

March 20, 2009
File No. 32795.16-C

Ms. Joan Taylor
Rhode Island Department of Environmental Management
Office of Waste Management
235 Promenade Street
Providence, Rhode Island 02908-5767



Re: Boiler Room Oil Line Leak
Charbert, Division of NFA Corp.
Alton, Rhode Island

Dear Ms. Taylor:

530 Broadway
Providence
Rhode Island
02909
401-421-4140
FAX 401-751-8613
www.gza.net

On behalf of Charbert, Division of NFA Corp, GZA GeoEnvironmental, Inc. (GZA) is pleased to provide you with this letter to formally notify the Department of the oil line leak in the boiler room verbally reported to RIDEM on December 11, 2008 and summarize the assessment and remedial measures that have been undertaken since that time. The details and results of the investigation and remedial recommendations are discussed below.

BOILER ROOM OIL LINE LEAK

On or about December 2, 2008, the property manager of the Charbert Facility noticed oil leaking from a cast iron oil line that supplies one of two boilers. The line was cast into the concrete floor of the boiler room circa 1960. The oil line was immediately turned off and the oil was drained from the line. A new oil line to the boiler was installed above the concrete floor and the normal boiler operation was resumed. The oil line to the second boiler runs above the concrete floor, having previously been replaced.

On January 5, 2009 GZA conducted soil exploration below the boiler room floor using a track mounted Geoprobe. Continuous soil samples were collected to a depth of 10-feet below the concrete floor surface and monitoring/vent/sparge wells were installed. A total of 5 explorations (GP-114 to 118) were conducted and sample tubes were opened and observed on site for visual and olfactory evidence of contamination and field screened with a Thermo Environmental Instruments Model 580B photoionization detector with a 10.6 eV bulb. One sample for laboratory analysis was collected from each soil exploration just above the groundwater table and one sample was collected from the below the groundwater table.

The samples were submitted for laboratory analysis of total petroleum hydrocarbons (TPH) via EPA Method 8100M and the samples GP-115/S-1, GP-117/S-1 and S-2 were also evaluated using Petroleum Hydrocarbon Fingerprint (PHCF) techniques to estimate the type and approximate age of the oil. The results have been summarized and compared to RIDEM's residential direct exposure criteria (RDEC) and RIDEM's industrial/commercial direct exposure criteria (I/CDEC) in Table 1, attached. The Laboratory certificates of analysis are included as Attachment A. The results of the soil analysis did detected TPH levels above the I/CDEC limit of 2,500 mg/kg in the Sample GP-114/S-2, GP-115/S-1, GP116/S-1 and GP-118/S-2 with TPH detected at 2,900, 11,000, 9,600, and 4,400 mg/kg, respectively. The sample GP-117/S-1 had 600 mg/kg of TPH which exceeds the lower range of the RDEC of 500/1,000 mg/kg.



The fingerprint analysis estimated the oil detected in the three samples was #2 fuel oil/diesel and that weathering had occurred. As weathering has occurred, the TPH detected may be related to a prior release or the current release may have been ongoing for an extended time and finally breached the concrete that encased the line.

Two inch SCH-40 PVC monitoring wells were installed to various depths in GP-114 to 117 and a 1-inch SCH-40 PVC monitoring well was installed in GP-118. The boring and well installation logs are included as Attachment B. The soil exploration locations are shown on Figure 1, attached. Wells were installed in the soil explorations for future monitoring and as a precursor to remedial actions, if needed. The wells in GP-114 and GP-116 were installed to be used as soil vapor extraction (SVE) wells and wells GP-115 and GP-117 were installed for water quality monitoring and petroleum product recovery. The 1-inch well installed in GP-118 was installed to be used as a sparge well, if necessary.

GZA personnel were on site on January 6, 2009, to collect stabilized groundwater elevations. An oil/water interface probe was used to screen for floating (LNAPL) and sinking (DNAPL) non-aqueous phase liquid in the 2-inch wells. Floating product was detected in wells GZ-115 and GZ-116 and sheen was observed in well GZ-114. The floating product was removed with a disposable bailer and stored in a 55-gallon drum for off site disposal. Groundwater readings have been taken a total of seven times with the oil/water interface probe and the results are summarized in the table below:

Date	Inches of Floating Product						
	01-06-09	01-08-09	01-09-09	01-14-09	01-16-09	01-19-09	02-23-09
Well ID							
GZ-114	Sheen	0.0	0.0	0.0	0.0	0.0	0.0
GZ-115	0.5	Sheen	Sheen	Sheen	0.0	Sheen	0.0
GZ-116	3.0	Sheen	Sheen	Sheen	0.0	0.0	0.0
GZ-117	0.0	0.0	0.0	0.0	0.0	0.0	0.0

To evaluate the presence of volatile organic compounds beneath the boiler room, GZA collected groundwater samples for laboratory analysis from wells GZ-115, GZ-117 and GZ-118 on January 16, 2009. The samples were analyzed for VOCs via EPA Method 8260 and TPH via EPA Method 8100M. The detected analytes have been summarized and compared with RIDEM's Method 1 GA Groundwater Objectives and Groundwater Quality Preventative Action Limits (PALs) in Table 2. The Laboratory certificates of analysis are included as Appendix A. Of the three wells sampled there were no exceedances of the RIDEM GA Groundwater Standards for VOCs and one sample contained a contaminant that exceeded the RIDEM Preventative Action Limits (PALs). The sample from GP-117 contained cis-1,2-dichloroethene at 40 µg/L, above the PAL of 35 µg/L. TPH was detected in each of the samples at 1,400 µg/L, 560 µg/L and 500 µg/L, respectively.

GZA has connected wells GP-114 and GP-116 to the existing SVE system and proposes to remove the accessible and volatile portion of the TPH contamination located beneath the boiler room floor. Prior to full scale operation of this system we will be performing a pilot test to evaluate the radius of influence and air flow in each well. After the completion of the pilot test, the existing SVE system will be evaluated to determine if the existing system is capable of operating the addition of the two wells. A letter report detailing the results of the pilot testing will be sent to RIDEM with the request to revise the existing order of approval, dated December 18, 2007, to allow for full scale operation of the additional wells.

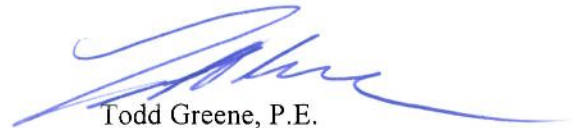
We trust that this information fulfills your present needs. If you have any questions please call Stephen Andrus or Edward Summerly at (401)-421-4140.

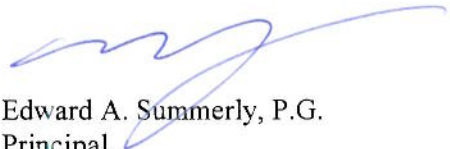
Very truly yours,

GZA GEOENVIRONMENTAL, INC.




