok	2.84	<25	ok
1,3,5-trimethylbenzene	< 0.5	< 0.5	1,3,5-trimethylbenzene	97.2	70-130	ok	95.7	70-130	ok	1.49	<25	ok
4-chlorotoluene	< 0.5	< 0.5	4-chlorotoluene	94.4	70-130	ok	91.1	70-130	ok	3.54	<25	ok
tert-butyl-benzene	< 0.5	< 0.5	tert-butyl-benzene	98.8	70-130	ok	96.9	70-130	ok	1.93	<25	ok
1,2,4-trimethylbenzene	< 0.5	< 0.5	1,2,4-trimethylbenzene	98.1	70-130	ok	94.6	70-130	ok	3.64	<25	ok
sec-butyl-benzene	< 0.5	< 0.5	sec-butyl-benzene	98.5	70-130	ok	96.0	70-130	ok	2.53	<25	ok
p-isopropyltoluene	< 0.5	< 0.5	p-isopropyltoluene	101	70-130	ok	97.8	70-130	ok	2.76	<25	ok
1,3-dichlorobenzene	< 0.5	< 0.5	1,3-dichlorobenzene	99.3	70-130	ok	95.9	70-130	ok	3.42	<25	ok
1,4-dichlorobenzene	< 0.5	< 0.5	1,4-dichlorobenzene	98.1	70-130	ok	94.9	70-130	ok	3.31	<25	ok
n-butylbenzene	< 0.5	< 0.5	n-butylbenzene	97.8	70-130	ok	95.3	70-130	ok	2.58	<25	ok
1,2-dichlorobenzene	< 0.5	< 0.5	1,2-dichlorobenzene	94.8	70-130	ok	91.1	70-130	ok	3.94	<25	ok
1,2-dibromo-3-chloropropane	< 2.5	< 2.5	1,2-dibromo-3-chloropropane	91.2	70-130	ok	93.7	70-130	ok	2.66	<25	ok
1,2,4-trichlorobenzene	< 0.5	< 0.5	1,2,4-trichlorobenzene	93.6	70-130	ok	87.6	70-130	ok	6.61	<25	ok
hexachlorobutadiene	< 0.5	< 0.5	hexachlorobutadiene	97.1	70-130	ok	91.8	70-130	ok	5.58	<25	ok
naphthalene	< 1.0	< 1.0	naphthalene	93.7	70-130	ok	91.6	70-130	ok	2.27	<25	ok

Surrogates:	Recovery (%)	Acceptance Limits	Surrogates:	Recovery (%)	Acceptance Limits	Verdict	Recovery (%)	Acceptance Limits	Verdict	RPD	Acceptance Limits	Verdict
DIBROMOFLUOROMETHANE	94.2	70-130	DIBROMOFLUOROMETHANE	90.7	70-130	ok	89.4	70-130	ok	1.45	<25	ok
1,2-DICHLOROETHANE-D4	91.0	70-130	1,2-DICHLOROETHANE-D4	86.0	70-130	ok	81.2	70-130	ok	5.65	<25	ok
TOLUENE-D8	90.4	70-130	TOLUENE-D8	88.4	70-130	ok	89.5	70-130	ok	1.18	<25	ok
4-BROMOFLUOROBENZENE	90.4	70-130	4-BROMOFLUOROBENZENE	91.8	70-130	ok	90.7	70-130	ok	1.22	<25	ok
1,2-DICHLOROBENZENE-D4	96.3	70-130	1,2-DICHLOROBENZENE-D4	96.7	70-130	ok	93.5	70-130	ok	3.33	<25	ok

CHAIN-OF-CUSTODY RECORD

W.O. # 114-CC056
(for lab use only)