Stephen Andrus
Assistant Project Manager


Todd Greene, P.E.
Consultant/Reviewer


Edward A. Summerly, P.G.
Principal

EAS:mac

cc: Cynthia Gianfrancesco, RIDEM-OWM
Tracy Nelson Hay, Richmond Town Hall
Clark Memorial Library - Charbert Repository
Mike Healey, Charbert

TABLES

TABLE 1
BOILER ROOM SOIL
ANALYTICAL RESULTS SUMMARY

*Charbert Facility
Alton, Rhode Island*

	RIDEM DIRECT EXPOSURE CRITERIA RESIDENTIAL	RIDEM DIRECT EXPOSURE CRITERIA INDUSTRIAL/ COMMERCIAL	UNITS	GP-114 S-2 5.0-6.0 ft bgs		GP-115 S-1** 5.0-6.0 ft bgs		GP-116 S-1 5.0-6.0 ft bgs	
				01/05/2009		01/05/2009		01/05/2009	
				Result	RL	Result	RL	Result	RL
Mod. EPA 8100 TOTAL PETROLEUM HYDROCARBON									
Hydrocarbon Content	500/1,000	2,500	mg/L	2,900	100	11,000	100	9,600	100

	RIDEM DIRECT EXPOSURE CRITERIA RESIDENTIAL	RIDEM DIRECT EXPOSURE CRITERIA INDUSTRIAL/ COMMERCIAL	UNITS	GP-117 S-1** 5.0-6.0 ft bgs		GP-117 S-2** 7.0-9.0 ft bgs		GP-118 S-2 5.0-6.0 ft bgs	
				01/05/2009		01/05/2009		01/05/2009	
				Result	RL	Result	RL	Result	RL
Mod. EPA 8100 TOTAL PETROLEUM HYDROCARBON									
Hydrocarbon Content	500/1,000	2,500	mg/L	600	100	70	10	4,400	100

ANALYTE DETECTED ABOVE MDL

ANALYTE DETECTED ABOVE RIDEM RESIDENTIAL DIRECT EXPOSURE CRITERIA

ANALYTE DETECTED ABOVE RIDEM INDUSTRIAL/COMMERCIAL DIRECT EXPOSURE CRITERIA

***PHC FINGERPRINT ANALYSIS INDICATES WEATHERED #2 FUEL OIL/DIESEL

TABLE 2
BOILER ROOM WELLS
GROUNDWATER ANALYTICAL RESULTS SUMMARY

Charbert Facility
Alton, Rhode Island

ANALYTE	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	UNITS	GP-115		GP-117	
				01/16/2009		01/20/2009	
				Result	RL	Result	RL
VOLATILE ORGANICS EPA 8260							
cis-1,2-Dichloroethene	70	35	µg/L	3	1	40	1
Sec-butylbenzene	NS	NS	µg/L	2	1	ND	1
Isopropyl benzene	NS	NS	µg/L	2	1	ND	1
p-Isopropyl toluene	NS	NS	µg/L	ND	1	3	1
Naphthalene	NS	NS	µg/L	2	1	2	1
1,2,4-Trimethylbenzene	NS	NS	µg/L	3	1	2	1
1,3,5-Trimethylbenzene	NS	NS	µg/L	2	1	ND	1
Total Xylene	10	5	µg/L	1	1	ND	1
TOTAL PETROLEUM HYDROCARBONS EPA 8100M							
Hydrocarbon Content	NS	NS	µg/L	1,400	200	560	200

ANALYTE	RIDEM GA Groundwater Objectives	RIDEM Groundwater Quality PALs	UNITS	GP-118		TB	
				01/20/2009		01/20/2009	
				Result	RL	Result	RL
VOLATILE ORGANICS EPA 8260							
cis-1,2-Dichloroethene	70	35	µg/L	8	1	ND	1
Sec-butylbenzene	NS	NS	µg/L	2	1	ND	1
Isopropyl benzene	NS	NS	µg/L	2	1	ND	1
p-Isopropyl toluene	NS	NS	µg/L	3	1	ND	1
Naphthalene	NS	NS	µg/L	2	1	ND	1
1,2,4-Trimethylbenzene	NS	NS	µg/L	3	1	ND	1
1,3,5-Trimethylbenzene	NS	NS	µg/L	ND	1	ND	1
Total Xylene	10	5	µg/L	ND	1	ND	1
TOTAL PETROLEUM HYDROCARBONS EPA 8100M							
Hydrocarbon Content	NS	NS	µg/L	500	200	NT	1

ND = NOT DETECTED

NS = NO STANDARD

NT = NOT TESTED

ANALYTE DETECTED ABOVE MDL

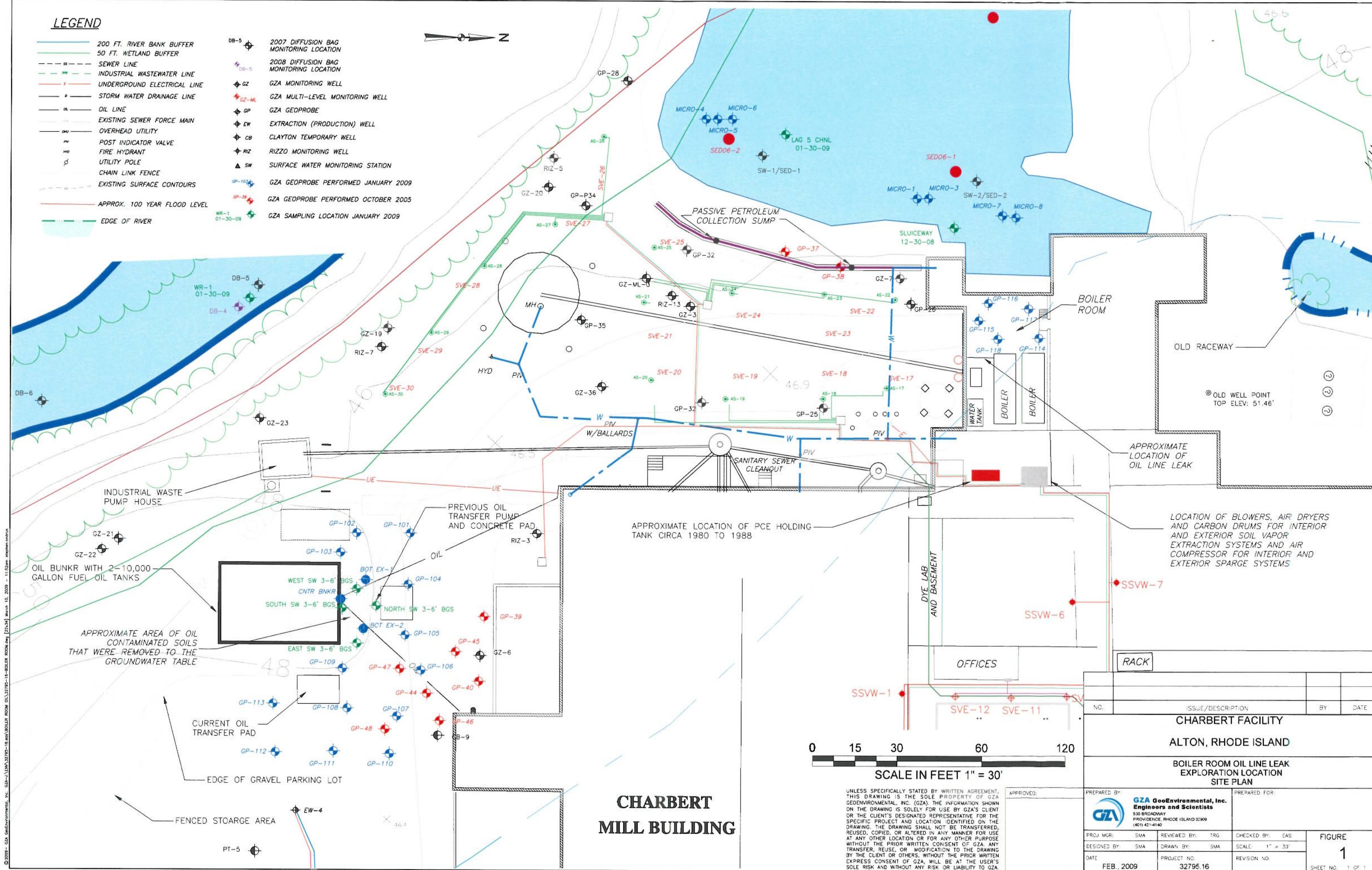
ANALYTE DETECTED ABOVE RIDEM GA GROUNDWATER STANDARD

ANALYTE DETECTED ABOVE RIDEM GA PAL

FIGURES

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
- POST INDICATOR VALVE
- FIRE HYDRANT
- UTILITY POLE
- CHAIN LINK FENCE
- EXISTING SURFACE CONTOURS
- APPROX. 100 YEAR FLOOD LEVEL
- EDGE OF RIVER
- 2007 DIFFUSION BAG MONITORING LOCATION
- 2008 DIFFUSION BAG MONITORING LOCATION
- GZA MONITORING WELL
- GZA MULTI-LEVEL MONITORING WELL
- GZA GEOPROBE
- EXTRACTION (PRODUCTION) WELL
- CLAYTON TEMPORARY WELL
- RIZZO MONITORING WELL
- SURFACE WATER MONITORING STATION
- GZA GEOPROBE PERFORMED JANUARY 2009
- GZA GEOPROBE PERFORMED OCTOBER 2005
- GZA SAMPLING LOCATION JANUARY 2009