Sample ID	Date/Time Sampled	Matrix	ANALYSIS REQUIRED	Total No. of Cont.	Note #
G2-3	4/7/11 1420	GW	<input type="checkbox"/> pH <input type="checkbox"/> Cond. GC Methane, Ethane, Ethene EPA 8260 EPA 8260-8010 List (Chlor.) EPA 8260-8021 list EPA 8021-8020 List (BTEX) EPA 524.2 DW VOCs EPA 624 WW VOCs <input type="checkbox"/> 601 <input type="checkbox"/> 602 WW VOCs EPA 8270 FULL SVOCs EPA 8270 <input type="checkbox"/> PAH <input type="checkbox"/> A <input type="checkbox"/> BN EPA 625 WW SVOCs EPA 8082-PCBs EPA 8081-Pest TPH-GC (Mod. 8100) TPH-GC w/FING. EPH (MA DEP) VPH (MA DEP) Metals <input type="checkbox"/> PPM-13 <input type="checkbox"/> R-8 MCP 14 Metals Metals (List Below) ** TCLP - Specify Below SPLP - Specify Below EPA 300 <input type="checkbox"/> Cl <input type="checkbox"/> SO4 EPA 300 <input type="checkbox"/> NO2 <input type="checkbox"/> NO3	3	
G2-7					
G2-26					
G2-7					
G2-19					
G2-20					
G2-28					
G2-21					
G2-22					
G2-23					
G2-24					
G2-25					
G2-26					

PRESERVATIVE (Cl-HCl, M-Methanol, N-HNO3, S-H2SO4, Na-NaOH, O-Other) *
 CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, T-Teflon, O-Other) *
 RELINQUISHED BY: WJm DATE/TIME: 4/8/11 1030 RECEIVED BY: CS
 RELINQUISHED BY: CS DATE/TIME: 4/8/11 0840 RECEIVED BY: WJm
 Project Manager: Steve Andrews

NOTES: (Unless otherwise noted, all samples have been refrigerated to 4 +/- 2°C)
 *Specify "Other" preservatives and container types in this space.

TURNAROUND TIME: 5-5 Days. Approved by: [Signature] LAB USE: Temp Blank
 GZA FILE NO: 050050795.06 TASK NO: 1205 P.O. NO: 1205
 PROJECT: Chubert Emp LOCATION: Alton RI COLLECTORS: M. Beza, J.M. Dwyer SHEET 1 OF 2

GZA GEOENVIRONMENTAL, INC.
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APPENDIX C

BI-MONTHLY AS/SVE SYSTEM MONITORING DATA

**JANUARY 2011 AIR SPARGE AND
SOIL VAPOR EXTRACTION MONITORING**

SOIL VAPOR EXTRACTION & AIR SPARGE OPERATIONS LOG

CHARBERT FACILITY

Alton, Rhode Island

Date:	1/6/2011
Personnel:	SN, MB
Company (GZA/Charbert):	GZA
Interior SVE System	
- On (yes/no):	yes
- Operational (cont./hr):	192252
Exterior SVE System	
- On (yes/no):	yes
- Operational (cont./hr):	211545
Interior SVE System	
- 5Hp hr meter (hrs):	192252
- Vac. (DH) in. of H ₂ O:	34
- Flow (scfm):	112
Exterior SVE System	
- 1Hp hr meter (hrs):	211454
- Vac. (DH) in. of H ₂ O:	16
- Flow (scfm):	126
AS Compressor hr meter (hrs):	18
Combine Pressure AS	
- Interior (psi):	18
- Exterior (psi):	20
SVE Condensate Collection	
- Interior (yes/no/gal):	yes, 0 gallons
- Exterior (yes/no/gal):	yes, 0 gallons
Notes:	

SVE/AS Monitoring Order:

Fill out Site & Field Operations Logs
 Balance AS Flows then,
 Balance SVE Flows then,
 Monitor SVE System for (O₂%, CO₂%, CH₄%, LEL%, TVOC ppmv, Vacuum in.)

Equipment Needed:

Landtec (O₂%, CO₂%, CH₄%, LEL%)
 OVM 10.6 PID (TVOC ppmv)
 Air Pump
 Digital Manometer
 - (1.0 - 0.001)
 - (20.0 - 0.01)
 - (200.0 - 1.0)
 Extension Cord (100 ft)
 Flat head screw driver
 9/16" socket wrench
 2 small adjustable wrenches
 last months field notes
 Oriface flow curves
 Pitot tube flow curves

Name: MB/SN
 Date: 1/6/2011
 Hour meter: 102252

TABLE 1
INTERIOR SVE SYSTEM
 Charbert Facility
 Alton, Rhode Island

Location	Order	TVOC (ppm)	O2 (%)	CO2 (%)	CH4 (%)	LEL (%)	Vacuum (in.)	Diff Pressure (in of water)	Flow (ft ³ /min)	Notes:
SVE-1	16	0.5	20.7	0.1	0.0	0	0.99	0.008	4.890	
SVE-2	17	0.0	20.9	0.1	0.0	0	1.31	0.009	5.220	
SVE-3	18	0.0	20.8	0.1	0.0	0	1.00	0.009	5.220	
SVE-4	13	1.0	20.8	0.1	0.0	0	0.81	0.009	5.220	
SVE-5	14	0.0	20.8	0.1	0.0	0	2.19	0.009	5.220	
SVE-6	15	0.0	20.8	0.1	0.0	0	1.32	0.009	5.220	
SVE-7	10	0.0	20.8	0.1	0.0	0	29.30	0.050	12.400	mostly shut, flow will not adjust
SVE-8	11	0.0	20.8	0.1	0.0	0	28.30	0.013-0.069	6.2-13.9	mostly shut, flow will not stabilize
SVE-9	12	0.0	20.9	0.1	0.0	0	27.50	0.05-0.07	12.4-14.7	mostly shut, flow will not stabilize
SVE-10	7	0.0	20.7	0.1	0.0	0	0.93	0.008	4.890	
SVE-11	8	0.0	20.6	0.2	0.0	0	1.27	0.008	4.890	
SVE-12	9	0.0	20.6	0.2	0.0	0	2.01	0.008	4.890	
SVE-13	22	0.0	20.8	0.1	0.0	0	0.80	0.008	4.890	
SVE-14	23	0.6	20.8	0.1	0.0	0	1.37	0.008	4.890	
SVE-15	4	0.4	20.9	0.1	0.0	0	0.52	0.008	4.890	
SVE-16	3	0.0	20.8	0.1	0.0	0	1.27	0.009	5.220	
SVE-31	24	0.0	20.9	0.1	0.0	0	0.88	0.008	4.890	
SVE-32	25	0.0	20.7	0.1	0.0	0	2.98	0.008	4.890	
SSVW-1	19	0.0	20.9	0.1	0.0	0	0.57	0.008	4.890	
SSVW-2	20	0.0	20.9	0.1	0.0	0	1.35	0.008	4.890	
SSVW-3	21	0.0	20.7	0.1	0.0	0	0.15	0.009	5.220	
SSVW-4	6	0.0	20.9	0.1	0.0	0	0.59	0.008	4.890	
SSVW-5	5	0.0	20.9	0.1	0.0	0	0.10	0.008	4.890	
SSVW-6	2	0.0	20.6	0.1	0.0	0	0.96	0.008	4.890	
SSVW-7	1	0.0	20.7	0.1	0.0	0	0.24	0.008	4.890	
Combine (Before Drum)		0.0	20.9	0.1	0.0	0	30.50	--	--	
Combine (Drum Gauge)		--	--	--	--	--	36	--	--	
Combine (After Drum)		--	--	--	--	--	41.00	--	--	
Combine (After Blower)		--	--	--	--	--	-13.00	--	--	
Effluent 1st drum		0.0	--	--	--	--	--	--	--	
Effluent 2nd drum		0.0	--	--	--	--	--	--	--	

Combined 112 scfm per 25 wells = 4.48 scfm per well = .007 inches DP per well.

Baselines: Landtec: O2 = 20.8 , CO2 = .1 , CH4 = .1 , LEL = 2 %
 OVM: 103.4 ppmv after calibration