CHARBERT MILL BUILDING



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NO.	ISSUE/DESCRIPTION	BY	DATE
CHARBERT FACILITY			
ALTON, RHODE ISLAND			
BOILER ROOM OIL LINE LEAK			
EXPLORATION LOCATION			
SITE PLAN			
PREPARED BY:		PREPARED FOR:	
GZA GeoEnvironmental, Inc. Engineers and Scientists 530 BROADWAY PROVIDENCE, RHODE ISLAND 02909 (401) 421-4140			
PROJ MGR:	SMA	REVIEWED BY:	TRG
DESIGNED BY:	SMA	DRAWN BY:	SMA
DATE:	FEB., 2009	PROJECT NO.:	32795.16
CHECKED BY:	EAS	SCALE:	1" = 30'
FIGURE	1		
REVISION NO.:			
SHEET NO.:	1 OF 1		

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ATTACHMENT A
LABORATORY CERTIFICATES



CERTIFICATE OF ANALYSIS

GZA / Geoenvironmental, Inc.
Attn: Mr. Steven Andrus
530 Broadway
Providence, RI 02909

Date Received: 1/19/09
Date Reported: 1/23/09
P.O. #:
Work Order #: 0901-00879

DESCRIPTION: PROJECT# 32795.16 CHARBERT

Subject sample(s) has/have been analyzed by our Warwick, R.I. laboratory with the attached results.

Reference: All parameters were analyzed by U.S. EPA approved methodologies.
The specific methodologies are listed in the methods column of the Certificate Of Analysis.

Data qualifiers (if present) are explained in full at the end of a given sample's analytical results.

Certification #: RI-033, MA-RI015, CT-PH-0508, ME-RI015
NH-253700 A & B, USDA S-41844

If you have any questions regarding this work, or if we may be of further assistance, please contact our customer service department.

Approved by:



Data Reporting

enc: Chain of Custody

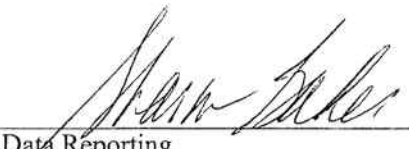
R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

GZA / Geoenvironmental, Inc.

Date Received: 1/19/09

Work Order #: 0901-00879

Approved by: 

Data Reporting

Sample # 001

SAMPLE DESCRIPTION: GP-115

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 1/19/2009 @ 10:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
TPH						
TPH GC/FID	1400	200	ug/l	SW846 8100M	1/21/09	CDC
Extraction date	Extracted			SW846 3510	1/20/09	EOO
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	1/22/09	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Sec-butylbenzene	2	1	ug/l	SW-846 8260B	1/22/09	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
cis-1,2-Dichloroethene	3	1	ug/l	SW-846 8260B	1/22/09	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM

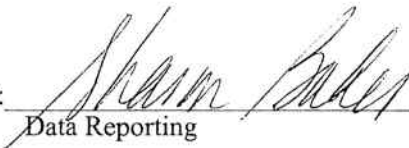
R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

GZA / Geoenvironmental, Inc.

Date Received: 1/19/09

Work Order #: 0901-00879

Approved by: 

Data Reporting

Sample # 001

SAMPLE DESCRIPTION: GP-115

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 1/19/2009 @ 10:25

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ethylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Isopropylbenzene	2	1	ug/l	SW-846 8260B	1/22/09	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
Naphthalene	2	1	ug/l	SW-846 8260B	1/22/09	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Styrene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Toluene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,4-Trimethylbenzene	3	1	ug/l	SW-846 8260B	1/22/09	MMM
1,3,5-Trimethylbenzene	2	1	ug/l	SW-846 8260B	1/22/09	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Total Xylene	1	1	ug/l	SW-846 8260B	1/22/09	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	1/22/09	MMM
Surrogates			RANGE	SW-846 8260B	1/22/09	MMM
Dibromofluoromethane	98		86-118%	SW-846 8260B	1/22/09	MMM
Toluene-d8	100		88-110%	SW-846 8260B	1/22/09	MMM
4-Bromofluorobenzene	96		86-115%	SW-846 8260B	1/22/09	MMM
1,2 Dichloroethane-d4	100		80-120%	SW-846 8260B	1/22/09	MMM

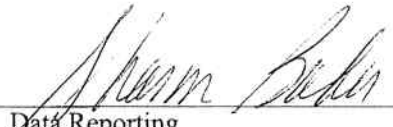
R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

GZA / Geoenvironmental, Inc.

Date Received: 1/19/09

Work Order #: 0901-00879

Approved by: 

Data Reporting

Sample # 002

SAMPLE DESCRIPTION: GP-118

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 1/19/2009 @ 11:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
TPH						
TPH GC/FID	500	200	ug/l	SW846 8100M	1/21/09	CDC
Extraction date	Extracted			SW846 3510	1/20/09	EOO
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	1/22/09	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Sec-butylbenzene	2	1	ug/l	SW-846 8260B	1/22/09	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
cis-1,2-Dichloroethene	8	1	ug/l	SW-846 8260B	1/22/09	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM


R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

GZA / Geoenvironmental, Inc.

Date Received: 1/19/09

Work Order #: 0901-00879

Approved by: 

Data Reporting

Sample # 002

SAMPLE DESCRIPTION: GP-118

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 1/19/2009 @ 11:10

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ethylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Isopropylbenzene	2	1	ug/l	SW-846 8260B	1/22/09	MMM
p-Isopropyltoluene	3	1	ug/l	SW-846 8260B	1/22/09	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
Naphthalene	2	1	ug/l	SW-846 8260B	1/22/09	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Styrene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Toluene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,4-Trimethylbenzene	3	1	ug/l	SW-846 8260B	1/22/09	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Total Xylene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	1/22/09	MMM
Surrogates			RANGE	SW-846 8260B	1/22/09	MMM
Dibromofluoromethane	98		86-118%	SW-846 8260B	1/22/09	MMM
Toluene-d8	100		88-110%	SW-846 8260B	1/22/09	MMM
4-Bromofluorobenzene	100		86-115%	SW-846 8260B	1/22/09	MMM
1,2 Dichloroethane-d4	101		80-120%	SW-846 8260B	1/22/09	MMM

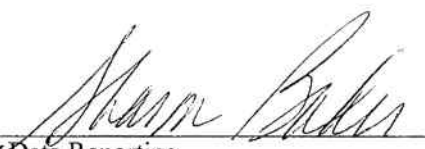
R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

GZA / Geoenvironmental, Inc.

Date Received: 1/19/09

Work Order #: 0901-00879

Approved by: 

Data Reporting

Sample # 003

SAMPLE DESCRIPTION: GP-117

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 1/19/2009 @ 12:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
TPH						
TPH GC/FID	560	200	ug/l	SW846 8100M	1/21/09	CDC
Extraction date	Extracted			SW846 3510	1/20/09	EOO
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	1/22/09	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
cis-1,2-Dichloroethene	40	1	ug/l	SW-846 8260B	1/22/09	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM


R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

GZA / Geoenvironmental, Inc.

Date Received: 1/19/09

Work Order #: 0901-00879

Approved by: 

Data Reporting

Sample # 003

SAMPLE DESCRIPTION: GP-117

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 1/19/2009 @ 12:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ethylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
p-Isopropyltoluene	3	1	ug/l	SW-846 8260B	1/22/09	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
Naphthalene	2	1	ug/l	SW-846 8260B	1/22/09	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Styrene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Toluene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,4-Trimethylbenzene	2	1	ug/l	SW-846 8260B	1/22/09	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Total Xylene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	1/22/09	MMM
Surrogates			RANGE	SW-846 8260B	1/22/09	MMM
Dibromofluoromethane	100		86-118%	SW-846 8260B	1/22/09	MMM
Toluene-d8	101		88-110%	SW-846 8260B	1/22/09	MMM
4-Bromofluorobenzene	98		86-115%	SW-846 8260B	1/22/09	MMM
1,2 Dichloroethane-d4	102		80-120%	SW-846 8260B	1/22/09	MMM

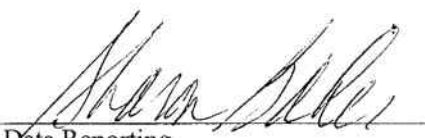
R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

GZA / Geoenvironmental, Inc.

Date Received: 1/19/09

Work Order #: 0901-00879

Approved by: 

Data Reporting

Sample # 004

SAMPLE DESCRIPTION: PURGE WATER

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 1/19/2009 @ 12:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
TPH						
TPH GC/FID	20000	200	ug/l	SW846 8100M	1/21/09	CDC
Extraction date	Extracted			SW846 3510	1/20/09	EOO
Volatile Organic Compounds						
Benzene	1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	1/22/09	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
cis-1,2-Dichloroethene	9	1	ug/l	SW-846 8260B	1/22/09	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM


R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

GZA / Geoenvironmental, Inc.

Date Received: 1/19/09

Work Order #: 0901-00879

Approved by: 

Data Reporting

Sample # 004

SAMPLE DESCRIPTION: PURGE WATER

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 1/19/2009 @ 12:15

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Ethylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
p-Isopropyltoluene	3	1	ug/l	SW-846 8260B	1/22/09	MMM
Methylene Chloride	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
Naphthalene	10	1	ug/l	SW-846 8260B	1/22/09	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Styrene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Tetrachloroethene	1	1	ug/l	SW-846 8260B	1/22/09	MMM
Toluene	1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,4-Trimethylbenzene	3	1	ug/l	SW-846 8260B	1/22/09	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Total Xylene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	1/22/09	MMM
Surrogates			RANGE	SW-846 8260B	1/22/09	MMM
Dibromofluoromethane	98		86-118%	SW-846 8260B	1/22/09	MMM
Toluene-d8	97		88-110%	SW-846 8260B	1/22/09	MMM
4-Bromofluorobenzene	100		86-115%	SW-846 8260B	1/22/09	MMM
1,2 Dichloroethane-d4	99		80-120%	SW-846 8260B	1/22/09	MMM


R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

GZA / Geoenvironmental, Inc.

Date Received: 1/19/09

Work Order #: 0901-00879

Approved by: 

Data Reporting

Sample # 005

SAMPLE DESCRIPTION: TB

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 1/16/2009 @ 15:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Volatile Organic Compounds						
Benzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromochloromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromodichloromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromoform	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Bromomethane	<7	7	ug/l	SW-846 8260B	1/22/09	MMM
n-Butylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Sec-butylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
tert-Butylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Carbon Tetrachloride	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Chlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Chloroethane	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
Chloroform	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Chloromethane	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
2-Chlorotoluene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
4-Chlorotoluene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Dibromochloromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dibromo-3-Chloropropane	<2	2	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dibromoethane(EDB)	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Dibromomethane	<2	2	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,3-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,4-Dichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Dichlorodifluoromethane	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
1,1-Dichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1-Dichloroethene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
cis-1,2-Dichloroethene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
trans-1,2-Dichloroethylene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,3-Dichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
2,2-Dichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1-Dichloropropene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Ethylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Hexachlorobutadiene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Isopropylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
p-Isopropyltoluene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM


R.I. Analytical Laboratories, Inc.

CERTIFICATE OF ANALYSIS

GZA / Geoenvironmental, Inc.

Date Received: 1/19/09

Work Order #: 0901-00879

Approved by: 

Data Reporting

Sample # 005

SAMPLE DESCRIPTION: TB

SAMPLE TYPE: GRAB

SAMPLE DATE/TIME: 1/16/2009 @ 15:00

PARAMETER	SAMPLE RESULTS	DET. LIMIT	UNITS	METHOD	DATE ANALYZED	ANALYST
Methylene Chloride	<5	5	ug/l	SW-846 8260B	1/22/09	MMM
Naphthalene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
n-Propylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Styrene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,1,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,2,2-Tetrachloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Tetrachloroethene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Toluene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,3-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,4-Trichlorobenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,1-Trichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,1,2-Trichloroethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Trichloroethene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Trichlorofluoromethane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,3-Trichloropropane	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,2,4-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
1,3,5-Trimethylbenzene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Vinyl Chloride	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
o-Xylene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
m,p-Xylene	<1	1	ug/l	SW-846 8260B	1/22/09	MMM
Methyl Tertiary Butyl Ether (MTBE)	<2	2	ug/l	SW-846 8260B	1/22/09	MMM
Surrogates			RANGE	SW-846 8260B	1/22/09	MMM
Dibromofluoromethane	109		86-118%	SW-846 8260B	1/22/09	MMM
Toluene-d8	102		88-110%	SW-846 8260B	1/22/09	MMM
4-Bromofluorobenzene	105		86-115%	SW-846 8260B	1/22/09	MMM
1,2 Dichloroethane-d4	106		80-120%	SW-846 8260B	1/22/09	MMM

CHAIN OF CUSTODY RECORD

R.I. Analytical Laboratories, Inc.

41 Illinois Avenue
Warwick, RI 02888
Tel: 800-937-2580
Fax: 401-738-1970

131 Coolidge St, Bldg. 2
Hudson, MA 01749
Tel: 888-228-3334
Fax: 978-568-0078

Date Collected	Time Collected	Field Sample Identification	Grab or Composite	# of Containers & Type ¹	Preservation Code ²	Matrix Code ³	TPH Bloom	VOL
1-19-09	10:25	GP-115	X	4/4 H	H	GW	X	8260B
1-19-09	11:10	GP-118	X	4/4 H	H	GW	X	
1-19-09	12:00	GP-117	X	4/4 H	H	GW	X	
1-19-09	12:15	Purge water	X	4/4 H	H	GW	X	
1-16-09	15:00	TB	X	3/4 H	H	GW	X	

Client Information		Project Information	
Company Name:	63A GCO Environmental	Project Name:	Charcut F
Address:	530 BROADWAY	P.O. Number:	3279516
City / State / Zip:	Providence, RI 02909	Report To:	Steve Andrus
Telephone:	421-4146	Sampled by:	SUA
Contact Person:	Steve Andrus	Quote No.:	Stephena.andrus@gza.c
		Project Number:	427-2740
		Phone:	427-2740
		Fax:	
		Email address:	Stephena.andrus@gza.c

Relinquished By	Date	Time	Received By	Date	Time
<i>[Signature]</i>	1-19-09	13:20	<i>[Signature]</i>	1/19/09	1320

Circle if applicable: GW-1, GW-2, GW-3, S-1, S-2, S-3 MCP Data Enhancement QC Package? Yes No

Project Comments: 11.1°C

Turn Around Time
Normal
Rush

5 Business days. Possible surcharge.

Shipped on ice: 11.1°C

Workorder No: 090100879

Lab Use Only

Sample Pick Up Only

RIAL sampled, attach field hours

Z=ZnOAc, I=Ice

Container Types: P=Poly, G=Glass, AG=Amber Glass, V=Vial, SI=Sterile
 Preservation Codes: NP=None, N=HNO₃, H=HCl, S=H₂SO₄, SH=NaOH, SB=NaHSO₄, M=MeOH, T=Na₂S₂C
 Matrix Codes: GW=Groundwater, SW=Surface Water, WW=Wastewater, DW=Drinking Water, S=Soil, SI=Sludge, A=Air, B=Bulk/Solid, O=