Name:MB/SN
 Date: 1/6/2011
 Hour meter: 211454

TABLE 2
EXTERIOR SVE SYSTEM
 Charbert Facility
 Alton, Rhode Island

Location	Order	TVOC (ppm)	O2 (%)	CO2 (%)	CH4 (%)	LEL (%)	Vacuum (in.)	Diff Pressure (in of water)	Flow (ft ³ /min)	Notes:
SVE-17	1	0.5	20.4	0.2	0.2	0	5.21	0.000	0.00	fully open
SVE-18	2	0.1	20.4	0.2	0.1	0	4.88	0.000	0.00	fully open
SVE-19	3	0.0	20.4	0.1	0.1	0	4.97	0.000	0.00	fully open
SVE-20	4	0.0	20.6	0.1	0.1	0	4.08	0-0.024	0-8.38	valve mostly shut
SVE-21	5	0.0	20.8	0.1	0.1	0	3.30	0.000	0.00	fully open
SVE-22	6	0.6	20.5	0.1	0.1	0	2.64	0.017	6.96	
SVE-23	7	0.5	20.6	0.2	0.1	0	2.99	0.000	0.00	fully open
SVE-24	8	0.4	20.5	0.1	0.1	0	2.49	0.016	6.76	
SVE-25	9	0.0	20.8	0.1	0.1	0	3.22	0.000	0.00	fully open
SVE-26	10	0.0	20.9	0.1	0.1	0	1.00	0.015	6.56	
SVE-27	11	0.0	20.8	0.1	0.1	0	2.46	0.016	6.76	
SVE-28	12	0.0	20.8	0.1	0.1	0	2.82	0.009-0.016	5.22-6.76	
SVE-29	13	0.0	20.7	0.0	0.0	0	3.04	0.000	0.00	fully open
SVE-30	14	0.0	20.7	0.1	0.1	0	2.68	0.015	6.56	
SVE-33	15	0.0	20.8	0.1	0.1	0	1.08	0.015	6.56	
SVE-34	16	0.0	20.6	0.1	0.1	0	1.25	0.016	6.76	
SVE-35	17	0.0	20.5	0.1	0.1	0	3.36	0.007	4.57	fully open
SVE-36	18	0.0	20.8	0.1	0.1	0	2.88	0.015	6.56	
SVE-37	19	0.0	20.8	0.2	0.1	0	3.46	0-.024	0-8.38	valve mostly shut
Combine (Before Drum)		0	20.5	0.0	0.2	0	15.5	--	--	
Combine (Drum Guage)		--	--	--	--	--	26	--	--	
Combine (After Drum)		--	--	--	--	--	28.8	--	--	
Combine (After Blower)		--	--	--	--	--	-3.8	--	--	
Effluent 1st drum		0.0	--	--	--	--	--	--	--	
Effluent 2nd drum		0.0	--	--	--	--	--	--	--	

Combined 126 scfm per 19 wells = 6.63 scfm per well = .015 inches DP per well.

Name: MB/SN
Date: 1/6/2011

TABLE 3

INTERIOR AS SYSTEM

Charbert Facility
Alton, Rhode Island

Location	Pressure (psi)	Diff Pressure (in of water)	Flow (ft ³ /min)	Notes:
AS-1		0.52	1.13	
AS-2	10	0.52	1.13	
AS-3		0.53	1.14	
AS-4		0.53	1.14	
AS-5	10	0.52	1.13	
AS-6		0.52	1.13	
AS-7		0.52	1.13	
AS-8	10	0.52	1.13	
AS-9		0.52	1.13	
AS-10		0.51	1.11	
AS-11	10	0.52	1.13	
AS-12		0.52	1.13	
AS-13		0.52	1.13	
AS-14	10	0.52	1.13	
AS-15	10	0.52	1.13	
AS-16	10	0.52	1.13	
AS-31	10	0.52	1.13	
Combine (after)	18	1.92	16.76	

Combined 2.27 inches DP @ 18 psi = 18.19 scfm per 16 wells = 1.14 scfm per well = .53 inches DP per well at 10 psi.

Name: SN/MB
Date: 1/6/2011

TABLE 4

EXTERIOR AS SYSTEM

Charbert Facility
Alton, Rhode Island

Location	Pressure (psi)	Diff Pressure (in of water)	Flow (ft ³ /min)	Notes:
AS-17	11	7.30	4.21	valve mostly shut
AS-18		1.44	1.89	fully open
AS-19		4.42	3.29	
AS-20		4.40	3.28	fully open
AS-21	10	0.78	1.37	fully open
AS-22		4.56	3.27	
AS-23		3.23	2.76	fully open
AS-24		4.51	3.26	
AS-25		4.61	3.29	
AS-26		5.70	3.66	valve mostly shut
AS-27		2.38	2.38	fully open
AS-28	10	2.75	2.55	fully open
AS-29		4.13	3.12	fully open
AS-30		1.58	1.94	fully open
AS-32		4.71	3.39	
AS-33	11	4.63	3.37	
AS-34		4.73	3.40	
AS-35		4.70	3.32	
AS-36		4.52	3.26	
AS-37	10	4.55	3.27	
Combine (after)	20	22.80	57.85	

Combined 24.3 inches DP @ 20 psi = 59.67 scfm per 20 wells = 2.98 scfm per well = 3.77 inches DP per well at 10 psi.
3.61 inches DP per well at 11 psi.