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

Steve Andrus

Project No.: 03.0032795.16
Work Order No.: 0901-00025
Date Received: 01/07/2009
Date Reported: 01/09/2009

SAMPLE INFORMATION

Date Sampled	Matrix	Laboratory ID	Sample ID
01/05/2009	Solid	0901-00025 001	GP-101 S-2
01/05/2009	Solid	0901-00025 002	GP-102 S-2
01/05/2009	Solid	0901-00025 003	GP-103 S-2
01/05/2009	Solid	0901-00025 004	GP-104 S-2
01/05/2009	Solid	0901-00025 005	GP-105 S-2
01/05/2009	Solid	0901-00025 006	GP-106 S-1
01/05/2009	Solid	0901-00025 007	GP-107 S-1
01/05/2009	Solid	0901-00025 008	GP-108 S-1
01/05/2009	Solid	0901-00025 009	GP-109 S-1
01/05/2009	Solid	0901-00025 010	GP-110 S-1
01/05/2009	Solid	0901-00025 011	GP-111 S-1
01/05/2009	Solid	0901-00025 012	GP-112 S-1
01/05/2009	Solid	0901-00025 013	GP-113 S-1
01/05/2009	Solid	0901-00025 014	GP-114 S-2
01/05/2009	Solid	0901-00025 015	GP-115 S-1
01/05/2009	Solid	0901-00025 016	GP-116 S-1
01/05/2009	Solid	0901-00025 017	GP-117 S-1
01/05/2009	Solid	0901-00025 018	GP-117 S-2
01/05/2009	Solid	0901-00025 019	GP-118 S-2
01/05/2009	Solid	0901-00025 020	Bot. Ex-1
01/05/2009	Solid	0901-00025 021	Bot. Ex-2
01/05/2009	Solid	0901-00025 022	CNTR BNKR



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Steve Andrus

Project Name.: **Charbert/Developing RAWP**
Project No.: **03.0032795.16**

Date Received: **01/07/2009**
Date Reported: **01/09/2009**
Work Order No.: **0901-00025**

PROJECT NARRATIVE:

1. Sample Receipt

The samples were received on 01/07/09 via x_GZA courier, EC, FEDEX, or hand delivered. The temperature of the temperature blank/ x_cooler air, was 3.8 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. Total Petroleum Hydrocarbons

* The diluted out surrogate recoveries are due to interference from the type and concentration of petroleum present in the sample.

Hydrocarbon Fingerprint was requested on five samples:

GP-104 S-2: The low concentration of petroleum hydrocarbons in this sample do not permit a definitive fingerprint determination. A qualified identification for sample GP-104 S-2 is of a petroleum product in the boiling range of very weathered fuel oil #2/diesel, or cutting/machine oil.

GP-115 S-1: The characteristics of the chromatogram for sample GP-115 S-1 indicate the presence of a petroleum product in the boiling range of fuel oil #2/diesel. The phytane/ n-C18 ratio indicates that weathering has occurred.

GP-117 S-1: The characteristics of the chromatogram for sample GP-117 S-1 indicate the presence of a petroleum product in the boiling range of fuel oil #2/diesel. The phytane/ n-C18 ratio indicates that weathering has occurred.

GP-117 S-2: The characteristics of the chromatogram for sample GP-117 S-2 indicate the presence of a petroleum product in the boiling range of fuel oil #2/diesel. The phytane/ n-C18 ratio indicates that weathering has occurred.

CNTR BNKR: The characteristics of the chromatogram for sample CNTR BNKR indicate the presence of a petroleum product in the boiling range of fuel oil #2/diesel. The phytane/ n-C18 ratio indicates that weathering has occurred.

In addition, the chromatogram for sample GP-114 S-2 indicates hydrocarbon content >75% organosiloxanes.



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
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Project Name.: **Charbert/Developing RAWP**
Project No.: **03.0032795.16**

Date Received: **01/07/2009**
Date Reported: **01/09/2009**
Work Order No.: **0901-00025**

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 6010B.

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

Steve Andrus

Project Name.: **Charbert/Developing RAWP**
 Project No.: **03.0032795.16**

Date Received: **01/07/2009**
 Date Reported: **01/09/2009**
 Work Order No.: **0901-00025**

Sample ID: **GP-101 S-2**

Sample No.: **001**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		88.4	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/08/2009
Hydrocarbon Content		28	mg/kg	RJD	01/08/2009
Surrogate:					
***p-Terphenyl		52.4	% R	RJD	01/08/2009
Extraction	EPA 3545	1.0	DF	BAC	01/07/2009



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Steve Andrus

Project Name.: **Charbert/Developing RAWP**
 Project No.: **03.0032795.16**

Date Received: **01/07/2009**
 Date Reported: **01/09/2009**
 Work Order No.: **0901-00025**

Sample ID: **GP-102 S-2**

Sample No.: **002**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		94.1	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/08/2009
Hydrocarbon Content		140	mg/kg	RJD	01/08/2009
Surrogate:					
***p-Terphenyl		82.1	% R	RJD	01/08/2009
Extraction	EPA 3545	1.0	DF	BAC	01/07/2009



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Steve Andrus

Project Name.: **Charbert/Developing RAWP**
 Project No.: **03.0032795.16**

Date Received: **01/07/2009**
 Date Reported: **01/09/2009**
 Work Order No.: **0901-00025**

Sample ID: **GP-103 S-2**

Sample No.: **003**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		83.1	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/08/2009
Hydrocarbon Content		44	mg/kg	RJD	01/08/2009
Surrogate:					
***p-Terphenyl		57.9	% R	RJD	01/08/2009
Extraction	EPA 3545	1.0	DF	BAC	01/07/2009



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Steve Andrus

Project Name.: **Charbert/Developing RAWP**
 Project No.: **03.0032795.16**

Date Received: **01/07/2009**
 Date Reported: **01/09/2009**
 Work Order No.: **0901-00025**

Sample ID: **GP-104 S-2**

Sample No.: **004**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		92.3	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	EPA 8100/8015B			RJD	01/08/2009
Hydrocarbon Content		12	mg/kg	RJD	01/08/2009
Surrogate:	EPA 8100				
***p-Terphenyl		57.0	% R	RJD	01/08/2009
Extraction	EPA 3545	1.0	DF	BAC	01/07/2009



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Steve Andrus

Project Name.: **Charbert/Developing RAWP**
 Project No.: **03.0032795.16**

Date Received: **01/07/2009**
 Date Reported: **01/09/2009**
 Work Order No.: **0901-00025**

Sample ID: **GP-105 S-2**

Sample No.: **005**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		91.2	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/08/2009
Hydrocarbon Content		<10	mg/kg	RJD	01/08/2009
Surrogate:					
***p-Terphenyl		52.7	% R	RJD	01/08/2009
Extraction	EPA 3545	1.0	DF	BAC	01/07/2009



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Steve Andrus

Project Name.: **Charbert/Developing RAWP**
 Project No.: **03.0032795.16**

Date Received: **01/07/2009**
 Date Reported: **01/09/2009**
 Work Order No.: **0901-00025**

Sample ID: **GP-106 S-1**

Sample No.: **006**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		88.1	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/08/2009
Hydrocarbon Content		35	mg/kg	RJD	01/08/2009
Surrogate:					
***p-Terphenyl		60.0	% R	RJD	01/08/2009
Extraction	EPA 3545	1.0	DF	BAC	01/07/2009



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Steve Andrus

Project Name.: **Charbert/Developing RAWP**
 Project No.: **03.0032795.16**

Date Received: **01/07/2009**
 Date Reported: **01/09/2009**
 Work Order No.: **0901-00025**

Sample ID: **GP-107 S-1**

Sample No.: **007**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		81.6	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/08/2009
Hydrocarbon Content		17	mg/kg	RJD	01/08/2009
Surrogate:					
***p-Terphenyl		56.5	% R	RJD	01/08/2009
Extraction	EPA 3545	1.0	DF	BAC	01/07/2009



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
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Steve Andrus