**MARCH 2011 AIR SPARGE AND
SOIL VAPOR EXTRACTION MONITORING**

CHARBERT FACILITY

Alton, RI

File Number 03.00032795.28

Name: SN / MB
Date: 3/18/2011

Onsite: 8:00
Offsite: 15:30

Equipment Check

1 Air Monitoring read from Lantec (%) O₂ _____ CO₂ _____ CH₄ _____ LEL _____
2 PID calibration value (ppm) 102.8 ppm

Soil Vapor Extraction System

Interior System

Exterior System

System Check

1 Is the system operating?	Yes	Yes
2 Clean air Filter	Yes	Yes
3 Check Knock-Out Drum for Condensate	Yes	Yes
4 Volume Removed from Knock-Out Drum:	<u>0</u> gallons	<u>0</u> gallons
5 Blower Hour meter	<u>192252.2</u> hours	<u>Not Recorded</u> hours

To Balance

6 Vacuum (DP)	(read from drum gauge)	<u>36</u> inches of water	<u>27</u> inches of water
7 Flow (scfm)	(read from gauge)	<u>112</u> scfm	<u>130</u> scfm
8 Number of wells	(Count from sheet)	<u>25</u> wells	<u>19</u> wells
9 Flow per well	=(#7/#8)	<u>4.48</u> scfm	<u>6.84</u> scfm
10 Differential Pressure per well	Dwyer Series DS-300 Flow Sensor GRAPHS	<u>0.007</u> inches of water	<u>0.17</u> inches of water

Monitoring per location

11 PID
12 Vacuum (DP)
13 Air Monitoring

After Balancing

14 Vacuum (DP)	<u>34</u> inches of water	<u>21</u> inches of water
15 Flow (scfm)	<u>128</u> scfm	<u>135</u> scfm

Recovery Wells

Northern Well (closest to the building)

DTP 4.21 ft

DTW 4.21 ft

Notes:

Slight sheen

Southern Well

DTP 4.38 ft

DTW 4.38 ft

Slight sheen

CHARBERT FACILITY

Alton, RI

File Number 03.00032795.28

Name: SN / MB
Date: 3/18/2011

Onsite: 8:00
Offsite: 15:30

Air Sparge System

Interior System

Exterior System

System Check

1 Is the system operating?	Yes		Yes	
2 AS Compressor hr meter (hrs):	<u>2.8</u>	hours	<u>2.8</u>	hours

To Balance

3 Differential Pressure	(use manometer)	<u>1.17</u>	inches of water	<u>21.31</u>	inches of water
4 Pressure	(read from gauge)	<u>12</u>	psi	<u>20</u>	psi
5 Total Flow	(0.72 Orifice Bore GRAPHS using #4 pressure)	<u>12</u>	scfm	<u>56</u>	scfm
6 Number of Wells	(Count from sheet)	<u>16</u>	wells	<u>20</u>	wells
7 Flow per well	=(#5/#6)	<u>0.75</u>	scfm	<u>2.8</u>	scfm
8 Set Pressure	Defined value (usually 10 psi or 12 psi)	<u>10</u>	psi	<u>10</u>	psi
9 Differential Pressure per	(0.30 Orifice Bore GRAPHS using #7 flow and #8 pressure)	<u>0.25</u>	inches of water	<u>3.3</u>	inches of water

After Balancing

10 Differential Pressure	(use manometer)	<u>1.4</u>	inches of water	<u>16.3</u>	inches of water
11 Pressure	(read from gauge)	<u>12</u>	psi	<u>20</u>	psi
12 Total Flow	(0.72 Orifice Bore GRAPHS using #11 pressure)	<u>13.03</u>	scfm	<u>49.12</u>	scfm

Equipment List

Other Notes:

- Landtec (O₂%, CO₂%, CH₄%, LEL%)
- OVM 10.6 PID (TVOC ppmv)
- Air Pump
- Digital Manometer
- - (1.0 - 0.001)
- - (20.0 - 0.01)
- - (200.0 - 1.0)
- 3 Extension Cords (100 ft)
- Flat head screw driver
- 9/16" socket wrench
- 2 small adjustable wrenches
- Field Notes Binder
- Oriface flow curves
- Pitot tube flow curves

Exterior knockout drum float switch was replaced.

Exterior knockout drum was taken apart and cleaned.