Project Name.: **Charbert/Developing RAWP**
 Project No.: **03.0032795.16**

Date Received: **01/07/2009**
 Date Reported: **01/09/2009**
 Work Order No.: **0901-00025**

Sample ID: **GP-108 S-1**

Sample No.: **008**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		77.7	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/08/2009
Hydrocarbon Content		16	mg/kg	RJD	01/08/2009
Surrogate:					
***p-Terphenyl		59.3	% R	RJD	01/08/2009
Extraction	EPA 3545	1.0	DF	BAC	01/07/2009



ANALYTICAL REPORT

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Steve Andrus

Project Name.: **Charbert/Developing RAWP**
 Project No.: **03.0032795.16**

Date Received: **01/07/2009**
 Date Reported: **01/09/2009**
 Work Order No.: **0901-00025**

Sample ID: **GP-109 S-1**

Sample No.: **009**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		84.1	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/08/2009
Hydrocarbon Content		33	mg/kg	RJD	01/08/2009
Surrogate:					
***p-Terphenyl		60.0	% R	RJD	01/08/2009
Extraction	EPA 3545	1.0	DF	BAC	01/07/2009



ANALYTICAL REPORT

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140 Broadway
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Steve Andrus

Project Name.: **Charbert/Developing RAWP**
Project No.: **03.0032795.16**

Date Received: **01/07/2009**
Date Reported: **01/09/2009**
Work Order No.: **0901-00025**

Sample ID: **GP-110 S-1**
Sample Date: **01/05/2009**

Sample No.: **010**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		77.9	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/08/2009
Hydrocarbon Content		12	mg/kg	RJD	01/08/2009
Surrogate:					
***p-Terphenyl		61.2	% R	RJD	01/08/2009
Extraction	EPA 3545	1.0	DF	BAC	01/07/2009



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
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Steve Andrus

Project Name.: **Charbert/Developing RAWP**
 Project No.: **03.0032795.16**

Date Received: **01/07/2009**
 Date Reported: **01/09/2009**
 Work Order No.: **0901-00025**

Sample ID: **GP-111 S-1**

Sample No.: **011**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		88.1	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/08/2009
Hydrocarbon Content		24	mg/kg	RJD	01/08/2009
Surrogate:					
***p-Terphenyl		63.5	% R	RJD	01/08/2009
Extraction	EPA 3545	1.0	DF	BAC	01/07/2009



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Steve Andrus

Project Name.: **Charbert/Developing RAWP**
Project No.: **03.0032795.16**

Date Received: **01/07/2009**
Date Reported: **01/09/2009**
Work Order No.: **0901-00025**

Sample ID: **GP-112 S-1**

Sample No.: **012**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		89.6	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/09/2009
Hydrocarbon Content		<10	mg/kg	RJD	01/09/2009
Surrogate:					
***p-Terphenyl		60.6	% R	RJD	01/09/2009
Extraction	EPA 3545	1.0	DF	BAC	01/07/2009



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Steve Andrus

Project Name.: **Charbert/Developing RAWP**
 Project No.: **03.0032795.16**

Date Received: **01/07/2009**
 Date Reported: **01/09/2009**
 Work Order No.: **0901-00025**

Sample ID: **GP-113 S-1**

Sample No.: **013**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		73.6	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/09/2009
Hydrocarbon Content		59	mg/kg	RJD	01/09/2009
Surrogate:					
***p-Terphenyl		58.9	% R	RJD	01/09/2009
Extraction	EPA 3545	1.0	DF	BAC	01/07/2009



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Steve Andrus

Project Name.: **Charbert/Developing RAWP**
 Project No.: **03.0032795.16**

Date Received: **01/07/2009**
 Date Reported: **01/09/2009**
 Work Order No.: **0901-00025**

Sample ID: **GP-114 S-2**

Sample No.: **014**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		89.5	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/09/2009
Hydrocarbon Content		2900	mg/kg	RJD	01/09/2009
Surrogate:					
***p-Terphenyl		DO	* % R	RJD	01/09/2009
Extraction	EPA 3545	10	DF	BAC	01/07/2009



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Steve Andrus

Project Name.: **Charbert/Developing RAWP**
 Project No.: **03.0032795.16**

Date Received: **01/07/2009**
 Date Reported: **01/09/2009**
 Work Order No.: **0901-00025**

Sample ID: **GP-115 S-1**

Sample No.: **015**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		92.3	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	EPA 8100/8015B			RJD	01/09/2009
Hydrocarbon Content		11000	mg/kg	RJD	01/09/2009
Surrogate:	EPA 8100				
***p-Terphenyl		DO	* % R	RJD	01/09/2009
Extraction	EPA 3545	40	DF	BAC	01/07/2009



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Steve Andrus

Project Name.: **Charbert/Developing RAWP**
 Project No.: **03.0032795.16**

Date Received: **01/07/2009**
 Date Reported: **01/09/2009**
 Work Order No.: **0901-00025**

Sample ID: **GP-116 S-1**

Sample No.: **016**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		91.1	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/09/2009
Hydrocarbon Content		9600	mg/kg	RJD	01/09/2009
Surrogate:					
***p-Terphenyl		DO	* % R	RJD	01/09/2009
Extraction	EPA 3545	10	DF	BAC	01/07/2009



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Steve Andrus

Project Name.: **Charbert/Developing RAWP**
 Project No.: **03.0032795.16**

Date Received: **01/07/2009**
 Date Reported: **01/09/2009**
 Work Order No.: **0901-00025**

Sample ID: **GP-117 S-1**

Sample No.: **017**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		88.0	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	EPA 8100/8015B			RJD	01/09/2009
Hydrocarbon Content		600	mg/kg	RJD	01/09/2009
Surrogate:	EPA 8100				
***p-Terphenyl		77.2	% R	RJD	01/09/2009
Extraction	EPA 3545	10	DF	BAC	01/07/2009



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Steve Andrus

Project Name.: **Charbert/Developing RAWP**
Project No.: **03.0032795.16**

Date Received: **01/07/2009**
Date Reported: **01/09/2009**
Work Order No.: **0901-00025**

Sample ID: **GP-117 S-2**

Sample No.: **018**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		89.3	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	EPA 8100/8015B			RJD	01/09/2009
Hydrocarbon Content		70	mg/kg	RJD	01/09/2009
Surrogate:	EPA 8100				
***p-Terphenyl		74.9	% R	RJD	01/09/2009
Extraction	EPA 3545	1.0	DF	BAC	01/07/2009



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Steve Andrus

Project Name.: **Charbert/Developing RAWP**
 Project No.: **03.0032795.16**

Date Received: **01/07/2009**
 Date Reported: **01/09/2009**
 Work Order No.: **0901-00025**

Sample ID: **GP-118 S-2**

Sample No.: **019**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		91.8	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/09/2009
Hydrocarbon Content		4400	mg/kg	RJD	01/09/2009
Surrogate:					
***p-Terphenyl		DO	* % R	RJD	01/09/2009
Extraction	EPA 3545	10	DF	BAC	01/07/2009



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
140 Broadway
Providence, RI 02903

Steve Andrus

Project Name.: **Charbert/Developing RAWP**
Project No.: **03.0032795.16**

Date Received: **01/07/2009**
Date Reported: **01/09/2009**
Work Order No.: **0901-00025**

Sample ID: **Bot. Ex-1**
Sample Date: **01/05/2009**

Sample No.: **020**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		88.7	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/09/2009
Hydrocarbon Content		440	mg/kg	RJD	01/09/2009
Surrogate:					
***p-Terphenyl		62.9	% R	RJD	01/09/2009
Extraction	EPA 3545	1.0	DF	BAC	01/08/2009



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Steve Andrus

Project Name.: **Charbert/Developing RAWP**
 Project No.: **03.0032795.16**

Date Received: **01/07/2009**
 Date Reported: **01/09/2009**
 Work Order No.: **0901-00025**

Sample ID: **Bot. Ex-2**
 Sample Date: **01/05/2009**

Sample No.: **021**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		90.9	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/09/2009
Hydrocarbon Content		3000	mg/kg	RJD	01/09/2009
Surrogate:					
***p-Terphenyl		DO	* % R	RJD	01/09/2009
Extraction	EPA 3545	10	DF	BAC	01/08/2009



ANALYTICAL REPORT

GZA GeoEnvironmental, Inc.
 140 Broadway
 Providence, RI 02903

Steve Andrus

Project Name.: **Charbert/Developing RAWP**
 Project No.: **03.0032795.16**

Date Received: **01/07/2009**
 Date Reported: **01/09/2009**
 Work Order No.: **0901-00025**

Sample ID: **CNTR BNKR**

Sample No.: **022**

Sample Date: **01/05/2009**

Test Performed	Method	Results	Units	Tech	Analysis Date
PERCENT SOLID		90.4	%	TAJ	01/08/2009
TOTAL PETROLEUM HYDROCARBON	Mod. EPA 8100			RJD	01/09/2009
Hydrocarbon Content		3700	mg/kg	RJD	01/09/2009
Surrogate:					
***p-Terphenyl		DO	* % R	RJD	01/09/2009
Extraction	EPA 3545	20	DF	BAC	01/08/2009
FINGERPRINT UPGRADE	D3328/EPA 8100			RJD	

(for lab use only)

Sample I.D.	Date/Time Sampled (Very Important)	Matrix A=Air S=Soil GW=Ground W. SW=Surface W. WW=Waste W. DW=Drinking W. Other (specify)	ANALYSIS REQ.		Total # of Cont.
			ww ONLY		
			<input type="checkbox"/> pH <input type="checkbox"/> Cond.	<input type="checkbox"/> GC Screen (VOA)	
			<input type="checkbox"/> 524.2 <input type="checkbox"/> 502.2	<input type="checkbox"/> 824	
			<input type="checkbox"/> 801 <input type="checkbox"/> 802	<input type="checkbox"/> 825	
			Formaldehyde	<input type="checkbox"/> 8260	
			<input type="checkbox"/> 8021	<input type="checkbox"/> 8021 - "8010" List	
			<input type="checkbox"/> 8021 - "8020" List	<input type="checkbox"/> 8270 <input type="checkbox"/> Full <input type="checkbox"/> PAH <input type="checkbox"/> BBN	
			8082-PCBs Only	<input type="checkbox"/> 8061 - Pest Only	
			<input type="checkbox"/> TPH-GC (Mod. 8100)	<input type="checkbox"/> TPH-GC w/FING	
			<input type="checkbox"/> EPH (MA DEP)	<input type="checkbox"/> VPH (MA DEP)	
			<input type="checkbox"/> TCLP (Spec. B)	<input type="checkbox"/> Filtering (✓ if required)	
			<input type="checkbox"/> Metals <input type="checkbox"/> PPH-13 <input type="checkbox"/> R-8	<input type="checkbox"/> Metals (List Below)	
GP-113 S-1	13:15 01/16/09	S			1
GP-114 S-2	14:30	S			
GP-115 S-1	14:45	S			
GP-116 S-1	15:00	S			
GP-117 S-1	15:15	S			
GP-117 S-2	15:15	S			
GP-118 S-2	15:30 01/16/09	S			
BOT EX-1	15:45	S			
BOT EX-2	15:45	S			
CATR BWR	16:00 01/16/09	S			1

PRESERVATIVE (C - HCl, M-MeOH, N - HNO3, S - H2SO4, Na - NaOH, O - Other)*
 CONTAINER TYPE (P-Plastic, G-Glass, V-Vial, O-Other)*

RELINQUISHED BY: *Stavros* DATE/TIME: *1/17/09 10:30* RECEIVED BY: *Bob Ross*
 RELINQUISHED BY: *Bob Ross* DATE/TIME: *1/17/09 13:30* RECEIVED BY:

PROJECT MANAGER: *Stavros* EXT: *2740*
 DATA REPORT PDF (Adobe) ASCII EXCEL Specify State

GZA GEOENVIRONMENTAL, INC.
ENGINEERS AND SCIENTISTS

106 South Street
 Hopkinton, MA 01748
 (508) 435-9244
 FAX (508) 435-9912



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

① Samples may be wbt" with Fuel Oil

② 5 Day Turn - No exchange

TURNAROUND TIME: Standard Rush Days, Approved by: LAB USE: 38 (A) 1/24/09
 GZA FILE NO.: 03-00-32795.16 P.O. NO.: TEMP. OF COOLER: 13.0

PROJECT: Pharbit
 LOCATION: A17m Richards Made Island
 COLLECTOR(S): Stavros SHEET 2 OF 2

ATTACHMENT B

BORING LOGS

BORING CO. <u>N.E. GEOTECH</u>	BORING LOCATION <u>REAR BOILER ROOM FLOOR</u>
FOREMAN <u>STEVE PERRY</u>	GROUND SURFACE ELEV. _____ DATUM _____
GZA ENGINEER <u>STEPHEN ANDRUS</u>	DATE START <u>01/05/08</u> DATE END <u>01/05/08</u>

SAMPLER: UNLESS OTHERWISE NOTED, SAMPLER CONSISTS OF A 5' DIRECT PUSH SAMPLER WITH A DISPOSABLE LINER. CASING: DRIVEN WITH A PNEUMATIC HAMMER CASING SIZE: 3.25" OTHER: _____	GROUNDWATER READINGS				
	DATE	TIME	WATER	CASING	STABILIZATION TIME

DPTH (FT)	CASING BLOWS	SAMPLE			SAMPLE DESCRIPTION BURMISTER CLASSIFICATION	STRATUM DESCRIPTION	EQUIPMENT INSTALLED	FIELD TESTING	R K
		NO	PEN/REC	DEPTH (FT)					
5		S-1	60/48	0-5	S-1: Tan, fine to coarse SAND, little Silt, 6" Layer of black ash.	Filter Sand	Riser Well Screen	25 PPMV	1
		S-2	60/48	5-10	S-2: Brown, fine to coarse SAND, trace fine Gravel, trace Silt.				
10					End of Exploration at 10'				
15									
20									
25									
30									
35									

REMARKS:

- The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using an OVM Model 580B photoionization detector equipped with a 10.6 eV lamp. ND indicates reading below the instruments detection limit of approximately 1 ppmv.
- Approximate 5' Groundwater Table.
- Set 2" PVC well, 5' well screen; 2' riser.
- Old Petroleum stain and odor below groundwater table.
- Recent Petroleum stain at ± 5'-7' and gray Petroleum stain at ± 7'-9'.

NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES; TRANSITIONS MAY BE GRADUAL.
 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED; FLUCTUATIONS OF GROUNDWATER TABLE MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

BORING CO. <u>N.E. GEOTECH</u>	BORING LOCATION <u>REAR BOILER ROOM FLOOR</u>
FOREMAN <u>STEVE PERRY</u>	GROUND SURFACE ELEV. _____ DATUM _____
GZA ENGINEER <u>STEPHEN ANDRUS</u>	DATE START <u>01/05/08</u> DATE END <u>01/05/08</u>

SAMPLER: UNLESS OTHERWISE NOTED, SAMPLER CONSISTS OF A 5' DIRECT PUSH SAMPLER WITH A DISPOSABLE LINER CASING: DRIVEN WITH A PNEUMATIC HAMMER CASING SIZE: 3.25" OTHER: _____	GROUNDWATER READINGS				
	DATE	TIME	WATER	CASING	STABILIZATION TIME

DPTH (FT)	CASING BLOWS	SAMPLE				SAMPLE DESCRIPTION BURMISTER CLASSIFICATION	STRATUM DESCRIPTION	EQUIPMENT INSTALLED	FIELD TESTING	R K
		NO	PEN/REC	DEPTH (FT)	BLOWS/6"					
5		S-1	60/48	0-5		S-1: Tan, fine to coarse SAND, little Silt 6" Layer of black ash.	Road Box Riser Filter Sand Well Screen	21 PPMV	1	
		S-2	60/48	5-10		S-1a: Brown fine to medium Sand, little Silt. S-2: Brown, fine to coarse SAND, trace fine Gravel, trace Silt.				42 PPMV
10										
15						End of Exploration at 12'				
20										
25										
30										
35										

REMARKS:

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- Approximate 5' Groundwater Table.
- Set 2" PVC well, 10' well screen; 2' riser, and aluminum road box
- Old Petroleum stain and odor below groundwater table.
- Recent Petroleum stain at ± 5'-7' and gray Petroleum stain at ± 7'-9'.