Name: SN/MB
 Date: 3/18/2011
 Hour meter:

TABLE 1
INTERIOR SVE SYSTEM
 Charbert Facility
 Alton, Rhode Island

Location	TVOC (ppm)	O2 (%)	CO2 (%)	CH4 (%)	LEL (%)	Vacuum (in.)	Diff Pressure (in of water)	Flow (ft ³ /min)	Notes:
SVE-1	0.0	20.9	0.0	0.0	0	0.91	0.013	6.150	almost fully shut
SVE-2	0.0	20.8	0.0	0.0	0	1.42	0.014	6.350	almost fully shut
SVE-3	0.0	20.9	0.0	0.0	0	0.25	0.025	8.590	almost fully shut
SVE-4	0.0	20.4	0.8	0.0	0	1.67	0.007	4.570	gush of water came up the pipe
SVE-5	0.0	20.9	0.0	0.0	0	3.08	0.009	5.220	
SVE-6	0.0	20.7	0.0	0.0	0	1.34	0.008	4.890	
SVE-7	0.0	20.8	0.0	0.0	0	23.00	0.050	12.400	valve fully shut
SVE-8	0.0	20.8	0.0	0.0	0	23.80	0.01-.04	5.5-11	does not change between open and shut
SVE-9	0.0	20.8	0.0	0.0	0	24.20	0.050	12.400	valve fully shut
SVE-10	0.0	20.7	0.0	0.0	0	1.81	0-0.1	0-5.5	water in lines, manometer does not stabilize
SVE-11	0.0	20.8	0.0	0.0	0	2.15	0-0.1	0-5.5	
SVE-12	0.0	20.7	0.0	0.0	0	1.44	0-0.04	0-11	
SVE-13	0.0	20.7	0.0	0.0	0	1.68	0.008	4.890	
SVE-14	0.0	20.8	0.0	0.0	0	2.00	0.012	5.950	gush of water came up the pipe
SVE-15	0.1	20.9	0.0	0.0	0	0.40	0.008	4.890	almost fully shut
SVE-16	0.4	20.7	0.0	0.1	0	1.39	0.012	5.950	almost fully shut
SVE-31	0.0	20.8	0.0	0.0	0	6.56	0.008	4.890	
SVE-32	0.0	20.9	0.0	0.0	0	1.20	0.008	4.890	
SSWW-1	0.0	20.9	0.1	0.0	0	0.88	0.008	4.890	
SSWW-2	0.0	20.8	0.1	0.0	0	2.30	0.008	4.890	
SSWW-3	0.0	20.8	0.0	0.0	0	8.00	0.070	14.700	almost fully shut
SSWW-4	0.0	20.9	0.0	0.0	0	0.53	0.035	10.300	almost fully shut
SSWW-5	0.0	20.9	0.0	0.0	0	0.41	0.008	4.890	
SSWW-6	0.4	20.5	0.1	0.0	0	1.81	0.007	4.570	
SSWW-7	0.0	20.7	0.1	0.0	0	0.29	0.009	5.220	
Combine (Before Drum)	0.4	20.8	0.1	0.0	0	27.50	--	--	
Combine (Drum Gauge)	--	--	--	--	--	34	--	--	
Combine (After Drum)	--	--	--	--	--	39.30	--	--	
Combine (After Blower)	--	--	--	--	--	-13.80	--	--	
Effluent 1st drum	--	--	--	--	--	--	--	--	
Effluent 2nd drum	--	--	--	--	--	--	--	--	
Combined (after balancing)	--	--	--	--	--	--	--	128	

Combined 112 scfm per 25 wells = 4.48 scfm per well = .007 inches DP per well.

Name: SN /MB
 Date: 3/18/2011
 Hour meter:

TABLE 2
EXTERIOR SVE SYSTEM
 Charbert Facility
 Alton, Rhode Island

Location	TVOC (ppm)	O2 (%)	CO2 (%)	CH4 (%)	LEL (%)	Vacuum (in.)	Diff Pressure (in of water)	Flow (ft ³ /min)	Notes:
SVE-17	0.0	20.9	0.0	0.0	0	6.66	0.012	6.0	fully open
SVE-18	0.0	20.9	0.0	0.0	0	6.80	0.018	7.2	fully open
SVE-19	0.0	20.9	0.0	0.0	0	6.60	0.005	3.9	fully open
SVE-20	0.0	20.8	0.0	0.0	0	5.00	.008-.023	4.89-8.18	
SVE-21	0.0	20.7	0.0	0.0	0	3.97	0.005	3.9	fully open
SVE-22	2.0	20.8	0.0	0.0	0	2.74	0.018	7.2	
SVE-23	0.0	20.7	0.0	0.0	0	2.69	0.010	5.5	fully open
SVE-24	0.0	20.7	0.0	0.0	0	2.42	0.017	7.0	
SVE-25	0.0	20.6	0.0	0.0	0	3.80	0.012	6.0	fully open
SVE-26	0.0	20.5	0.0	0.0	0	0.88	0.019	7.4	
SVE-27	0.0	20.5	0.0	0.0	0	2.10	0.017	7.0	
SVE-28	0.8	20.6	0.0	0.0	0	3.53	0-.005	0-3.9	fully open
SVE-29	0.0	20.5	0.0	0.0	0	3.79	.02-.025	7.57-8.59	fully open
SVE-30	0.0	20.6	0.0	0.0	0	3.88	0.006	4.2	fully open
SVE-33	0.0	20.5	0.0	0.0	0	1.07	0.017	7.0	
SVE-34	0.0	20.4	0.0	0.0	0	0.02	0.094	17.0	almost fully shut
SVE-35	0.0	20.5	0.0	0.0	0	4.90	0.017	7.0	
SVE-36	0.0	20.4	0.0	0.0	0	2.84	0.000	0.0	fully open
SVE-37	0.0	20.6	0.0	0.0	0	1.84	0.015	7.0	
Combine (Before Drum)	0	21.0	0.0	0.0	0	13.9	--	--	
Combine (Drum Guage)	--	--	--	--	--	21	--	--	
Combine (After Drum)	--	--	--	--	--	26.6	--	--	
Combine (After Blower)	--	--	--	--	--	-6.9	--	--	
Effluent 1st drum	0.0	--	--	--	--	--	--	--	
Effluent 2nd drum	0.0	--	--	--	--	--	--	--	
Combined (after balancing)	--	--	--	--	--	--	--	135	

Combined 4.21 scfm per 19 wells = 6.84 scfm per well = .017 inches DP per well.

Name: SN/ MB
 Date: 3/18/2011

TABLE 3

INTERIOR AS SYSTEM

Charbert Facility
 Alton, Rhode Island

Location	Pressure (psi)	Diff Pressure (in of water)	Flow (ft ³ /min)	Notes:
AS-1		0.25	0.79	
AS-2	10	0.25	0.79	
AS-3		0.25	0.79	
AS-4		0.25	0.79	
AS-5	10	0.25	0.79	
AS-6		0.24	0.77	
AS-7		0.25	0.79	
AS-8	10	0.25	0.79	
AS-9		0.25	0.79	
AS-10		0.25	0.79	
AS-11	10	0.25	0.79	
AS-12		0.25	0.79	
AS-13		0.25	0.79	
AS-14	10	0.25	0.79	
AS-15	10	0.25	0.79	
AS-16	10	0.25	0.79	
AS-31	10	0.25	0.79	
Combine (after)	12	1.40	13.03	

Combined 1.17 inches DP @ 12 psi = 12 scfm per 16 wells = 0.75 scfm per well = .25 inches DP per well @ 10 psi.

Name: SN / MB
 Date: 3/18/2011

TABLE 4

EXTERIOR AS SYSTEM

Charbert Facility
 Alton, Rhode Island

Location	Pressure (psi)	Diff Pressure (in of water)	Flow (ft ³ /min)	Notes:
AS-17		3.2	2.84	
AS-18	12	0.2	0.64	
AS-19		1.3	1.83	
AS-20		0.0	0.0	
AS-21		2.0	2.22	
AS-22		3.2	2.78	
AS-23	11	3.2	2.78	
AS-24		3.2	2.8	
AS-25		3.2	2.79	
AS-26		3.3	2.77	
AS-27		3.3	2.77	
AS-28	10	3.2	2.75	
AS-29		3.2	2.75	
AS-30		3.3	2.77	
AS-32		3.3	2.79	
AS-33	10	3.3	2.77	
AS-34		3.2	2.75	
AS-35		3.3	2.77	
AS-36	10	3.4	2.81	
AS-37		3.3	2.77	
Combine (after)	20	16.3	49.12	

Combined 21.31 inches DP @ 20 psi = 56 scfm per 20 wells = 2.8 scfm per well = 3.30 inches DP per well @ 10 psi.