NOTES:
 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES; TRANSITIONS MAY BE GRADUAL.
 2) WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED; FLUCTUATIONS OF GROUNDWATER TABLE MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.

GZA GEOENVIRONMENTAL INC. 140 BROADWAY, PROVIDENCE, RHODE ISLAND GEOTECH/GEOHYDROLOGICAL CONSULTANTS HYDROLOGICAL BORING LOG	PROJECT	REPORT OF BORING NO.	GP-116
	CHARBERT FACILITY	SHEET	1 OF 1
	ALTON, RHODE ISLAND	FILE NO.	32795.16
		CHKD BY	EAS

BORING CO.	N.E. GEOTECH	BORING LOCATION	REAR BOILER ROOM FLOOR
FOREMAN	STEVE PERRY	GROUND SURFACE ELEV.	DATUM
GZA ENGINEER	STEPHEN ANDRUS	DATE START	01/05/08
		DATE END	01/05/08

SAMPLER: UNLESS OTHERWISE NOTED, SAMPLER CONSISTS OF A 5' DIRECT PUSH SAMPLER WITH A DISPOSABLE LINER CASING: DRIVEN WITH A PNEUMATIC HAMMER CASING SIZE: 3.25" OTHER:	GROUNDWATER READINGS				
	DATE	TIME	WATER	CASING	STABILIZATION TIME

DPTH (FT)	CASING BLOWS	SAMPLE				SAMPLE DESCRIPTION BURMISTER CLASSIFICATION	STRATUM DESCRIPTION	EQUIPMENT INSTALLED	FIELD TESTING	R K
		NO	PEN/REC	DEPTH (FT)	BLOWS/6"					
5		S-1	60/48	0-5		S-1: Tan, fine to coarse SAND, little Silt 6" Layer of black ash.			18 PPMV	1
						S-1a: Brown fine to medium Sand, little Silt.				
		S-2	60/48	5-10		S-2: Brown, fine to coarse SAND, trace fine Gravel, trace Silt.				
10						End of Exploration at 10'				
15										
20										
25										
30										
35										

REMARKS:

- The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using an OVM Model 580B photoionization detector equipped with a 10.6 eV lamp. ND indicates reading below the instruments detection limit of approximately 1 ppmv.
- Approximate 5' Groundwater Table.
- Set 2" PVC well, 5' well screen; 2' riser.
- Old Petroleum stain and odor below groundwater table.
- Recent Petroleum stain at ± 5'-7' and gray Petroleum stain at ± 7'-9'.

NOTES:

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BORING CO. <u>N.E. GEOTECH</u>	BORING LOCATION <u>REAR BOILER ROOM FLOOR</u>
FOREMAN <u>STEVE PERRY</u>	GROUND SURFACE ELEV. _____ DATUM _____
GZA ENGINEER <u>STEPHEN ANDRUS</u>	DATE START <u>01/05/08</u> DATE END <u>01/05/08</u>

SAMPLER: UNLESS OTHERWISE NOTED, SAMPLER CONSISTS OF A 5' DIRECT PUSH SAMPLER WITH A DISPOSABLE LINER CASING: DRIVEN WITH A PNEUMATIC HAMMER CASING SIZE: 3.25" OTHER: _____	GROUNDWATER READINGS <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>DATE</th> <th>TIME</th> <th>WATER</th> <th>CASING</th> <th>STABILIZATION TIME</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	DATE	TIME	WATER	CASING	STABILIZATION TIME															
DATE	TIME	WATER	CASING	STABILIZATION TIME																	

DPTH (FT)	CASING BLOWS	SAMPLE				SAMPLE DESCRIPTION BURMISTER CLASSIFICATION	STRATUM DESCRIPTION	EQUIPMENT INSTALLED	FIELD TESTING	R K
		NO	PEN/REC	DEPTH (FT)	BLOWS/6"					
5		S-1	60/48	0-5		S-1: Tan, fine to coarse SAND, little Silt 6" Layer of black ash.	Road Filter Sand Box Riser	36 PPMV	1	
						S-1a: Brown fine to medium Sand, little Silt.				
		S-2	60/48	5-10		S-2: Brown, fine to coarse SAND, trace fine Gravel, trace Silt.				Well Screen
10										
15						End of Exploration at 12'				
20										
25										
30										
35										

REMARKS:

- The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using an OVM Model 580B photoionization detector equipped with a 10.6 eV lamp. ND indicates reading below the instruments detection limit of approximately 1 ppmv.
- Approximate 5' Groundwater Table.
- Set 2" PVC well, 10' well screen; 2' riser and aluminum road box.
- Old Petroleum stain and odor below groundwater table.
- Recent Petroleum stain at ± 5'-7' and gray Petroleum stain at ± 7'-9'.

NOTES: 1) STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES; TRANSITIONS MAY BE GRADUAL.
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BORING CO. <u>N.E. GEOTECH</u>	BORING LOCATION <u>REAR BOILER ROOM FLOOR</u>
FOREMAN <u>STEVE PERRY</u>	GROUND SURFACE ELEV. _____ DATUM _____
GZA ENGINEER <u>STEPHEN ANDRUS</u>	DATE START <u>01/05/08</u> DATE END <u>01/05/08</u>

SAMPLER: UNLESS OTHERWISE NOTED, SAMPLER CONSISTS OF A 5' DIRECT PUSH SAMPLER WITH A DISPOSABLE LINER CASING: DRIVEN WITH A PNEUMATIC HAMMER CASING SIZE: 3.25" OTHER: _____	GROUNDWATER READINGS				
	DATE	TIME	WATER	CASING	STABILIZATION TIME

DPTH (FT)	CASING BLOWS	SAMPLE				SAMPLE DESCRIPTION BURMISTER CLASSIFICATION	STRATUM DESCRIPTION	EQUIPMENT INSTALLED	FIELD TESTING	R K
		NO	PEN/REC	DEPTH (FT)	BLOWS/6"					
5		S-1	60/48	0-5		S-1: Tan, fine to coarse SAND, little Silt 6" Layer of black ash.	Road Box Riser Filter Sand	18 PPMV	1	
						S-1a: Brown fine to medium Sand, little Silt.				
10		S-2	60/48	5-10		S-2: Brown, fine to coarse SAND, trace fine Gravel, trace Silt.	Well Screen Riser	36 PPMV		
20						End of Exploration at 20'				
25										
30										
35										

REMARKS:

- The headspace of soil samples was screened for Total Volatile Organic Compounds (TVOCs) using an OVM Model 580B photoionization detector equipped with a 10.6 eV lamp. ND indicates reading below the instruments detection limit of approximately 1 ppmv.
- Approximate 5' Groundwater Table.
- Set 1" PVC well, 5' well screen and 10' riser; 5' riser for possible use as a sparge.
- Old Petroleum stain and odor below groundwater table.
- Recent Petroleum stain at ± 5'-7' and gray Petroleum stain at ± 7'-9'.

NOTES:

- STRATIFICATION LINES REPRESENT APPROXIMATE BOUNDARY BETWEEN SOIL TYPES; TRANSITIONS MAY BE GRADUAL.
- WATER LEVEL READINGS HAVE BEEN MADE AT TIMES AND UNDER CONDITIONS STATED; FLUCTUATIONS OF GROUNDWATER TABLE MAY OCCUR DUE TO OTHER FACTORS THAN THOSE PRESENT AT THE TIME MEASUREMENTS WERE MADE.